



# WILBUR CURTIS Co., Inc.

## Service Manual – RU Series Automatic Urns

### Important Safeguards/Symbols

This appliance is designed for commercial use. Any servicing other than cleaning and maintenance should be performed by an authorized Wilbur Curtis service center.

- To reduce the risk of fire or electric shock, do not open side or bottom panel. There are no user serviceable parts inside.
- All repairs should only be performed by authorized service personnel.
- Keep hands and other items away from hot parts of the unit during operation.
- Never clean with scouring powders, bleach or harsh chemicals.

### Symbols:



**WARNING/CAUTION** – To advise about conditions that may result in property damage, personal injury or death



**IMPORTANT** – Notes about proper operation



Sanitation requirements

The RU Automatic Urn is factory pre-set and ready to go... right from the carton.

### Factory Settings:

- Brew Temperature = 200°F
- Brew Volume = Set to requirements of coffee liner

### System Requirements

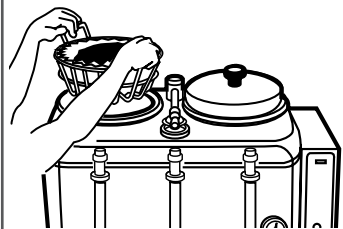
- Water Source: 20 – 100 psi (minimum flow rate of 1 gpm)
- Electrical: See attached schematic for standard model or visit [www.wilburcurtis.com](http://www.wilburcurtis.com) for your model.



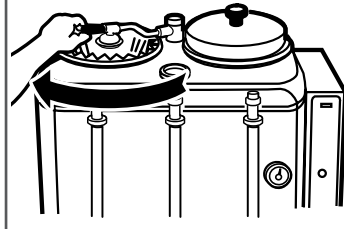
**CAUTION:** Please use the setup procedures in this manual before attempting to use the brewer. Failure to follow the instructions can result in injury or the voiding of the warranty. See setup procedures on page 2.

### Brewing Instructions

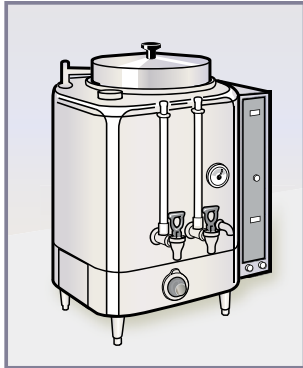
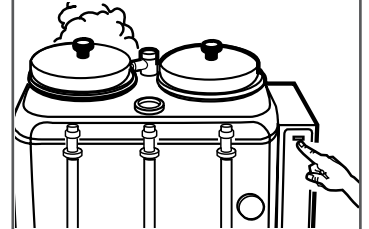
1. Place filter in basket. Pour coffee into filter. Place basket into liner.



2. Rotate spray head over bed of coffee inside filter.



3. Press BREW button on control panel to begin brewing.



### MODELS INCLUDED

- RU-150
- RU-225
- RU-300
- RU-600
- RU-1000



**WARNING: HOT LIQUID,** Scalding may occur. Avoid splashing.

ISO 9001:2008 REGISTERED

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# INSTALLATION AND OPERATING INSTRUCTIONS

## SETUP STEPS



**WARNING:** DO NOT place this urn closer than six [6] inches from wall. Urn must have adequate cross-ventilation.



**NOTE:** A water filtration system must be used to help maintain trouble-free operation. **Air must be purged from the cartridge prior to connection to equipment.** In areas with extremely hard water, we recommend the use of a Curtis approved water filter. For our full line of filters, please log on to [www.wilburcurtis.com](http://www.wilburcurtis.com).

1. Attach adjustable legs, threading them into the holes beneath the four corners of the urn.
2. Place unit at counter height, on a firm, level base, near water and power supply connections. Level it left to right and front to back by rotating the feet on the 4 corners.



**WARNING:** Use the leveling legs to level the brewer only. Do not use them to adjust brewer height. Do not extend them higher than necessary.

3. Install the water and coffee faucets.
4. Connect water line to inlet fitting on valve. All Curtis automatic urns are equipped with a 1/4" male flare fitting which must be connected to the water supply with a 1/4" copper tubing and a 1/4" flare nut. Water pressure entering brewer is required to be stable and must provide minimum of 1 gallon per minute. Use water regulator for constant pressure. Required water pressures, 20 to 100 psi.



**CAUTION:** DO NOT connect this urn to hot water. The inlet valve is not rated for hot water.

5. Turn on water valve.
6. Hook-up electrical power to the unit (refer to schematic for power requirements). If gas or steam, 120V circuit is required.
7. When power is turned on, water will start flowing into the water jacket. To expedite the filling of the urn, you may use the emergency refill valve located behind the machine.



**CAUTION:** Don't forget to close the valve once the water jacket has filled.

8. When the water jacket has filled, turn on the thermostat by turning the dial clockwise to the desired setting. It will take 50 to 60 minutes for the heating tank to reach operating temperature. On electric urns, the thermostat indicator will light at this time.



**WARNING:** When you hookup an electric urn, use the proper wire gauge, plus 25% (see table on page 12). Never use fuses or breakers larger than needed.

The body of the urn must be securely grounded with a separate grounding conductor and never with the neutral conductor of a single phase, 3 wire system. Refer to the wiring diagram included with each urn for wire gauge.

## CARE AND MAINTENANCE OF URN

### PREVENTIVE MAINTENANCE

1. Remove the spray head from the urn and clean it once a week. More often in heavy lime areas.



**WARNING:** Switch off the power to the unit at the circuit breaker. Turn off the water line running to the urn.

2. Clean the faucet seat cups twice a week and replace when cracked or leaking.
3. Periodic temperature checks and thermostat adjustments should be made by authorized personnel.

### CLEANING

To ensure the highest quality coffee, the urn must be cleaned daily after the last batch of coffee is used.

Regular cleaning and preventive maintenance is essential in keeping your coffee urn looking and working like new.



**CAUTION:** Do not use cleaning products containing chemicals that will damage stainless steel, ammonia and bleaches containing chlorine. Never use abrasives that will scratch the outside surface of the urn.

### DAILY CLEANING INSTRUCTIONS



**WARNING:** These steps involve working with very hot water.

1. After all the brewed coffee has been drawn from the urn, run a brew cycle of fresh water. Spray the hot water into the liner, then thoroughly brush it out with a long handled brush.
2. Drain the water off then repeat step one. Run another brew cycle. Brush out the liner and drain. Wipe down the liner with a clean towel.
3. If urn is not going to be used immediately, pour a gallon or two of fresh water into the liner. Remember to drain off this water before making another brew.
4. Wash the wire brew baskets with urn cleaner and rinse thoroughly.

### TWICE A WEEK

The coffee urn liner must be scoured twice a week:

1. Be sure water jacket is full of water and at brewing temperature.
2. Fill the liner with several gallons of water and add at least 1½ ounces of coffee urn cleaning compound. Allow this solution to remain in the liner approximately 30 minutes. During this time, the thermostat should be set to BOIL.



**WARNING:** Very hot water.

3. Scrub the inside of the liner and cover with a long handled brush.
4. Drain all the urn cleaning solution and rinse by running several brew cycles with the spray head centered over the liner, draining the rinse water between sprays.
5. Thoroughly clean the faucets.



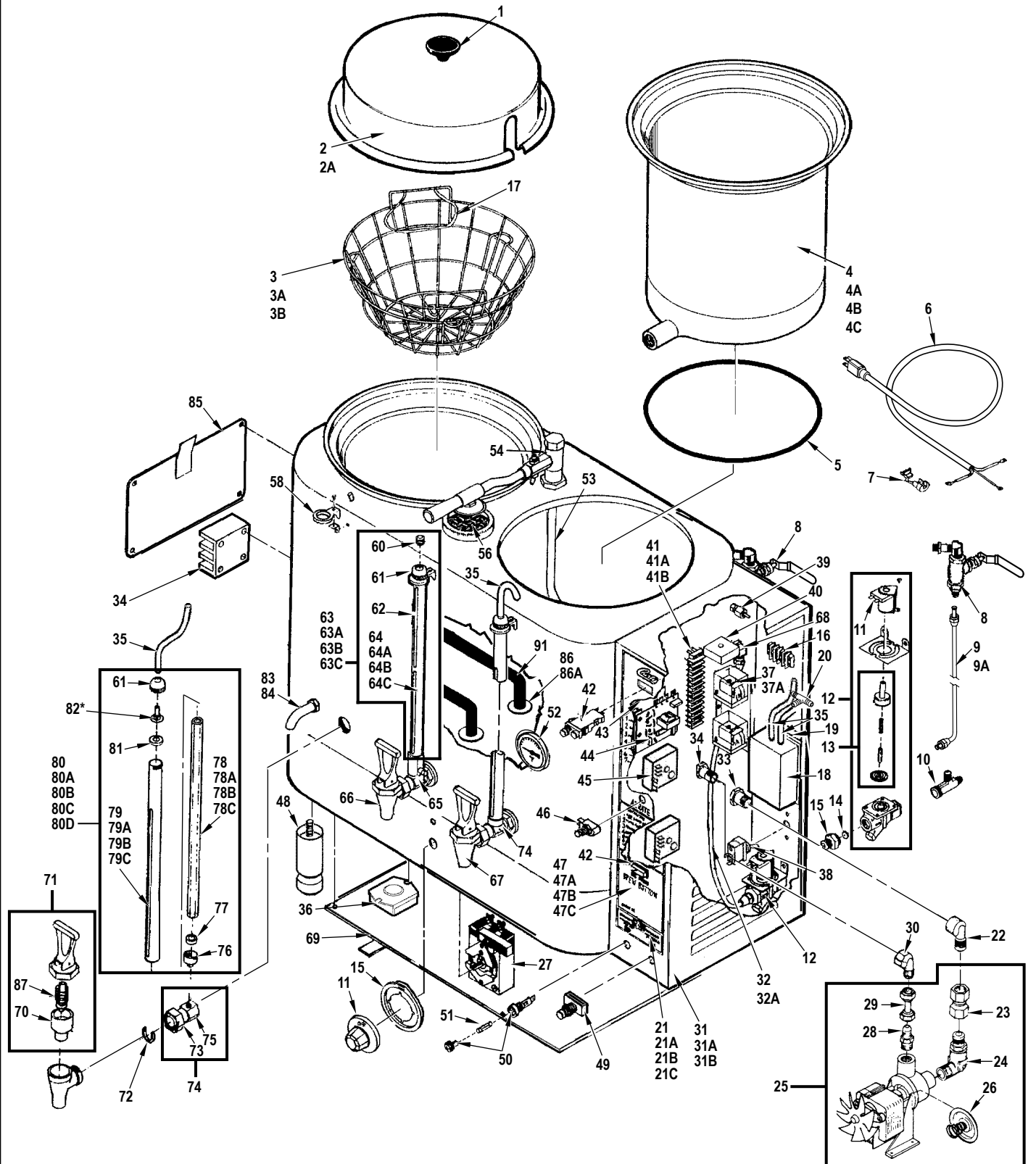
**WARNING:** Never remove the faucet when the liner has water or coffee in it.

