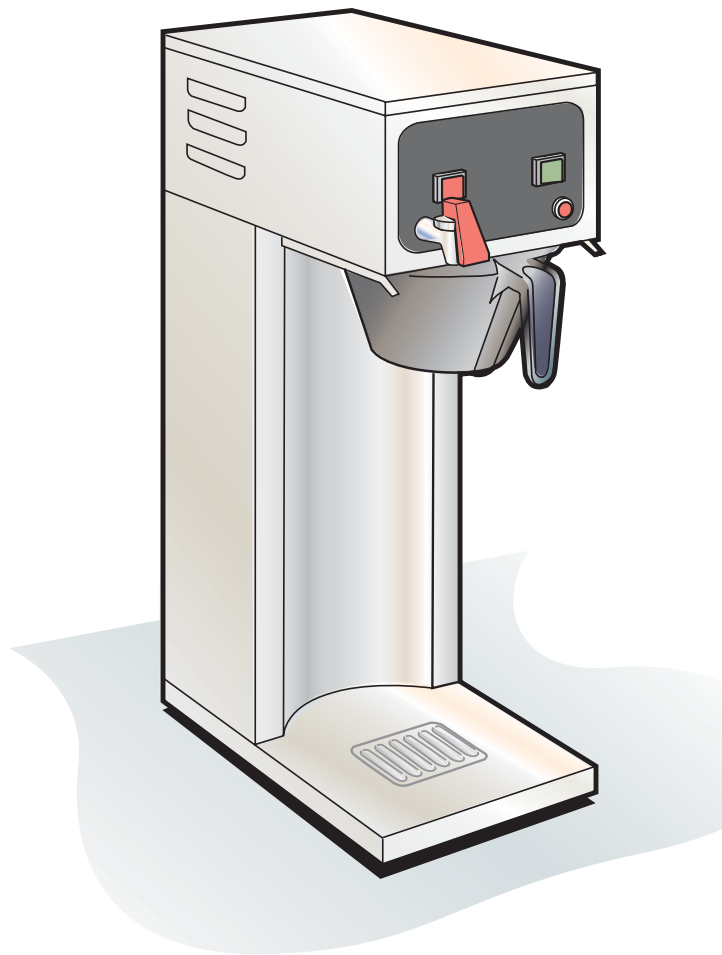


# C500AP & C500APT AIRPOT COFFEE BREWER



## Service Manual

Throughout this service manual, whenever the airpot brewer model C500AP is mentioned, this information is typical to both the C500AP and C500APT. All parts are common except where noted.



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### Carton Contents

Qty	Item
1	Brewer, C500AP
1	Brew Cone, S/S
1	Fitting, Flare Elbow
25	Paper Filters
1	Service Manual



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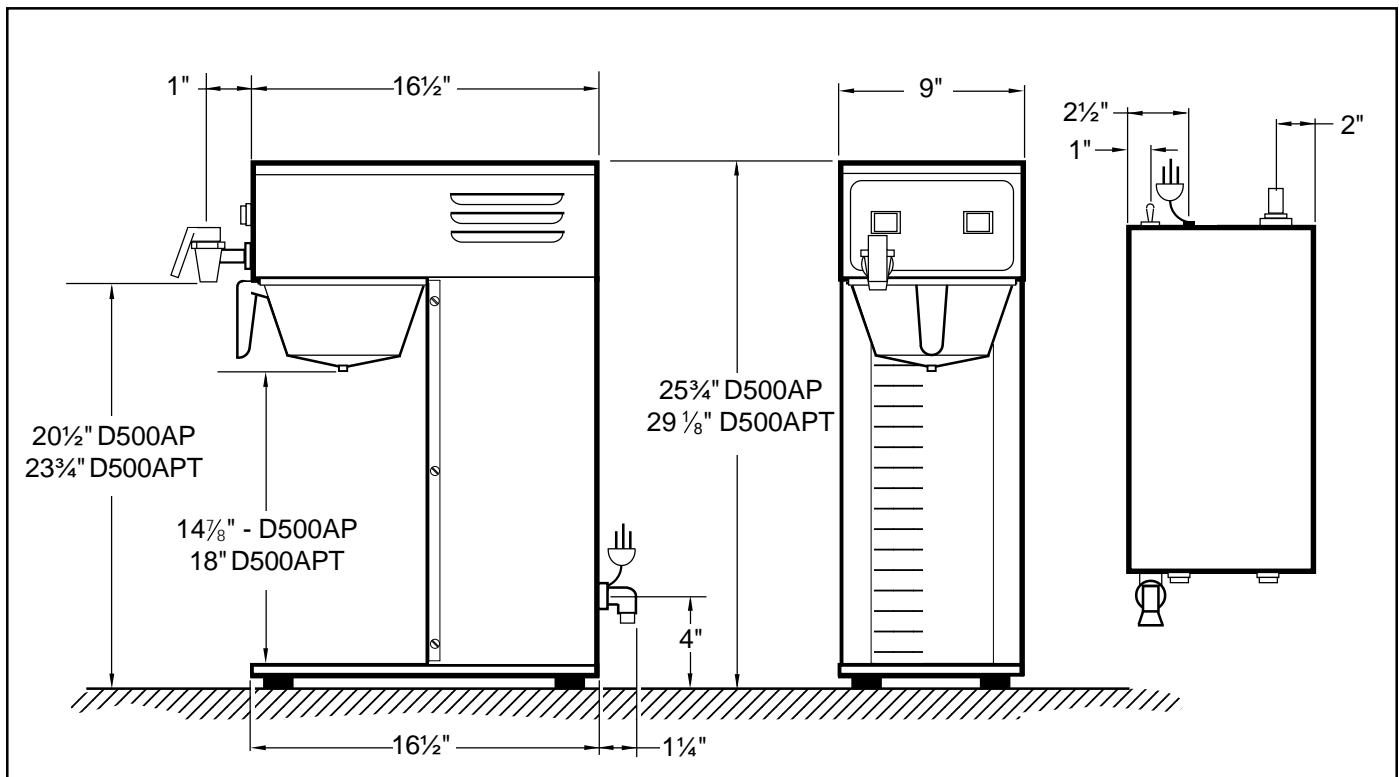
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# C500AP Airpot Coffee Brewer

