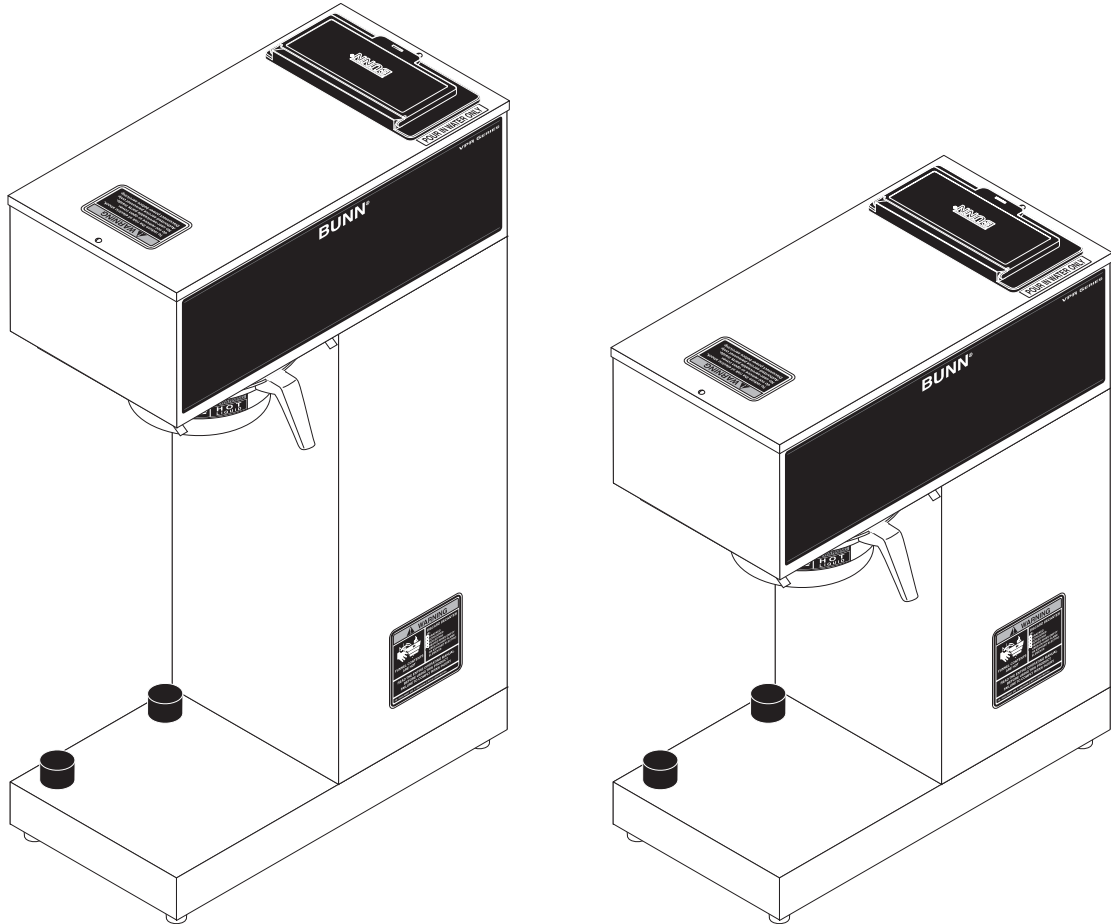

BUNN®

VPR TC *VPR APS*



OPERATING & SERVICE MANUAL

BUNN-O-MATIC CORPORATION OF CANADA

280 INDUSTRIAL PARKWAY SOUTH,
AURORA, ONTARIO, L4G 3T9
PHONE: (905) 841-2866 FAX: (905) 841-2775

INTRODUCTION

This equipment will brew a half-gallon batch of coffee into an awaiting dispenser. It is only for indoor use on a sturdy counter or shelf.