Switch off the power to the unit at the circuit breaker. Turn off the water line running to the urn.

Use a long thin gauge glass brush to clean the coffee gauge glass. Use the same brush to clean the fitting at the bottom of the liner and the pipe connecting to the coffee faucet.

6. Leave a gallon or two of fresh water in the liner. Drain just before brewing coffee.
7. After the unit is clean, turn on the water supply and power to the unit.

# ILLUSTRATED PARTS LIST AUTOMATIC URNS, RU-150, RU-225, RU-300, RU-600, RU-1000 ELECTRIC



\*82 NOT INCLUDED WITH GAUGE GLASS ASSEMBLY.

| INDEX<br>№ | PART<br>№             | DESCRIPTION   | EQUIPMENT USED ON               |
|------------|-----------------------|---|---------------------------------|
| 1          | WC-3205               | KNOB, LID 1/4-20 FEMALE THRD USE ON WC-5601/2/3     | ALL RU URNS                     |
| 2          | WC-5601               | LID, LINER ASSY (SC)RU-150/300                      | RU-150, RU-300                  |
| 2A         | WC-5603               | LID, LINER ASSY RU225/600/1000                      | RU-225, RU-600, RU-1000         |
| 3          | WC-3302               | BREW BASKET WIRE W/FLAPS RU-300                     | RU-150, RU-300                  |
| 3A         | WC-3303               | BREW BASKET, WIRE W/ FLAPS RU-600                   | RU-225, RU-600                  |
| 3B         | WC-3304               | BREW BASKET, WIRE W/ FLAPS RU-1000                  | RU-1000                         |
| 4          | WC-5700               | LINER, 3 GAL RU-150                                 | RU-150                          |
| 4A         | WC-5706               | LINER, 6 GAL RU-600                                 | RU-225, RU-600                  |
| 4B         | WC-5704               | LINER, 3 GAL RU-300                                 | RU-300                          |
| 4C         | WC-5708               | LINER, 10 GAL RU-1000                               | RU-1000                         |
| 5          | WC-4303               | O-RING, LINER RU-150/300                            | RU-150, RU-300                  |
| 5A         | WC-43076              | O-RING, LINER, RU'S, 6, 10 GA                       | RU-225, RU-600, RU-1000         |
| 6          | WC-1200               | CORD, 14/3 SJTO 6' BLK W/PLUG                       | ALL GAS, STEAM & 3Ø RU URNS     |
| 7          | WC-1408               | GRIP, CORD 7/8" OD                                  | ALL GAS, STEAM & 3Ø RU URNS     |
| 8          | WC-806                | VLVE, 1/4" BR. BALL ASSY EMERGENCY REFILL RU'S      | ALL RU URNS                     |
| 9          | WC-53104              | TUBE ASSY, 1/4x14.50 ER W/NUTS RU-150/300           | RU-150, RU-300                  |
| 9A         | WC-53105              | TUBE ASSY, 1/4x17.00 ER W/NUTS RU-225/600           | RU-225, RU-600                  |
| 9B         | WC-53109              | TUBE ASSY, 1/4" ER W/NUTS RU-1000                   | RU-1000                         |
| 10         | WC-2705               | TEE, 1/4 X 1/4 FLARE X 3/8 NPT PLATED               | ALL RU URNS                     |
| 11         | WC-3217               | KNOB, ELECTRIC THERMOSTAT RU                        | ALL RU URNS                     |
| 12         | WC-801                | VALVE, INLET BRASS .50 GPM 120V 10W RU/WB           | ALL RU URNS                     |
| 13         | WC-3700               | KIT, INLET VAL. REP. USE ON WC-801/801R/885/890/858 | ALL RU URNS                     |
| 14         | WC-813                | FLOW WASHER, .5GPM .5" S45                          | ALL RU URNS                     |
| 15         | WC-3220               | BEZEL, THERMOSTAT ELECTRIC URN'S                    | ALL RU URNS                     |
| 16         | WC-301 <sup>1</sup>   | TERMINAL STRIP, 4-S                                 | ALL RU URNS (BEFORE 1/29/13)    |
| 17         | WC-3305               | FLAP, WIRE BASKET RU150/300 (2 REQUIRED)            | RU-150 & RU-300                 |
| 18         | WC-37166              | KIT, AIR PUMP RU'S                                  | ALL RU URNS                     |
| 19         | WC-5843               | BRACKET, AERATOR PUMP RU                            | ALL RU URNS                     |
| 20         | WC-3600               | TEE, CONNECTOR 3/16 POLYPROPYLENE                   | RU-150 & RU-225                 |
| 21         | WC-38570              | LABEL, INSTRUCTION PANEL RU150/RU-300               | RU-150 & RU-300 (AFTER 1/29/13) |
| 21A        | WC-38571              | LABEL, INSTRUCTION PANEL RU225/RU-600               | RU-225 & RU-600 (AFTER 1/29/13) |
| 21B        | WC-38574              | LABEL, INSTRUCTN PANEL RU1000                       | RU-1000 (AFTER 1/29/13)         |
| 22         | WC-2405               | ELBOW, 1/2 FLARE x 1/2 NPT                          | ALL RU URNS                     |
| 23         | WC-2609               | SWIVEL, 1/2" TUBE X 1/2 NPT                         | ALL RU URNS                     |
| 24         | WC-2504               | ELBOW, 1/2 NPT X 1/2 NPT                            | ALL RU URNS                     |
| 25         | WC-1037               | PUMP, WATER W/FITTINGS 120VAC                       | ALL RU URNS                     |
| 26         | WC-3702               | KIT, WATER PUMP SEAL RU'S USE ON WC-1000            | ALL RU URNS                     |
| 27         | WC-37165              | KIT, THERMOSTAT WC-500A/501A                        | ALL RU URNS                     |
| 28         | WC-2605               | CONNECTOR, 3/8 FLARE X 3/8 NPT                      | ALL RU URNS                     |
| 29         | WC-2608               | SWIVEL, 3/8 TUBE x 3/8 NPT                          | ALL RU URNS                     |
| 30         | WC-2403               | ELBOW, 3/8 FLARE x 3/8 NPT PLATED GEN USE           | ALL RU URNS                     |
| 31         | WC-5808               | DOOR, CONTROL BOX LOUVER, RU-225/600                | RU-225, RU-600                  |
| 31A        | WC-5807               | DOOR, LOUVER ACB RU150/300                          | RU-150, RU-300                  |
| 31B        | WC-5809               | DOOR, CONTROL BOX LOUVER RU-1000                    | RU-1000                         |
| 32         | WC-5322               | TUBE ASSY, 1/4x20.00 WI W/NUTS                      | RU-225, RU-600                  |
| 32A        | WC-5321               | TUBE ASSY, 1/4x17.00 WI W/NUTS                      | RU-150, RU-300                  |
| 33         | WC-2929P              | FITTING, 1/2 NIPPLE/NUT PLATED                      | ALL RU URNS                     |
| 34         | WC-300                | POWER BLOCK 3-STA 175A 600V RU'S                    | ALL RU URNS                     |
| 35         | WC-5307               | TUBE, 3/16 ID x 3/32W SILICONE GEN USE              | ALL RU URNS                     |
| 36         | WC-522                | THERMO., HI LIMIT HEATER CONTROL DPST 277V 40A      | ALL RU URNS                     |
| 37         | WC-402 <sup>1,2</sup> | RELAY, HOLDING 120V COIL 10A RU'S                   | ALL RU URNS (BEFORE 1/29/13)    |
| 37A        | WC-403 <sup>1,2</sup> | RELAY HOLDING 120V 3 POLE 6.6A RES.@240V            | RU-1000 (BEFORE 1/29/13)        |
| 38         | WC-102                | SW, TOG NON-LIT SPST 15A 125/6A 250VAC RESIST.      | ALL RU URNS                     |

