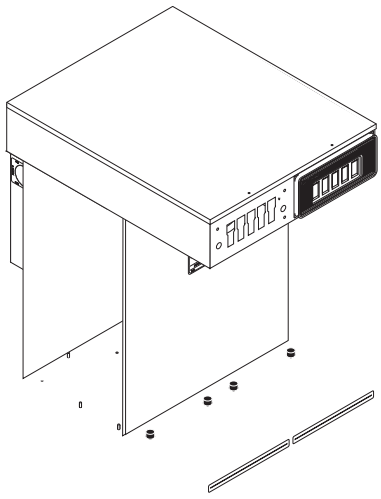


This equipment will brew one or two half-gallon batches of coffee simultaneously into awaiting dispensers (with just the press of a button). One side may include a hot water faucet for allied beverage use. It is only for indoor use on a sturdy counter.

- -

Bunn-O-Matic Corp. ("BUNN") warrants equipment manufactured by it as follows:
1) All equipment other than as specified below: 2 years parts and 1 year labor.
2) Electronic circuit and/or control boards: parts and labor for 3 years.
3) Compressors on refrigeration equipment: 5 years parts and 1 year labor.
4) Grinding burrs on coffee grinding equipment to grind coffee to meet original factory screen sieve analysis: parts and labor for 3 years or 30,000 pounds of coffee, whichever comes first.

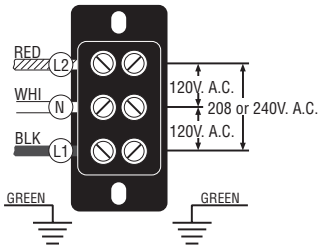
These warranty periods run from the date of installation BUNN warrants that the equipment manufactured by it will be commercially free of defects in material and workmanship existing at the time of manufacture and appearing within the applicable warranty period. This warranty does not apply to any equipment, component or part that was not manufactured by BUNN or that, in BUNN's judgment, has been affected by misuse, neglect, alteration, improper installation or operation, improper maintenance or repair, damage or casualty. This warranty is conditioned on the Buyer 1) giving 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; 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 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 equipment does not conform to the warranty, BUNN, at its exclusive option while the equipment is under warranty, shall either 1) provide at no charge replacement parts and/or labor (during the applicable parts and labor 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.

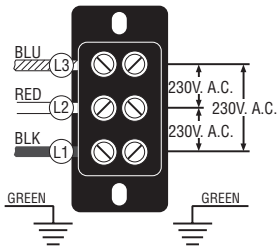
In no event shall BUNN be liable for any other damage or loss, including, but not limited to, lost profits, lost sales, loss of use of equipment, claims of Buyer's customers, cost of capital, cost of down time, cost of substitute equipment, facilities or services, or any other special, incidental or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

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



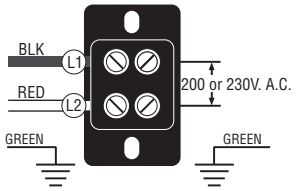
P1843

Note: This electrical service consists of 3 current carrying conductors (Neutral, L1 and L2) and a separate conductor for earth ground.



P1843

Note: This electrical service consists of 3 current carrying conductors (L1, L2 and L3) and a separate conductor for earth ground.



P1842

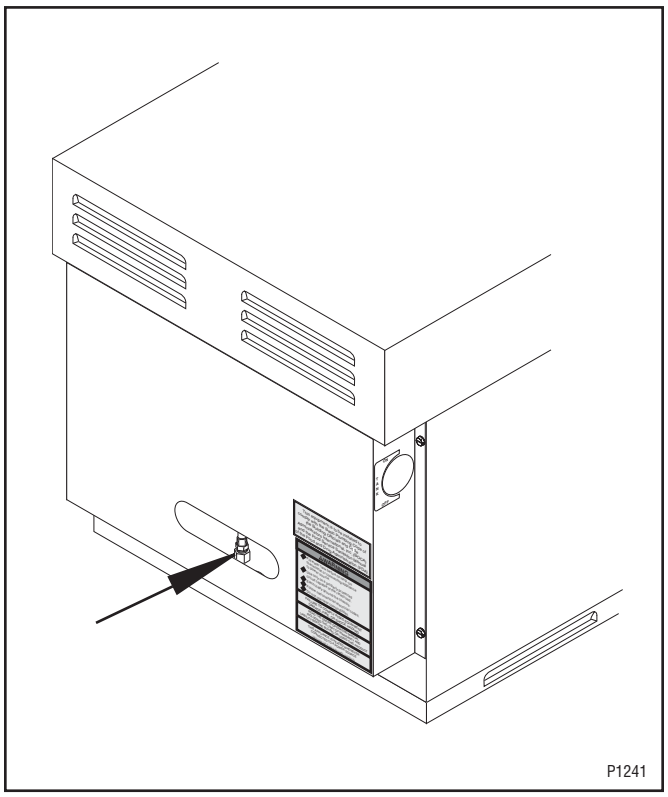
Note: This electrical service consists of 2 current carrying conductors (L1 and L2) and a separate conductor for earth ground.

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. Place the heater switchs at the rear of the brewer in the "OFF" lower position.
4. Remove the front panel beneath the sprayheads.
5. Feed the cord through the strain relief(s) and connect it to the terminal block(s).
6. Connect the brewer to the power source and verify the voltage at the terminal block before proceeding. Replace the front panel.
7. 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*.

These brewers must be connected to a cold water system with operating pressure between 20 and 90 psi (138 and 620 kPa) from a ½" 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 (620 kPa) to reduce it to 50 psi (345 kPa) . The water inlet fitting is ⅜" flare.

- Bunn-O-Matic recommends ⅜" copper tubing from the ½" water supply line. A tight coil of copper tubing in the water line will facilitate moving the brewer to clean the countertop. 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.



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1. Remove cap from the flared fitting on the bottom of the center tube assembly.
2. Flush the water line and securely attach it to the flare fitting on the center tube assembly.
3. Turn on the water supply.
4. On models with faucet place an empty vessel beneath the faucet and lift the handle until water is dispensed.

- 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. Place the heater switch at the rear of the brewer in the "OFF" lower position.
4. Connect the brewer to the power source, place the "ON/OFF" switch in the "ON" upper position, and momentarily press and release the start switch. Water will begin flowing into the tank. When water stops flowing into the tank, initiate a second and a third brew cycle. During the third brew cycle the tank will fill to its capacity and the excess will flow from the sprayhead, out of the funnel, and into the dispenser.
5. When the flow of water from the funnel stops, place the heater switch at the rear of the brewer in the "ON" upper position 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.
6. Empty the dispenser, place the "ON/OFF" switch in the "ON" upper position, and momentarily press and release the start switch.
7. Place the "ON/OFF" switch in the lower "OFF" position after water has stopped flowing from the funnel, and let the water in the tank reheat to the proper temperature.
8. Empty the dispenser, place the "ON/OFF" switch in the "ON" upper position, and momentarily press and release the start switch. Check the water volume in the dispenser after water has stopped flowing from the funnel. It should be 64 ounces.
9. If not, adjust the timer as required. Refer to *Adjusting Brew Volumes*.
10. Repeat steps 8 & 9 until 64 oz water volume is achieved.

N Repeat steps 1 through 10 for the other side.

11. The brewer is now ready for use in accordance with the coffee brewing instructions on the next page.

- Disconnect the power source from the brewer prior to the removal of any panel for the replacement or adjustment of any component.

Prior to setting or modifying batch sizes, check that the brewer is connected to water supply, the tank is properly filled, and a funnel and server are in place.

1. . To modify a batch volume, first check that the SET/LOCK switch is in the "SET" position on the circuit board.

   . Press and hold the START or BREW switch until three clicks are heard. Release the switch (Failure to release the switch within two seconds after the third click causes the volume setting to be aborted and previous volume setting will remain in memory) and press it again one or more times. Each time the switch is pressed, two seconds are added to the brew time period. Allow the brew cycle to finish in order to verify that the desired volume has been achieved.

   . Press and release the START or BREW switch once for every two-second interval to be removed from the total brew time period; then immediately press and hold down the START or BREW switch until three clicks are heard. Release the switch. (Failure to release the switch within two seconds after the third click causes the volume setting to be aborted and previous volume setting will remain in memory). Allow the brew cycle to finish in order to verify that the desired volume has been achieved.

2. **.** To set a batch volume, first check that the SET/LOCK switch is in the "SET" position on the circuit board. Press and hold the START or BREW switch until three distinct clicks are heard, and then release the switch. (Failure to release the switch within two seconds after the third click causes the volume setting to be aborted and previous volume setting will remain in memory). View the level of the liquid being dispensed. When the desired level is reached, turn the ON/OFF switch to "OFF" (lower). The brewer remembers this volume and will continue to brew batches of this size until the volume setting procedure is repeated.

When brewing coffee, batch volumes will decrease due to absorption by the coffee grounds.

3. **.** If it becomes necessary to prevent anyone from changing brew times once programmed, you can set the SET/LOCK switch to the "LOCK" position. This will prevent any programming to be done until switch is once again placed in the "SET" position.

Placing the "ON/OFF" switch in the "OFF" lower position stops brewing. Stopping a brew cycle after it has been started will not stop the flow of water into the funnel until the tank syphons down to its proper level. Placing the switch in the "ON" upper position enables the brew circuit and on all except APS models, supplies power to the brew station warmer.

Momentarily pressing and releasing the switch starts a brew cycle when the "ON/OFF" switch is in the "ON" upper position.

The "ON/OFF" switch must be in the "ON" upper position to initiate and complete a brew cycle.

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. Place the "ON/OFF" switch in the "ON" upper position. Momentarily press and release the start switch.
6. When brewing is completed, simply discard the grounds and filter.

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.

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.

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 electronic components have 120 volt ac and low voltage dc potential on their terminals. Shorting of terminals or the application of external voltages may result in board failure.
- Intermittent operation of electronic circuit boards is unlikely. Board 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. Keep away from combustibles.

- 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
Brew cycle will not start	1. No water	Water lines and valves to the brewer must be open.
	2. No power or incorrect voltage to the brewer	(A1) Check the terminal block for 120 volts across the red and white terminals and the black and white terminal on three wire 120/240 volt brewers. (A2) Check the terminal block for 200 volts ac across the red and black terminals for two wire 200 volts on "B Series" brewers. (A3) Check the terminal block for 230 volts ac across the red and black terminals on three wire 230 volts "A Series" brewers or 240 volts ac on two wire 240 volt "A Series" brewers. (B) Check circuit breakers or fuses.

