WILBUR CURTIS COMPANY, INC.
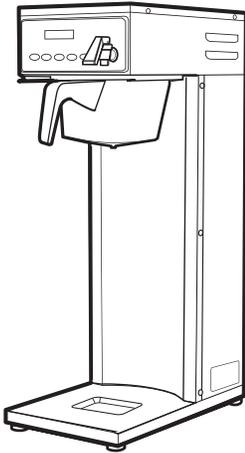
Service Manual – D500GT Airpot Brewer

Model Included

• D500GT

CAUTION: Please use this setup procedure before attempting to use this brewer. Failure to follow the instructions can result in injury or the voiding of the warranty.

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

WARNING HOT LIQUID, Scalding may occur. Avoid splashing.

To avoid temperature drop when first brewing coffee into the airpot, preheat the airpot with hot water.

ISO 9001:2008 REGISTERED

Important Safeguards/Conventions

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

- Do not immerse the unit in water or any other liquid
- To reduce the risk of fire or electric shock, do not open service panels. No user serviceable parts inside.
- Keep hands and other items away from hot surfaces of unit during operation.
- Never clean with scouring powders, bleach or harsh chemicals.

Symbols

WARNINGS – To help avoid personal injury

Important Notes/Cautions – from the factory

Sanitation Requirements

The Curtis G3 airpot brewer is Factory Pre-Set and Ready to Go… Right from the Box.

Following are the Factory Settings for Curtis airpot brewers:
- Brew Temperature = 200°F
- Brew Volume = Set to vessel requirements (74 oz).

System Requirements:
- Water Source   20 – 90 PSI (minimum flow rate of ½ GPM)
- Electrical: See attached schematic for standard model or visit www.wilburcurtis.com for your model.

SETUP STEPS

1. The unit should be level (left to right - front to back), on a secure surface.

2. Connect the water line to the water inlet fitting on the rear of the unit. Water volume flow to the machine should be consistent. Use tubing sized sufficiently to provide a minimum flow rate of ½ GPM (1 GPM preferred).

   NOTE: A water filtration system must be used to help maintain trouble-free operation. In areas with extremely hard water, we highly recommend the use of a Curtis approved water filter. For our full line of filters, please log on to www.wilburcurtis.com. A water filtration system will greatly prolong the life of the unit and enhance the quality and taste of the product.

   > NSF International requires the following water connection:
   > 1. *A quick disconnect or additional coiled tubing (at least 2x the depth of the unit) is required so that the unit can be moved for cleaning.*
   > 2. *This unit must be installed with adequate backflow protection to comply with applicable federal, state and local codes.*
   > 3. *Water pipe connections and fixtures directly connected to a portable water supply shall be sized, installed and maintained in accordance with federal, state, and local codes.*

3. Connect the unit to electrical outlet with appropriate amperage rating (see serial tag on machine).

4. Once power has been supplied to the unit, flip the toggle switch to the 'ON' position (located on the rear of the unit), the water tank will begin to fill. When the water level in the tank reaches the probe, the heating element(s) will turn on.

5. Water in the heating tank will require approximately a half hour before reaching operating temperature (factory setting of 200°F). Where applicable, turn on the Universal Control Module (UCM). When the unit reaches operating temperature, it will display "READY TO BREW".

For the latest specifications and information go to www.wilburcurtis.com
Technical Support: 1-800-995-0417 M-F 5:30am-4:00pm PT
Email: techsupport@wilburcurtis.com
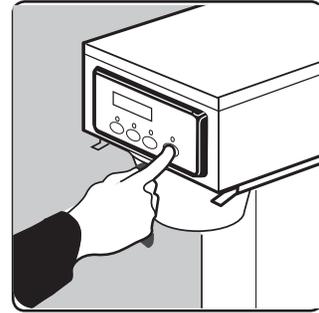
1

Coffee Brewing Instructions

1. Brewer should be ON (Confirm at rear toggle switch, then press the ON/OFF button). Ready-to-Brew should be on the display.

