

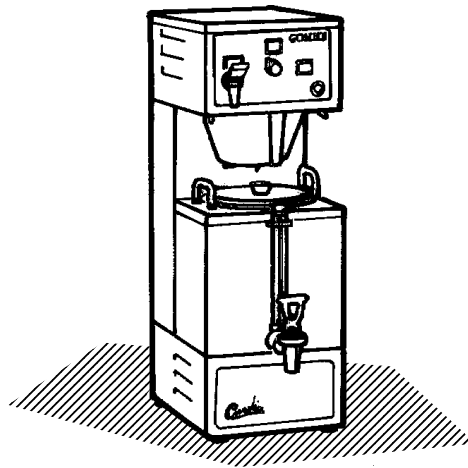
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# WILBUR CURTIS COMPANY, Inc.

## GEM-120A Satellite Brewer Instructions

### GEMINI COMMERCIAL COFFEE BREWING SYSTEMS



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WILBUR CURTIS COMPANY  
Montebello, CA 90640



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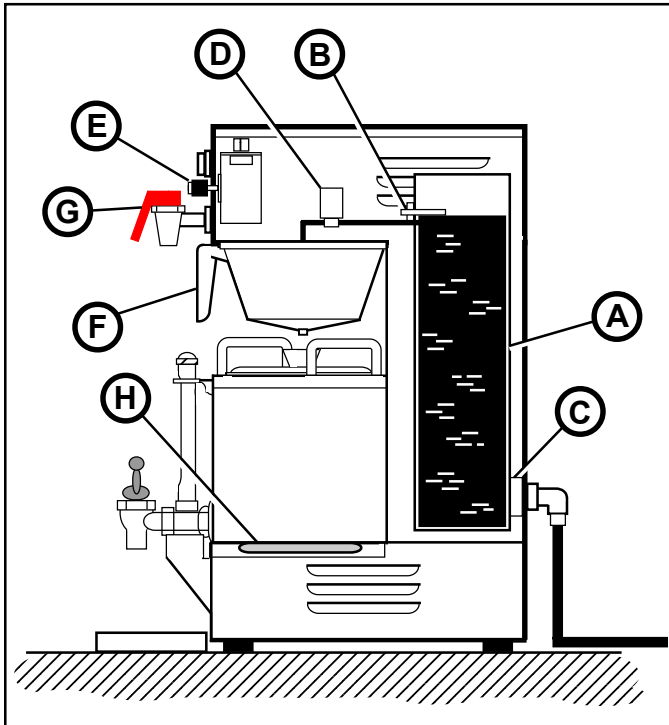
# GEMINI 120A

## UNPACKING

All products manufactured by the Wilbur Curtis Company are thoroughly inspected at the factory and are warranted to be free of all defects or faulty workmanship. The Gemini unit is packaged for

maximum protection while being shipped.

Make sure the shipping carton is not damaged or punctured. Unpack the carton carefully, inspecting the contents for any damage that may have occurred in transit. Report any damage immediately to the freight company.



## FUNCTION OF THE GEMINI

The water in the heating tank **A**, is maintained at the same level at all times by a sensor called the water level probe **B**. This controls the water inlet valve **C**.

When the brew switch is pushed, a brew cycle starts: The dump valve **D**, is opened by the brew timer **E**, allowing hot water to be sprayed over the ground coffee for a specific time period .

Brewed coffee then pours from the brew cone **F**, into the Satellite.

The hot water faucet **G**, dispenses hot water for tea, instant beverages, or soups and can

be used at any time without interrupting the brew cycle. A warmer element, **H**, keeps the coffee in the Satellite at the proper temperature.