<sup>1</sup> OLDER UNITS

<sup>2</sup> ITEMS 37 AND 37A, AFTER 1/29/13 SEE ITEMS 45, 45A, 45B

| INDEX<br>№ | PART<br>№            | DESCRIPTION   | EQUIPMENT USED ON       |
|------------|----------------------|---|-------------------------|
| 39         | WC-5502-01           | KIT, PRB, ASSY WATER LVL W/HEX FITTING, O-RNG & NUT   | ALL RU URNS             |
| 40         | WC-405R-101          | TIMER, AGITATION 90-260 VAC 30 SEC  | ALL RU URNS             |
| 40A        | WC-405R              | TIMER, AG. 120V 50/60HZ W/WIRES & BRKT RU'S   | ALL RU URNS             |
| 41         | WC-304 <sup>1</sup>  | TERMINAL STRIP, 14-S(RU1,6)   | RU-225, RU-600, RU-1000 |
| 41A        | WC-303 <sup>1</sup>  | TERMINAL STRIP 12-S   | RU-150, RU-300          |
| 41B        | WC-302 <sup>1</sup>  | TERMINAL STRIP, 6-S(GM,CRA)   | RU-1000                 |
| 42         | WC-3737              | KIT, BREW SWITCH 120V RU'S  | ALL RU URNS             |
| 43         | WC-5802 <sup>1</sup> | BRACK., WTR LVL. CONT. RU-150/225/300/600/1000  | ALL RU URNS             |
| 44         | WC-608-101K          | KIT, LIQUID LEVEL CONTROL BOARD RETROFIT  | ALL RU URNS             |
| 45         | WC-603-101K-RU       | KIT, RET. TIMER, BREW SELECTOR 120V RU-300 W/1/2BB<br>NOTE: 120V RU URNS BUILT BEFORE JAN. 2013                       | SEE NOTE                |
| 45A        | WC-603-101           | TIMER, BREW SELECTOR 120V 2-20 MIN GEM-120A/RU'S<br>NOTE: 120V RU URNS (EXCEPT RU-1000) BUILT JAN. 2013 AND AFTER     | SEE NOTE                |
| 45B        | WC-603-102           | TIMR., BRW. SELT. 120V 2-20 MIN W/FULL & 1/3 BTCH OPT<br>NOTE: 120V RU-1000 URNS BUILT BEFORE JAN. 2013               | SEE NOTE                |
| 45C        | WC-622-101K-RU       | KIT, RETROFIT BREW TIMER FULL & 1/3 BATCH 220V RU<br>NOTE: 208/220V RU URNS BUILT BEFORE JAN. 2013                    | SEE NOTE                |
| 45A        | WC-622-101           | TIMER, BREW SELECTOR 220V 2-20 MIN GEM-120A/RU'S<br>NOTE: 208/220V RU URNS (EXCEPT RU-1000) BUILT JAN. 2013 AND AFTER | SEE NOTE                |
| 45B        | WC-622-102           | TIMER, BRW SEL. 220V 2-20 MIN W/FULL & 1/3 BTCH OPT<br>NOTE: 208/220V RU-1000 URNS BUILT BEFORE JAN. 2013             | SEE NOTE                |
| 46         | WC-101               | SWITCH, ON/OFF NON-LIT SPST MOMENT. 3/6A 250/120V   | ALL RU URNS             |
| 47         | WC-3903              | LABEL, INSTRUCT'S PANEL CURTIS RU-600   | RU-600                  |
| 47A        | WC-3900              | LABEL, INSTRUCTION PANEL RU150  | RU-150                  |
| 47B        | WC-3901              | LABEL, INSTRUCTION PANEL RU225  | RU-225                  |
| 47C        | WC-3902              | LABEL, INSTRUCT'S PANEL CURTIS RU-300   | RU-300                  |
| 47D        | WC-3904              | LABEL, INSTRUCT'S PANEL CURTIS RU1000   | RU-1000                 |
| 48         | WC-3528              | LEG, 4" ADJUSTABLE 3/8-16 THRD ITALIAN STYLE  | ALL RU URNS             |
| 49         | WC-100               | SW, RES-STOP N.C.NON-LIT SP MOMENT 10/15A 250/120V  | ALL RU URNS             |
| 50         | WC-1501              | FUSE, HOLDER ASSY W/5A FUSE   | ALL RU URNS             |
| 51         | WC-1500              | FUSE, 5 AMP   | ALL RU URNS             |
| 52         | WC-511               | THERMOMETER, DIAL RU'S  | ALL RU URNS             |
| 53         | WC-5313              | TUBE, SPRAYARM ASSY W/NUTS RU-300   | RU-300, RU-150          |
| 53A        | WC-5314              | TUBE, SPRAYARM ASSY W/NUTS RU-600   | RU-225, RU-600          |
| 53B        | WC-5315              | TUBE, SPRAYARM ASSY W/NUTS RU-1000  | RU-1000                 |
| 54         | REFER TO VALVE       | CORE & SPRAY ARM ON PAGE 8  |                         |
| 56         | WC-5800              | RING, STEAM   | ALL RU URNS             |
| 58         | WC-2007              | BRACKET, GAUGE GLASS GEM-3  | ALL RU URNS             |
| 60         | WC-2003              | CAP, PLUG VENTED 44   | ALL RU URNS             |
| 61         | WC-2002              | CAP, SHIELD W/CLEAN OUT   | ALL RU URNS             |
| 62         | WC-2030              | GLASS, GAUGE 13"  | RU-225, RU-600          |
| 63         | WC-2108              | GAUGE GLASS ASSEMBLY 13" USE ON RU-225  | RU-225, RU-600          |
| 63A        | WC-2104              | GAUGE GLASS ASSEMBLY 10"  | RU-150                  |
| 63B        | WC-2105              | GAUGE GLASS, ASSY 11" USE ON RU-150/300   | RU-150, RU-300          |
| 63C        | WC-2113              | GAUGE GLASS, ASSY 19"   | RU-1000                 |
| 64         | WC-2017              | SHIELD, GAUGE GLASS 13"   | RU-225, RU-600          |
| 64A        | WC-2104              | SHIELD, GAUGE GLASS 10"   | RU-150                  |
| 64B        | WC-2014              | SHIELD, 11" GAUGE GLASS   | RU-300                  |
| 64C        | WC-2022              | SHIELD, 19" GAUGE GLASS 1/8 NPT   | RU-1000                 |
| 65         | WC-1900              | VALVE, GAUGE SHIELD SHUT-OFF 1/8 NPT  | ALL RU URNS             |
| 66         | WC-1800L             | FAUCET, "S" SERIES LOCKING 1-1/32-14 UNS  | ALL RU URNS             |
| 70         | WC-1805              | SEAT CUP, "S" FAU USE ON WC-1800/B/LB/D/DL/L/WC-1803  | ALL RU URNS             |
| 71         | WC-3705              | KIT, FAUCET S SERIES NONLOCK USE ON WC-1800   | ALL RU URNS             |
| 72         | WC-1906              | C' RING .917 X .760 X .090 TT-3 TC'S  | ALL RU URNS             |

— BEFORE —  
— 1/29/13 —

<sup>1</sup> OLDER UNITS

| INDEX<br>№ | PART<br>№            | DESCRIPTION  | EQUIPMENT<br>USED ON |
|------------|----------------------|--|----------------------|
| 73         | WC-1903              | NUT, UNION SHANK WB-10/WB-10-60/WB-30-12               | ALL RU URNS          |
| 76         | WC-2004              | BASE, SHIELD GAUGE GLASS GEN USE                       | ALL RU URNS          |
| 77         | WC-2006              | WASHER, .188 ID X .188 THK BOTTOM GAUGE GLASS GEN USE  | ALL RU URNS          |
| 78         | WC-2031              | GLASS, GAUGE 14"                                       | RU-225, RU-600       |
| 78A        | WC-2028              | GLASS, GAUGE 5/8" X 11"                                | RU-150, RU-300       |
| 78B        | WC-2029              | GLASS, GAUGE 5/8" X 12"                                | RU-300               |
| 78C        | WC-2037              | GLASS, GAUGE 5/8" X 20"                                | RU-1000              |
| 79         | WC-2019              | SHIELD, 14c" GAUGE GLASS                               | RU-600               |
| 79A        | WC-2014              | SHIELD, 11" GAUGE GLASS                                | RU-150, RU-300       |
| 79B        | WC-2016              | SHIELD, GAUGE GLASS 3/4D.X 12"                         | RU-300               |
| 79C        | WC-2023              | SHIELD, 20" GAUGE GLASS                                | RU-1000              |
| 80         | WC-2109              | GAUGE GLASS, ASSY 14"                                  | RU-600, RU-225       |
| 80A        | WC-2105              | GAUGE GLASS, ASSY 11" USE ON RU-150                    | RU-150               |
| 80B        | WC-2107              | GAUGE GLASS, ASSY 12" SHORT WIN                        | RU-300               |
| 80C        | WC-2114              | GAUGE GLASS, ASSY 20"                                  | RU-1000              |
| 81         | WC-2005              | SHIELD CAP, WASHER, 1/8" GEM-3/TC'S W/SG               | ALL RU URNS          |
| 82         | WC-2000              | FITTING, AGITATION PLATED RU'S                         | ALL RU URNS          |
| 83         | WC-4205              | NUT, 1/4 LOCK NPS BRASS                                | ALL RU URNS          |
| 84         | WC-2913              | SPOUT OVERFLOW   | ALL RU URNS          |
| 85         | WC-5810              | COVER, W/A ELECTRIC BOX RU'S RU-600,1000               | RU-600, RU-1000      |
| 86         | WC-43123             | O'RING, .549 ID X .103CS SILI CONE FOR HEATING ELEMENT | ALL RU URNS          |
| 86A        | WC-4305 <sup>1</sup> | WASHER 5/8" TEFLON                                     | ALL RU URNS          |
| 87         | WC-3402              | SPRING, RETURN "S"SERIES FAUCT                         | ALL RU URNS          |
| 88         | —                    | REFER TO HEATING ELEMENT CHART ON PAGE 9               |                      |
| 89         | WC-431               | CONTACTOR, 120V 60A 3P DP (NOT SHOWN)                  | ALL RU URNS          |

### PARTS LIST DOUBLE SERVICE URNS (NOT SHOWN)

|    |         |                             |            |
|----|---------|-----------------------------|------------|
| 90 | WC-5701 | LINER, 3 GAL D/S RU-150     | RU-150DS   |
| 91 | WC-5703 | LINER, 6 GAL D/S RU-225     | RU-225DS   |
| 92 | WC-5705 | LINER, 3 GAL D/S RU-300     | RU-300DS   |
| 93 | WC-5707 | LINER, 6 GAL D/S RU-600     | RU-600DS   |
| 94 | WC-5709 | LINER, 10 GAL D/S RU-1000   | RU-1000DS  |
| 95 | WC-5458 | PLATE, RING STEAM D/SERVICE | ALL DS RUs |

### PARTS LIST 220V, 3 PHASE URNS (3W +G or 4W +G - NOT SHOWN)<sup>3</sup>

|     |                     |   |                  |
|-----|---------------------|---|------------------|
| 96  | WC-703              | TRANSFORMER, .5KVA 240-120V RU'S                | ALL 220V 3-PH RU |
| 97  | WC-710              | TRANSFORMER, 240/480 120V,500VA RU/PCGT/CAFEPCC | ALL 220V 3-PH RU |
| 98  | WC-1200             | CORD, 14/3 SJTO 6' BLK W/PLUG                   | ALL 220V 3-PH RU |
| 99  | WC-1408             | CORD GRIP, 7/8" O.D.                            | ALL 220V 3-PH RU |
| 100 | WC-37165            | KIT, THERMOSTAT WC-500A/501A                    | ALL 220V 3-PH RU |
| 101 | WC-502 <sup>1</sup> | THERMOSTAT, CAPILLARY LWC OFF DPST              | ALL 220V 3-PH RU |