## UNPACKING

All products manufactured by the Wilbur Curtis Company are thoroughly inspected at the factory and are warranted to be free of all defects and faulty workmanship. The C500AP unit is packaged for maximum protection for shipping. 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.

## ROUGH-IN DRAWING - C500AP



BREW SETUP	2.2 LITERS
ELECTRICAL	120 Volts, 60 Hz
POWER REQUIREMENTS	1675 Watts, 14 Amps
CORD & PLUG	6 Ft./NEMA 5-15P
WATER HOOK-UP	1/4" COMPRESSION FITTING FOR WATER CONNECTION

# C500AP Airpot Coffee Brewer

## START-UP

1. Remove top cover of brewer. Remove lid from heating tank. Hand fill tank until water level is approximately two inches below probe tip.
2. Connect the water line to the brewer using ¼" copper tubing with ¼" female flare fitting.
3. Turn on water.
4. With top cover removed, locate the thermostat (see illustration, page 8, #37), turn the thermostat shaft clockwise until it stops. The BREW READY indicator light will go off when the thermostat is on.
5. Plug unit into power supply outlet and flip power switch (behind unit) to *ON* position. Turn ON/OFF switch to *ON* position. Water should flow into heating tank. Check to see that the water stops flowing when it reaches the probe tip. When this is verified, replace the tank lid and top cover of machine.
6. The warm-up time for the water in the tank to reach brewing temperature is from 15 to 20 minutes. The BREW READY indicator light will come on when the water is hot enough to start brewing.

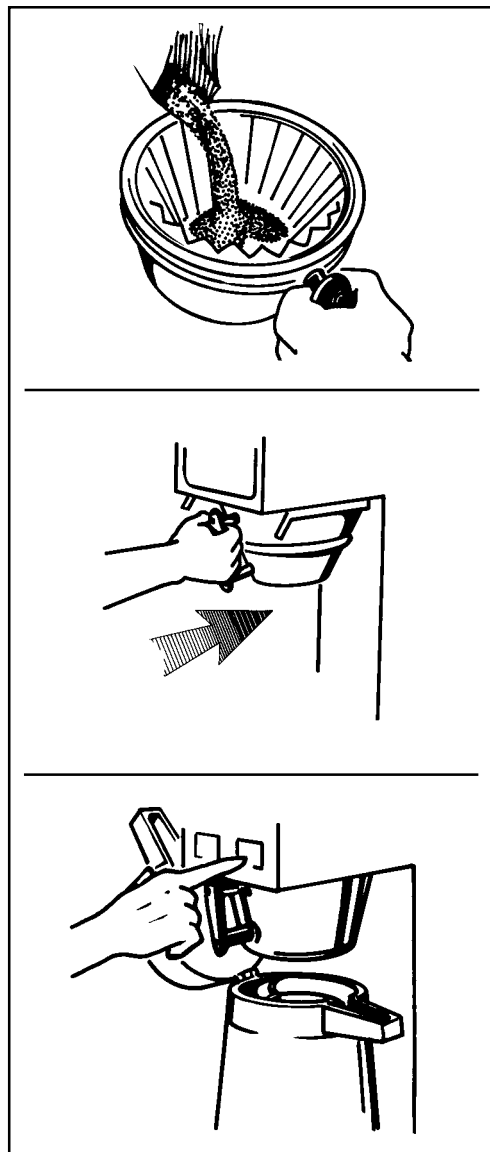
## COFFEE BREWING

- 1 Pour ground coffee into the filter and brew cone.