## NOTICE

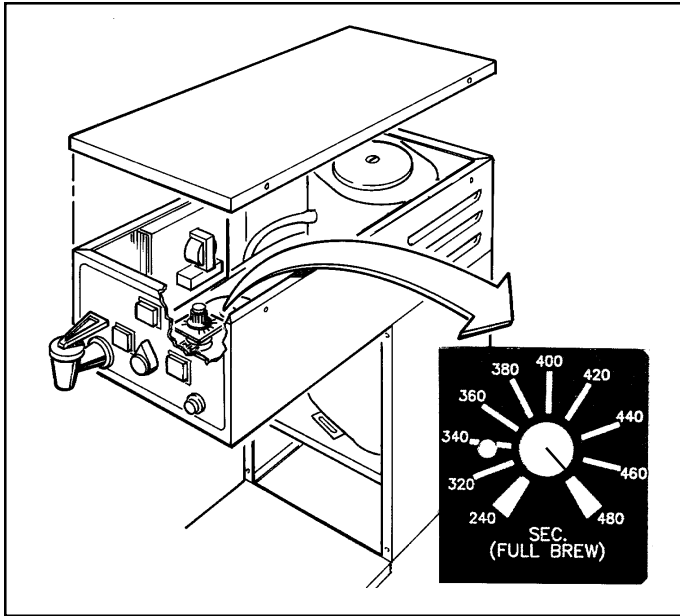
This brewer must be installed by a professional licensed technician and must comply with all local electrical, mechanical and plumbing codes having jurisdiction. Wilbur Curtis Company will not accept any responsibility if these conditions are not met. This machine must be used for it's intended purpose and the function for which it was designed.

## SETUP INSTRUCTIONS

1. Locate a position for the Gemini 120A on a firm and level, counter top.
2. Remove the top cover of the brewer and lid from the heating tank. Hand fill the tank until the water level is approximately two (2) inches below the probe tip.
3. A 1/4" female flare fitting is required for water supply. Connect the water line to the inlet valve fitting and turn on the water.
4. With the top cover removed, turn thermostat stem clockwise until it stops.
5. Plug the unit into a power supply outlet and turn toggle switch on. Turn ON/OFF switch to ON position. Make sure water is flowing into the heating tank. Filling should stop when the water level reaches the probe tip. When this is verified, replace both tank lid and top cover to the machine.
6. Allow 15 to 20 minutes for the water in the tank to reach brewing temperature. The BREW READY light will come on when it reaches the correct temperature.

# GEMINI 120A

## ADJUSTMENT INSTRUCTIONS FOR TIMER WC-603RDS



The Gemini 120A now has a new timer which was introduced starting from serial number 14866. It is a new, improved version of the previous WC-603 RD timer. The wiring on this has remained exactly as on the older versions to make retrofitting easier. The timer is mounted inside the upper compartment with the brew selector knob protruding from the center of the front panel (see illustration, left). The brewer is designed to brew 24 cups (one gallon maximum). Adjustment of the timer is made on the timer calibration dial. The knob indicator must be set at the 480 second mark on the dial. On the front panel, the brew selector switch should be at **2**. This setting will deliver one gallon of water (brew 24 cups) per brew cycle. To brew 12 cups, simply turn the brew selector knob to **1**.

If finer adjustments are needed, rotate timer knob to the right to increase the brew time, rotate to the left to decrease the brewing time.

## CARE AND MAINTENANCE OF THE GEMINI 120A

Regular cleaning and preventive maintenance is essential in keeping your Gemini Coffee Brewer looking and working like new.

**WARNING** Do not use cleansers, liquids, bleaches, or powder that contain chlorine. These products cause corrosion and pitting on stainless steel and will void your warranty.

### PREVENTIVE MAINTENANCE:

1. Remove the sprayhead from the Gemini 120A and clean once a week or more often in heavy lime areas.
2. Clean the faucet seat cups twice a week and replace when they are cracked or leaking.
3. Periodic temperature checks or adjustment of thermostat by authorized personnel.

### CLEANING

To maintain optimum coffee flavor, the Gem 3 Satellite should be cleaned daily after the last batch of coffee is used. We recommend the use of urn cleaning powder or Scotch Bright pads for cleaning inside the coffee container.

The outside of the brewer and Satellite should be cleaned with a soft cloth and stainless steel polish only, to prevent scratching the surface.

Deliming of the heating tank should be done every six (6) months; more often in heavy lime areas.

# GEMINI 120A

## TROUBLE SHOOTING

### **PROBLEM: WATER DOES NOT FLOW INTO HEATING TANK**

POSSIBLE CAUSE	SOLUTION
1. Water line turned off or filter clogged up.	Open the water line and make sure water flows to the brewer.
2. Water inlet valve coil burned out	Turn off brewer. Disconnect wires from water inlet coil terminals and connect a power cord to the terminals. Plug cord into a 110v outlet and verify that water flow when plugged in and stops when cord is disconnected. If valve does not respond to this test, replace the valve.
3. Grounded probe (item #12)	When water in the heating tank is below the probe tip, yet water is not refilling, pull the wire off the probe terminal. If water starts flowing into the tank, find ground, clean or replace the probe.
4. Defective or burned out water level control board (item #3)	Pull the wire from the probe terminal. With a volt meter, check the voltage at the water inlet coil terminals. This should read 110 to 115 volts. If no voltage is present, check the water level control board. Make sure that the back of the board is grounded securely to the mounting bracket. Check for loose wire connections. Replace board.

