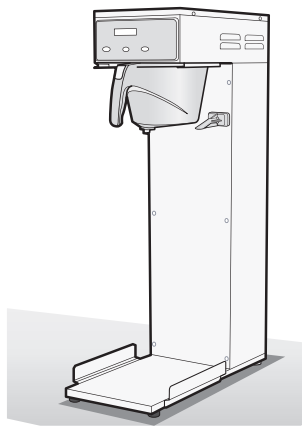




## WILBUR CURTIS Co., Inc.

### Service Manual – RTB



Models Included:  
**RTB**



**CAUTION:** Equipment must be installed to comply with applicable federal, state, and local plumbing/electrical codes having jurisdiction.



**CAUTION:** Follow this setup procedure before attempting to use this unit. Failure to follow these instructions can result in injury and/or void of warranty.



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



**IMPORTANT:** After setup, run a FULL brew cycle. Place a tea container to catch both hot water from the brewcone and dilution water from spout on the front cover.

ISO 9001:2008 REGISTERED

WILBUR CURTIS CO., INC.  
6913 West Acco Street  
Montebello, CA 90640-5403  
For the latest information go to  
[www.wilburcurtis.com](http://www.wilburcurtis.com)  
Tel: 800-421-6150  
Fax: 323-837-2410

#### Important Safeguards/Symbols

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 Brewer is Factory Pre-Set and Ready to Go... Right from the Box.

Following are the Factory Settings for the G3 Iced Tea Brewer.

- Brew Temperature = 204°F
- Brew Volume = Set to dispensing vessel requirements

Generally there will never be a reason to change the G3/Gold Cup Series default settings. However, should you need to make slight adjustments to meet your brewing needs, programming instructions are provided later in this manual.

System Requirements:

- Water Source 20 – 90 PSI. Minimum flow rate of ½ gpm (1 gpm preferred flow rate).
- Electrical: See electrical schematic on page 8.

#### 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 one gallon per minute.

**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 highly recommend the use of a Curtis approved water filter. For our full line of filters, log on to [www.wilburcurtis.com](http://www.wilburcurtis.com).



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](http://www.wilburcurtis.com)

Technical Support: 1-800-995-0417 M-F 5:30am-4:00pm PT

Email: [techsupport@wilburcurtis.com](mailto:techsupport@wilburcurtis.com)

# Quick Start

Your Curtis Generation 3 Brewer 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.

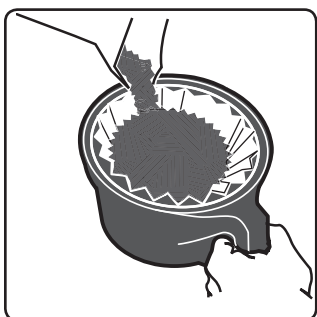
The control displays **CURTIS**. Press ON/OFF button and the screen will display **<DUAL DILUTION> CURTIS**. After three seconds, **CURTIS FILLING** is displayed.

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 set point temperature of 204°F.

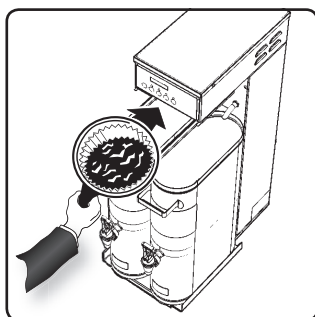
Control will display **CURTIS READY TO BREW** when temperature reaches the set point (204°F). Unit is now ready to brew.

## Tea Brewing Instructions

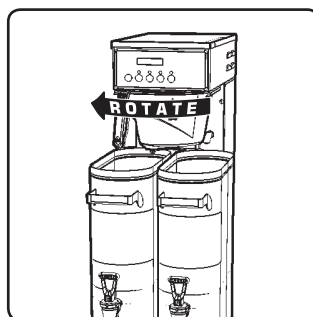
1. Brewer should be ON (Confirm at rear toggle switch, then press ON/OFF button) and Ready-to-Brew displayed.
2. Make sure tea containers are in place, sitting on the brew deck.



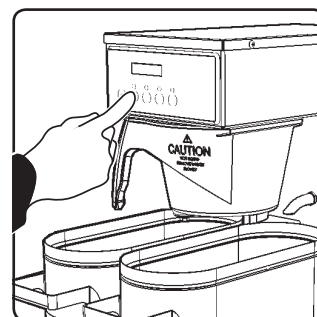
3. Place a paper filter in the brew basket. Pour leaf tea into the filter. Place the filter into the brew cone.