- 2 Slide the brew cone onto the guide rails as far in as it will go.

- 3 Place an empty, open airpot on the deck beneath the brew cone. Push the BREW SWITCH to start. Hot coffee will start to flow from the brew cone.

**! CAUTION HOT LIQUID. BREW INTO AN EMPTY AIRPOT ONLY.  
• DO NOT REMOVE BREW CONE UNTIL IT HAS COMPLETELY DRAINED.**



# C500AP Airpot Coffee Brewer

## CARE AND MAINTENANCE OF C500AP

Preventive maintenance is essential in keeping your Curtis coffee brewer performing at it's peak. Regular cleaning will pay off with an appealing, high performance coffee brewing machine.

### Preventive Maintenance

1. Remove the sprayhead from brewer and clean it once a week; more often in heavy lime areas.
2. The inside of the heating tank may, occasionally, require removing of lime build-up. The frequency is determined by local water conditions.

**WARNING** - When cleaning the unit, do not use cleansers, bleach liquids, powders or any other substance containing chlorine. These products will promote corrosion and will pit the stainless steel. USE OF THESE PRODUCTS WILL VOID YOUR WARRANTY.

### Daily Cleaning

Using a daily routine of cleaning the external parts of the C500AP should maintain it's new appearance and insure that the flavor of the coffee is always good.

1. Wipe off any spills, dust or debris from exterior surfaces.
2. Rinse out the brew cone.
3. Clean sprayhead and dome using a non-toxic cleaner and a damp cloth.
4. Clean the brew cone slide rails with a brush or damp cloth. Dry thoroughly.

Stainless Steel Polish can be used to clean the outside surfaces of the C500AP coffee brewer. This is to prevent scratching of the stainless steel surfaces.

## TROUBLE SHOOTING:

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

POSSIBLE CAUSE	SOLUTION
1. Water line turned off or water filter needs changing	Make sure the brewer is receiving enough water pressure. Open the water line and verify water flow.
2. Water inlet valve coil burned out	Turn the power off. Disconnect wires from water inlet coil terminals and connect a power cord to the terminals. Plug cord into a 120V outlet and verify if water flows when plugged in and stops when power is disconnected. If valve fails this test, replace valve or coil.
3. Grounded probe	When the water level gets below the probe tip, water should automatically refill the tank. If not, pull wire off the probe terminal. Water should now start flowing into the tank. If not, check the water level control board (see step 4) or inlet valve (step 5).

# C500 AP Air Pot Coffee Brewer

## TROUBLE SHOOTING CONTINUED:

POSSIBLE CAUSE	SOLUTION
4. Defective or burned out water level control board	Pull wire out of probe terminal. With a Volt meter, check voltage at the water inlet coil terminals. This should read 110-120 volts. If no voltage is present, check Liquid Level Control board. Make sure the L.L.C. board is energized on terminals 2 & 3. The L.L.C. board is grounded to the chassis of the machine by contacting the board to the mounting bracket. Make sure board is grounded here. Check for loose connections at terminals. When the water level control board fails to energize the water inlet valve, the board should be replaced

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

POSSIBLE CAUSE	SOLUTION
5. Defective water inlet valve	Turn power off and observe water level. If water continues to flow in, valve is leaking; clean or replace valve.
6. Probe limed up	Pull wire off from probe terminal. Touch the body of the heating tank with the end of this wire. If water stops, try cleaning the probe. Probe may have to be replaced.
7. Non-grounded or loose terminal connections at liquid level control board	Liquid level control board must be securely grounded. Check for loose connections at the terminals. Check for voltage at the inlet valve terminals. If there is voltage present at the inlet valve terminals, replace the L.L.C. board.

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

POSSIBLE CAUSE	SOLUTION
8. Thermostat turned <b>OFF</b>	Check thermostat to make sure it is in the <b>ON</b> position.
9. Defective thermostat	Replace thermostat.
10. 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.