2. Place an empty airpot under the brewcone.

3. Place a clean filter into the brewcone. Fill brewcone with the proper amount of ground coffee.
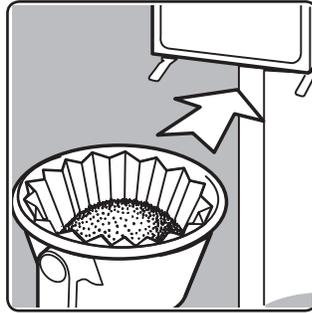
4. Slide the filled brewcone into the brew rails on the brewer.

5. Press the brew button. Coffee will start to brew into the airpot.

⚠ WARNING TO AVOID SCALDING, Do not remove brewcone while brew light is flashing.

QUICK START

Your Curtis G3/Gold Cup Series is Factory Pre-Set for Optimum Performance.
After connection to water and power; the rear toggle switch must be on. You will hear a beep sound, indicating power is available to the controller.

The control displays | CURTIS | *Press ON/OFF button and the screen will display* | <MODEL> CURTIS | *After three seconds,* | CURTIS FILLING | *is displayed.*

Water will fill the tank (approximately 2-3 minutes depending on water flow rate). When the proper level is reached | CURTIS HEATING | *will appear on the screen. It takes approximately 20 minutes to reach the set point temperature.*

Control will display | CURTIS READY TO BREW | *when temperature reaches the set point. The unit is now ready to brew.*

Programming with the Universal Control Module (UCM)

Turn off the control panel by pressing ON/OFF button. Press and <u>hold</u> bottom/right coffee brew button (#4 in illustration) and then press and release the ON/OFF button.

Continue holding the bottom-right brew button. The screen will display | ENTERING PROGRAM MODE | , wait until | ENTER CODE — — — — | is displayed. Enter the 4-digit access code, the code corresponds to the buttons illustrated below. The default code set at the factory is 1-2-3-4.

After the 4-digit code is entered, | PROGRAM MENUS < SELECT > | will be displayed. You can now enter the program menu features.
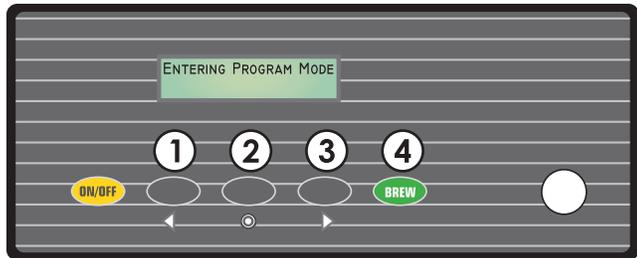
All programming selections are performed with the three center buttons.
The symbols near the buttons are:

◁ Scroll LEFT
⊙ SELECTION or ENTER to save new parameter
▷ Scroll RIGHT

Program Menus

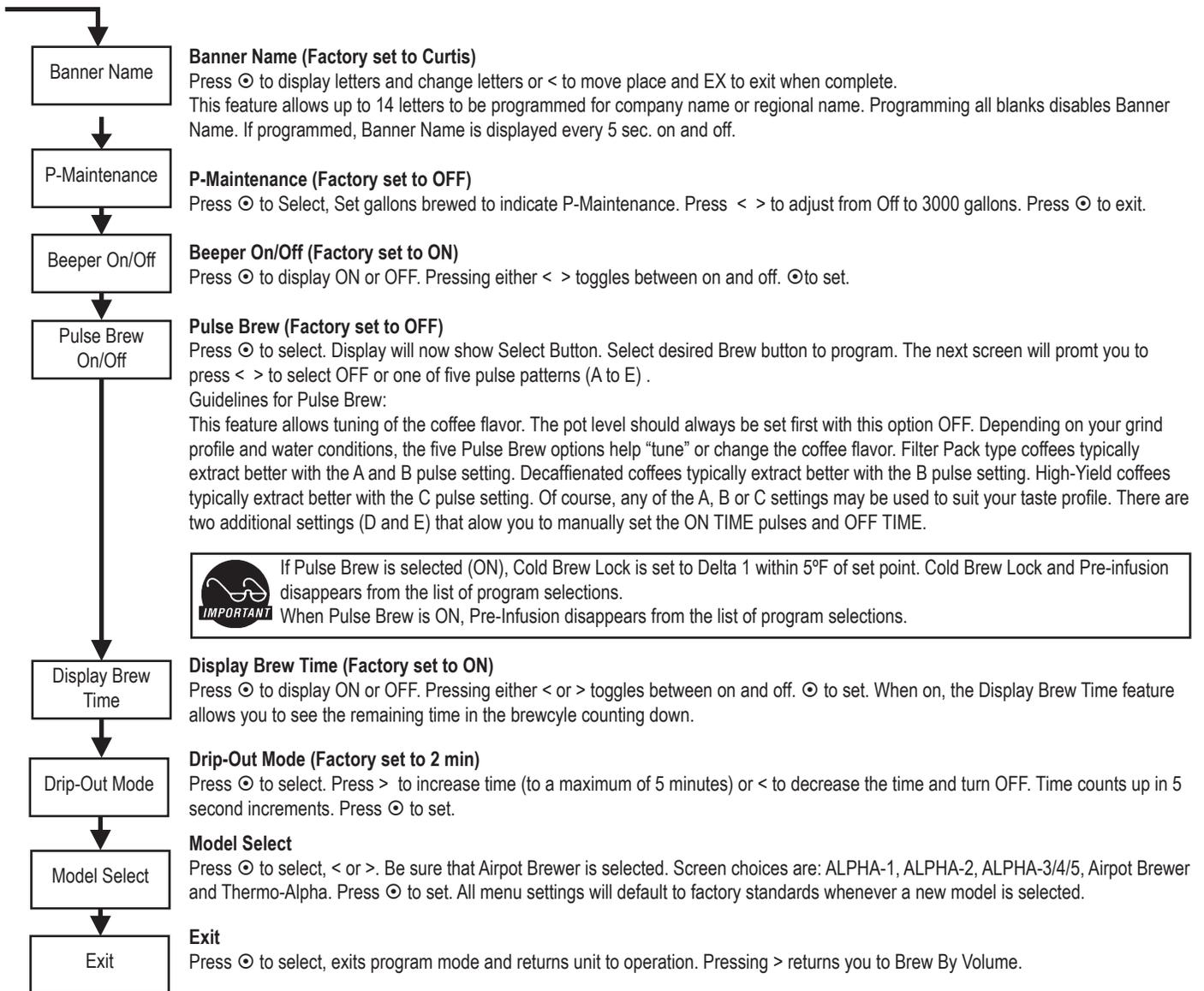|	
Program Menus	**Program Menus** From Program Menus press > display will now show the next feature. Selecting Brew by Volume or Brew by Time depends on whether you know your brew time before starting.
Brew By Volume	**Brew by Volume (Factory set to 74oz)** Press ⊙ to Select, display will now show Press BREW to Start. Press the BREW button. The unit will start spraying hot water into the brewcone. When correct volume is reached press BREW button again to stop the flow. Now the volume has been set. Pressing > button will display the subsequent menu features.
Brew By Time	**Brew by Time (Factory set to 3 min)** Press ⊙ to Select, display will now show Select Button. The current time is now shown. By pressing < > you can toggle back and forth from minutes to seconds to exit (ex). Change the time or set and exit by pressing ⊙.
Temperature	**Temperature (Factory set to 200°F)** Press ⊙ to Select. Press < > to move to desired temperature and then ⊙ to set. Temperature is programmable from 170ºF to 206ºF in 2-degree increments.
Energy Save Mode	**Energy Save Mode (Factory set to OFF)** Press ⊙ to Select, < , >, ON, OFF or ON 140ºF , ⊙ to set. When in ON, unit will automatically shut off 4 hours from last brew. When feature is OFF, unit does not have the energy saving mode. In the ON 140ºF position, temperature goes down to 140ºF. if unit has not brewed in 4 hours. This feature will save energy by lowering the tank temperature during periods of non-operation.
Brew Count Odom	**Brew Count Odom.** Press ⊙ to display total gallons brewed. Press ex or Reset.
Pre-Infusion	**Pre-Infusion (Factory set to OFF)** Press ⊙ to Select. Display will now show Select Button. Select desired Brew button. Current setting in seconds is displayed < to decrease or select > to increase (range from OFF to 10 through 60 seconds), ⊙ to set.
Brew Count Total	**Brew Count Total** Press ⊙ to Select, Shows total gallons and total brew cycles on the unit. Cannot be reset.
Cold Brew Lock	**Cold Brew Lock . . . (Factory set to 15º)** Press ⊙ to select, < > to select desired setting (CBL 5, 15 or OFF),⊙ to set. The Cold Brew Lock feature allows the brewer to brew at three different temperature levels from the actual set point. The first setting is within 5 degrees of set point, next is within 15 degrees of set point, OFF is within 30 degrees of set point for the Ready to Brew message, however it will brew at any temperature.
Master Reset	**Master Reset** Press ⊙ to display Are You Sure? Then < for Yes, > for No. Brewer factory defaults are then reset.
Service Call	**Service Call (Phone number Factory set to 1-800-000-0000x)** Press ⊙ to display number and change number or < to move place and EX to exit when complete This number will be displayed during a Heating system SENSOR ERROR or during a WATER ERROR.
Access Code	**Access Code (Factory set to 1-2-3-4)** Press ⊙ to display number and change number, (the number can be change 1 to 4) or < to move place and ex to exit when complete.