BUNN-O-MATIC COMMERCIAL PRODUCT WARRANTY

Bunn-O-Matic Corporation of Canada ("Bunn") warrants equipment manufactured by it as follows:

- 1) Airpots, thermal carafes, decanters, GPR servers, iced tea/coffee dispensers, MCP/MCA pod brewers thermal servers and Thermofresh servers (mechanical and digital) - 1 year parts and 1 year labour.
- 2) All other equipment - 2 years parts and 1 year labour plus added warranties as specified below:
 - a) Electronic circuit and/or control boards - parts and labour for 3 years.
 - b) Compressors on refrigeration equipment - 5 years parts and 1 year labour.
 - c) Grinding burrs on coffee grinding equipment to grind coffee to meet original factory screen sieve analysis - parts and labour for 4 years or 40,000 pounds of coffee, whichever comes first.

These warranty periods run from the date of installation. Bunn warrants that the equipment manufactured by it will be commercially free of defects in material and workmanship existing at the time of manufacture and appearing within the applicable warranty period. 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, non periodic cleaning and descaling, equipment failures related to poor water quality, damage or casualty. In addition, the warranty does not apply to replacement of items subject to normal use including but not limited to user replaceable parts such as seals and gaskets. This warranty is conditioned on the Buyer 1) giving Bunn prompt notice of any claim to be made under this warranty by telephone at (905) 841-2866 or by writing to 280 Industrial Parkway South, Aurora, Ontario, L4G 3T9. 2) if requested by Bunn, shipping the defective equipment prepaid to an authorized Bunn service location; and 3) receiving prior authorization from Bunn that the defective equipment is under warranty.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, CONDITION, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF EITHER MERCHANTABILITY, MERCHANTABILITY QUALITY 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.

If Bunn determines in its sole discretion that the defective equipment is covered by warranty, Bunn, at its exclusive option while the equipment is under warranty, shall either 1) provide at no charge replacement parts and/or labour (during the applicable parts and labour warranty periods specified above) to repair the defective components, provided that this repair is done by a Bunn Authorized Service Representative; or 2) shall 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, AT BUNN'S SOLE OPTION AS SPECIFIED HEREIN, TO REPAIR, 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, consequential or punitive damages.

RETURN POLICY

CONTACT PLANT FOR RETURN MATERIAL AUTHORIZATION. ALL RETURNS MUST BE AUTHORIZED BY BUNN-O-MATIC AND ARE SUBJECT TO A RETURN CHARGE.

USER NOTICES

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

 WARNING	 AVERTISSEMENT
<ul style="list-style-type: none"> • FILL WATER TANK BEFORE PLUGGING IN UNIT OR ENERGIZING THE THERMOSTAT. • DO NOT OVERLOAD CIRCUIT. • ALWAYS ELECTRICALLY GROUND THE CHASSIS. • DO NOT DEFORM PLUG OR CORD. • FOLLOW NATIONAL AND LOCAL ELECTRICAL CODES. • KEEP COMBUSTIBLES AWAY. 	<ul style="list-style-type: none"> • REMPLIR LE RÉSERVOIR D'EAU AVANT DE BRANCHER L'APPAREIL OU DE METTRE LE THERMOSTAT SOUS TENSION. • NE PAS SURCHARGER LE CIRCUIT. • TOUJOURS METTRE LE BOITIER À LA MASSE. • NE PAS DÉFORMER LA FICHE OU LE CORDON. • SE CONFORMER AUX CODES NATIONAL OU LOCAL D'ÉLECTRICITÉ. • GARDER LES PRODUITS COMBUSTIBLES À DISTANCE.
FAILURE TO COMPLY RISKS EQUIPMENT DAMAGE, FIRE OR SHOCK HAZARD.	TOUT MANQUEMENT À SE CONFORMER À CES DIRECTIVES PEUT ENTRAÎNER DES DOMMAGES À L'ÉQUIPEMENT OU PRODUIRE DES DANGERS D'INCENDIE OU D'ÉLECTROCUTION.
READ THE ENTIRE OPERATING MANUAL INCLUDING THE LIMIT OF WARRANTY AND LIABILITY BEFORE BUYING OR USING THIS PRODUCT.	VEUILLEZ LIRE LE MANUEL DE FONCTIONNEMENT EN ENTIER, Y COMPRIS LES LIMITES DE GARANTIES ET RESPONSABILITÉS, AVANT D'ACHETER OU D'UTILISER LE PRÉSENT PRODUIT.
THIS EQUIPMENT IS ENERGIZED AT ALL TIMES UNLESS ELECTRICALLY DISCONNECTED.	L'ÉQUIPEMENT EST TOUJOURS SOUS TENSION LORSQU'IL N'EST PAS DÉBRANCHÉ.
00831.0002K 1711 © 1984 BUNN-O-MATIC CORPORATION	