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

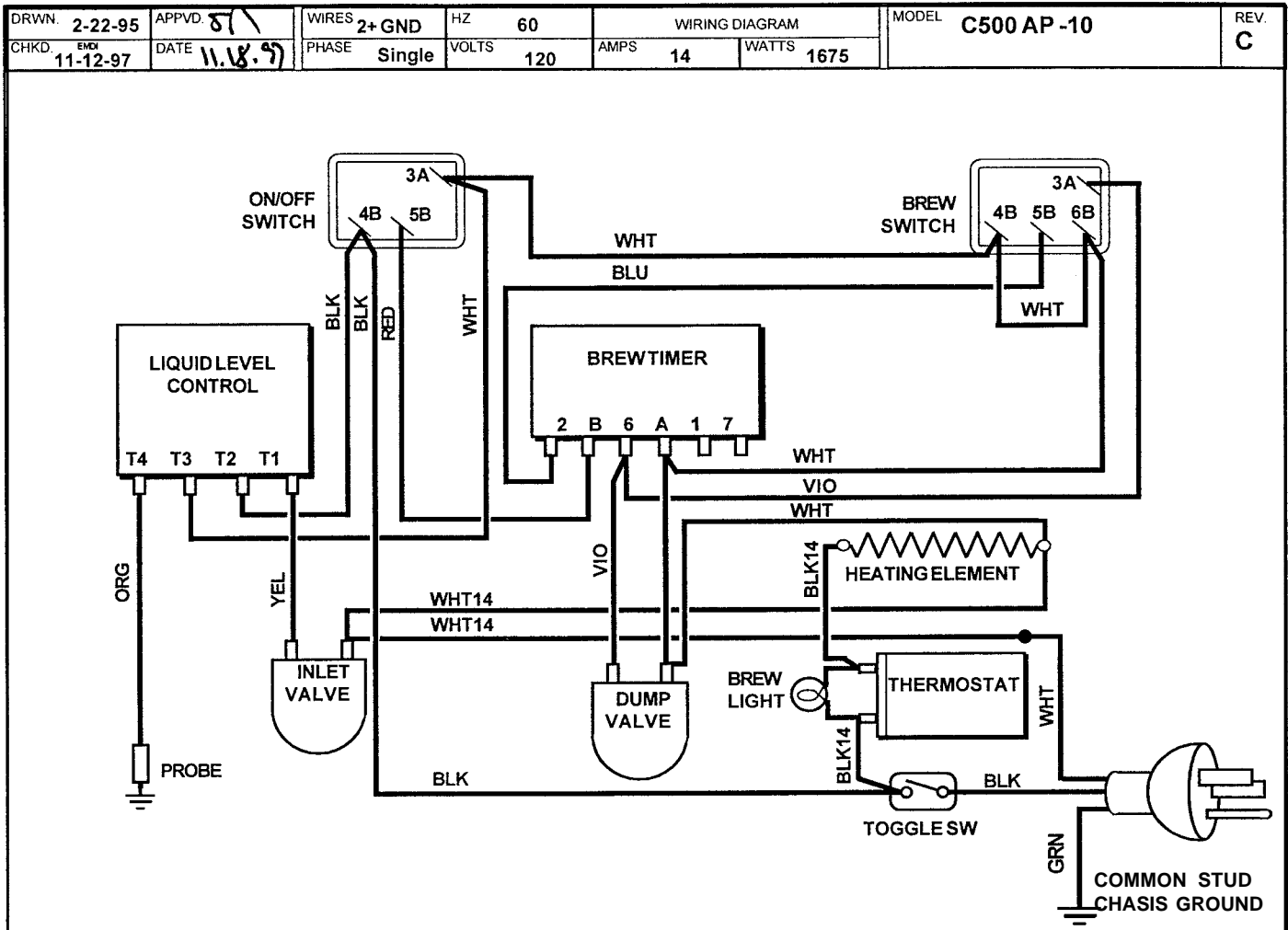
POSSIBLE CAUSE	SOLUTION
11. Water level is too low in heating tank	Check water level in tank. If water is not flowing into the tank, review steps 1 thru 4, on previous page.
12. Defective brew switch	With the power off, check the continuity between terminal 4B & 5B. When the switch is pressed, there should be solid continuity between these two terminals. If not, replace the switch.