3

```
┌──────────────┐
│ Banner Name  │
└──────────────┘
        │
        ▼
┌──────────────┐
│ P-Maintenance│
└──────────────┘
        │
        ▼
┌──────────────┐
│ Beeper On/Off│
└──────────────┘
        │
        ▼
┌──────────────┐
│  Pulse Brew  │
│   On/Off     │
└──────────────┘
        │
        ▼
┌──────────────┐
│ Display Brew │
│    Time      │
└──────────────┘
        │
        ▼
┌──────────────┐
│ Drip-Out Mode│
└──────────────┘
        │
        ▼
┌──────────────┐
│ Model Select │
└──────────────┘
        │
        ▼
┌──────────────┐
│    Exit      │
└──────────────┘
```

Banner Name (Factory set to Curtis)
Press ⊙ to display letters and change letters or < to move place and EX to exit when complete.
This feature allows up to 14 letters to be programmed for company name or regional name. Programming all blanks disables Banner Name. If programmed, Banner Name is displayed every 5 sec. on and off.

P-Maintenance (Factory set to OFF)
Press ⊙ to Select, Set gallons brewed to indicate P-Maintenance. Press < > to adjust from Off to 3000 gallons. Press ⊙ to exit.

Beeper On/Off (Factory set to ON)
Press ⊙ to display ON or OFF. Pressing either < > toggles between on and off. ⊙to set.

Pulse Brew (Factory set to OFF)
Press ⊙ to select. Display will now show Select Button. Select desired Brew button to program. The next screen will promt you to press < > to select OFF or one of five pulse patterns (A to E) .
Guidelines for Pulse Brew:
This feature allows tuning of the coffee flavor. The pot level should always be set first with this option OFF. Depending on your grind profile and water conditions, the five Pulse Brew options help "tune" or change the coffee flavor. Filter Pack type coffees typically extract better with the A and B pulse setting. Decaffienated coffees typically extract better with the B pulse setting. High-Yield coffees typically extract better with the C pulse setting. Of course, any of the A, B or C settings may be used to suit your taste profile. There are two additional settings (D and E) that alow you to manually set the ON TIME pulses and OFF TIME.

> **IMPORTANT** If Pulse Brew is selected (ON), Cold Brew Lock is set to Delta 1 within 5ºF of set point. Cold Brew Lock and Pre-infusion disappears from the list of program selections.
> When Pulse Brew is ON, Pre-Infusion disappears from the list of program selections.

Display Brew Time (Factory set to ON)
Press ⊙ to display ON or OFF. Pressing either < or > toggles between on and off. ⊙ to set. When on, the Display Brew Time feature allows you to see the remaining time in the brewcyle counting down.

Drip-Out Mode (Factory set to 2 min)
Press ⊙ to select. Press > to increase time (to a maximum of 5 minutes) or < to decrease the time and turn OFF. Time counts up in 5 second increments. Press ⊙ to set.

Model Select
Press ⊙ to select, < or >. Be sure that Airpot Brewer is selected. Screen choices are: ALPHA-1, ALPHA-2, ALPHA-3/4/5, Airpot Brewer and Thermo-Alpha. Press ⊙ to set. All menu settings will default to factory standards whenever a new model is selected.