Brew cycle will not start (cont.)	3. ON/OFF Switch	Refer to *Service* - ON/OFF Switch for testing. See page 16
	4. Start Switch	Refer to *Service* - Start Switch for testing procedures. See page 20
	5. Timer	Refer to *Service* - Timer for testing procedures. See page 24 or 25
	6. Solenoid Valve	Refer to *Service* - Solenoid Valve for testing procedures. See page 19
	7. Water strainer/flow control (.222 GPM)	(A) Direction of flow arrow must be pointing towards brewer. (B) Remove the strainer/flow control and check for obstructions. Clear or replace.
Water is not hot	1. Tank Heater Switch	Refer to *Service* - Tank Heater Switch for testing procedures. See page 22
	2. Limit Thermostat - Do not eliminate or bypass limit thermostat. Use only BOM part #29329.1000	Refer to *Service* - Limit Thermostat for testing procedures. See page 16
	3. Control Thermostat	Refer to *Service* - Control Thermostat for testing procedures. See page 15
	4. Tank Heater	Refer to *Service* - Tank Heater for testing procedures. See page 21
	5. Recovery Booster (CWT 2/2, CWTF 2/2 & 0/6 Only)	Refer to *Service* - Recovery Booster for testing procedures. See page 18

Inconsistent beverage level in dispenser	1. Strainer/flow control (.222 GPM)	(A) Direction of flow arrow must be pointing towards the brewer. (B) Remove the strainer/flow control and check for obstruction. Clear or replace.
	2. Syphon System	The brewer must be level or slightly lower in front to syphon properly.
	3. Lime Build-up - 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.
	4. Water Pressure	The water pressure to the brewer must be at least 20 psi (138 kPa).
Consistently low beverage level in the dispenser	1. Timer	(A) Early Models - Timer dial must indicate at least two minutes and fifteen seconds. (B) Late Models - Refer to *Service* - Digital Timer for testing procedures. See page 25
	2. Strainer/flow Control (.222 GPM)	(A) Direction of flow arrow must be pointing towards brewer. (B) Remove the strainer/flow control and check for obstructions. Clear or replace.
Spitting or excessive steaming	1. Lime Build-up - 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 tank assembly for excessive lime deposits. Delime as required.

Spitting or excessive steaming (cont.)	2. Control Thermostat	Refer to *Service* - Control Thermostat for testing procedures. See page 15
Dripping from sprayhead	1. Syphon System	The brewer must be level or slightly lower in front to syphon properly.
	2. Lime Build-up - 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.
	3. Solenoid Valve	Remove the solenoid valve and clear any obstructions. Rebuild or replace the valve if necessary. See page 19
Water flows into tank continuously (ON/OFF Switch "ON")	1. Timer	Refer to *Service* - Timer for testing procedures. See page 24 or 25
Water flows into tank continuously (ON/OFF Switch "OFF")	1. Solenoid Valve	Remove the Solenoid Valve and clean any obstruction. Rebuild or replace the valve if necessary. See page 19
Beverage overflows dispenser	1.Dispenser	The dispenser must be completely empty before starting a brew cycle.
	2. Timer	Refer to *Service* - Timer for testing procedures. See page 24 or 25
	3. Solenoid Valve	Remove the Solenoid Valve and clean any obstruction. Rebuild or replace the valve if necessary. See page 19

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 clean spray-head must be used for proper extraction.
	4. Funnel Loading	The BUNN® paper filter must be centered in the funnel and the bed of ground leveled by gentle shaking.
	5. Water Temperature	Place an empty funnel on an empty dispenser beneath the sprayhead. Initiate a brew cycle and check the water temperature immediately below the sprayhead with a thermometer. The reading should not be less than 195°F (91°C). Adjust the control thermostat to increase the water temperature. Replace if necessary.
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 unusal noises	1. Solenoid	The nut on the solenoid must be tight or it will vibrate during operation.
	2. Plumbing Lines	Plumbing lines should not be resting 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 exceed 90 psi (620 kPa). Install a regulator if necessary to lower the working pressure to approximately 50 psi (345 kPa).

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Brewer is making unusal noises (cont.)	4. Tank Heater	Remove and clean lime off the tank heater. See page 21
Low beverage serving temperature	1. Warmer	Refer to *Service* - Warmer element for testing procedures. See page 27

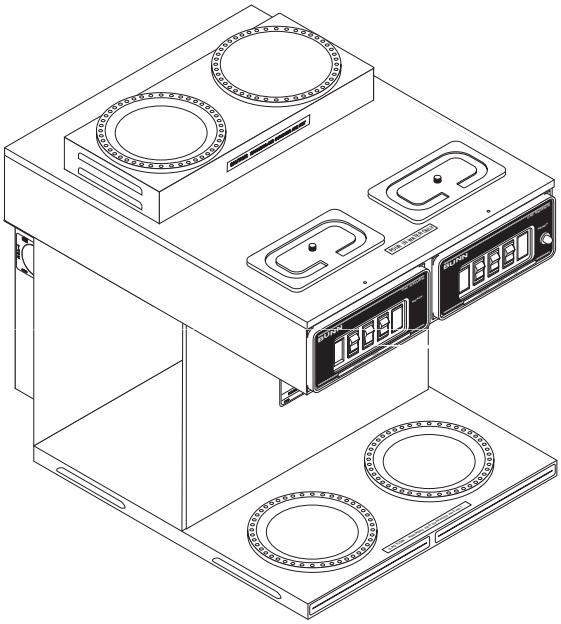


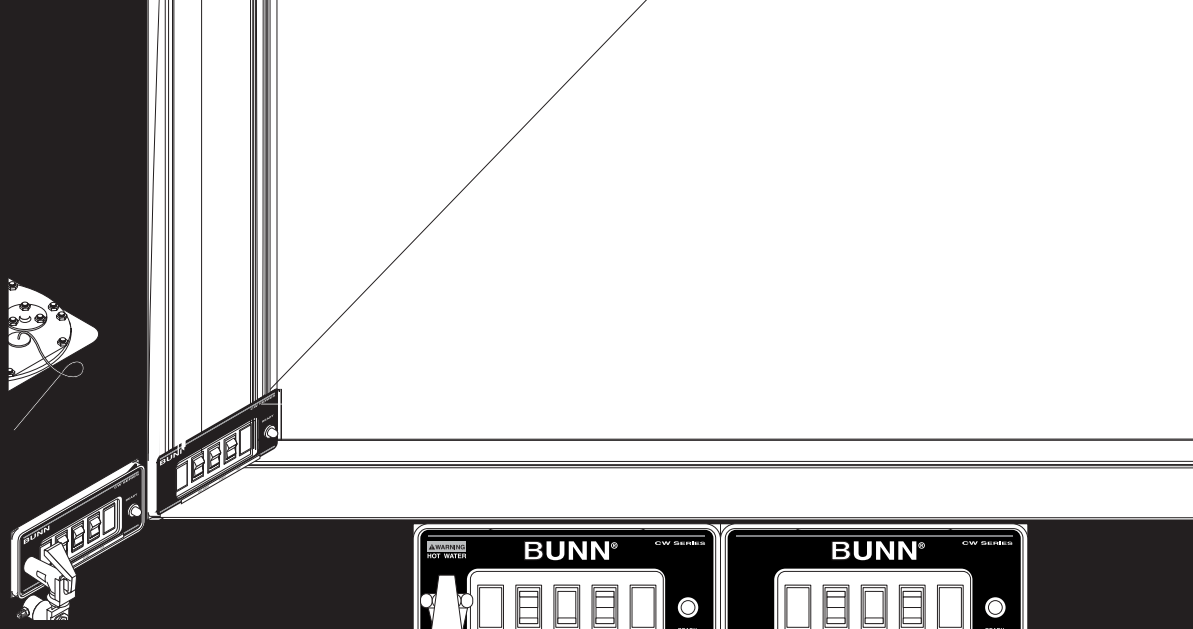
FIG. 2 CONTROL THERMOSTAT

P2197

BLU to BLU Lead from Limit Thermostat

BLK to BLK Lead from Tank Heater (Brewers W/Out Faucet)
BLK to BLK Fused Lead from Tank Heater (Brewers with Faucet)

P1129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WARNING
HOT WATER
BUNN®
CW SERIES
ON/OFF
BREW
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READY
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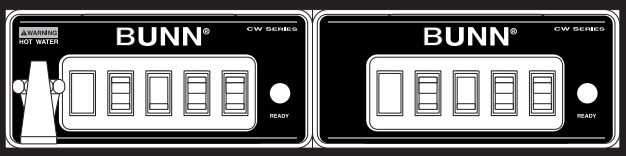
READY


WARNING
HOT WATER
BUNN®
CW SERIES
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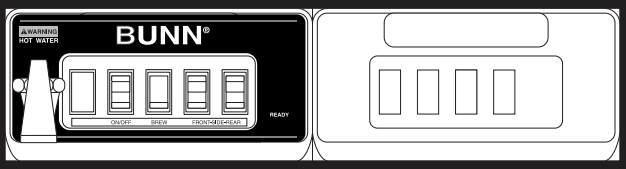
BUNN®
CW SERIES
READY


WARNING
HOT WATER
BUNN®
ON/OFF
BREW
READY

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Test Procedure:

1. Disconnect the brewer from the power source.
2. Viewing the switch from the back remove the white or red wire from the upper terminal and the black wire from the center terminal.
3. With a voltmeter, check the voltage across the white wire or red wire and the black wire. Connect the brewer to the power source. The indication must be:
   a) 120 volts ac for three wire 120/240 models.
   b) 200 volts ac for two wire 200 volt models.
   c) 240 volts ac for two wire 240 volt models.
   d) 230 volts ac for three wire three phase 230 volt models.
4. Disconnect the brewer from the power source.

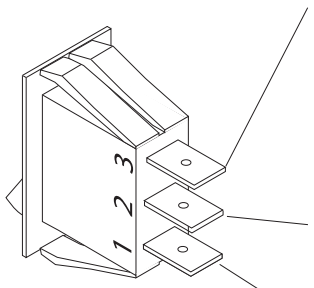
If voltage is present as described, reconnect the white or red wire and proceed to #5.
If voltage is not present as described, refer to the *Wiring Diagrams* and check the brewer wiring harness.

5. With the black wire removed, remove the wire from the lower terminal.
6. Check for continuity across the center and lower terminal with the switch in the "ON" position. Continuity must not be present when the switch is in the "OFF" position.

If continuity is present as described, reconnect the black wire to the center terminal and the wire to the lower terminal.
If continuity is not present as described, replace the switch.

Removal and Replacement:

1. Remove the wires from the switch terminals.
2. On models with faucet, turn off water supply and remove faucet.
3. Remove front end cap.
4. Compress the clips inside the hood and gently push the switch through the opening.
5. Push the new switch into the opening and spread the clips to hold switch in the hood.
6. Reinstall front end cap.
7. On models with faucet reinstall faucet and connect brewer to the water supply.
8. Refer to Fig. 7 when reconnecting the wires.