### **PROBLEM: WATER IN HEATING TANK OVERFLOWING**

POSSIBLE CAUSE	SOLUTION
5. Defective water inlet valve (item #28)	Turn power off and observe the water level in the heating tank. If water continues to flow in, clean or replace the valve.
6. Probe limed up (item #12)	Pull wire off from probe terminal. Touch the water tank shell with the terminal at the end of this wire. If water stops flowing, clean or replace the probe.
7. Loose or ungrounded water level control board (item #3)	If probe is okay, check the water level control board. The water level control board must be securely grounded. Check for loose connections. Check for voltage at the inlet valve terminals. Replace board.

### **PROBLEM: WATER IN TANK DOES NOT GET HOT OR WATER TEMPERATURE TOO LOW**

POSSIBLE CAUSE	SOLUTION
8. Thermostat is off (item #31)	Check the thermostat (item #31) to make sure it is in the ON position. Turn the thermostat stem clockwise until it stops.
9. Burned out heating element.	Check element for continuity and/or check with clamp ammeter. This should show a reading of approximately 15 amps. If no power is going through element, replace it.

# GEMINI 120A

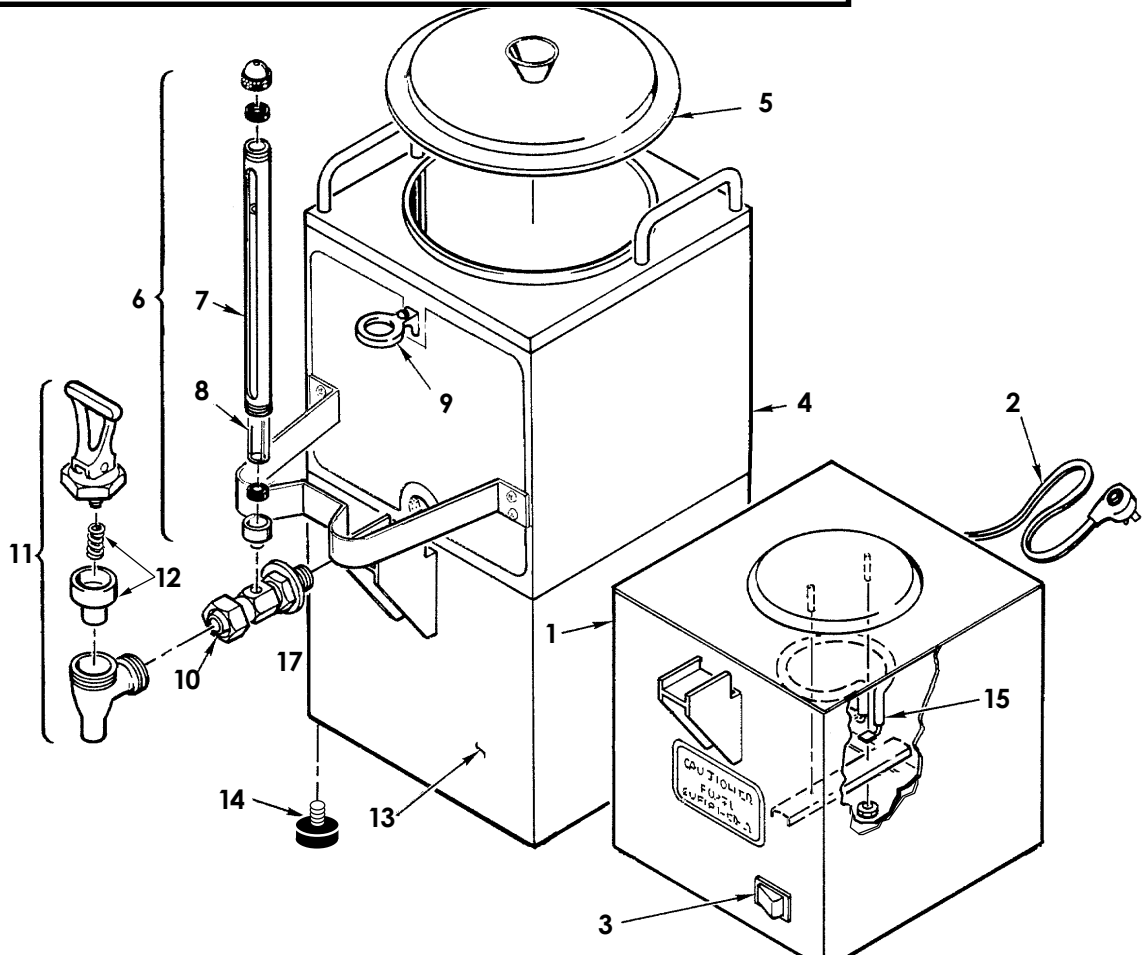
**PROBLEM: WATER IN TANK DOES NOT GET HOT OR WATER TEMPERATURE TOO LOW**

POSSIBLE CAUSE	SOLUTION
10. Defective thermostat	Thermostat may be cutting off before the water temperature reaches operating temperature. Do not try to reset the thermostat. Replace it.

**PROBLEM: WATER NOT FLOWING FROM SPRAYHEAD.**

POSSIBLE CAUSE	SOLUTION
11. Water level is too low in heating tank	Check water level in tank. If water is not flowing into the tank, review steps 1 thru 4, previous page.