# C500 AP Air Pot Coffee Brewer

## TROUBLE SHOOTING CONTINUED:

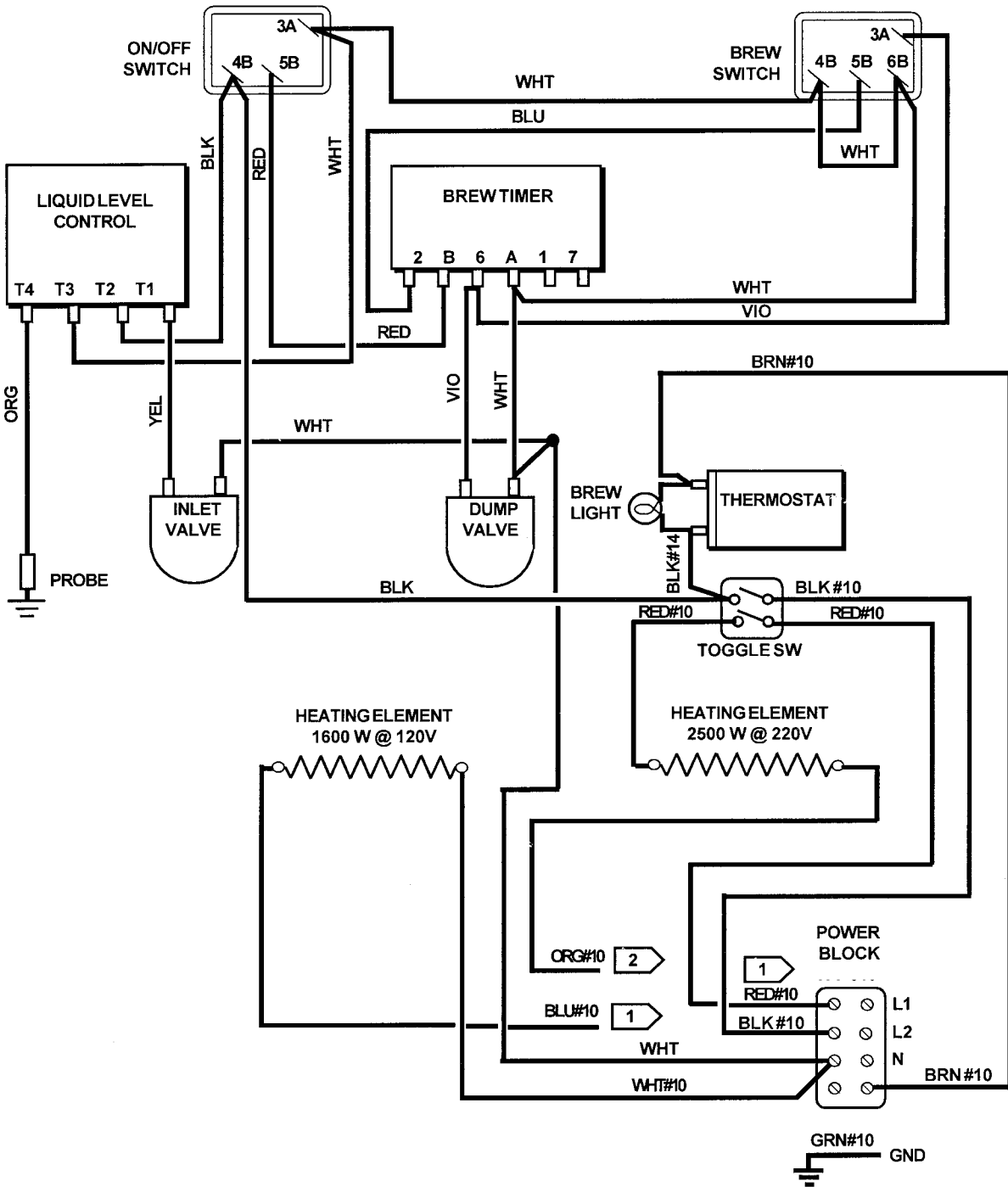
POSSIBLE CAUSE	SOLUTION
13. Defective brew timer (WC-604)	Make sure the timer is receiving 110 to 120 volts at terminals B and A. Measure the voltage across terminals 6 and A on the timer when it has been activated. There should be 110 to 120V going to the dump valve. If not, then the timer is faulty. Replace timer.
14. Defective dump valve or coil	If the timer is functioning properly (step 13); next check the dump valve. Measure voltage across the two terminals of the valve coil. You should read 110 to 120 volts. Check also for clogging or lime deposits. Clean lime or clog if present. Replace valve or coil.