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Brew Station Warmer (Left) ..... WHI/RED
Brew Station Warmer (Right) (1 power cord) .....WHI/GRN
Brew Station Warmer (Right) (2 power cords) ..... WHI/RED

/
Left Upper Warmer .....YEL
Right Upper Warmer.....WHI/YEL

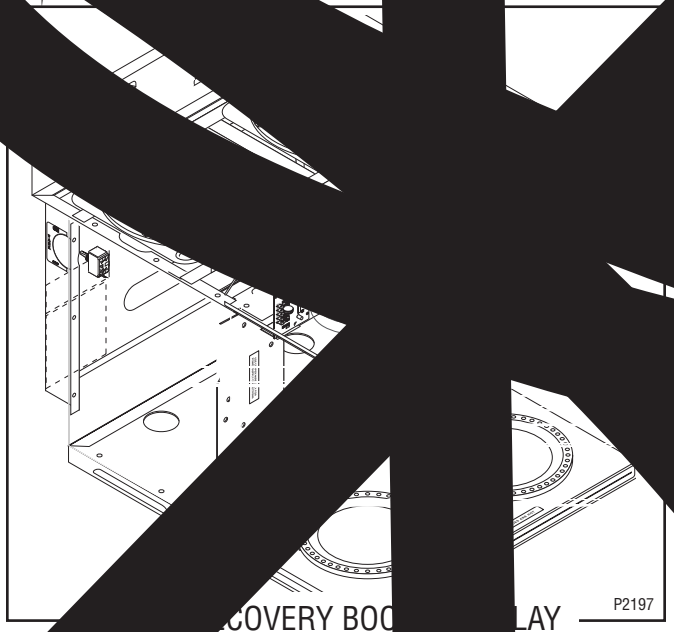
/ ( )
Left Front Upper Warmer .....YEL
Right Front Upper Warmer.....WHI/YEL
Left Rear Upper Warmer ..... WHI/VIO
Right Rear Upper Warmer.....WHI/BRN

/ ( )
Left Front Upper Warmer ..... BRN/BLK
Right Front Upper Warmer..... BRN/BLK
Left Rear Upper Warmer ..... VIO
Right Rear Upper Warmer..... VIO

/ ( )
Left Front Warmer.....YEL
Left Rear Warmer..... WHI/VIO
Right Front Warmer ..... BRN/BLK
Right Rear Warmer ..... VIO

/ ( )
Left Front Warmer..... BRN/BLK
Left Rear Warmer..... VIO
Right Front Warmer ..... BRN/BLK
Right Rear Warmer ..... VIO

FIG. 7 ON/OFF SWITCH WIRING



P2197

COVERY BOO LAY

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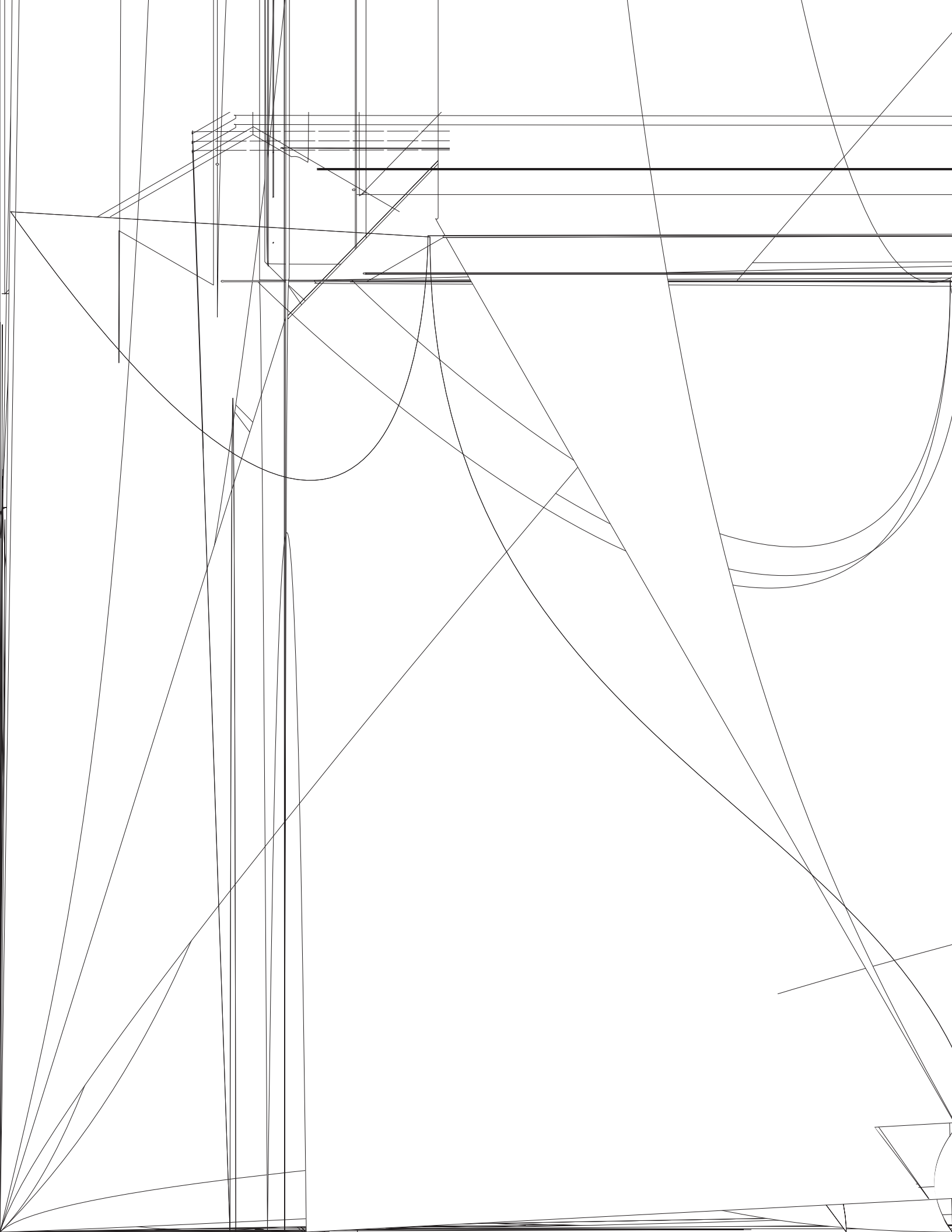

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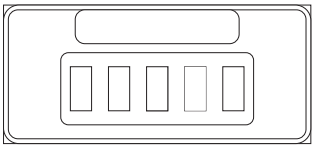
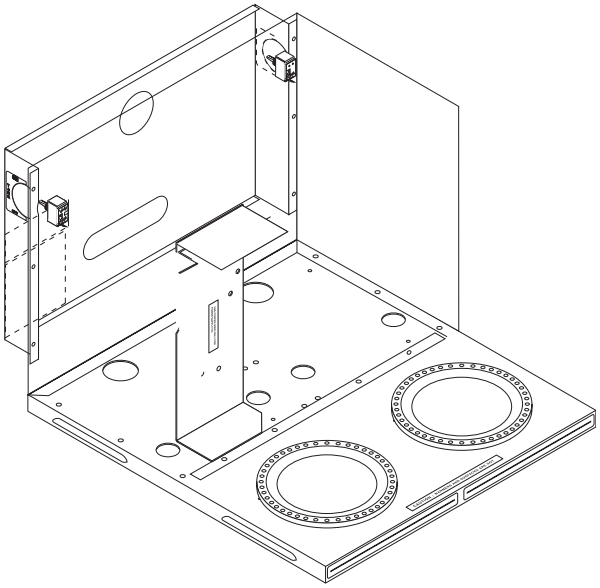
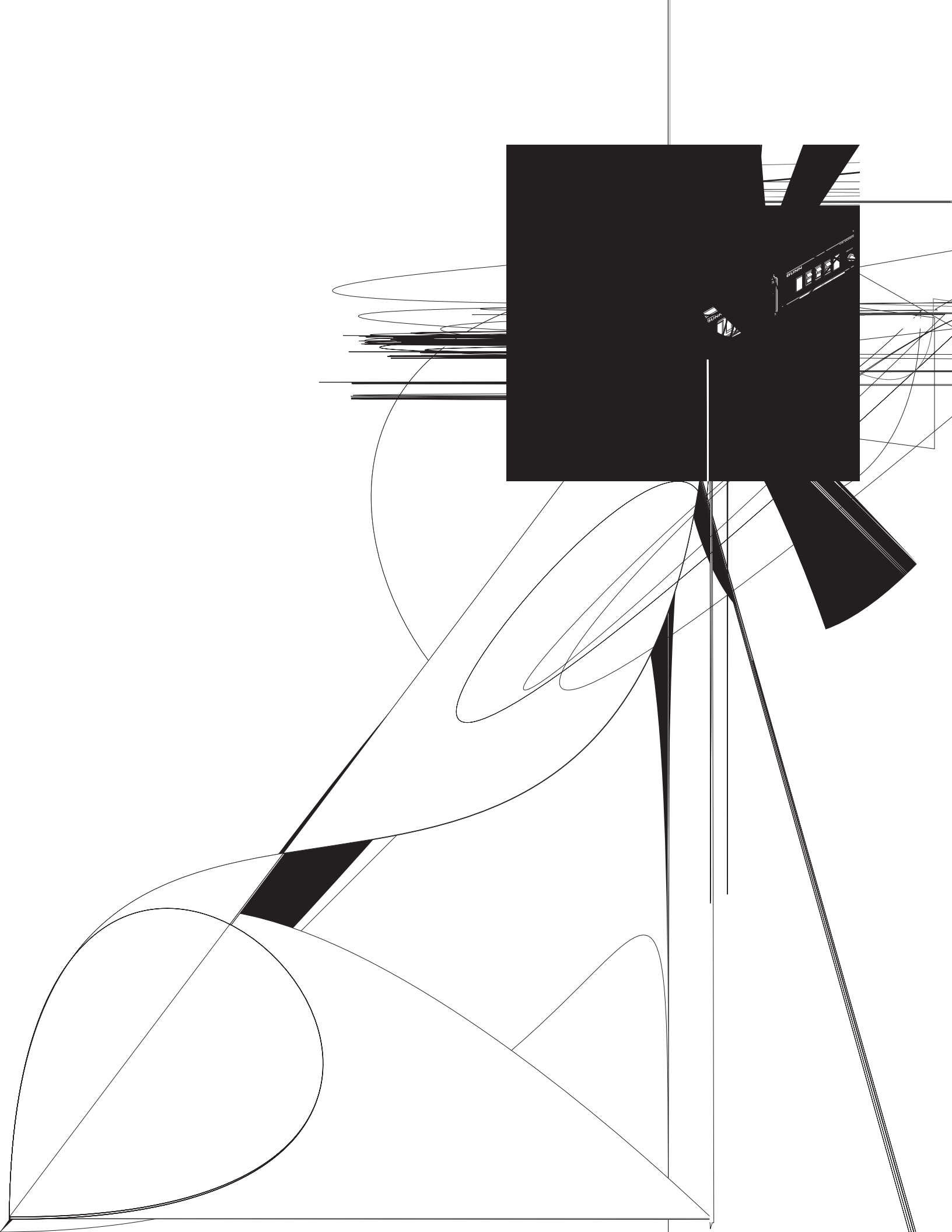


APS Models

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Diagrams and check the brewer wiring harness.