Exit
Press ⊙ to select, exits program mode and returns unit to operation. Pressing > returns you to Brew By Volume.

Cleaning the Brewer

Regular cleaning of the airpot brewer will maintain the highest quality coffee your equipment is capable of producing. Proper cleaning is essential to maintain that fresh, appealing look to your coffee service.

1. Turn off the brewer at the ON/OFF button on the control panel.
2. Wipe any spills, dust or debris from the exterior surfaces, with a damp cloth. Apply a stainless steel polish to prevent scratches.
3. Wipe down the sprayhead area with a moist cloth.
4. Slide out the brewcone and clean it with a mild detergent solution.
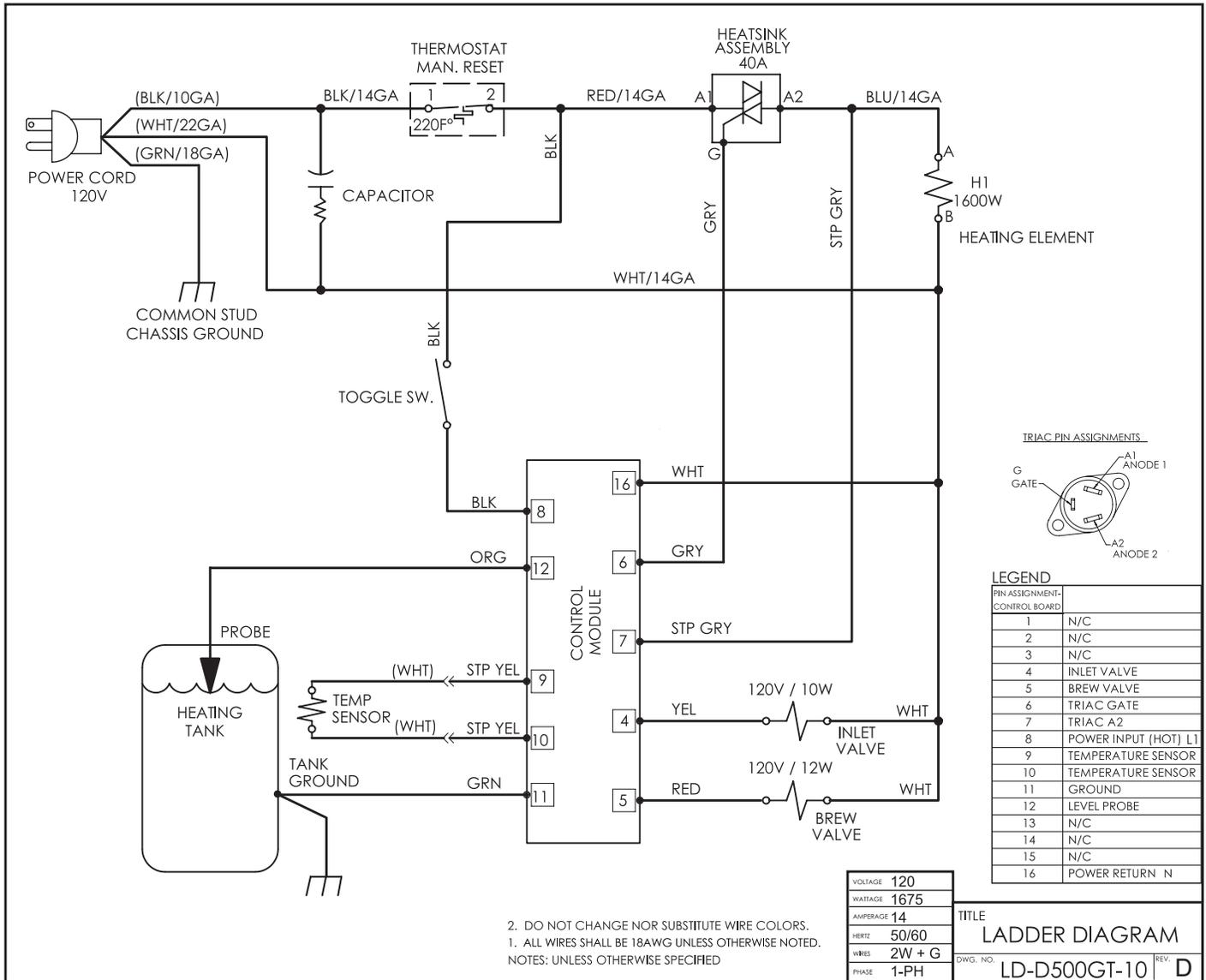5. Turn on the brewer at the ON/OFF button.