4. Slide brew cone into brew rails.



5. Select the tea container you wish to brew into and rotate the brew cone to direct the flow into that tea container.



6. Press the desired brew button on the UCM control panel. The brew cycle will start.



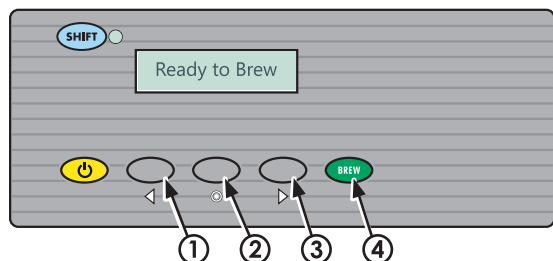
**CAUTION HOT LIQUID**, Scalding may occur. Allow the brew cone to completely drain before removing.

## To Access Programming

Turn off (dark display) by pressing ON/OFF button (yellow). Press and hold BREW button #4 and then press and release ON/OFF button (yellow).

Continue holding the #4 button. Display will read **ENTERING PROGRAM MODE**, wait until **ENTER CODE** is displayed. Enter the 4-digit access code, the digits 1-4 correspond to the buttons (see illustration below).

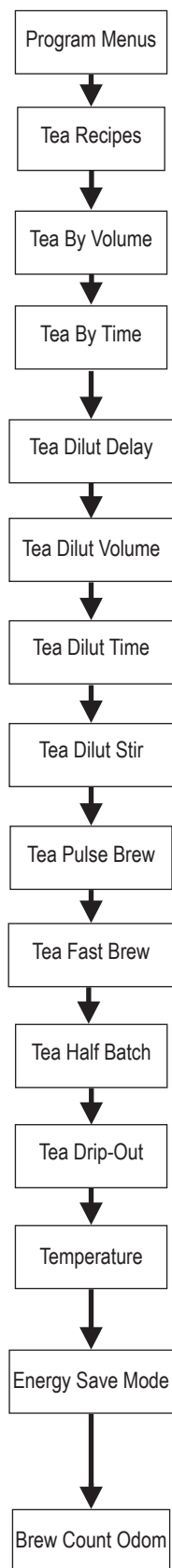
The default code set at the factory is 1-2-3-4. Then **PROGRAM MENUS < SELECT >** will be displayed.



All programming selections are performed with the three center buttons. The symbols below the buttons are:

- ◀ Scroll LEFT
- ⊙ SELECTION or ENTER to save new parameter
- ▶ Scroll RIGHT

## Program Menus



**Program Menus** screen. Press the > button to show the next menu item.

### **Tea Recipes** (Factory set to Standard Tea Purple)

Press Ⓒ to Select. Press < or > to scroll through recipes: Standard Gray, Standard Purple, Tropical Gray, Tropical Purple, 76/308 Gray or 76/308 Purple. Press Ⓒ to set.

**Tea by Volume:** Press Ⓒ to select, Display will now show Push START To Begin... Press the BREW button then hot water starts running, when desired 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.

### **Tea by Time** (Factory set to 5:52 FULL, 2:56 HALF)

Press Ⓒ to select. By pressing < or > buttons, you can increase and decrease time. Press Ⓒ to set minutes and seconds.

### **Tea Dilution Delay** (Factory set to 0:30)

Press Ⓒ to Select. Press < or > buttons, to add or decrease time. Press Ⓒ to set. The maximum is 10 minutes.

**Tea Dilution Volume:** Press Ⓒ to Select, Display will now show Select Button... Press the desired brew button and water will flow, when required volume is reached press BREW button again to stop the flow. Now the volume has been set. Press > to display subsequent menu features.

### **Dilution Time** (Factory set to 4:05 FULL, 2:02 HALF)

Press Ⓒ to Select. By pressing < or > buttons, you can increase and decrease time. Press Ⓒ to set minutes and seconds. The maximum is 9 min, 59 sec.

### **Tea Dilution Stir** (Factory set to Standard – Purple ON).

Press Ⓒ to Select. Press < or > to select between ON or OFF. Press Ⓒ to set.

### **Tea Pulse Brew** (Factory set to OFF).

Press Ⓒ to Select. Press < or > to select ON, OFF or D. D is a manual adjust from 1 to 20 pulses with an ON time from 5 to 150 seconds and an OFF time from 5 to 150 seconds.

### **Tea Fast Brew** (Factory set to OFF).

Press Ⓒ to Select, press < or > to choose ON or OFF. Selecting ON will start hot water spraying in the brewcone first and then 1 minute later the dilution water will start to flow.

### **Tea Half Batch** (Factory set to ON).

Press Ⓒ to Select. Press < or > to toggle between OFF and ON. This feature, when on, activates the Half Batch buttons or the Half Batch Shift buttons.

### **Tea Drip-Out** (Factory set to OFF)

Press Ⓒ to Select. Press < or > to adjust time. Settings are OFF, up to 15 minutes, at 5 second increments.

### **Temperature** (Factory set to 204°F)

Press Ⓒ to Select. Press < or > to increase or decrease setting. Temperature range, from 170°F to 208°F in 2-degree increments.