12. Defective brew switch (item #41)	Check the continuity between terminals 5B and 4B when the BREW switch is pressed. If there is no continuity, replace the switch.
13. Defective timer (item #2).	Make sure the timer is receiving 110 to 120 volts. You can verify this by taking a reading with your meter at the end of the YELLOW wire on terminal <b>5B</b> of the ON/OFF switch and at terminal <b>A</b> of the timer. When the timer is activated by the brew switch, you should read 110 to 120 volts across terminals 6 and A of the timer. The RED wire on terminal 6 supplies power to open the dump valve. If no voltage is present, replace the timer.
14. Burned out dump valve coil (item #34)	If the timer works when the brew switch is pressed, then check the dump valve using a voltmeter on the terminals. If it shows 110 to 120 volts but no water flows through the valve, clean out the valve or replace the coil.

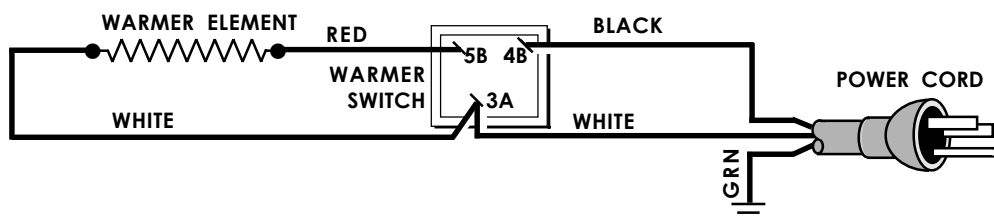
# ILLUSTRATED PARTS BREAKDOWN GEM-3, -5, -8



INDEX N°	PART N°	DESCRIPTION
1	GEM-5	SATELLITE WARMER STAND, 115V . . . . .
2	WC-1201	POWER CORD 6' 18/3 BLK . . . . .
3	WC- 114R	SWITCH, ROCKER 120V RED . . . . .
4	GEM 3	SATELLITE SERVER 1½ GAL . . . . .
5	WC-3307	LID GEMINI SATELLITE . . . . .
5A	WC-5622	LID, SATELLITE PLASTIC GEM3 (OPTIONAL)
6	WC-2102	GAUGE GLASS ASSEMBLY, 8" C . . . . .
7	WC-2010C	SHIELD, 8 INCH GAUGE GLASS . . . . .
8	WC-2025	GAUGE GLASS, 8 INCH . . . . .

INDEX N°	PART N°	DESCRIPTION
9	WC-2007	BRACKET, GAUGE GLASS FORMED . . . . .
10	WC-1901	SHANK, FAUCET D&T CHROME . . . . .
11	WC-1800	FAUCET S' NONLOCKING . . . . .
11A	WC-1841	FAUCET, "ESP" BLACK NONLOCKING (OPTIONAL)
12	WC-3705	KIT FAUCET S' SERIES . . . . .
13	GEM 4	SATELLITE STAND . . . . .
14	WC-3503	LEG, SCREW BUMPER 3/8"-16 STD . . . . .
15	WC-37102	KIT, WARMER ELEMENT 100W 120VAC . . . . .