#00831.0002

 **WARNING / AVERTISSEMENT**

DISCARD DECANTER IF: <ul style="list-style-type: none"> • CRACKED • SCRATCHED • BOILED DRY • HEATED WHEN EMPTY • USED ON HIGH FLAME OR EXPOSED ELECTRIC ELEMENTS 	FUNNEL CONTENTS ARE HOT  LE CONTENU DE L'ENTONNOIR EST CHAUD	JETER LA CARAFE : <ul style="list-style-type: none"> • SI ELLE EST FISSURÉE • SI ELLE EST RAYÉE • SI ON A LAISSÉ DE L'EAU S'ÉVAPORER PAR ÉBULLITION • SI ELLE A ÉTÉ CHAUFFÉE À VIDE • SI ELLE A ÉTÉ UTILISÉE SUR UNE FLAMME VIVE OU SUR DES ÉLÉMENTS ÉLECTRIQUES DÉCOUVERTS
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READ THE ENTIRE OPERATING MANUAL BEFORE USING THIS PRODUCT. FAILURE TO COMPLY RISKS INJURY.
 VEUILLEZ LIRE LE MANUEL D'EMPLOI AVANT D'UTILISER CE PRODUIT. L'OBSTRUCTION DE CES CONSEILS PEUT ENTRAÎNER DES RISQUES DE BLESSURE.

PN: 00658.7000G 02/10 © 1985 BUNN-O-MATIC CORPORATION OF CANADA

#00658.7000

WARNING  AVERTISSEMENT

To reduce the risk of electric shock, do not remove or open cover. No user-serviceable parts inside. Authorized service personnel only. Disconnect power before servicing.

Afin d'éviter un risque d'électrocution, ne pas ouvrir ou enlever le panneau. Aucune pièce utile pour l'opérateur à l'intérieur. Seulement le personnel autorisé peut effectuer les réparations. Débrancher de la source de courant avant d'effectuer une réparation.

#37881.7000

**WATER ONLY
EAU SEULEMENT**

#00833.7001

ELECTRICAL REQUIREMENTS

CAUTION - The brewer must be disconnected from the power source until specified in *Initial Set-Up*.

The brewer has an attached cordset and requires 2-wire grounded service rated 120 volts ac, 15 amp, single phase, 60 Hz.

INITIAL SET-UP

CAUTION - The brewer must be disconnected from the power source throughout the initial set-up, except when specified in the instructions.

1. Insert an empty funnel into the funnel rails.
2. Place an empty dispenser under the funnel.
3. Pour three pitchers of tap water into the screened area on top of the brewer. Allow approximately two minutes between pitchers for water to flow into the tank. While the third pitcher of water is entering the tank, the tank will fill to capacity and the excess will flow from the sprayhead, out of the funnel, and into the dispenser.
4. When the flow of water from the funnel stops, connect the brewer to the power source and wait approximately twenty minutes for the water in the tank to heat to the proper temperature. Some water will drip from the funnel during this time; this is due to expansion and should not occur thereafter.
5. Empty the dispenser and replace it under the funnel.
6. Pour one pitcher of tap water into the screened area on top of the brewer.
7. When water has stopped flowing from the funnel let water in the tank reheat to the proper temperature.
8. Empty the dispenser. The brewer is now ready for use in accordance with the coffee brewing instructions below.

NOTE: The control thermostat will need to be adjusted downward to compensate for high altitudes. Refer to Steaming and spitting around the funnel on page 5 for instructions.

COFFEE BREWING

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 an empty dispenser beneath the funnel.
5. Pour one pitcher of tap water into the screened area on top of the brewer.
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.
- This brewer is heated at all times. Keep away from combustibles.