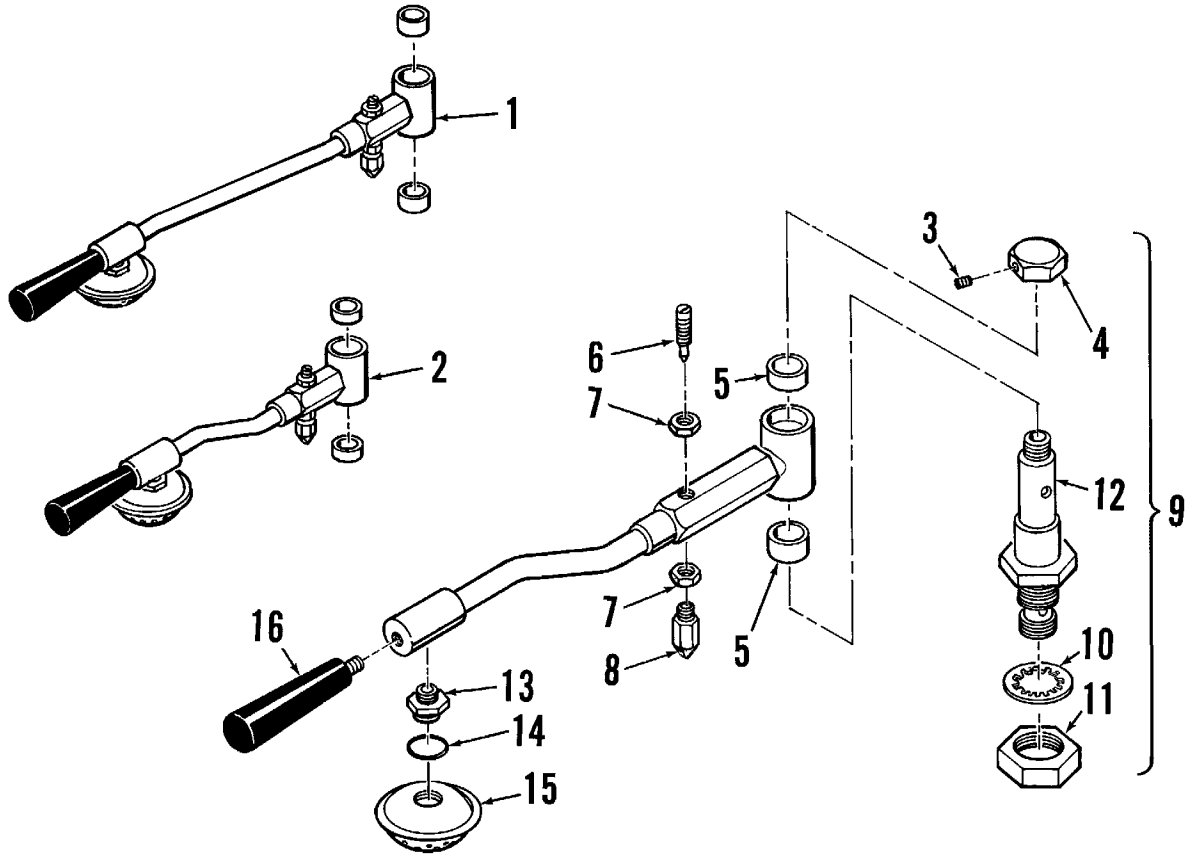
### PARTS LIST EXPORT 220V CONTROLS (NOT SHOWN)<sup>3</sup>

|     |                     |   |                 |
|-----|---------------------|---|-----------------|
| 102 | WC-3738             | KIT, BREW SWITCH 220V RU RPLL                     | ALL 220V RU     |
| 103 | WC-417 <sup>1</sup> | RELAY, HOLDING 220V 2P 10A RU                     | ALL 220V RU     |
| 104 | WC-622-101K-RU      | KIT, RETROFIT BREW TIMER FULL & 1/3 BATCH 220V RU | RU-300 NO 1/2BB |
| 105 | WC-633 <sup>1</sup> | TIMER, CUBE W/BACKET 240V 25 SECS                 | ALL 220V RU     |
| 106 | WC-858              | VALVE, INLET BRASS .50 GPM 220V 10W               | ALL 220V RU     |
| 107 | WC-1009             | PUMP, AGITATION 220V                              | ALL 220V RU     |

<sup>1</sup> OLDER UNITS

<sup>3</sup> REFERENCE THE ELECTRICAL DIAGRAM FOR YOUR SPECIFIC UNIT.

# SPRAY ARM ASSEMBLY



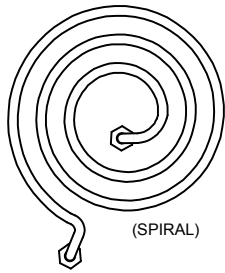
| INDEX № | PART №   | DESCRIPTION  |
|---------|----------|--|
| 1       | WC-2909  | SPRAY ARM ASSEMBLY, RU-225/600/1000                  |
| 2       | WC-2908  | SPRAY ARM ASSEMBLY, RU-300, RU-150                   |
| 3       | WC-4800  | SCREW, 8-32 x 1/8" SET S.S.                          |
| 4       | WC-3103  | CAP, CLEAN OUT VALVE CORE PLTD RU's                  |
| 5       | WC-4307  | RING, PACKING TEFLON 2-REQ                           |
| 6       | WC-2916  | NEEDLE, BY PASS PLTD (SPRAY ARM)                     |
| 7       | WC-4202  | NUT, 3/8" - 24 JAM, PLATED                           |
| 8       | WC-2914  | SPOUT, BY PASS PLTD (SPRAY ARM)                      |
| 9       | WC-3753  | KIT, VALVE CORE REPLACEMENT                          |
| 10      | WC-4310  | WASHER, 7/8" INTERNAL TOOTH LOCK 410 STAINLESS STEEL |
| 11      | WC-4215P | NUT, 7/8" JAM PLATED                                 |
| 12      | WC-3109  | VALVE CORE, PLATED                                   |
| 13      | WC-2904  | SPRAY HEAD HOLDER PLATED                             |
| 14      | WC-4320  | O'RING, 1/2" I.D.                                    |
| 15      | WC-2907  | SPRAY HEAD, ASSY (SC)RU-150/225/300/600/1000         |
| 16*     | WC-3200  | HANDLE, SPRAY ARM BLACK PLASTIC RU/MWM               |

\* Use only with valve cores that do not have Teflon retractors.



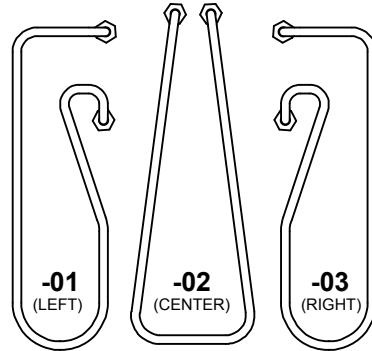
## HEATING ELEMENTS, LOCATION & CONFIGURATION

### RU-150 & WB-14 1 PHASE



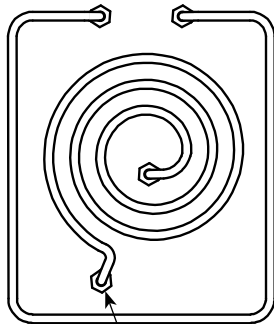
WC-913-01  
220V, 5 KW

### RU-150 & 225 3 PHASE



### RU-225 1Ø

220V, 1PH, 3 WIRE + GND



WC-911 -01  
220V, 3.5KW

WC-911-02  
220V, 3.5 KW

-01 (EXTERIOR)  
-02 (CENTER)

**RU-150-20** 5.25 KW, 208/220V, 3PH, 3 OR 4 WIRE + GND.

WC-907-01 220V @ 1.75 KW

WC-907-02 220V @ 1.75 KW

WC-907 -03 220V @ 1.75 KW

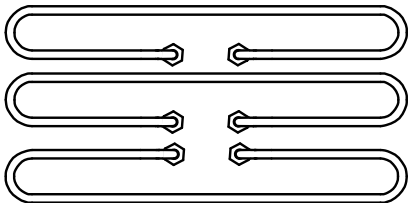
**RU-225-20** 7.5 KW, 208/220V, 3PH, 3 OR 4 WIRE + GND.

WC-908-01 220V @ 2.5 KW

WC-908-02 220V @ 2.5 KW

WC-908-03 220V @ 2.5 KW

### RU-300, 600 & 1000 3 PHASE



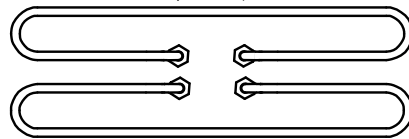
THESE ELEMENTS ARE INTERCHANGEABLE

**RU-300** 7.5 KW, 208/220V, 3PH, 3 OR 4 WIRE + GND.  
3 - WC-908 220V @ 2.5 KW EA.

**RU-600** 10.5 KW, 208/220V, 3PH, 3 OR 4 WIRE + GND.  
3 - WC-911 220V @ 3.5 KW EA.

**RU-1000** 10.5 KW, 208/220V, 3PH, 3 OR 4 WIRE + GND.  
3 - WC-911 220V @ 3.5 KW EA.

### RU-300, 600 & 1000 1 PHASE



THESE ELEMENTS ARE INTERCHANGEABLE

**RU-300** 6 KW, 208/220V, 1PH, 3 WIRE + GND  
2 - WC-910 220V @ 3 KW EACH

**RU-300** 8 KW, 208/220V, 1PH, 3 WIRE + GND  
2 - WC-912 220V @ 4 KW EA.

**RU-600** 10 KW, 220V, 1PH, 3 WIRE + GND  
2 - WC-913 220V @ 5 KW EACH

**RU-600** 8 KW, 220V, 1PH, 3 WIRE + GND  
2 - WC-912 220V @ 4 KW EACH

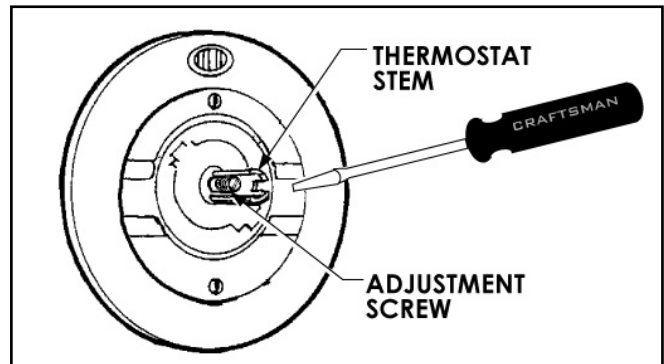
**RU-1000** 10 KW, 220V, 1PH, 3 WIRE + GND  
2 - WC-913 220V @ 5 KW EACH

## ELECTRIC THERMOSTAT ADJUST

On electric urns, thermostats are set at the factory to cut off at 200°F. We do not recommend changing this setting. If necessary, adjustment is as follows:

1. Rotate the thermostat knob to the right, to the BOIL position. Pull off the knob.
2. In the thermostat stem, locate the tiny adjustment screw (see illustration). Using a small screwdriver, adjust the temperature up or down:
  - a. Turning the screw  $\frac{1}{4}$  turn to the left will increase the temperature about 20°F.
  - b. Turning the screw  $\frac{1}{4}$  turn to the right will decrease the temperature by 20°F.
  - c. To set the thermostat precisely at 200°F, insert a thermometer probe into the water

jacket through the steam hole (just under the spray head). Turn the screw  $\frac{1}{2}$  turn to the left. When the thermometer reaches 200°F, slowly turn the adjustment screw to the right until the pilot light turns off.