## Wiring Diagram Gem -5 & -8 120 Volts, 90 Watts







# GEMINI 120A Parts List

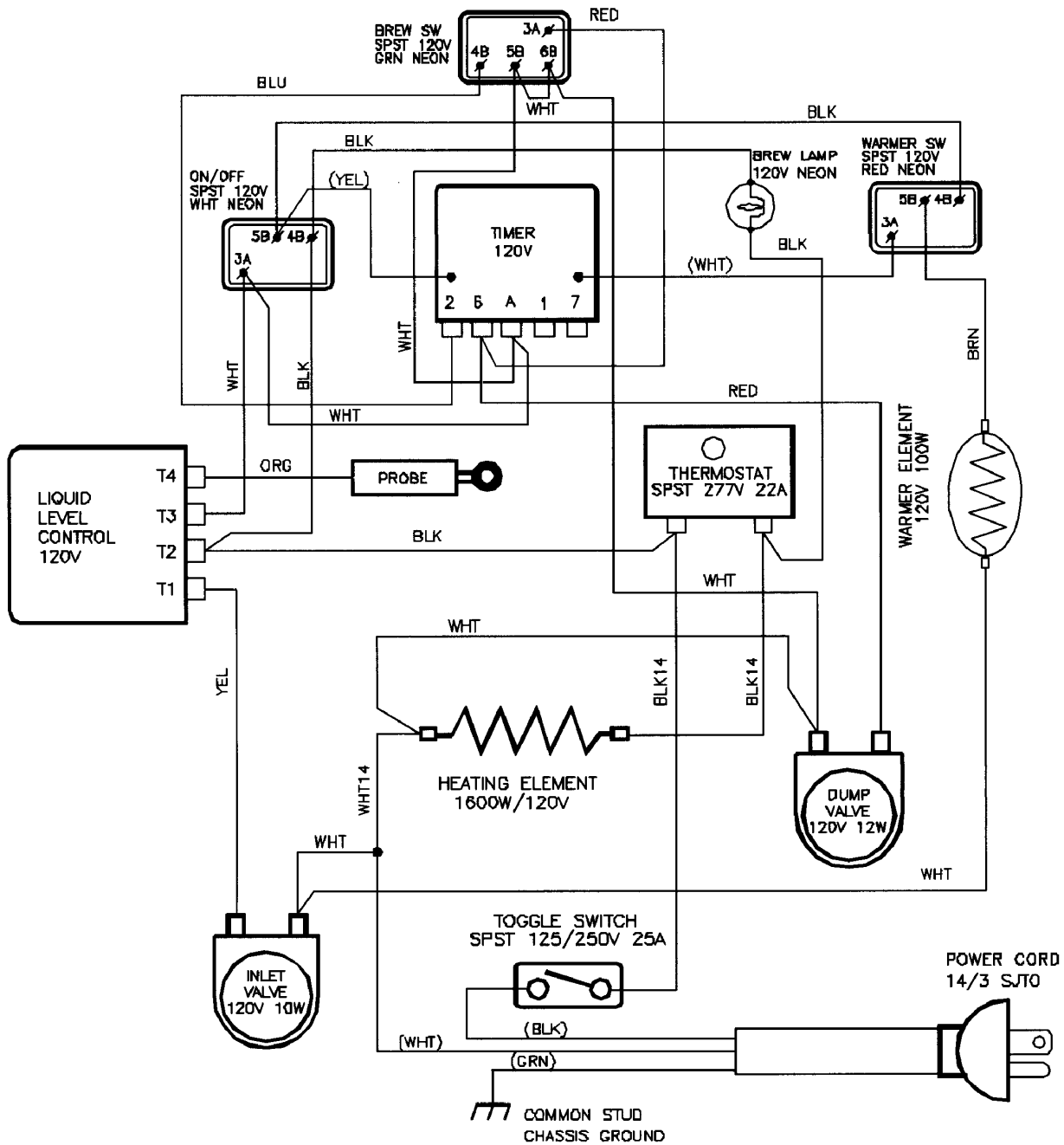
Item N <sup>o</sup>	Part N <sup>o</sup>	Description
1	WC-3621	BREW CONE, UNIVERSAL 7 1/8" BLK PLASTIC . . . . .
2	WC- 603RDS	TIMER, BREW SELECTOR 120V GEM-120A . . . . .
3	WC- 608	LEVEL CONTROL, WATER 120V . . . . .
4	WC-2936	SPRAYHEAD, RED (.131 DIA) . . . . .
5	WC-5502-01	PROBE ASSY, WATER LEVEL . . . . .
6	WC-3920T	LABEL, TOP GEM 120A . . . . .
7	WC- 904	ELEMENT, ENVELOPE HEATING w/SCREWS GEN USE . . . . .
7A	WC- 906-04	HEATING ELEMENT, 2000W, 220V W/JAM NUTS . . . . .
8	WC-1200	POWER CORD, 6' 14/3 BLK SJTO . . . . .
9	WC- 826	VALVE, INLET 1 GPM 120V 10W . . . . .
10	WC- 517	THERMOSTAT, CAPILLARY SPST 277V 22A GEN USE . . . . .
11	WC-3763	KIT, VALVE REPAIR FOR WC-866, WC-889, WC-816, WC-817, WC-818 . . . . .
12	WC- 817	VALVE, DELTROL DUMP RIGHT 120V. . . . .
13	WC-1809	FAUCET, HOT WATER W/JAM NUT . . . . .
14	WC- 202	LIGHT, BREW 115V . . . . .