## WIRING DIAGRAM



# WIRING DIAGRAM

DRWN. EMDI	APPVD. <b>A</b>	WIRES 2/3+ GND	HZ 60	P/N: WD-C500-50	MODEL	REV. A
CHKD. MDD	DATE 7-24-97	PHASE Single	VOLTS 120/220	AMPS 14/12	WATTS 1675/2575	C500AP - 50
5-22-97	7-21-97					



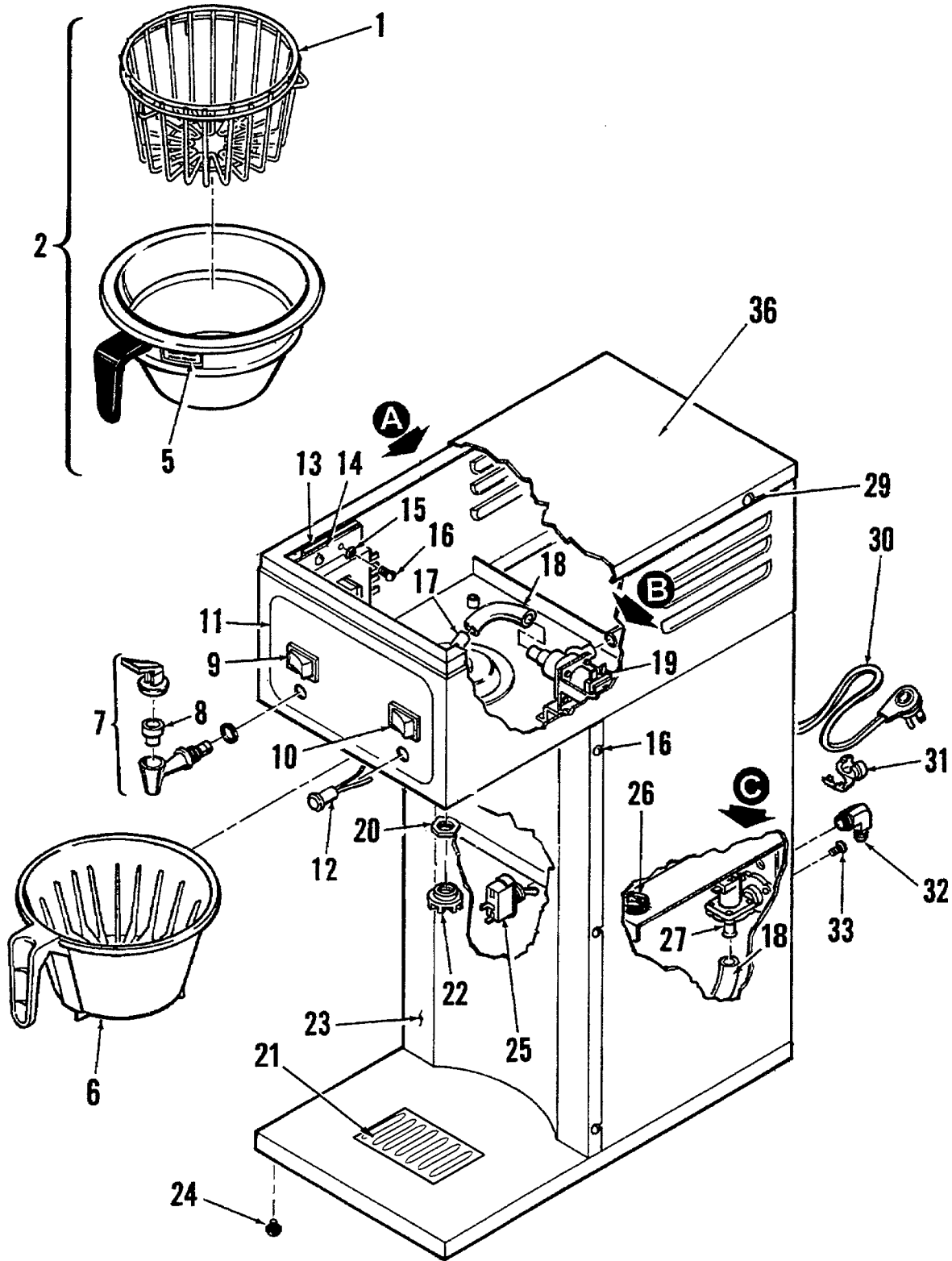
**2** FOR 220 VOLTS, CONNECT ORG WIRE TO BRN WIRE FROM POWER BLOCK, CAP BLU WIRE WITH WIRE NUT.