- WARNING** –
- Exercise extreme caution when servicing electrical equipment.
 - Unplug the brewer when servicing, except when electrical tests are specified.
 - Follow recommended service procedures
 - Replace all protective shields or safety notices

PROBLEM	PROBABLE CAUSE	REMEDY
Water is not hot	1. Limit Thermostat CAUTION - Do not eliminate or bypass limit thermostat/thermal cut-off. Use only BOM replacement part. Limit Thermostat - #29329.0001	Refer to <i>Service</i> - Limit Thermostat for testing procedures. See page 10
	2. Control Thermostat	Refer to <i>Service</i> - Control Thermostat for testing procedures. See page 9
	3. Tank Heater	Refer to <i>Service</i> - Tank Heater for testing procedures. See page 10
Spitting or excessive steaming	1. Lime Build-up CAUTION - 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.	Inspect the tank assembly for excessive lime deposits. Delime as required.
	2. Control Thermostat	Refer to <i>Service</i> - Control Thermostat for testing procedures. See page 9

TROUBLESHOOTING (cont.)

PROBLEM

PROBABLE CAUSE

REMEDY

Dripping from sprayhead

1. Lime Build-up
CAUTION - 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.

Inspect the tank assembly for excessive lime deposits. Delime as required.

Beverage overflows dispenser

1. Dispenser

The dispenser must be completely empty before starting a brew cycle.

Weak beverage

1. Filter Type

BUNN® paper filters must be used for proper extraction.

2. Coffee Grind

A fine or drip grind must be used for proper extraction.

3. Sprayhead

A six-hole stainless steel sprayhead must be used for proper extraction.

4. Funnel Loading

The BUNN® paper filter must be centered in the funnel and the bed of grounds leveled by gentle shaking.

5. Water Temperature

Place an empty funnel on an empty dispenser beneath the sprayhead. Pour-in a pitcher of tap water and check the water temperature immediately below the sprayhead with a thermometer. The reading should not be less than 195°F. Adjust the control thermostat to increase the water temperature. Replace if necessary.

TROUBLESHOOTING (cont.)

PROBLEM	PROBABLE CAUSE	REMEDY
Dry coffee grounds remain in the funnel	1. Funnel Loading	The BUNN® paper filter must be centered in the funnel and the bed of grounds leveled by gently shaking.
Brewer is making unusual noises	1. Tank Heater	Remove and clean lime off the tank heater. See page 10

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.

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 plug-in the brewer.

COMPONENT ACCESS

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

All components are accessible by the removal of the top cover and fill basin.

The top cover is attached with two #4-40 screws.



FIG. 1 COMPONENT ACCESS

P2412-1

The tank inlet fitting secures the fill basin to the tank lid.



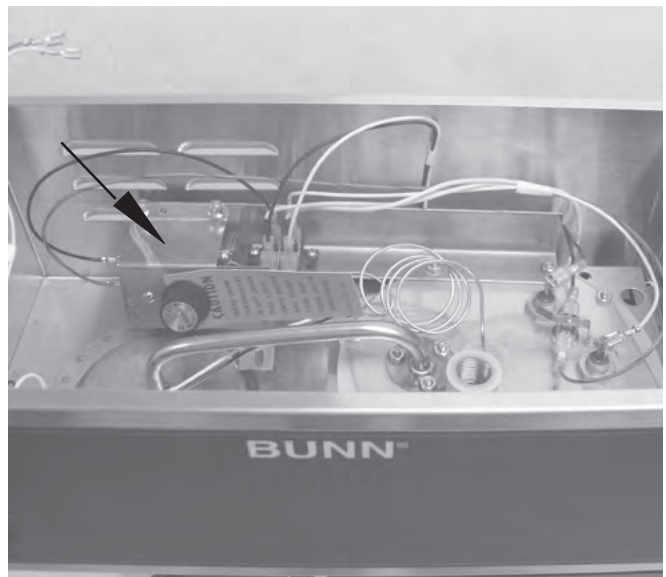
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FIG. 2 FILL BASIN REMOVAL

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CONTROL THERMOSTAT



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FIG. 3 CONTROL THERMOSTAT

SERVICE (cont.)