14A	WC- 203	LIGHT, BREW 220V . . . . .
15	WC- 114R	SWITCH, ROCKER 120V RED . . . . .
16	WC- 122	SWITCH, ROCKER BREW 120V GREEN . . . . .
17	WC-2977-01	FITTING ASSY, SPRAYHEAD PLATED TIN NICKEL . . . . .
18	WC-5310	TUBE, 5/16" I.D. SILICONE GEN USE . . . . .
19	WC-5451	WARMER DECK, NO ELEMENTS . . . . .
20	WC- 947	ELEMENT, WARMER 90W, 115V . . . . .
21	WC- 102	SWITCH, TOGGLE SPST 25A 125/250 VAC RESISTIVE . . . . .
22	WC-3503	LEG, SCREW BUMPER 3/8-16 STD . . . . .
23	WC-3338	KIT, BREW CONE W/BASKET SS 7 1/8" DELUXE BLK HANDLE (OPTIONAL)
24	WC-5452	COVER, FRONT GEM-120A/120P/230A/200R/300IL/600ILD. . . . .
25	WC-5450	COVER, TOP D500, G230A, G120A, PTB . . . . .
26	WC-43058	PLUG, DRAIN PP RED. . . . .
27	WC-3765	KIT, VALVE REPAIR (USE ON WC-825 WC-826) . . . . .
28	WC- 829	WASHER, .35 GPM .5" USE ON WC-825 . . . . .
29	WC-37008	LID ASSEMBLY, TANK . . . . .
30	WC-5466	TANK, COMPLETE GEM-120A . . . . .
31	WC-3920B	LABEL, BOTTOM GEM-120A . . . . .