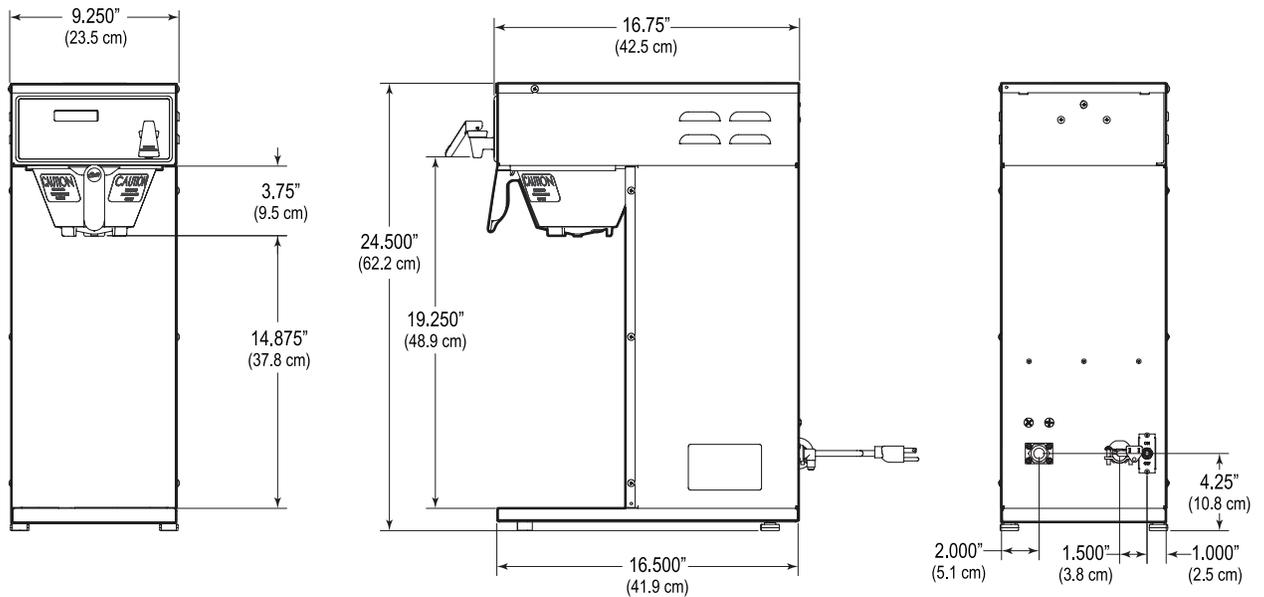> **IMPORTANT** CAUTION: DO NOT use undiluted bleach or chlorine.