5. Check for continuity between the black wire removed from the limit thermostat and the black insert on the terminal block. with the tank heater switch in the "ON" upper position. Continuity should not be present in the "OFF" lower position.

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

Removal and Replacement:

1. Shut off and disconnect the incoming water supply to the brewer.
2. On automatic brewers gently remove the fill tube from back of fill basin.
3. Remove the tank inlet fitting securing fill basin the tank lid. Remove fill basin and gasket. Set all three parts aside for reassembly.
4. On brewers with faucets, disconnect the water supply to coil assembly and remove the tube from the tank to the faucet.
5. Remove sprayhead and hex nut securing sprayhead tube to the hood. Set aside for reassembly.
6. Disconnect the wires on the limit thermostat and the tank heater and the control thermostat (early models).
7. Gently pull the thermostat sensor and grommet from the tank lid.
8. Insert a tube to the bottom of the tank and syphon ALL of the water out.
9. Gently reinstall the thermostat sensor and grommet in the tank lid.
10. Remove the two #8-32 screws securing the tank assembly to the hood.
11. Lift tank and components out as an assembly and set aside for reassembly.
12. Disconnect the two black wires from the tank heater switch.
13. Remove the plastic facenut, hex facenut and the switch indicator/guard bracket that secures tank heater switch to the rear of the brewer. Remove switch and discard.
14. Insert new tank heater switch through the hole in the upper left rear of the trunk and secure with switch indicator/guard bracket, hex facenut and plastic facenut.
15. Reconnect the two black wires the tank heater switch terminals.
16. Set tank assembly inside the hood on mounting brackets and secure with two #8-32 screws.
17. Reconnect the wires to the limit thermostat, tank heater and the control thermostat. Refer to limit thermostat, tank heater and control thermostat sections in this manual when reconnecting wires.
18. Brewers with faucet reinstall the faucet tube and reconnect the water supply tube to the coil assembly.
19. Secure the sprayhead tube to the hood using hex nut.
20. Install sprayhead.
21. Install fill basin, inlet gasket and secure to tank lid with tank inlet fitting.
22. Carefully install water fill tube into the back of the fill basin.
23. Reconnect and turn on the incoming water sup-

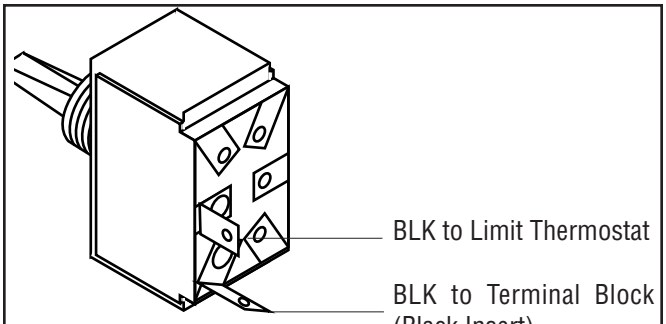


FIG. 18 TANK HEATER SWITCH TERMINALS

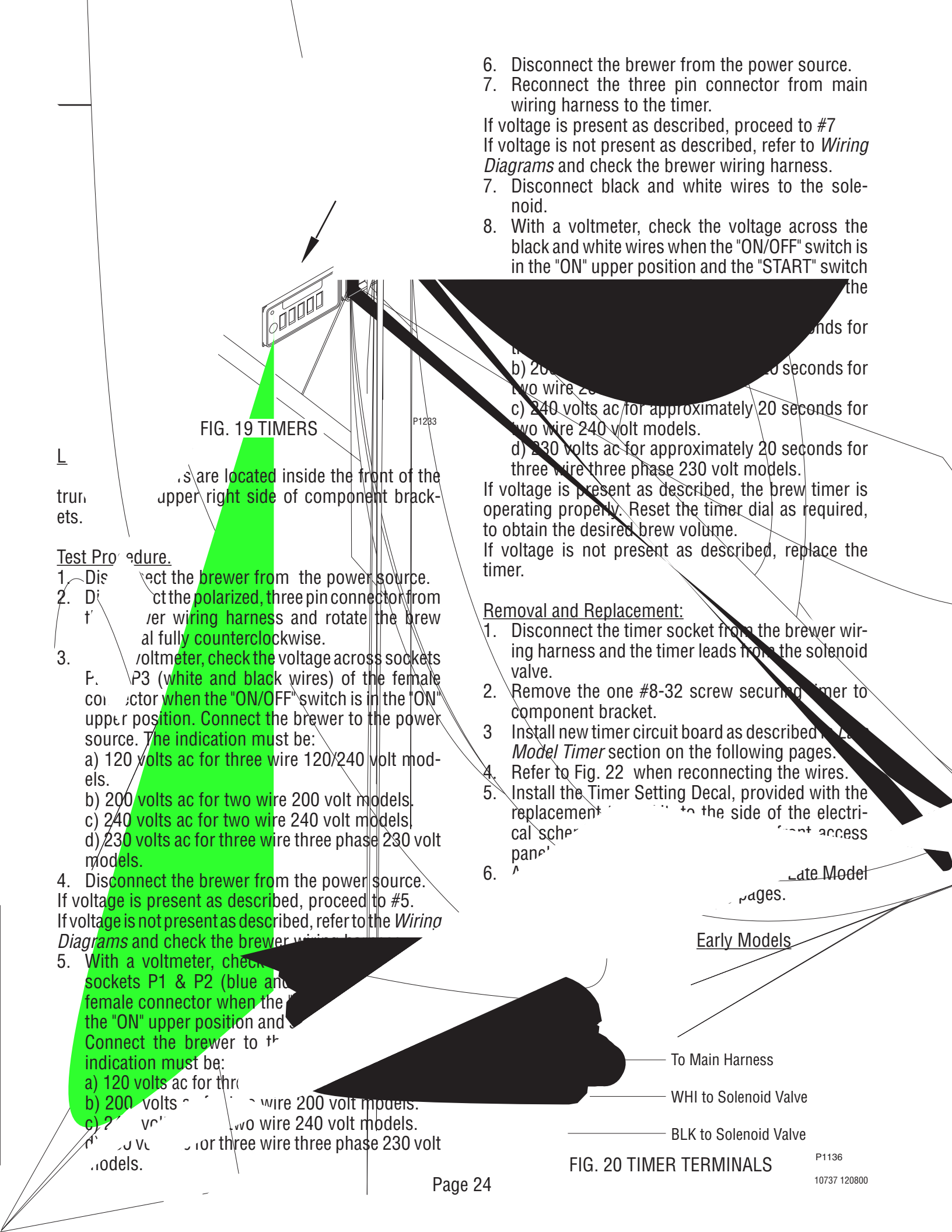


FIG. 19 TIMERS

P1283

L

...s are located inside the front of the trun... upper right side of component brackets.

Test Pro...edure.

1. Dis...ect the brewer from the power source.
2. Di...ct the polarized, three pin connector from t...er wiring harness and rotate the brew ...al fully counterclockwise.
3. ...oltmeter, check the voltage across sockets P... P3 (white and black wires) of the female co...ector when the "ON/OFF" switch is in the "ON" upper position. Connect the brewer to the power source. The indication must be:
   a) 120 volts ac for three wire 120/240 volt models.
   b) 200 volts ac for two wire 200 volt models.
   c) 240 volts ac for two wire 240 volt models.
   d) 230 volts ac for three wire three phase 230 volt models.
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 Diagrams* and check the brewer wiring ha...

5. With a voltmeter, chec... sockets P1 & P2 (blue an... female connector when the "... the "ON" upper position and ... Connect the brewer to th... indication must be:
   a) 120 volts ac for thr...
   b) 200 volts ... wire 200 volt models.
   c) 2... vo... wo wire 240 volt models.
   d) ...0 vo... for three wire three phase 230 volt ...models.
6. Disconnect the brewer from the power source.
7. Reconnect the three pin connector from main wiring harness to the timer.

If voltage is present as described, proceed to #7
If voltage is not present as described, refer to *Wiring Diagrams* and check the brewer wiring harness.

7. Disconnect black and white wires to the solenoid.
8. With a voltmeter, check the voltage across the black and white wires when the "ON/OFF" switch is in the "ON" upper position and the "START" switch ...the ...nds for t... b) 20... ...0 seconds for two wire 2...
   c) 240 volts ac for approximately 20 seconds for two wire 240 volt models.
   d) 230 volts ac for approximately 20 seconds for three wire three phase 230 volt models.

If voltage is present as described, the brew timer is operating properly. Reset the timer dial as required, to obtain the desired brew volume.
If voltage is not present as described, replace the timer.

Removal and Replacement:

1. Disconnect the timer socket from the brewer wiring harness and the timer leads from the solenoid valve.
2. Remove the one #8-32 screw securing timer to component bracket.
3 Install new timer circuit board as described in ... *Model Timer* section on the following pages.
4. Refer to Fig. 22 when reconnecting the wires.
5. Install the Timer Setting Decal, provided with the replacement ... to the side of the electrical sche... front access pane...
6. A... ...ate Model ...pages.