Location:

The control thermostat is located inside the hood on the left end of the mounting bracket.

Test Procedures:

1. Disconnect the brewer from the power source.
2. Locate the black wire on the control thermostat.
3. Check voltage across the black wire on the control thermostat and the white wire on the tank heater with a voltmeter. Plug-in the brewer to the power source. The indication must be 120 volts ac.
4. Disconnect the brewer from the power source.

If voltage is present as described, proceed to #5. If voltage is not present as described, refer to the wiring diagram and check the brewer wiring harness.

5. Locate the blue/black wire on the control thermostat.
6. Gently remove the capillary bulb and grommet from the tank.
7. Check voltage across the blue/black wire of the control thermostat and the white wire on the tank heater with a voltmeter when the control thermostat is turned "ON" (fully counterclockwise for thermostat with tee handle control or fully clockwise for thermostats with control knob). Plug-in the brewer to the power source. The indication must be 120 volts ac.

Voltage must not be present across these terminals when the thermostat is turned "OFF" (fully counterclockwise).

8. Disconnect the brewer from the power source.

If voltage is present as described, reinstall the capillary tube into the tank to the line 4.5" above the bulb, the control thermostat is operating properly.

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

Removal and Replacement:

1. Remove wires from control thermostat leads or terminals.
2. Remove the thermostat capillary bulb by firmly pulling-up on the capillary at the tank lid. This will disengage the grommet from the tank lid.

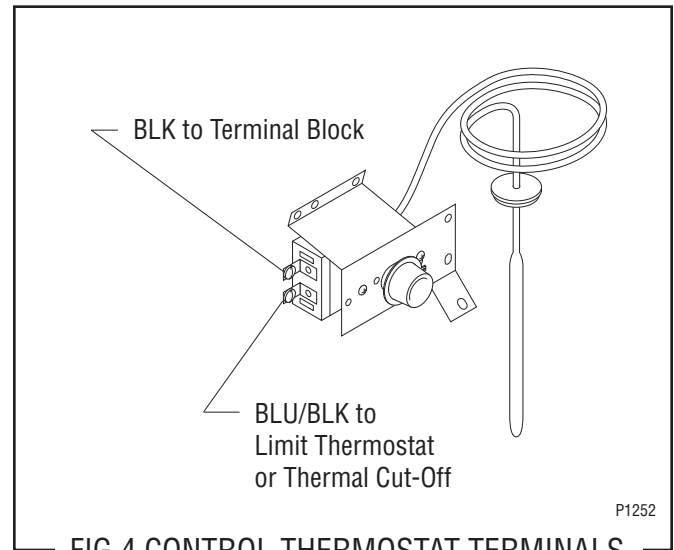


FIG.4 CONTROL THERMOSTAT TERMINALS

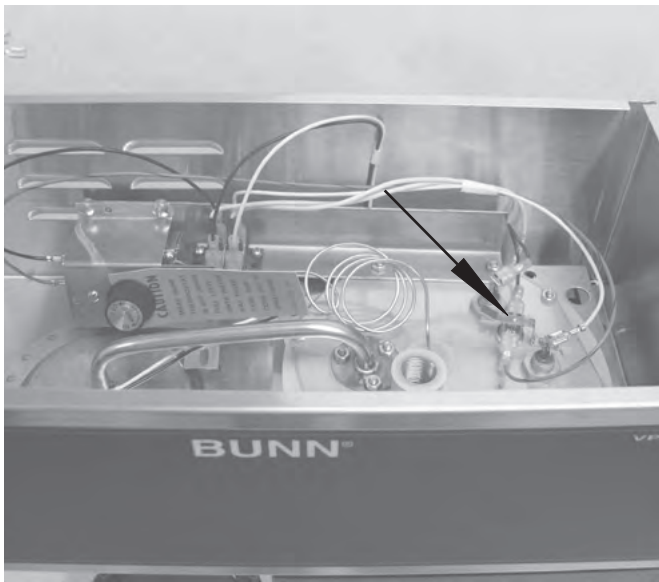
3. Remove two #8-32 screws securing the control thermostat to the mounting bracket inside the hood.
4. Slide the grommet to the line 4.5" above the bulb on the new capillary tube.
5. Insert the capillary bulb through the hole in the tank lid and press the grommet firmly and evenly so that the groove in the grommet fits into the tank lid.
6. Carefully bend the capillary tube so that the tube and bulb inside the tank are in the vertical position.