## PAPER FILTERS

Part Number	Description
GEM-6	FILTER FOR BREW CONE WC-3338 (500/PKG) . . . . .
CR-10	FILTER FOR BREW CONE WC-3621 (1000/PKG) . . . . .

# WIRING DIAGRAM – GEM120A-10

EDA/EN	REV.	DESCRIPTION	DATE	DR BY:	CK. BY:	APPR BY
5474	E	SEE ECN 5474 FOR REVISIONS	1-27-03	J.EMIG		



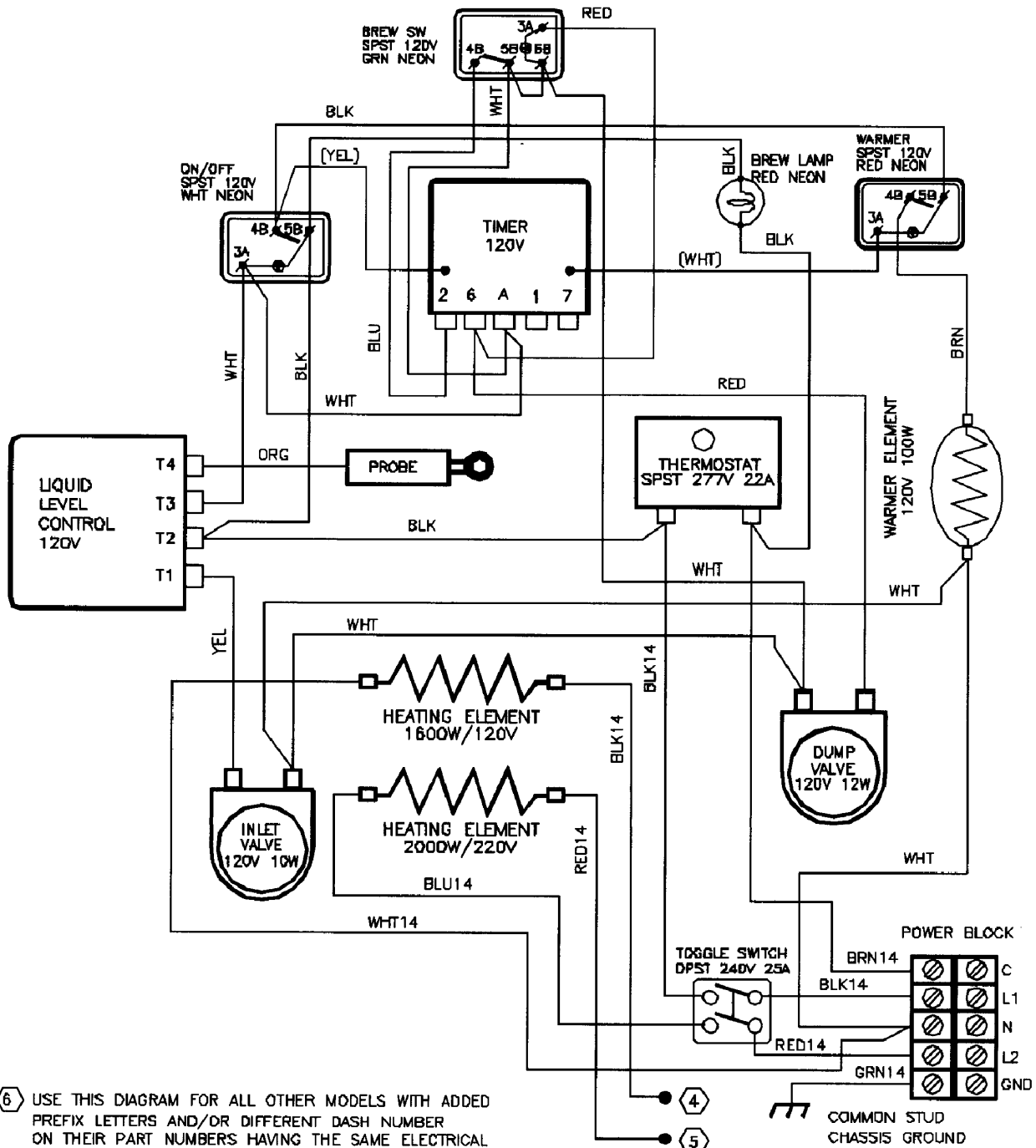
- 3 DO NOT CHANGE NOR SUBSTITUTE WIRE COLORS.
- 2 FOR POWER USE TEFLON WIRES PER UL1330.
- 1 ALL WIRES SHALL BE 18 AWG MINIMUM.

NOTES: unless otherwise specified

VOLTAGE:	120VAC	Watt Company, Inc. 875 West St. Waukegan, IL 60087 Phone: 815-497-4300 Fax: 815-497-4892 WWW.WATTCOMPANY.COM
WATTAGE:	1775	
AMPERAGE:	15	
HERTZ:	60	
WIRES:	2+GND	
PHASE:	1	TITLE <b>WIRING DIAGRAM</b>
PART NUMBER: WD-G120A-10		DRAWING SIZE: A
SCALE: NTS	SHEET 1 OF 1	ENGR: E

# WIRING DIAGRAM – GEM120A-63

DR/EN	REV.	DESCRIPTION	DATE	DR BY:	CK BY:	APPR. BY
5474	D	SEE EGN 5474 FOR REVISIONS	1-27-03	J.EMIG		



- 6 USE THIS DIAGRAM FOR ALL OTHER MODELS WITH ADDED PREFIX LETTERS AND/OR DIFFERENT DASH NUMBER ON THEIR PART NUMBERS HAVING THE SAME ELECTRICAL RATINGS. Ex.: SCGEM-120A-63 and/or GEM-120A-63-01.
  - 5 FOR 220VAC OPERATION: CONNECT RED14 WIRE TO POINT 'C' ON POWER BLOCK WC-314, CAP & STOW BLK14.
  - 4 FOR 120VAC OPERATION: CONNECT BLK14 WIRE TO POINT 'C' ON POWER BLOCK WC-314, CAP & STOW RED14.
  - 3 DO NOT CHANGE NOR SUBSTITUTE WIRE COLORS.
  - 2 TEFLON WIRES 14 AWG MAY BE USED AS A SUBSTITUTE FOR THE 14 AWG APPLIANCE WIRE.
  - 1 ALL WIRES SHALL BE 18 AWG UL APPROVED APPLIANCE WIRE.
- NOTES: unless otherwise specified