## GAS URN INSTALLATION

The urn must be away from the wall no less than 6" and must have plenty of cross ventilation.

The water supply connection is the same in all RU models. All that is needed is 1/4" copper tubing with a 1/4" flare nut and some sort of water filter in the line, before water enters the unit. Once the water connection is complete, open the water line, then plug in the power cord into an 115 V outlet. To facilitate the filling of the water jacket, you can open the emergency refill faucet (red knob) behind the unit, to increase the speed of filling the urn. Water must be above the base of the center gauge glass before turning on the heat.



**IMPORTANT:** Be sure to shut off the emergency refill valve after filling, to prevent overflow!

### GAS CONNECTION

All RU automatic urns are supplied with a 3/8" pressure connector at the end of the gas valve. This valve is connected to the thermostat. Use 3/8" O.D. stainless steel flex tubing to make the connection from the urn to the gas valve in your facility. When the connections are complete, turn the gas on. Check the line for leaks.

## MAIN BURNER ADJUSTMENT

To adjust the main burner flame, turn the thermostat dial to 6½ for 195°F or 7 for 200°F. For older units (made before serial number 12327781), turn the screw under the gas cock handle in either direction to regulate the flow of gas to the main burner.

## PROCEDURE FOR LIGHTING OR RELIGHTING

1. Turn the GAS COCK handle to the OFF position, and the thermostat dial to the lowest temperature position.
2. Wait a sufficient amount of time to allow gas that may have accumulated in the burner compartment to escape.
3. Turn the pilot dial to the PILOT position.
4. Push in the pilot dial (it has a slight inward travel) and rotate it to the PILOT position. On older units, there is a separate red SET button that must be pushed in to allow the dial to turn.
5. Continue pressing in on the dial while lighting the pilot burner. The pilot is located inside the burner compartment, between the main burners.
5. Once lit, continue pressing in on the dial for 30 seconds. If the pilot flame does not remain lit, repeat operation allowing longer period before releasing the pilot dial.
6. Turn the pilot dial to the ON position. Turn the thermostat dial to the desired position. The main burner will then ignite.

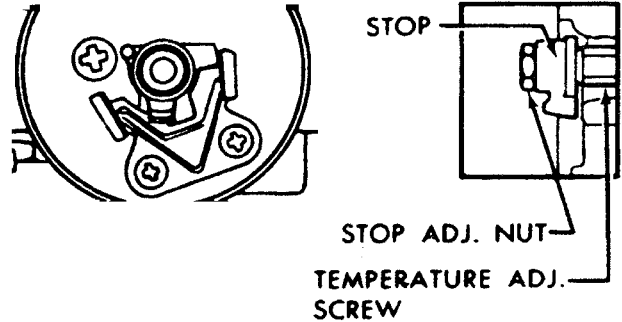
## PROCEDURE FOR ADJUSTING PILOT

1. Remove the pilot adjustment cap. Adjust the pilot key, allowing the flame to completely envelop the end  $\frac{3}{8}$ " of the thermocouple.
2. Adjust the pilot burner air shutter (if provided) to obtain a soft blue flame.

## TO RE-CALIBRATE THE THERMOSTAT

The Unitrol thermostat is built to the most exacting standards and is a precision instrument which should never need re-calibration. However through tampering, misuse or other reasons, if the thermostat is found to be more than  $10^{\circ}$  from normal, re-calibration may be performed by a qualified service technician. Following are the steps for this procedure:

1. Turn the thermostat to OFF to allow the unit to cool down.
2. When the water temperature is room temperature, turn the thermostat dial until the main burner ignites.
3. Slowly turn the thermostat dial counterclockwise until the flame on the burner goes out.
4. Place a thermometer into the water jacket to determine the temperature of the water.
5. Pull off the thermostat dial and lift off the outside cover.



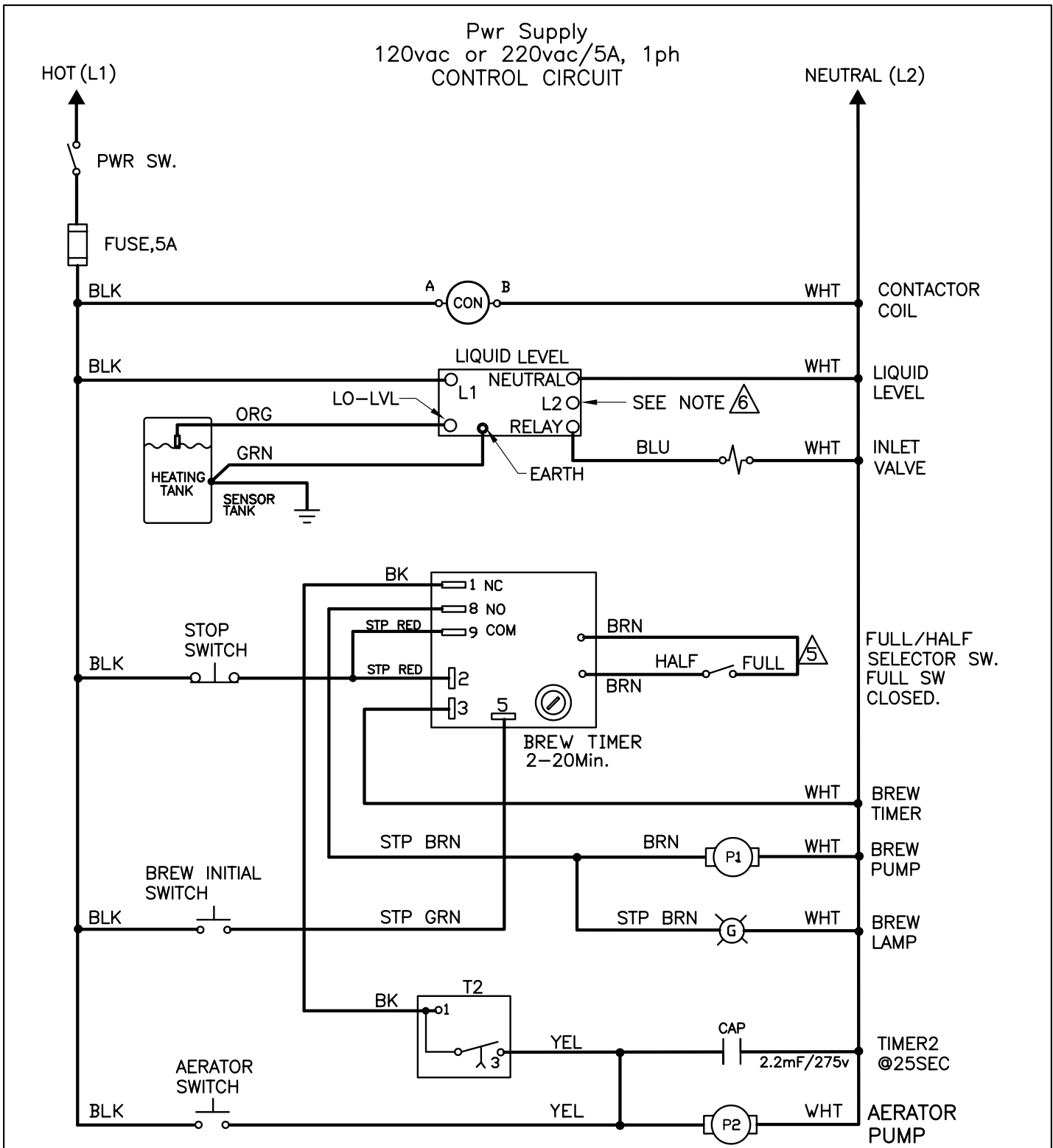
6. Turn the temperature stop to correspond to the actual water temperature. Mark the location of the stop for reference.
7. Turn the stop slowly until the control snaps off. Holding the stop to prevent rotation, carefully loosen the stop adjustment nut (see illustration above).

## COPPER WIRE SIZE REQUIRED

| SINGLE PHASE    |          | THREE PHASE       |          |
|-----------------|----------|-------------------|----------|
| 6 KW . . . . .  | #10 WIRE | 5.25 KW . . . . . | #12 WIRE |
| 8 KW . . . . .  | #8 WIRE  | 7.5 KW . . . . .  | #10 WIRE |
| 10 KW . . . . . | #8 WIRE  | 9 KW . . . . .    | #8 WIRE  |
|                 |          | 10.5 KW . . . . . | #8 WIRE  |
|                 |          | 12 KW . . . . .   | #8 WIRE  |
|                 |          | 15 KW . . . . .   | #6 WIRE  |

## ELECTRICAL DATA

| MODEL      | VOLTS   | PHASE | WIRES          | WATTS   | AMPS | ELEMENTS   |
|------------|---------|-------|----------------|---------|------|--|
| RU-150-12  | 110/220 | 1     | 3W + GND       | 5 KW    | 22.1 | 1 - WC-913 -01 220V, 5 KW  |
| RU-150-20  | 220     | 3     | 3W OR 4W + GND | 5.25 KW | 13.8 | 1 - WC-907 -01 220V, 1.75 KW LEFT<br>1 - WC-907 -02 220V, 1.75 KW CENTER<br>1 - WC-907 -03 220V, 1.75 KW RIGHT |
| RU-225-12  | 110/220 | 1     | 3W + GND       | 7 KW    | 31.8 | 1 - WC-911 -01 220V, 3.5 KW<br>1 - WC-911 -02 220V, 3.5 KW   |
| RU-225-20  | 208/220 | 3     | 3W OR 4W + GND | 7.5 KW  | 20   | 1 - WC-908 -01 220V, 2.5 KW LEFT<br>1 - WC-908 -02 220V, 2.5 KW CENTER<br>1 - WC-908 -03 220V, 2.5 KW RIGHT    |
| RU-300-12  | 110/220 | 1     | 3W + GND       | 6 KW    | 27.3 | 2 - WC-910 220V, 3 KW  |
| RU-300-28  | 208/220 | 1     | 3W + GND       | 8 KW    | 38   | 2 - WC-912 220V, 4 KW EA.  |
| RU-300-20  | 208/220 | 3     | 3W OR 4W + GND | 7.5 KW  | 20   | 3 - WC-908 220V, 2.5 KW EA.  |
| RU-600-12  | 110/220 | 1     | 3W + GND       | 10 KW   | 45.5 | 2 - WC-913 220V, 5 KW EA.  |
| RU-600-28  | 208/220 | 1     | 3W + GND       | 8 KW    | 38   | 2 - WC-912 220V, 4 KW EA.  |
| RU-600-20  | 220     | 3     | 3W OR 4W + GND | 10.5 KW | 27.6 | 3 - WC-911 220V, 3.5 KW EA.  |
| RU-1000-12 | 110/220 | 1     | 3W + GND       | 10 KW   | 45.5 | 2 - WC-913 220V, 5 KW EA.  |
| RU-1000-20 | 208/220 | 3     | 3W OR 4W + GND | 10.5 KW | 27.5 | 3 - WC-911 220V, 3.5 KW EA.  |