Cleaning Airpots

– Clean with warm water and dish washing detergent. Use a sponge cleaning brush to scrub inside.
– Rinse thoroughly with hot water.
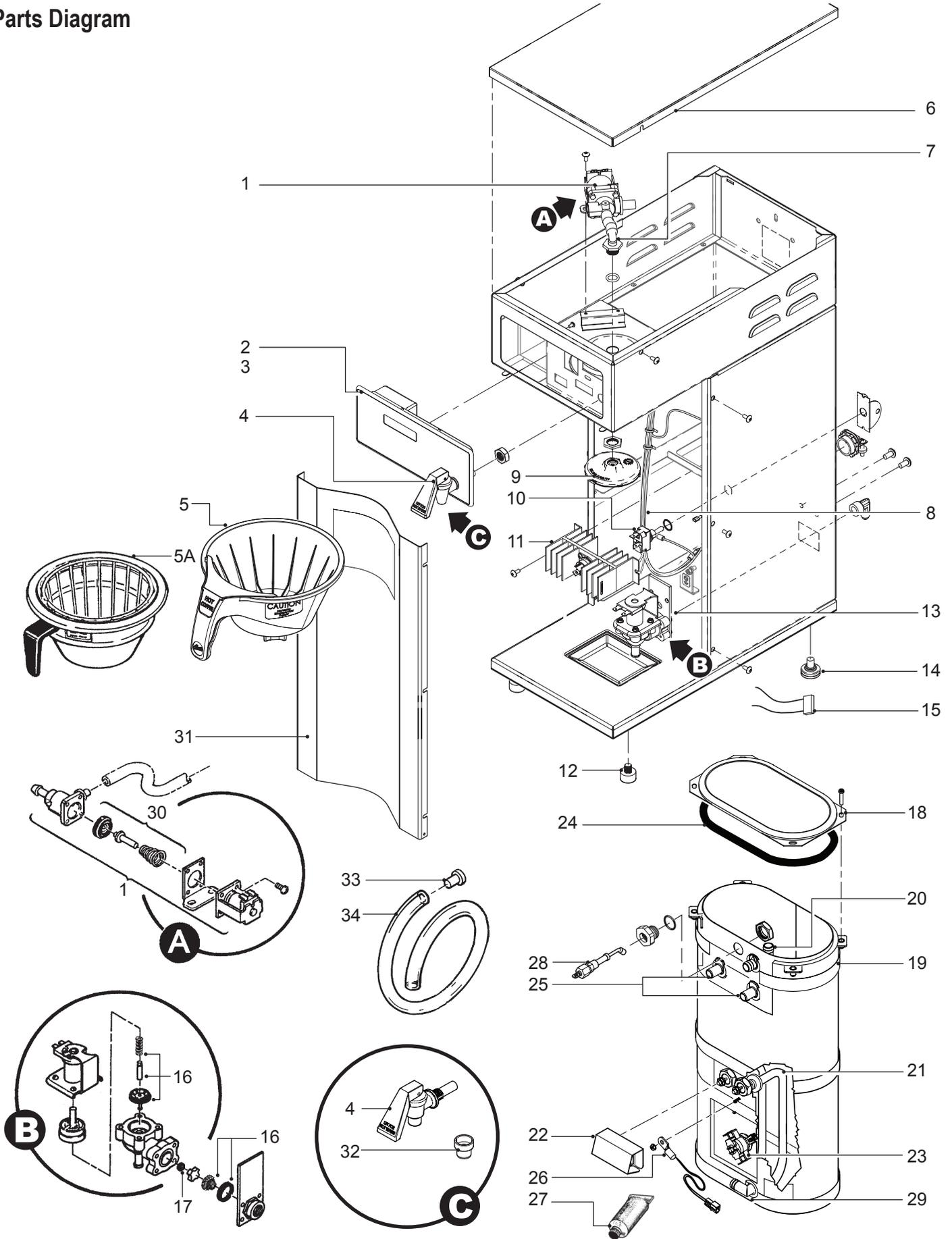– Do not immerse airpots in water. Do not place in dishwasher.

Electrical Schematic

THERMOSTAT
MAN. RESET

HEATSINK
ASSEMBLY
40A

(BLK/10GA)   BLK/14GA   1   2   RED/14GA   A1   A2   BLU/14GA

(WHT/22GA)

(GRN/18GA)   220F°

POWER CORD
120V

CAPACITOR

BLK

G

GRY

STP GRY

A
H1
1600W
B
HEATING ELEMENT

COMMON STUD
CHASSIS GROUND

WHT/14GA

BLK

TOGGLE SW.

WHT   16

BLK   8

ORG   12   GRY   6

PROBE

HEATING
TANK

TEMP
SENSOR

(WHT)   STP YEL   9

(WHT)   STP YEL   10

TANK
GROUND   GRN   11

STP GRY   7

YEL   4   120V / 10W   WHT

INLET
VALVE

RED   5   120V / 12W   WHT

BREW
VALVE

CONTROL MODULE

TRIAC PIN ASSIGNMENTS

A1
ANODE 1
G
GATE
A2
ANODE 2

LEGEND

PIN ASSIGNMENT-CONTROL BOARD	
1	N/C
2	N/C
3	N/C
4	INLET VALVE
5	BREW VALVE
6	TRIAC GATE
7	TRIAC A2
8	POWER INPUT (HOT) L1
9	TEMPERATURE SENSOR
10	TEMPERATURE SENSOR
11	GROUND
12	LEVEL PROBE
13	N/C
14	N/C
15	N/C
16	POWER RETURN N