**1** FOR 120 VOLTS, CONNECT BLU WIRE TO BRN WIRE FROM POWER BLOCK, CAP ORG AND RED WIRES WITH WIRE NUTS.

NOTE:

# C500 AP Airpot Coffee Brewer

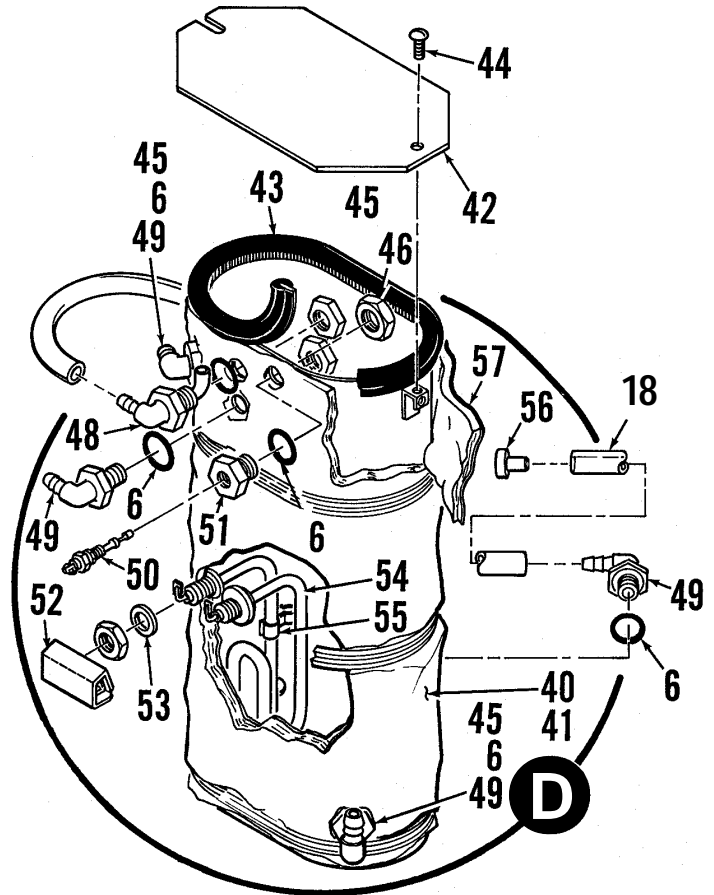
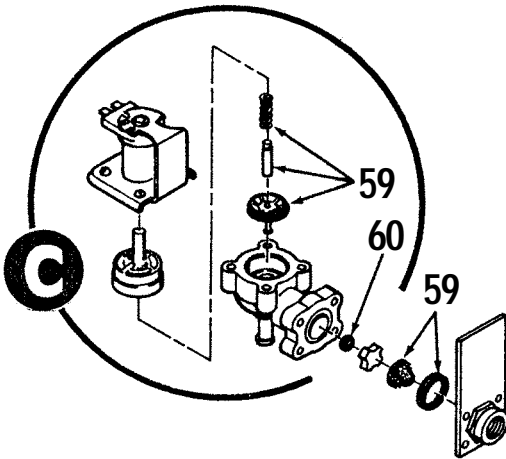
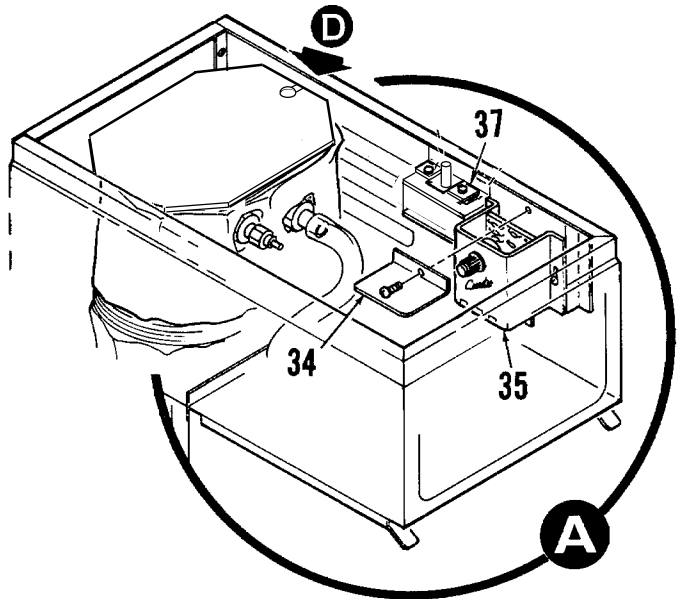
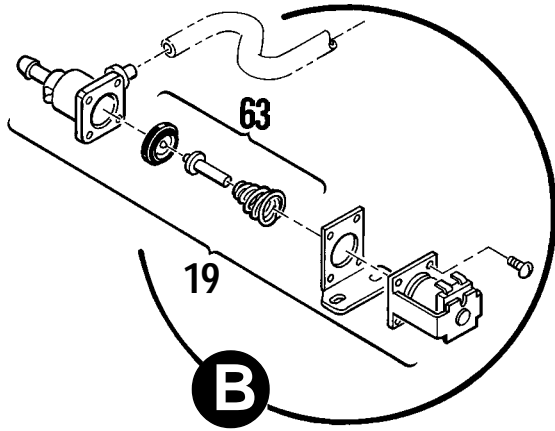
## ILLUSTRATED PARTS, MAIN VIEW