Early Models

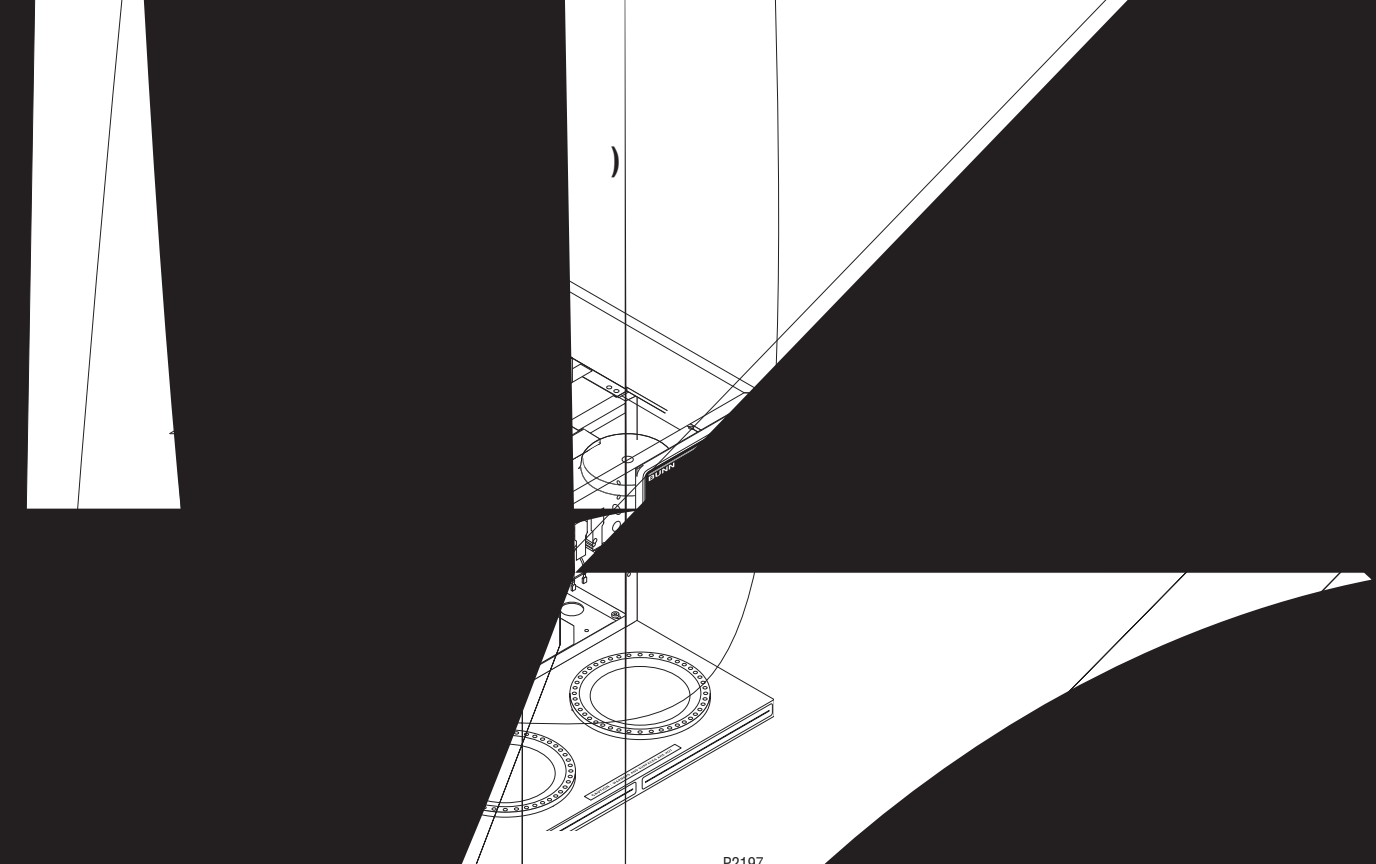
To Main Harness

WHI to Solenoid Valve

BLK to Solenoid Valve

FIG. 20 TIMER TERMINALS

P1136



P2197

AL BREW TIMER

tion

The t cated inside the front of th

est Proced

Do not remove or install wires whi

is installed. Pressure applied to one s

remove the front access panel.

2. Remove the one #8-32 screw
board to the mounting bracket.
3. Remove circuit board and spa
TL1 and TL2 when the "ON
a) 120 volts ac for thre 0 vo
els.
b) 200 volts ac for 200 vo
models.
5. Disconnect the brewer from t

If voltage is present as desc

If voltage is not present as

Diagrams and check t

TL1 a

If v

I

(.)

( )(.)

1. **.** To modify a brew volume, first check that the SET/LOCK switch is in the "SET" position on the circuit board.

, place the ON/OFF switch in the "ON" position, press and hold the START switch until three clicks are heard. Release the switch and press it again one or more times. (Failure to release the switch within two seconds after the third click causes the volume setting to be aborted and previous volume setting will remain in memory.) Each time the switch is pressed, two seconds are added to the brew time period. Allow the brew cycle to finish in order to verify that the desired volume has been achieved.

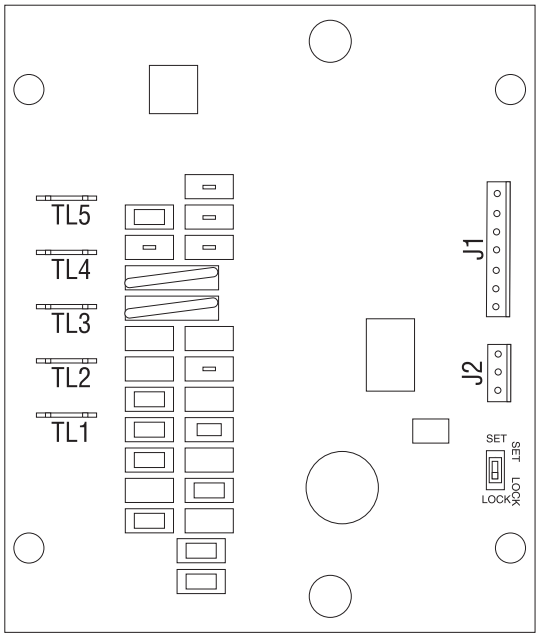
, place the ON/OFF switch in the "ON" position, press and release the START switch once for every two-second interval to be removed from the total brew time period; then immediately press and hold down the START switch until three clicks are heard. Release the switch. (Failure to release the switch within two seconds after the third click causes the volume setting to be aborted and previous volume setting will remain in memory). Allow the brew cycle to finish in order to verify that the desired volume has been achieved.

2. **.** To set a brew volume, first check that the SET/LOCK switch is in the "SET" position on the circuit board. Place the ON/OFF switch in the "ON" position, press and hold the START switch until three distinct clicks are heard and then release the switch. (Failure to release the switch within two seconds after the third click causes the volume setting to be aborted and previous volume setting will remain in memory.)
View the level of the liquid being dispensed. When the desired level is reached, turn the ON/OFF switch to "OFF".

Several ounces of water will continue to syphon from the tank after turning the switch "OFF". The brewer remembers this volume and will continue to brew batches of this size until the volume setting procedure is repeated.

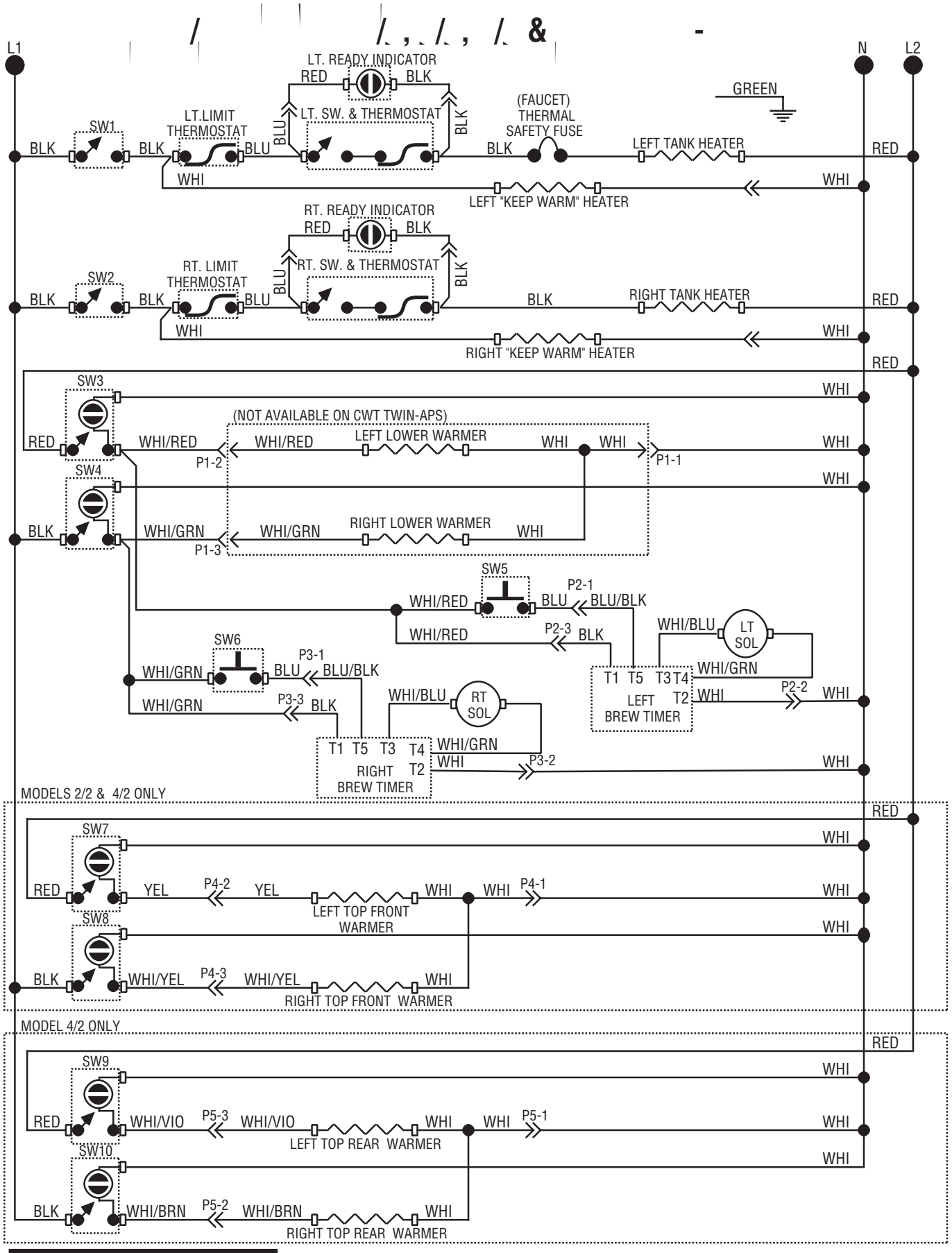
When brewing coffee, volume will decrease due to absorption by the coffee grounds.