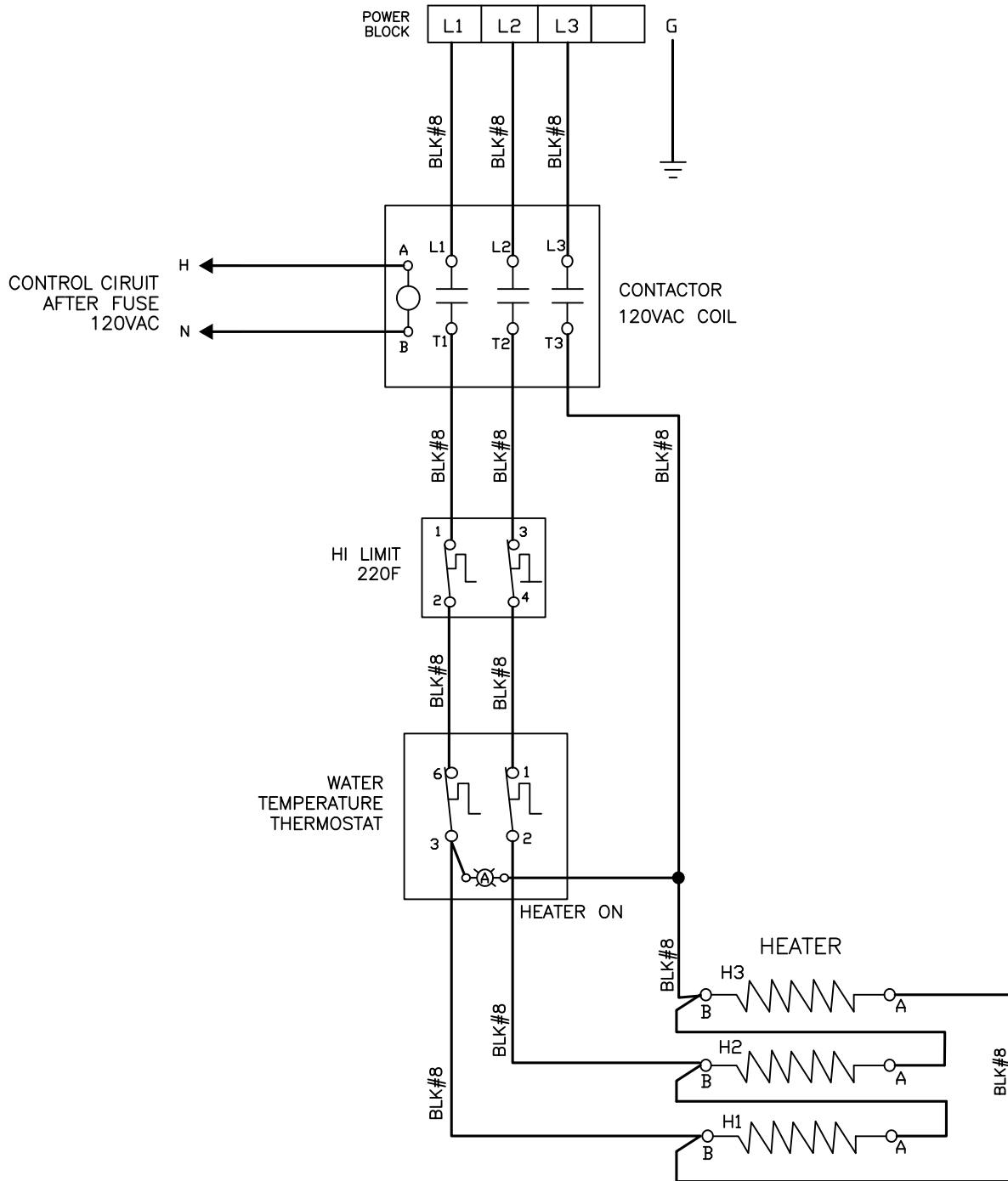


- ⚠ WHEN USING 220VAC CONFIGURATION CONNECT WHITE WIRE FROM NEUTRAL TO L2.
- ⚠ FULL & 1/3 BATCH FOR RU1000. FULL AND HALF BATCH FOR RU150/225/300/600.
- 4 ALL COMPONENTS IN CONTROL CIRCUIT WILL BE 120VAC OR 220VAC DEPEND ON POWER SUPPLY AND CIRCUIT CONFIGURATION.
- 3 USE THIS DIAGRAM FOR OTHER MODELS WITH ADDED PREFIX AND/OR WITH SECOND DASH NUMBER ON THEIR PART NUMBERS PROVIDED THEY HAVE THE SAME ELECTRICAL SPECS AND/OR RATINGS.
- 2 DO NOT CHANGE NOR SUBSTITUTE WIRE COLORS. ALL WIRES SHALL BE 18AWG.
- 1 ALL WIRES SHALL BE UL APPROVED APPLIANCE
- NOTES: UNLESS OTHERWISE SPECIFIED

|           |         |
|-----------|---------|
| VOLTAGE:  | 120/240 |
| WATTAGE:  | 600     |
| AMPERAGE: | 5A      |
| HERTZ:    | 50/60   |
| WIRES:    | 2W + G  |
| PHASE:    | 1 PH    |

|   |             |
|---|-------------|
| TITLE: LADDER DIAGRAM CONTROL CIRCUIT, STD. |             |
| PART NUMBER: LD-RUCNTRL-100                 | REVISION: B |

Configuration #12  
 Heater Circuit  
 3PHASE 3W+G  
 With 120VAC POWER CORD CNTRL CIRCUIT



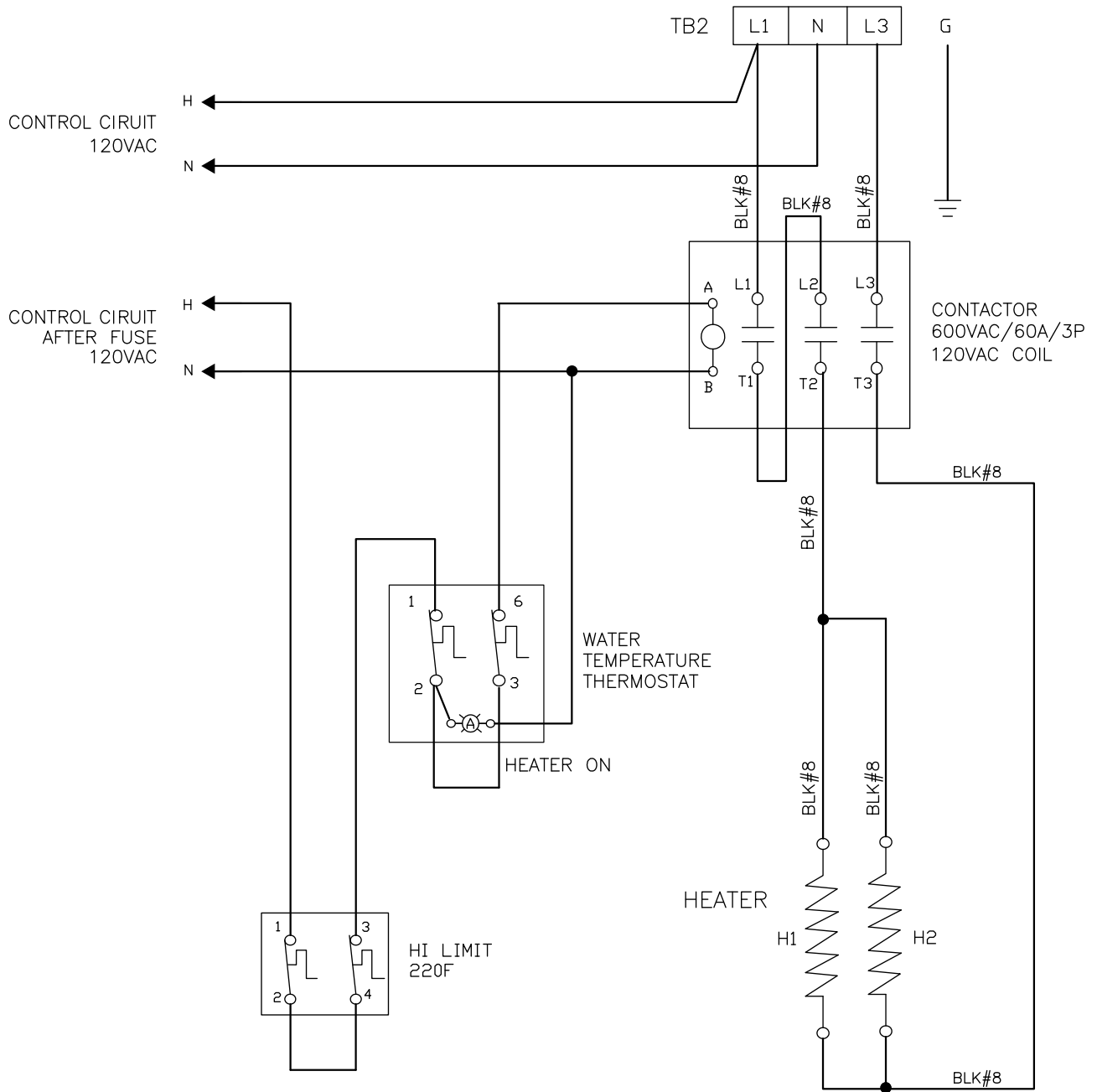
NOTES:

1. CONTACTOR COIL CONNECT TO CONTROL CIRCUIT AFTER FUSE
2. 120VAC POWER CORD CONNECT TO CONTROL CIRCUIT (LD-RUCNTRL-100 AT H & N)

|           |         |
|-----------|---------|
| VOLTAGE:  | SEE BOM |
| WATTAGE:  | SEE BOM |
| AMPERAGE: | SEE BOM |
| HERTZ:    | 50/60   |
| WIRES:    | 3W + G  |
| PHASE:    | 3 PH    |

|  |                 |
|--|-----------------|
| TITLE:<br>LADDER DIAGRAM<br>HEATER CIRCUIT |                 |
| PART NUMBER:<br>LD-RUHTR-112               | REVISION:<br>NC |

Configuration #3  
Heater Circuit  
Single Phase 3W+G



NOTE:  
1. THIS CONFIGURATION APPLIES TO  
HEATER CIRCUIT EXCEEDING 40A

|           |         |
|-----------|---------|
| VOLTAGE:  | SEE BOM |
| WATTAGE:  | SEE BOM |
| AMPERAGE: | SEE BOM |
| HERTZ:    | 50/60   |
| WIRES:    | 3W + G  |
| PHASE:    | 1 PH    |

|              |                                  |           |
|--------------|----------------------------------|-----------|
| TITLE:       | LADDER DIAGRAM<br>HEATER CIRCUIT |           |
| PART NUMBER: | LD-RUHTR-103                     | REVISION: |
|              |                                  | NC        |

# TROUBLESHOOTING

To help service technicians in the field to understand the operation of RU series models, we separate the basic functions of the unit into four different areas:

1. **Heat Supply**
2. **Water Level Control**
3. **Brewing Cycle**
4. **Aeration**

These four functions, even though they utilize the same power supply, work independently from each other.