# C500 AP Airpot Coffee Brewer

## ILLUSTRATED PARTS, DETAIL BUBBLES



# C500 AP Air Pot Coffee Brewer

## PARTS LIST

INDEX NUMBER	PART NUMBER	DESCRIPTION
1	WC-3317	WIRE BREW BASKET FOR WC-3323
2	WC-3323	BREW CONE COMPLETE, STAINLESS STEEL, 7 1/8"
5	WC-3963	LABEL, CAUTION
6	WC-3621	UNIVERSAL BREW CONE
7	WC-1809	HOT WATER FAUCET
8	WC-1806	FAUCET SEAT CUP, SILICONE
9	WC- 114R	ON/OFF SWITCH
10	WC- 122	BREW SWITCH
11	WC-6317	SWITCH PANEL
12	WC- 202	BREW READY LIGHT
13	WC- 608	LIQUID LEVEL CONTROL BOARD, 120V.
14	WC-4380	SHOCK GUARD, FISH PAPER
15	WC-4329	#8 EXTERNAL LOCK WASHER
16	WC-4525	SCREW, 8-32x1/4 PHILLIPS TRUSS HD SS
17	WC-2977	FITTING, SPRAYHEAD
18	WC-5310	TUBING, SILICONE, 5/16" I.D
19	WC- 817	DUMP VALVE
20	WC-4213	LOCK NUT, 5/8"
21	WC-6221	SCREEN, DRIP TRAY
22	WC-2936	SPRAYHEAD, RED
23	WC-6217	COVER, CENTER WRAP
24	WC-3502	BUMPER LEG, 8-32 STUD
25	WC- 102	TOGGLE SWITCH
27	WC- 826L	VALVE, INLET 1 GPM 120V 10W
29	WC-4436	SCREW, 4x3/8 PHIL PAN HEAD
30	WC-1200	POWER CORD
31	WC-1408	CORD GRIP
32	WC-2401	FLARE ELBOW 1/4 x 3/8
33	WC-4616	SCREW, 1/4-20x1/2 PHILLIPS PAN HEAD STAINLESS STEEL
34	WC-6215	TIMER COVER
35	WC- 604	TIMER
36	WC-5450	COVER, TOP
37	WC- 515R	THERMOSTAT
41	WC-54052	HEATING TANK COMPLETE, LESS HEATING ELEMENTS
42	WC-5851	COVER, TANK W/ NOTCHES
43	WC-43062	GASKET, TANK LID
44	WC-4543	SCREW, 8-32x 1" SLOTTED HEX SS 18-8 WASHER HEAD
45	WC-4211	NUT, 3/8" JAM
46	WC-4212	NUT, 5/8" JAM
48	WC-29010	FITTING, BARBED OVERFLOW
49	WC-29009	FITTING, BARBED INLET
50	WC-5502	PROBE, WATER LEVEL
51	WC-2938	FITTING, 1/8" HEX FOR WATER LEVEL PROBE

# C500 AP Air Pot Coffee Brewer

## PARTS LIST, CONTINUED...

INDEX NUMBER	PART NUMBER	DESCRIPTION
52	WC-4394	SHOCK GUARD FOR HEATING ELEMENT
53	WC-4306	WASHER, 9/16" I.D. TEFLON
54	WC- 904-04	ELEMENT, HEATING 1.6KW 120V W/ JAM NUT & SILICONE WASHERS
55	WC-5409	CLIP, THERMOSTAT CAPILLARY
56	WC-43058	PLUG, TANK DRAIN PP RED
57	WC-3685	INSULATION, WRAP C500AP
59	WC-3765L	KIT, INLET VALVE REPAIR USE ON WC-825/WC-826/WC-826L/WC-847
60	WC- 829	WASHER, FLOW
63	WC-3763	KIT, DUMP VALVE FOR WC866, WC889, WC816, WC817 & WC818



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## Product Warranty Information

The Wilbur Curtis Company 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, the Wilbur Curtis Company 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. 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 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):** *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. The Wilbur Curtis Company 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 Company 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). 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.*

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