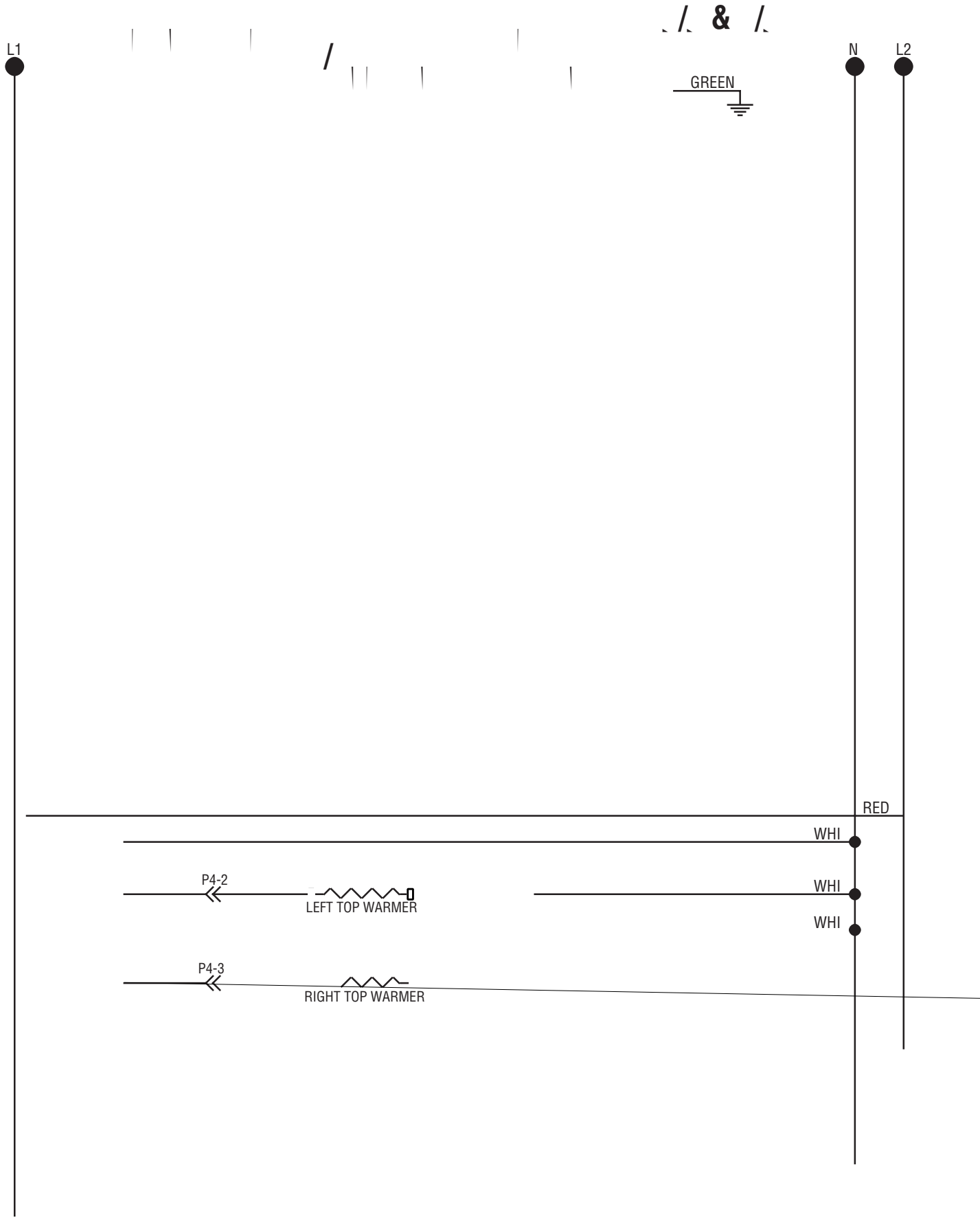
3. **.** If it becomes necessary to prevent anyone from changing brew time once programmed, you can set the SET/LOCK switch to the "LOCK" position. This will prevent any further programming until switch is once again put into the "SET" position.

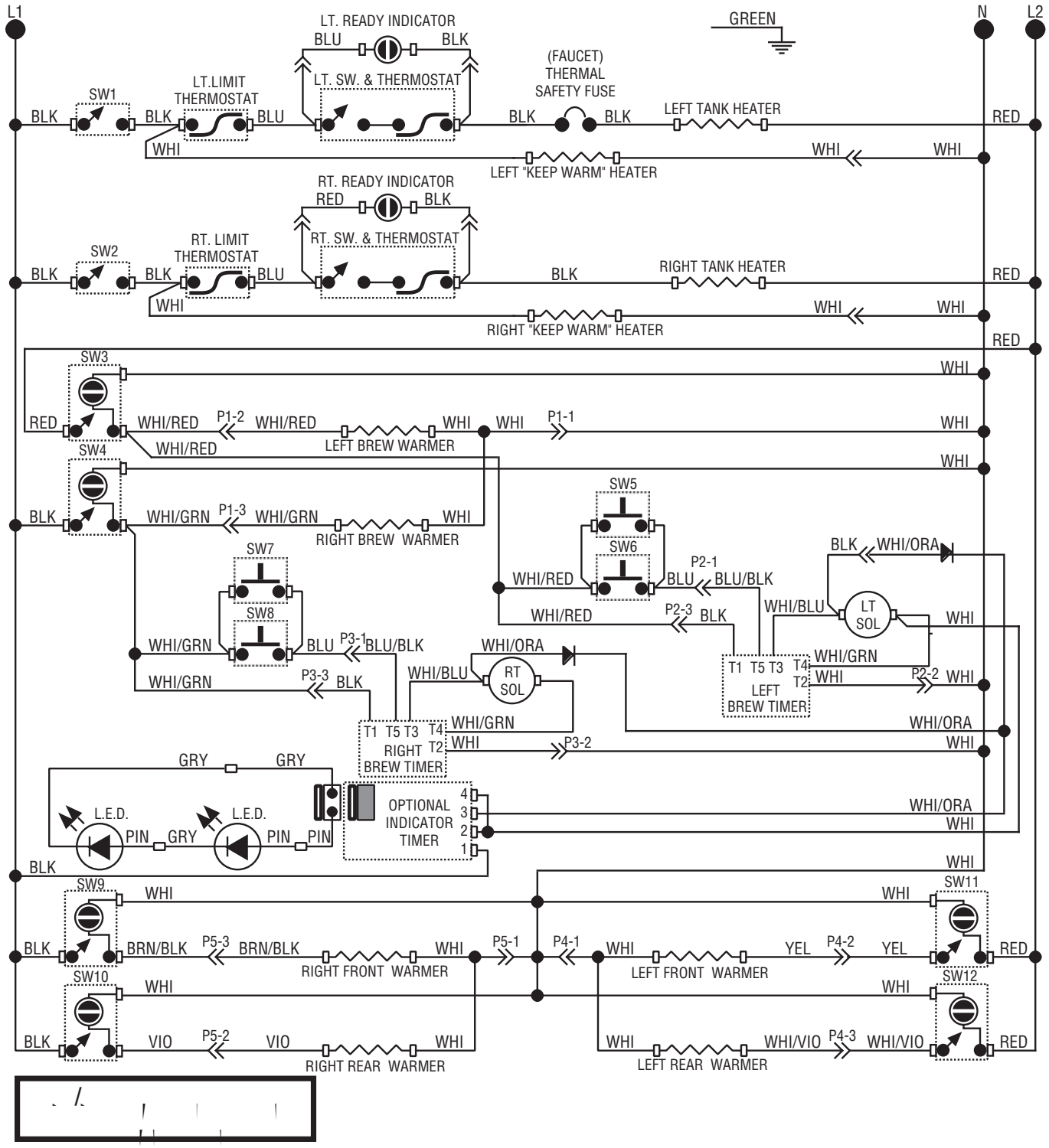


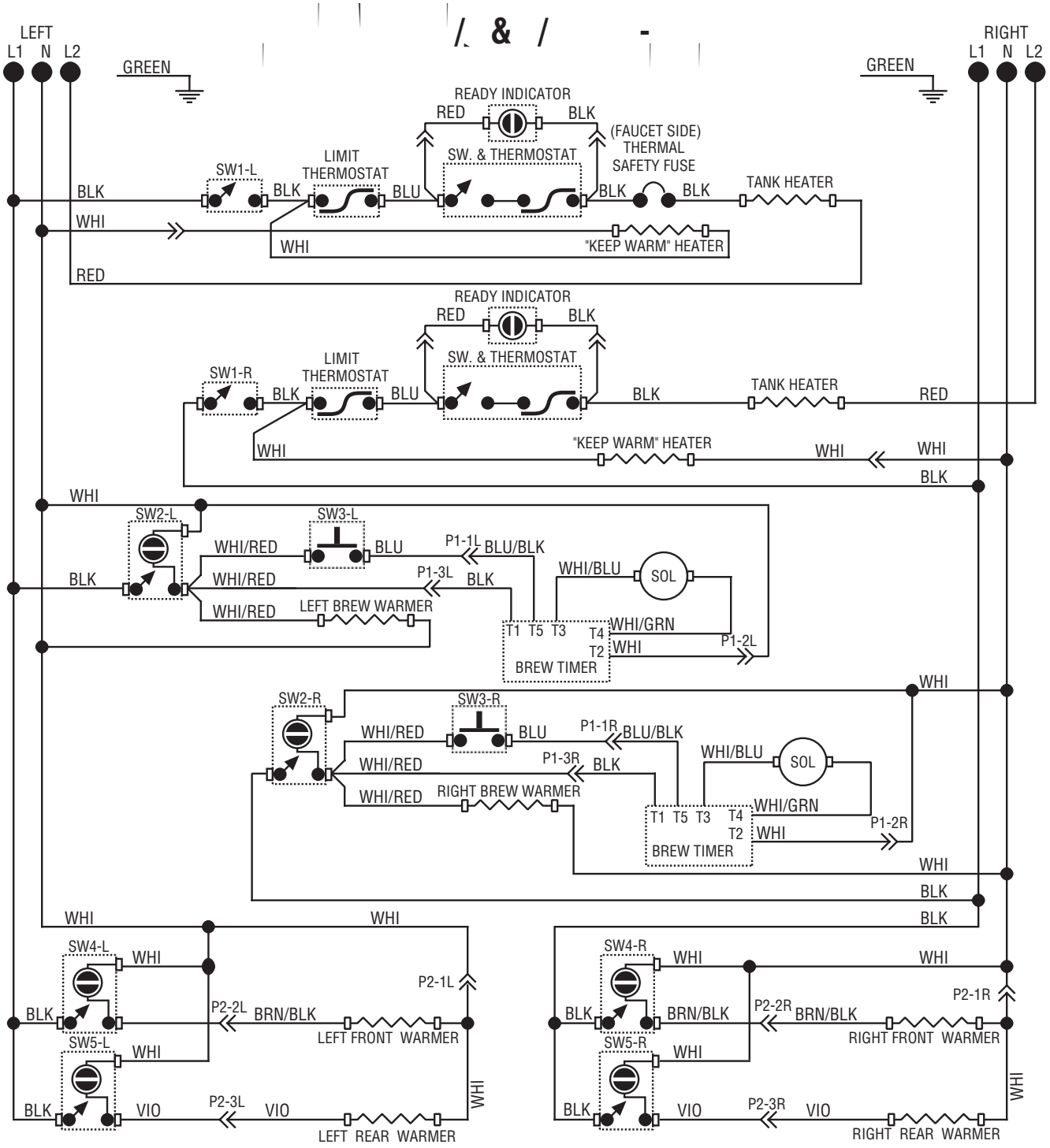
BLU/BLK wire from TL5 to P1
WHI/GRN wire from TL4 to (WHI) Solenoid
WHI/BLU wire from TL3 to (BLK) Solenoid
WHI wire from TL2 to P2
BLK wire from TL1 to P3