VOLTAGE:	120/220VAC	Vulco Corp., Inc. P.O. Box 145-200 221 Ave. B, Saco, ME 04072 WWW.VULCOCORP.COM	
WATTAGE:	1775/2100		
AMPERAGE:	15/10	TITLE	
HERTZ:	60	WIRING DIAGRAM	
WIRES:	3+GND	PART NUMBER	DRAWING SIZE
PHASE:	1	WD-G120A-63	A
		SCALE	REVISION
		NTS	SHEET 1 OF 1
			D

## WARRANTY

We hereby certify that the products manufactured by the Wilbur Curtis Company, Inc., are, to the best of our knowledge, free from all defects and faulty workmanship.

The following warranties and conditions are applicable:

1. **1 Year Parts & Labor from Date of Purchase from Factory:** This warranty covers all electrical parts, fittings and tubing.
2. **40 Months or 40,000 Pounds of Coffee on a set of Grinding Burrs. (ADS Grinders)**
3. **3 Years from Date of Purchase:** This warranty covers electronic control boards and leaking or pitting of a stainless steel body of a Brewer or Urn.
4. **90 Days from Date of Purchase:** On replacement parts that have been installed on out of warranty equipment

All in-warranty service calls must have prior authorization from the manufacturer. For an RMA (Return Merchandise Authorization) number, call the Technical Service Department at 1-800-995-0417. The Wilbur Curtis Company will allow up to 100 miles, round trip, per in-warranty service call.

### CONDITIONS & EXCEPTIONS

The warranty covers original equipment at time of purchase only. The Wilbur Curtis Company, Inc., assumes no responsibility for substitute replacement parts installed on Curtis equipment that have not been purchased from the Wilbur Curtis Company, Inc. The Wilbur Curtis Company will not accept any responsibility if the following conditions are not met. The warranty does not cover and is void under these 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, certified technician and must comply with all local electrical, mechanical and plumbing codes.**
- 3) **Wilbur Curtis Company will not be responsible for the operation of equipment at other than the stated voltages on the serial plate.**
- 4) **Abuse or neglect (including failure to periodically clean or remove lime accumulations). Manufacturer is not responsible for variation in equipment operation due to excessive lime or local water conditions.**
- 5) **Replacement of items subject to normal use and wear. This shall include, but is not limited to, light bulbs, shear disks, "O" rings, gaskets, canister assemblies, whipper chambers and plates, mixing bowls, agitation assemblies and whipper propellers.**
- 6) **Any faults resulting from inadequate water supply. This includes, but is not limited to, excessive or low water pressure, and inadequate or fluctuating water flow rate.**
- 7) **All repairs and/or replacements are subject to our decision that the workmanship or parts were faulty and the defects showed up under normal use.**
- 8) **All labor shall be performed during regular working hours. Overtime charges are the responsibility of the owner.**
- 9) **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.**
- 10) **All claims under this warranty must be submitted to the Wilbur Curtis Company Technical Service Department before return of the unit to the factory.**
- 11) **All equipment returned to us must be repackaged properly in the original carton. No units will be accepted if they are damaged in transit due to improper packaging.**
- 12) **Damaged in transit.**
- 13) **The resetting of safety thermostats and circuit breakers, programming and temperature adjustments are the responsibility of the equipment owner.**

**NO UNITS OR PARTS WILL BE ACCEPTED WITHOUT A RETURN MERCHANDISE AUTHORIZATION (RMA). RMA NUMBER MUST BE MARKED ON THE CARTON OR SHIPPING LABEL.**

All in-warranty service calls must be performed by an authorized service center, where service is available. Call the factory for location near you.



#### WILBUR CURTIS CO., INC.

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♦ Web Site: [www.wilburcurtis.com](http://www.wilburcurtis.com)

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