VOLTAGE	120	TITLE
WATTAGE	1675	
AMPERAGE	14	LADDER DIAGRAM
HERTZ	50/60	
WIRES	2W + G	DWG. NO. LD-D500GT-10 REV. D
PHASE	1-PH	

2. DO NOT CHANGE NOR SUBSTITUTE WIRE COLORS.
1. ALL WIRES SHALL BE 18AWG UNLESS OTHERWISE NOTED.
NOTES: UNLESS OTHERWISE SPECIFIED

Rough-In Drawing

9.250"
(23.5 cm)

3.75"
(9.5 cm)

14.875"
(37.8 cm)

16.75"
(42.5 cm)

24.500"
(62.2 cm)

19.250"
(48.9 cm)

16.500"
(41.9 cm)

4.25"
(10.8 cm)

2.000"
(5.1 cm)

1.500"
(3.8 cm)

1.000"
(2.5 cm)

5

Parts Diagram

Parts List

Item №	Part №	Description
1	WC- 889-101*	VALVE, DUMP LEFT 120V
2	WC-37064*	KIT, LABEL & UCM D500GT CURTIS
3	WC-39346	LABEL, CNTRL PNL (CURTIS LOGO)
4	WC-37252*	KIT, HOT WATER FAUCET RPLCMNT
5	WC-3418	BREW CONE,ASSY W/SPLASH POCKET
5A	WC-3316	BREWCONE, ASSY S.S. (OPTIONAL)
6	WC-5450	COVER, TOP (OLDER MODELS)
6A	WC-58117	COVER, TOP D500GT
7	WC-2962-101K	KIT, FITTING SPRAYHEAD KYNAR
8	WC-13237	HARNESS, ASSY D500GT/H-10
9	WC-29025*	SPRAYHEAD, PURPLE ADVANCE FLOW
10	WC- 102*	SWITCH, TOGGLE 125/250 VAC RESISTIVE
11	WC-8556*	HEATSINK & TRIAC ASSY 40A 600V
12	WC-3503	LEG, SCREW BUMPER 3/8-16 STD
13	WC- 826L*	VALVE, INLET 1 GPM 120V 10W
14	WC-3518	LEG, GLIDE 3/8"-16 STUD SCREW
15	WC-8591	CAPACITOR, X2
16	WC-3765L*	KIT, VALVE REPAIR USE ON WC-826
17	WC- 830	WASHER, FLW ½" 1.0 GPM USE W/WC-826
18	WC-5853-102	COVER, TOP HEATING TANK GEN USE
19	WC-6277	TANK COMPLETE, D500GT 120V
20	WC-37266*	KIT, TANK OVERFLOW ELBOW FITTING
21	WC- 904-04*	KIT,ELEMENT, HEATING 1.6KW120V W/NUTS
22	WC-4394	GUARD, SHOCK HEATING ELEMENT
23	WC- 523*	THERMOSTAT, MANUAL RESET
24	WC-43062*	GASKET, HEATING TANK
25	WC-37357*	KIT, STRAIGHT PLSTC FITTING & BSHNG
26	WC-1438-101*	SENSOR, HEATING TANK
27	WC-5231*	COMPOUND, SILICONE 5 OZ TUBE
28	WC-5502-01*	KIT, PROBE WATER LEVEL W/O-RING, NUT
29	WC-37365*	KIT, TANK INLET FITTING
30	WC-3763*	KIT, VALVE REPAIR USE ON WC-889
31	WC-6217	COVER, FRONT
32	WC-1806*	SEAT CUP, SILICONE (USE ON WC-1809)
33	WC-43058	PLUG, TANK DRAIN, PP RED
34	WC-5310*	TUBING, SILICONE, 5/16" I.D. (1 FT.)

* SUGGESTED PARTS TO STOCK

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 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, "0" 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.

FOR THE LATEST SPECIFICATION INFORMATION GO TO WWW.WILBURCURTIS.COM

Printed in U.S.A. 8/2012   F-3841 Rev A