In the following illustrations, problems are isolated to only that system where a malfunction is located, so in the field or shop, you will know exactly what components are involved.

## HEAT SUPPLY OPERATION

For the contact points referenced in this section, see the schematic diagram below.

Components involved:

1. **Power Block**
2. **Thermostat**
3. **Heating Elements**

## HEAT SUPPLY

**PROBLEM:** Water will not heat up or heats up too slowly.

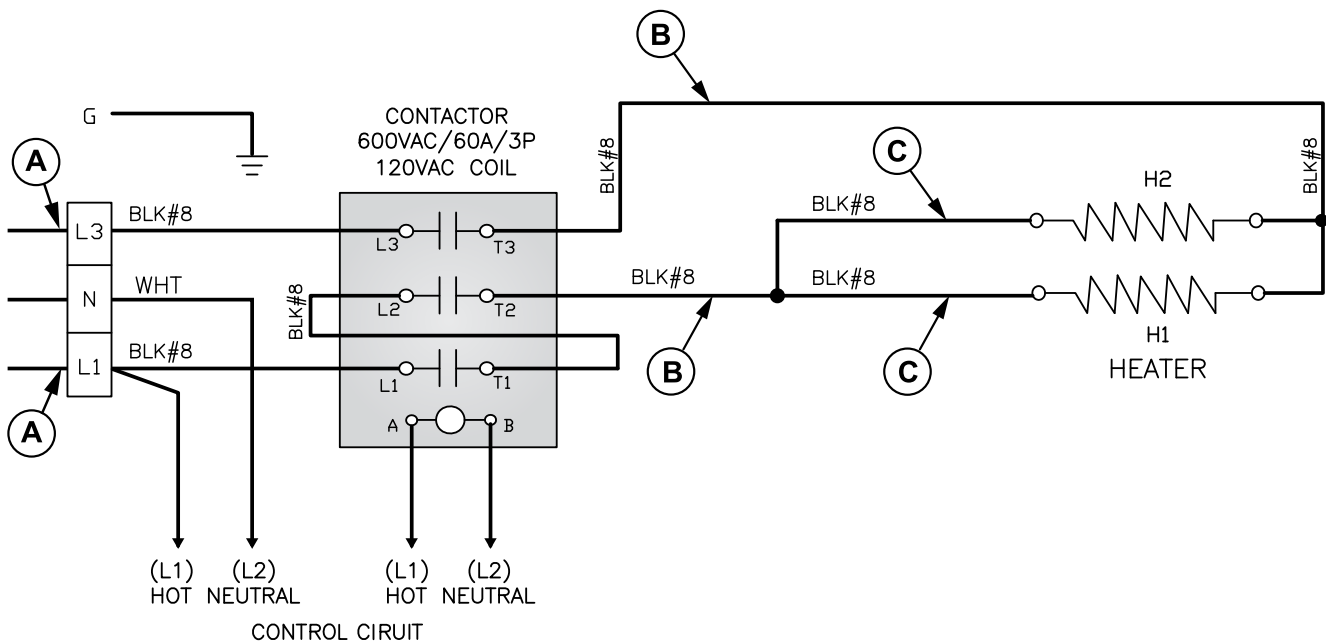
**PROCEDURE:** Take a voltage reading at terminals L1 and L3 of the power block (marked A & A) to determine if there is power.

If there is power, turn the thermostat all the way to BOIL and clamp your ammeter around the heating element wire at point B shown in the single phase diagram below. The reading should be approximately the same as indicated on the serial plate of the machine.

If the meter reads only half of the amperage of the urn rating (check serial plate), one of the heating elements has burnt out. Clamp your ammeter at points C to determine which of the heating elements is bad. Replace the heating element.

If the water temperature in the urn is too hot (boiling) or too cold when the pilot light goes out, the thermostat must be calibrated. Reset the thermostat calibration, refer to the steps on page 10.

If the thermostat will not hold a calibration, replace the thermostat.





## WATER LEVEL CONTROL OPERATION

For the contact points referenced in this section, see the schematic diagram below.

Components involved:

1. **Probe Assembly**
2. **Liquid Level Control Board**
3. **Water Inlet Valve Assembly**

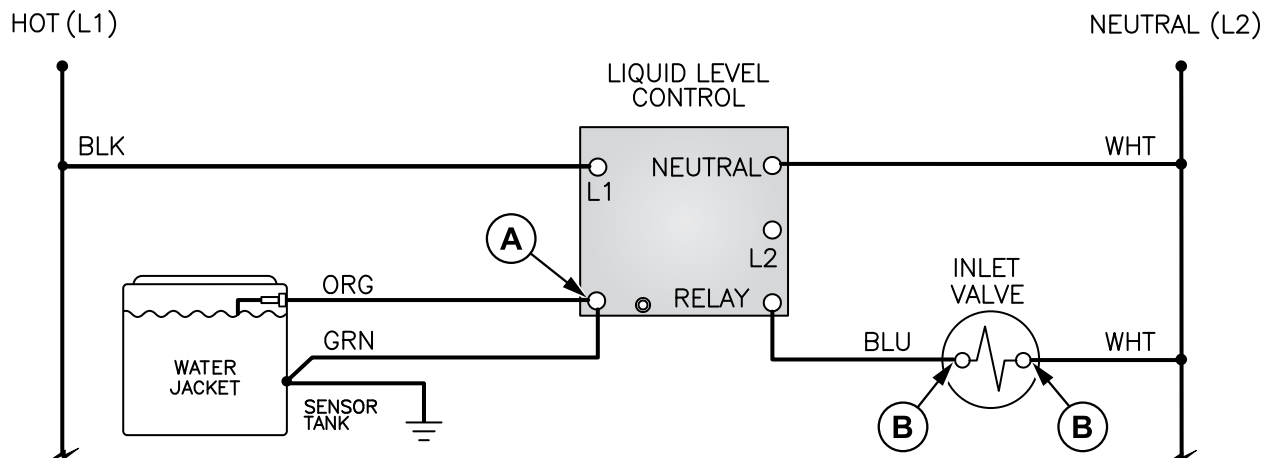
**PROBLEM:** Water is not flowing into the urn jacket.

**PROCEDURE:**

Turn off the unit and test the probe assembly and check for grounded wiring. Pull the orange wire from the terminal of the liquid level control board at point **A**, with the quick disconnect terminal attached to the orange wire and with the other lead of the meter, touch the metal surface of the urn. Any reading in the meter dial will indicate the presence of a short to ground in either the terminals, wire or probe assembly. Find the short and repair it. If there is no reading at all on your ohmmeter, the probe is okay. Return the orange wire to terminal 4 of the liquid level control board where it was removed.

Turn the unit on and clamp the leads of your voltmeter at the terminals of the valve coil as shown at **B** of the illustration below. Under normal conditions, the voltmeter should read 110 to 120 Volts while the urn is filling up and power to the coil should stop once the water level reaches the probe tip. If the voltmeter does not show voltage, the liquid level control board is not working properly. It is not sending power to the solenoid valve and the valve does not open. Replace the board.

If both the probe and the liquid level control board are functioning normally, check the water inlet valve. Turn on the unit and disconnect the white and the blue wires from the coil on the valve (points **B**). Use a lamp cord with alligator clips; hookup the terminals to the cord. Plug the cord into a 120 Volt outlet. The valve should open when plugged in and close when unplugged. Repeat this three or four times. If you don't hear the sound of the solenoid, then the coil is bad. If you hear water flowing through the valve when unplugged, the diaphragm is either torn or needs cleaning. Replace the water inlet valve.



# BREWING OPERATION

For the contact points referenced in this section, see the schematic diagram below.

Components involved:

1. Fuse
2. Brew Switch
3. Timer
4. Stop Switch
5. Water Pump

**PROBLEM:** The brew switch light does not turn on when pressed.

**Test:** Check the power supply and the fuse in the control box. It may be burned out.

**Problem:** The brew switch does not stay on, or light stays on only while the switch is pressed, but turns off when released and water comes out of spray head only while the switch is kept pressed.