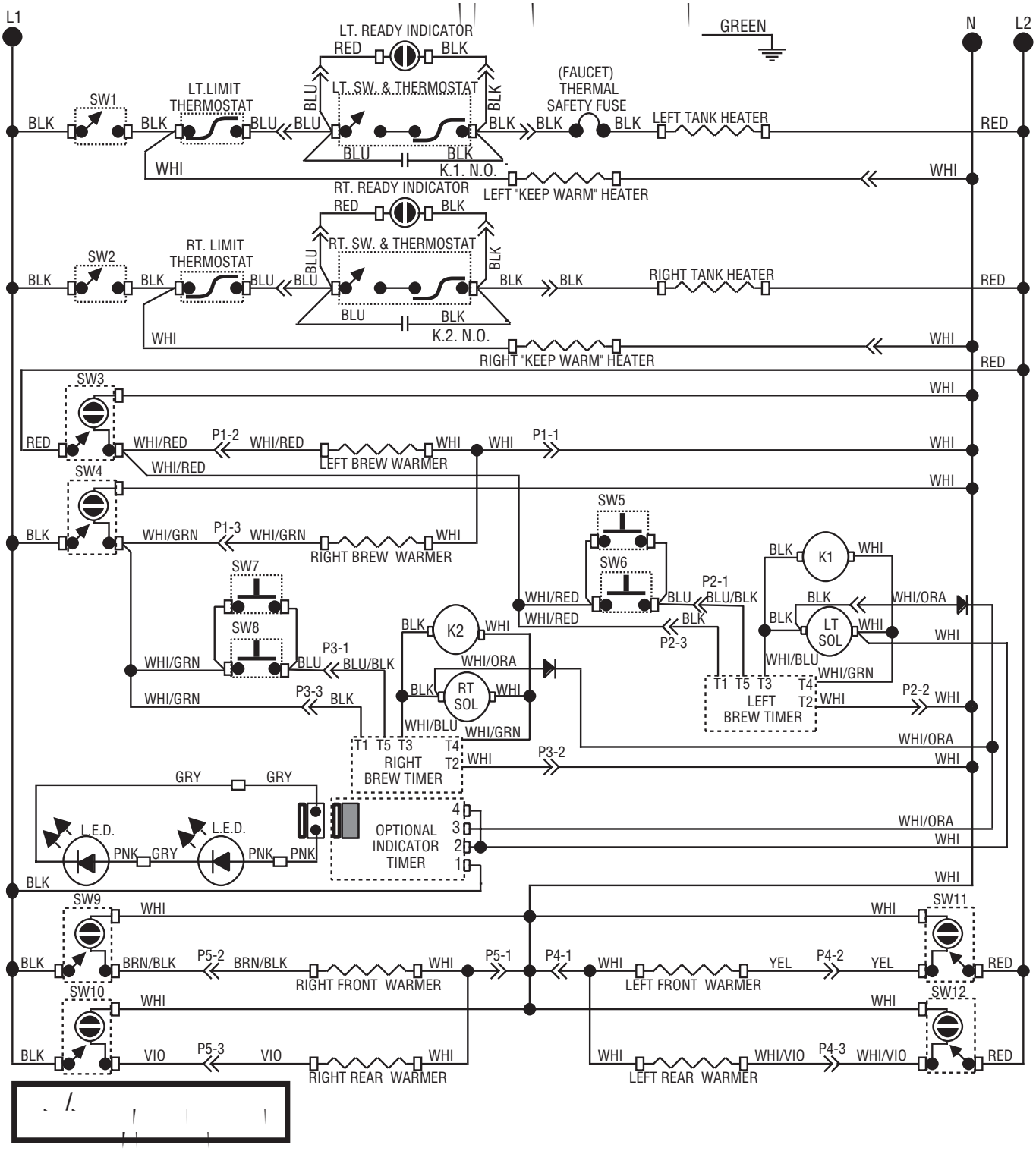
FIG. 22 DIGITAL TIMER WIRING

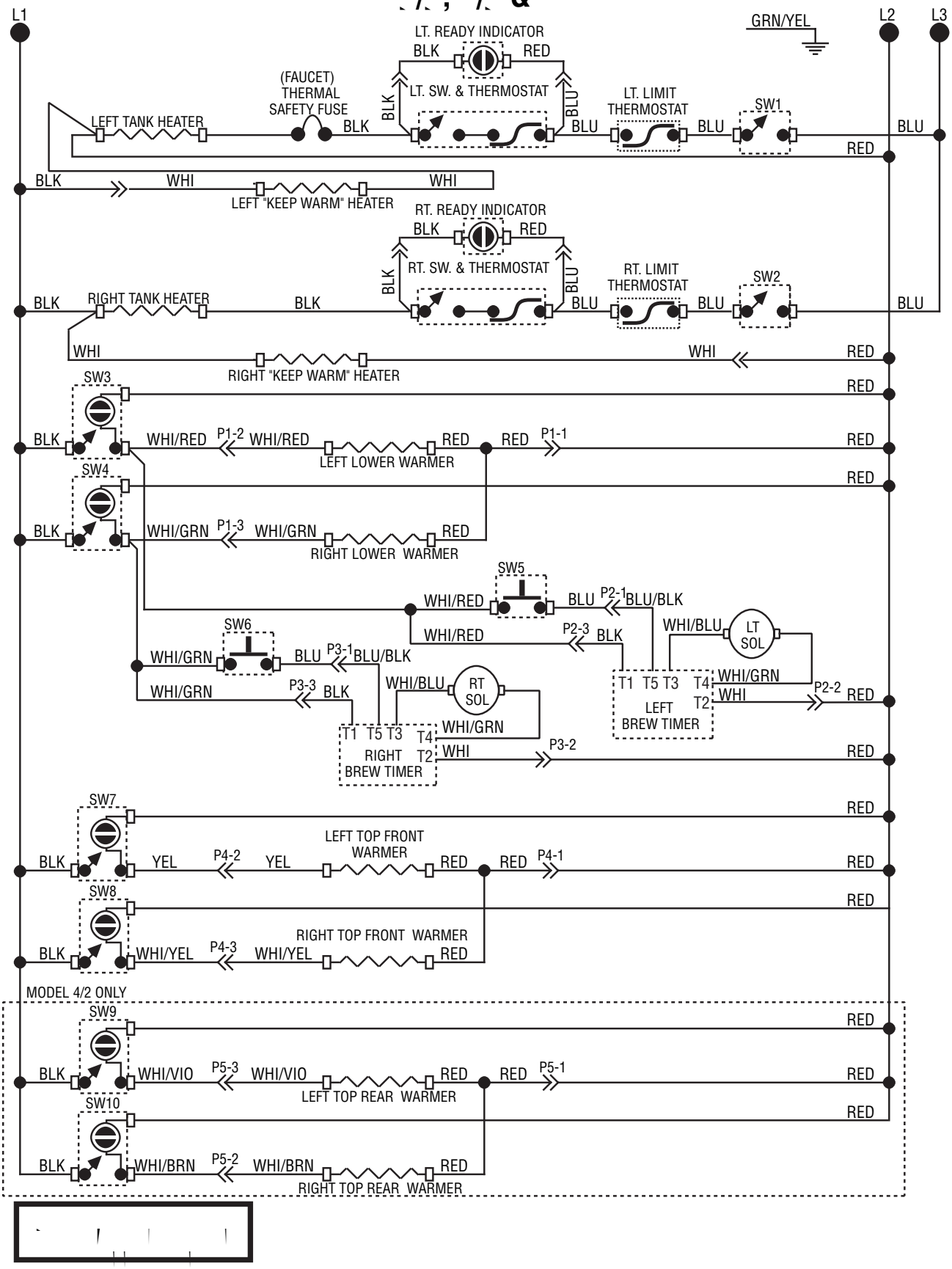

L1
N
L2
GREEN
LT. READY INDICATOR
RED
BLK
LT. SW. & THERMOSTAT
LT.LIMIT THERMOSTAT
SW1
BLK
BLU
(FAUCET) THERMAL SAFETY FUSE
LEFT TANK HEATER
WHI
LEFT "KEEP WARM" HEATER
RT. READY INDICATOR
RT. SW. & THERMOSTAT
RT. LIMIT THERMOSTAT
SW2
RIGHT TANK HEATER
RIGHT "KEEP WARM" HEATER
SW3
SW4
(NOT AVAILABLE ON CWT TWIN-APS)
WHI/RED
WHI/GRN
LEFT LOWER WARMER
RIGHT LOWER WARMER
P1-2
P1-3
P1-1
SW5
SW6
P2-1
P2-3
P3-1
P3-3
BLU/BLK
WHI/BLU
LT SOL
RT SOL
T1 T5 T3 T4
T2
LEFT BREW TIMER
RIGHT BREW TIMER
P2-2
P3-2
MODELS 2/2 & 4/2 ONLY
SW7
SW8
YEL
P4-2
P4-1
LEFT TOP FRONT WARMER
WHI/YEL
P4-3
RIGHT TOP FRONT WARMER
MODEL 4/2 ONLY
SW9
SW10
WHI/VIO
P5-3
P5-1
LEFT TOP REAR WARMER
WHI/BRN
P5-2
RIGHT TOP REAR WARMER