NOTE - The capillary tube must be clear of any electrical termination and not kinked.

7. Using two #8-32 screws secure the control thermostat to the mounting bracket inside the hood.
8. Refer to Fig. 4 when reconnecting the wires.
9. Adjust the control thermostat as required

SERVICE (cont.)

LIMIT THERMOSTAT



P2414

FIG. 5 LIMIT THERMOSTAT

Location:

The limit thermostat is located inside the hood on the right side of the tank lid.

Test Procedures:

1. Disconnect the brewer from the power source.
2. Disconnect the blue/black and black wires from the limit thermostat.
3. Check for continuity across the limit thermostat terminals with an ohmmeter.

If continuity is present as described, the limit thermostat is operating properly.

If continuity is not present as described, replace the limit thermostat.

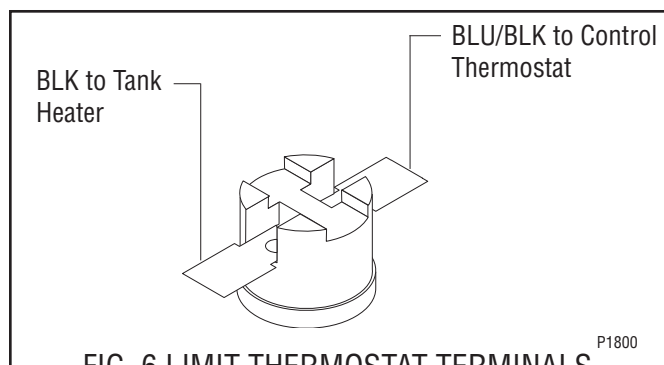


FIG. 6 LIMIT THERMOSTAT TERMINALS

Removal and Replacement:

1. Remove all wires from limit thermostat terminals.
2. Carefully slide the limit thermostat out from under the retaining clip and remove limit thermostat.
3. Carefully slide the new limit thermostat into the retaining clip.
4. Refer to Fig. 6 when reconnecting the wires.

TANK HEATER



P2414

FIG. 7 TANK HEATER

Location:

The tank heater is located inside the tank and secured to the tank lid.

Test Procedures:

1. Disconnect the brewer from the power supply.
2. Check voltage across the black and white wires with a voltmeter. Plug-in the brewer to the power source. The indication must be 120 volts ac.
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 wiring harness.

4. Disconnect the black wire and the white wire from the tank heater terminals.
5. Check for continuity across the tank heater terminals.

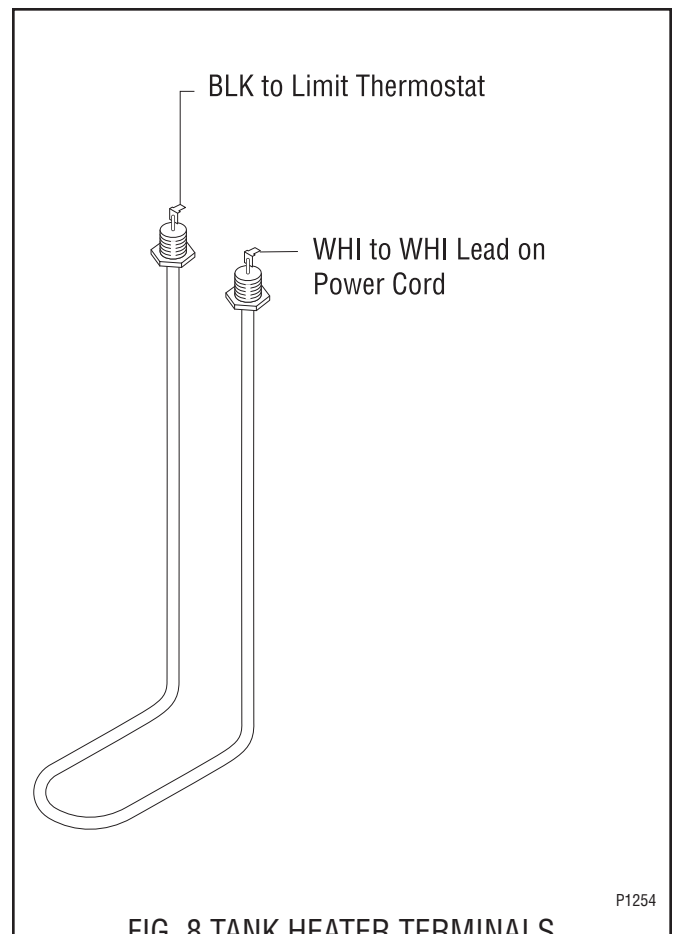
SERVICE (cont.)