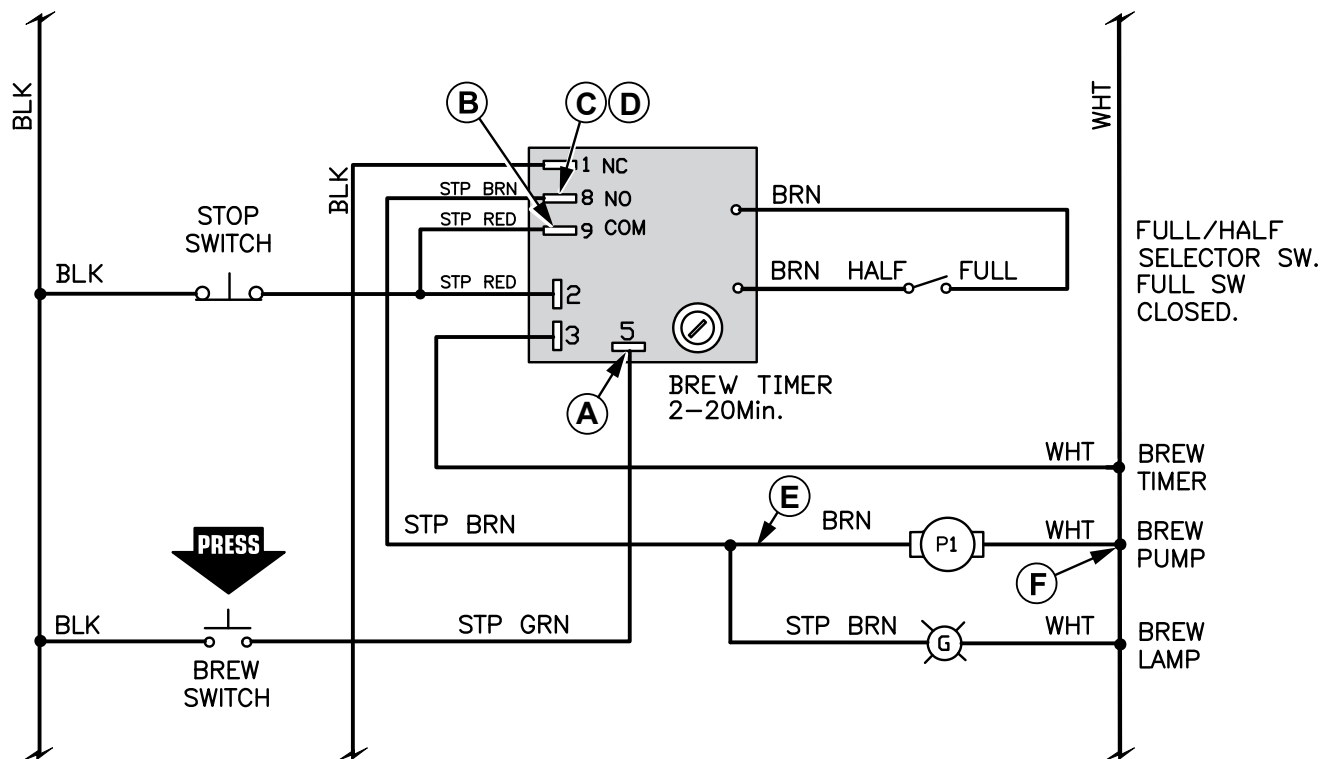
**Test the Brew Switch:** Take a voltage reading at point **A** while the brew switch is pushed in. If you read 110 volts, it means that the switch is good.

**Test the Timer:** The timer resets itself to the N. O. position after every brewing cycle but if it fails to stop itself, it will remain closed and cause the problem in question.

To check the timer, **power to the control circuit must be turned off.** Disconnect the STP RED (point B) and STP BRN (point C) wires and take a continuity test between the two terminals 8 and 9 on the timer. If there is continuity, the timer is faulty and must be replaced.

**Test the Water Pump:** To test the water pump, press the brew switch and take a voltage reading between points E and F. If there is voltage and the pump does not run, replace the pump.

**Test the Stop Switch:** The last of the components involved in this operation is the stop button. The only function of the switch is to interrupt the current that energizes the timer after the brew switch has been depressed. A voltage reading at N.O. of the timer (point D) will indicate an open or closed condition.



## AERATION SYSTEM

For the contact points referenced in this section, see the schematic diagram below.

Components involved:

1. Aeration Tubes
2. Air Pump
3. Aeration Timer
4. Manual Aeration Switch

### AUTOMATIC AERATION

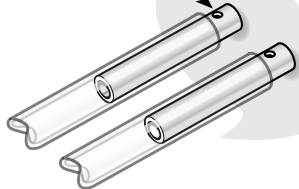
**PROBLEM:** Only one of the liners is aerated.

**TEST:** Inside the control box, there are two silicone tubes connecting the aeration pump to the 1/4" copper tubes coming from inside the urn. Carefully, pull the silicone tubes from the copper tubes, press the manual aeration button and feel for air flow from the silicone tubes. Replace the pump if air does not blow through the tubes.

#### Air Pump Tubes.

**NOTE:** When replacing the silicone tubing on the copper tubes, make sure you do not cover the small holes on the copper tubes.

These are air release holes that pump into the liner so coffee can refill the gauge glass.



**PROBLEM:** Aeration system fails to operate automatically.

**TEST:** Determine that the aeration pump is operating by pressing the manual aeration button on the front panel to see that air comes from the tubes.

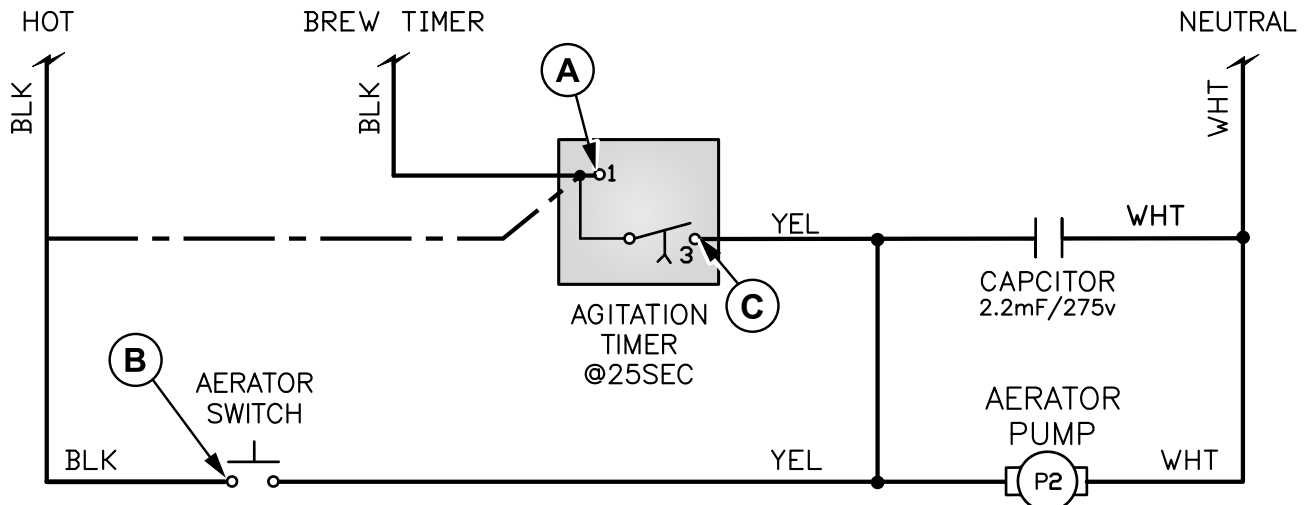
### AGITATION TIMER

Check the agitation timer. Remove the black wire from point A, terminal 1 on the timer. Disconnect the black wire from the aerator switch (point B). Plug this wire into the terminal 1 of the timer (dashed line). The air pump should immediately start pumping air into the liner. If this test fails, replace the agitation timer WC-405R. If the pump runs normally, then reconnect the wires at their normal connection points and proceed to test the aeration switch as instructed below.

### MANUAL AERATION

**PROBLEM:** Manual aeration is not present on either of the liners, yet automatic aeration operates normally.

**TEST:** Check the continuity of the manual aeration switch. Power to the control circuit must be turned off to check for continuity. Check at the yellow wire at point C of the agitation timer and B (black wire) of the manual aeration switch. Press the switch to look for continuity. Check for clean, tight connections at all terminals.



## Product Warranty Information

Wilbur Curtis Co., Inc. certifies that its products are free from defects in material and workmanship under normal use. The following limited warranties and conditions apply:

3 years, parts and labor, from original date of purchase on digital control boards.

2 years, parts, from original date of purchase on all other electrical components, fittings and tubing.

1 year, labor, from original date of purchase on all electrical components, fittings and tubing.

Additionally, Wilbur Curtis Co., Inc. warrants its grinding burrs for forty (40) months from date of purchase or 40,000 pounds of coffee, whichever comes first. Stainless steel components are warranted for two (2) years from date of purchase against leaking or pitting and replacement parts are warranted for ninety (90) days from date of purchase or for the remainder of the limited warranty period of the equipment in which the component is installed. All in-warranty service calls must have prior authorization. For authorization, call the Technical Support Department at 1-800-995-0417. Effective date of this policy is April 1, 2003. Additional conditions may apply. Go to [www.wilburcurtis.com](http://www.wilburcurtis.com) to view the full product warranty information.

### CONDITIONS & EXCEPTIONS

The warranty covers original equipment at time of purchase only. Wilbur Curtis Co., Inc., assumes no responsibility for substitute replacement parts installed on Curtis equipment that have not been purchased from Wilbur Curtis Co., Inc. Wilbur Curtis Co., Inc. will not accept any responsibility if the following conditions are not met. The warranty does not cover and is void under the following circumstances:

- 1) Improper operation of equipment: The equipment must be used for its designed and intended purpose and function.
- 2) Improper installation of equipment: This equipment must be installed by a professional technician and must comply with all local electrical, mechanical and plumbing codes.
- 3) Improper voltage: Equipment must be installed at the voltage stated on the serial plate supplied with this equipment.
- 4) Improper water supply: This includes, but is not limited to, excessive or low water pressure and inadequate or fluctuating water flow rate.
- 5) Adjustments and cleaning: The resetting of safety thermostats and circuit breakers, programming and temperature adjustments are the responsibility of the equipment owner. The owner is responsible for proper cleaning and regular maintenance of this equipment.
- 6) Damaged in transit: Equipment damaged in transit is the responsibility of the freight company and a claim should be made with the carrier.
- 7) Abuse or neglect (including failure to periodically clean or remove lime accumulations): The manufacturer is not responsible for variation in equipment operation due to excessive lime or local water conditions. The equipment must be maintained according to the manufacturer's recommendations.
- 8) Replacement of items subject to normal use and wear: This shall include, but is not limited to, light bulbs, shear disks, "O" rings, gaskets, silicone tube, canister assemblies, whipper chambers and plates, mixing bowls, agitation assemblies and whipper propellers.
- 9) Repairs and/or replacements are subject to our decision that the workmanship or parts were faulty and the defects showed up under normal use. All labor shall be performed during regular working hours. Overtime charges are the responsibility of the owner. Charges incurred by delays, waiting time, or operating restrictions that hinder the service technician's ability to perform service is the responsibility of the owner of the equipment. This includes institutional and correctional facilities.

Wilbur Curtis Co., Inc. will allow up to 100 miles, round trip, per in-warranty service call. RETURN MERCHANDISE AUTHORIZATION: All claims under this warranty must be submitted to the Wilbur Curtis Technical Support Department prior to performing any repair work or return of this equipment to the factory. All returned equipment must be repackaged properly in the original carton. No units will be accepted if they are damaged in transit due to improper packaging. NO UNITS OR PARTS WILL BE ACCEPTED WITHOUT A RETURN MERCHANDISE AUTHORIZATION (RMA). THE RMA NUMBER MUST BE MARKED ON THE CARTON OR SHIPPING LABEL. All in-warranty service calls must be performed by an authorized service agent. Call the Wilbur Curtis Technical Support Department to find an agent near you.