L1
N
L2
GREEN
RED
WHI
WHI
WHI
P4-2
LEFT TOP WARMER
P4-3
RIGHT TOP WARMER

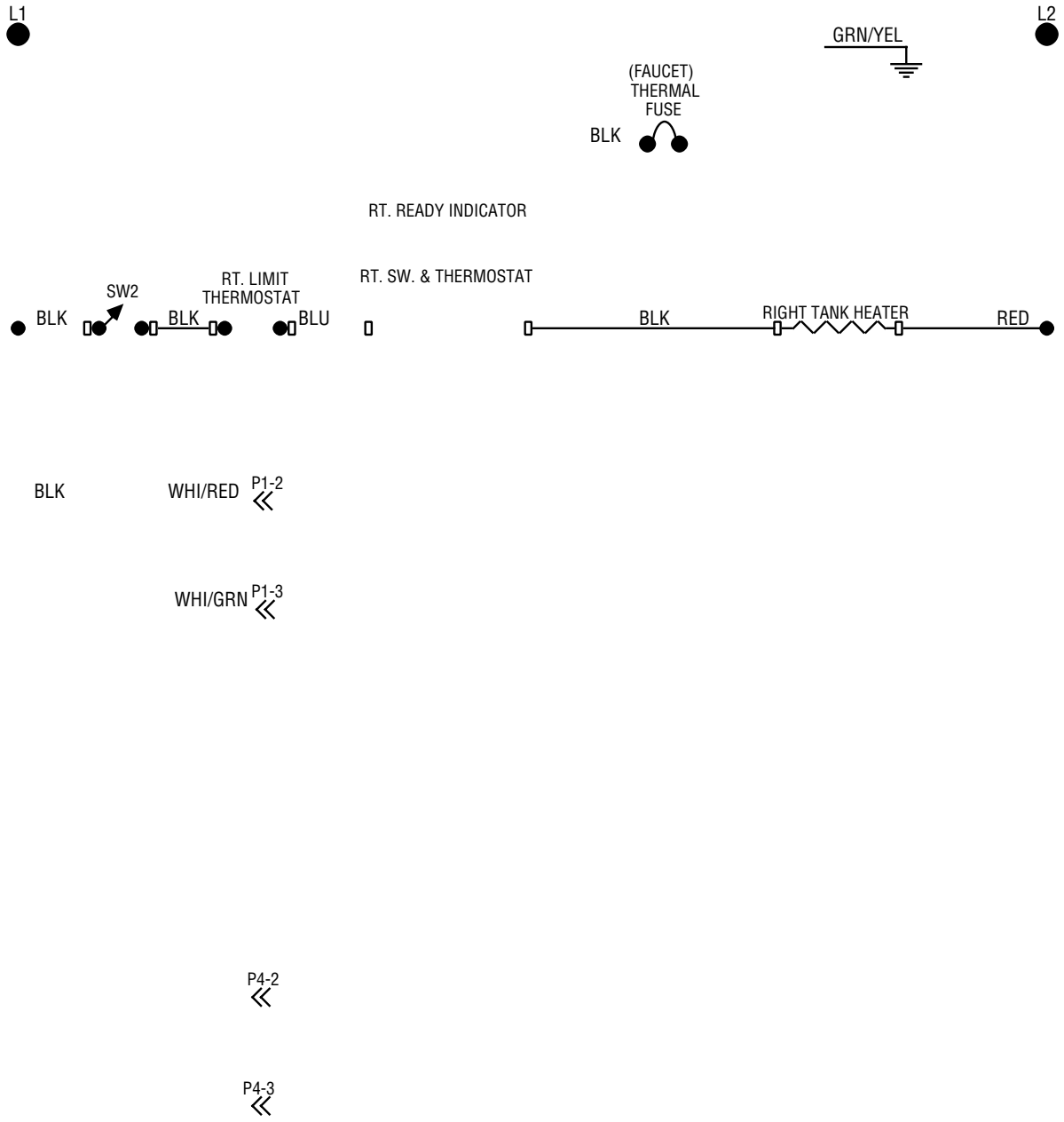

L1
N
L2
GREEN
LT. READY INDICATOR
BLU
BLK
LT. SW. & THERMOSTAT
(FAUCET)
THERMAL
SAFETY FUSE
SW1
LT.LIMIT
THERMOSTAT
BLK
BLU
LEFT TANK HEATER
RED
WHI
LEFT "KEEP WARM" HEATER
RT. READY INDICATOR
RED
RT. SW. & THERMOSTAT
SW2
RT. LIMIT
THERMOSTAT
RIGHT TANK HEATER
RIGHT "KEEP WARM" HEATER
SW3
SW4
SW5
SW6
SW7
SW8
RED
WHI/RED
P1-2
LEFT BREW WARMER
P1-1
WHI/GRN
RIGHT BREW WARMER
P1-3
P2-1
BLU/BLK
BLK
WHI/ORA
LT
SOL
WHI/BLU
P2-3
P3-1
P3-3
RT
SOL
T1 T5 T3 T4
T2
LEFT
BREW TIMER
RIGHT
BREW TIMER
P2-2
P3-2
GRY
L.E.D.
PIN
OPTIONAL
INDICATOR
TIMER
SW9
SW10
SW11
SW12
BRN/BLK
P5-3
RIGHT FRONT WARMER
P5-1
P4-1
LEFT FRONT WARMER
YEL
P4-2
VIO
P5-2
RIGHT REAR WARMER
WHI/VIO
P4-3
LEFT REAR WARMER

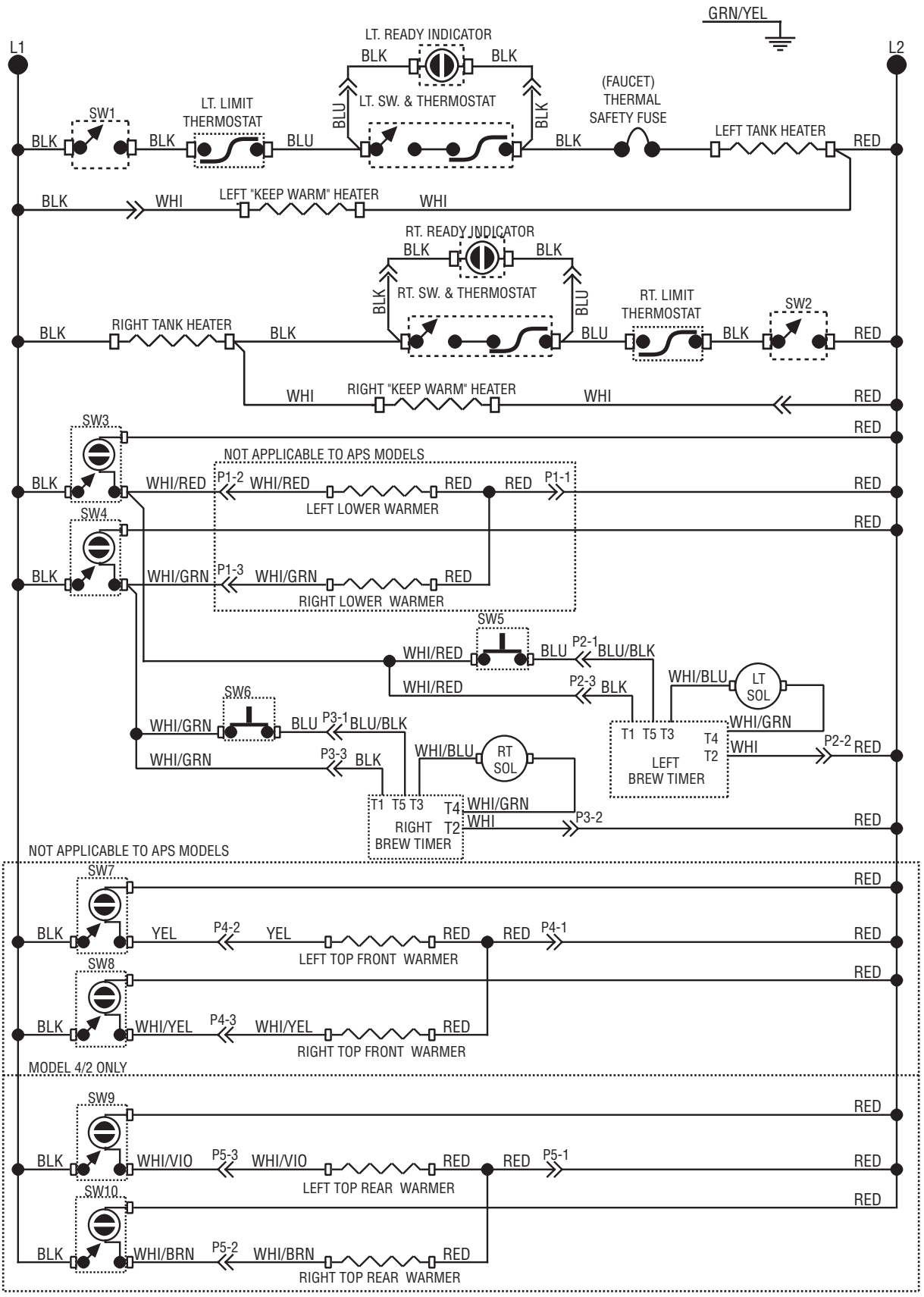

LEFT
L1 N L2
GREEN
RIGHT
L1 N L2
GREEN
READY INDICATOR
RED
BLK
(FAUCET SIDE)
THERMAL
SAFETY FUSE
SW. & THERMOSTAT
LIMIT
THERMOSTAT
SW1-L
BLK
BLU
TANK HEATER
WHI
"KEEP WARM" HEATER
RED
SW1-R
SW2-L
SW3-L
WHI/RED
P1-1L
BLU/BLK
P1-3L
WHI/BLU
SOL
LEFT BREW WARMER
T1 T5 T3 T4 T2
BREW TIMER
WHI/GRN
P1-2L
SW2-R
SW3-R
P1-1R
P1-3R
RIGHT BREW WARMER
P1-2R
SW4-L
SW5-L
P2-1L
P2-2L
BRN/BLK
LEFT FRONT WARMER
VIO
P2-3L
LEFT REAR WARMER
SW4-R
SW5-R
P2-1R
P2-2R
RIGHT FRONT WARMER
P2-3R
RIGHT REAR WARMER


L1
N
L2
GREEN
LT. READY INDICATOR
RED
BLK
LT. SW. & THERMOSTAT
LT.LIMIT THERMOSTAT
SW1
(FAUCET) THERMAL SAFETY FUSE
LEFT TANK HEATER
BLK
BLU
WHI
K.1. N.O.
LEFT "KEEP WARM" HEATER
RT. READY INDICATOR
RT. SW. & THERMOSTAT
RT. LIMIT THERMOSTAT
SW2
RIGHT TANK HEATER
K.2. N.O.
RIGHT "KEEP WARM" HEATER
SW3
SW4
SW5
SW6
SW7
SW8
WHI/RED
P1-2
P1-1
LEFT BREW WARMER
WHI/GRN
P1-3
RIGHT BREW WARMER
K1
K2
LT SOL
RT SOL
P2-1
P2-2
P2-3
P3-1
P3-2
P3-3
BLU/BLK
WHI/ORA
WHI/BLU
LEFT BREW TIMER
RIGHT BREW TIMER
T1 T5 T3 T4 T2
GRY
L.E.D.
PNK
OPTIONAL INDICATOR TIMER
SW9
SW10
SW11
SW12
BRN/BLK
P5-2
P5-1
P4-1
P4-2
YEL
RIGHT FRONT WARMER
LEFT FRONT WARMER
VIO
P5-3
P4-3
WHI/VIO
RIGHT REAR WARMER
LEFT REAR WARMER


L1
L2
L3
GRN/YEL
LT. READY INDICATOR
BLK
RED
(FAUCET)
THERMAL
SAFETY FUSE
LT. SW. & THERMOSTAT
LT. LIMIT
THERMOSTAT
SW1
LEFT TANK HEATER
BLK
BLU
RED
WHI
LEFT "KEEP WARM" HEATER
RT. READY INDICATOR
RT. SW. & THERMOSTAT
RT. LIMIT
THERMOSTAT
SW2
RIGHT TANK HEATER
RIGHT "KEEP WARM" HEATER
SW3
SW4
WHI/RED
P1-2
P1-1
LEFT LOWER WARMER
WHI/GRN
P1-3
RIGHT LOWER WARMER
SW5
P2-1
BLU/BLK
WHI/BLU
LT
SOL
SW6
P3-1
P2-3
P3-3
RT
SOL
T1 T5 T3 T4
T2
LEFT
BREW TIMER
RIGHT
BREW TIMER
P2-2
P3-2
SW7
SW8
YEL
P4-2
P4-1
LEFT TOP FRONT
WARMER
RIGHT TOP FRONT WARMER
WHI/YEL
P4-3
MODEL 4/2 ONLY
SW9
SW10
WHI/VIO
P5-3
P5-1
LEFT TOP REAR WARMER
WHI/BRN
P5-2
RIGHT TOP REAR WARMER

SCHEMATIC WIRING DIAGRAM
CWTFA & CWTFB TWIN 2/2 & 4/2



SCHEMATIC WIRING DIAGRAM

CWTFA 2/2 TWIN, CWTFA 4/2 TWIN & CWTFA TWIN-APS