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 heater for cracks in the sheath.

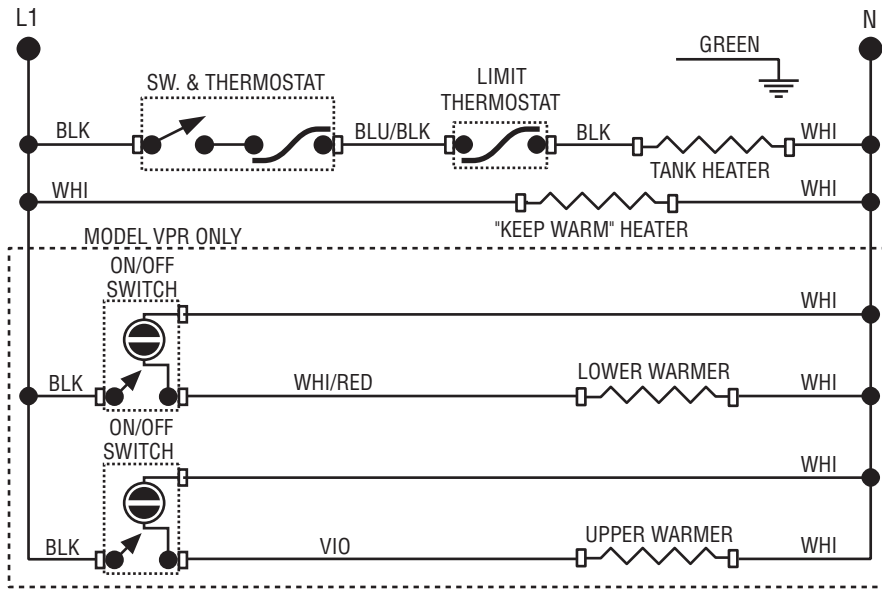
Removal and Replacement:

1. Remove the tank inlet fitting securing the fill basin to the tank lid, remove fill basin and tank inlet gasket. Set all three parts aside for reassembly.
2. Disconnect the black wire on the terminal block from the tank heater and disconnect the blue/black wire from the limit thermostat to the control thermostat.
3. Disconnect the black wire and the white from the tank heater terminals.
4. Remove sprayhead and the hex nut securing the sprayhead tube to the hood. Set aside for reassembly.
5. Remove the eight #8-32 nuts securing the tank lid to the tank.
6. Remove the tank lid with limit thermostat, sprayhead tube and tank heater.
7. Remove the two hex nuts securing the tank heater to the tank lid. Remove tank heater with gaskets and discard.
8. Install new tank heater with gaskets on the tank lid and secure with two hex nuts.
9. Install tank lid with limit thermostat, sprayhead tube and tank heater using eight #8-32 hex nuts.
10. Secure sprayhead tube to hood using a hex nut.
11. Install sprayhead.
12. Reconnect the wires to the limit thermostat, tank heater and control thermostat. See limit thermostat and control thermostat sections in this manual when reconnecting wires.
13. Install fill basin, secure with tank inlet fitting and gasket.
14. Refer to Fig. 8 when reconnecting the tank heater wires.



SCHEMATIC WIRING DIAGRAM

VPR, VPR TC & VPR APS



120 VOLTS A C
2 WIRE
SINGLE PHASE
60 HZ