### **Energy Save Mode** (Factory set to OFF)

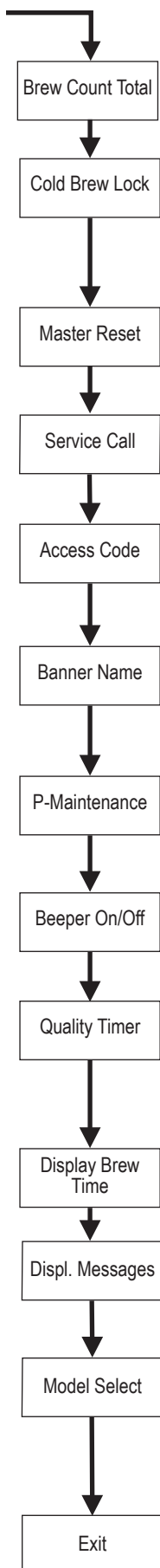
Press Ⓒ to Select, < or > ON, OFF or ON 140°F, Ⓒ to set. When in ON, unit will automatically shut off 4 hours from last brew. When feature is OFF, unit does not have the energy saving mode.

In the ON 140°F position, temperature goes down to 140°F if unit has not brewed in 4 hours. This feature will save energy by maintaining a lower temperature in the tank during periods of non-operation.

### **Brew Count Odom.**

Press Ⓒ to Select, Shows total gallons and total brew cycles on the unit. Press ex or Reset Brew Count Total.

Continued on Page 4



### Brew Count Total

Press **⊙** to Select, Shows total gallons and total brew cycles on the unit. Cannot be reset.

### Cold Brew Lock (Factory set to 5° F)

Press **⊙** to select, < or > 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

Press **⊙** to display Are You Sure? Then < for Yes, > for No. When Master Reset is used, the all of the menu selections in the UCM return to factory defaults.

### Service Call (Phone number Factory set to 1-800-000-0000)

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 (Factory set to 1-2-3-4)

Press **⊙** to display number and change number, (the number can be changed 1 to 4) or < to move place and ex to exit when complete.

### Banner Name (Factory setting reads CURTIS)

Press **⊙** to display the current banner letters. Press < or > to move cursor, press **⊙** to select letters, or EX to exit when complete. This feature allows up to 14 letters to be programmed. Programming all blanks disables Banner Name. When a banner is set, the banner name is displayed on line one and Ready to Brew is on the second line.

### P-Maintenance (Factory set to OFF)

Press **⊙** to Select, Set gallons brewed to indicate P-Maintenance. Press < or > 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 < or > toggles between on and off. **⊙** to set. When ON, the unit will emit a short beep each time a button is pressed.

### Tea Quality Timer (Factory set to OFF)

Press **⊙** to Select. Press < or > to adjust from 0 to 10 hours in 1 hour increments. Timing starts when a brew button is pressed. When time expires, the UCM will emit an audio alarm and the words Quality Timer will appear flashing on the screen.

### Display Brew Time (Factory set to ON)

Press **⊙** to display ON or OFF. Pressing either < or > toggles between on and off. When ON brew time displays and counts down (during the brew cycle). When OFF, only the word Brewing is displayed during the brew cycle.

### Display Messages (Factory set to ON)

Press **⊙** to display ON or OFF. Pressing either < or > toggles between on and off. When ON, screen displays "Rinse Server Before Brewing" message.

### Model Select (Factory set to DUAL DILUTION)

Press **⊙** to select, < or > to select model. The selections are: TEA/IC-1BATCH, TEA/IC-2BATCH, TEA/IC-3BATCH, TEA/IC-4BATCH, TEA-SWEET, DUAL-DILUTION, DUAL-SWEET, COMBO, COMBO/IC, and COMBO-SWEET. Press **⊙** to set. When the Model Select feature is changed, all settings are reset to the defaults of the newly selected model.

### Exit

Press **⊙** to select, exits program mode and returns unit to operation.

## Error Message

With the G3/Gold Cup Series brewers, there are three error messages that can appear on the screen to advise the user of a malfunction. If one of these error messages appear, the brewer will lock up and stop functioning until the error is corrected. An error message will occur under the following conditions:

(800) 000-000  
Water Level Err


1. Water level fill error or overflow. This error message occurs when the inlet valve solenoid has been on for more than 10 minutes. This error message also occurs when the valve is refilling the tank during a brew cycle for more than 1½ minutes.

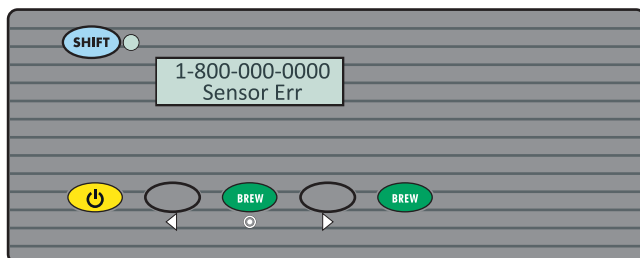
(800) 000-000  
Sensor Err

2. Water temperature control system error. An open probe or a break in the temperature control circuit is detected.

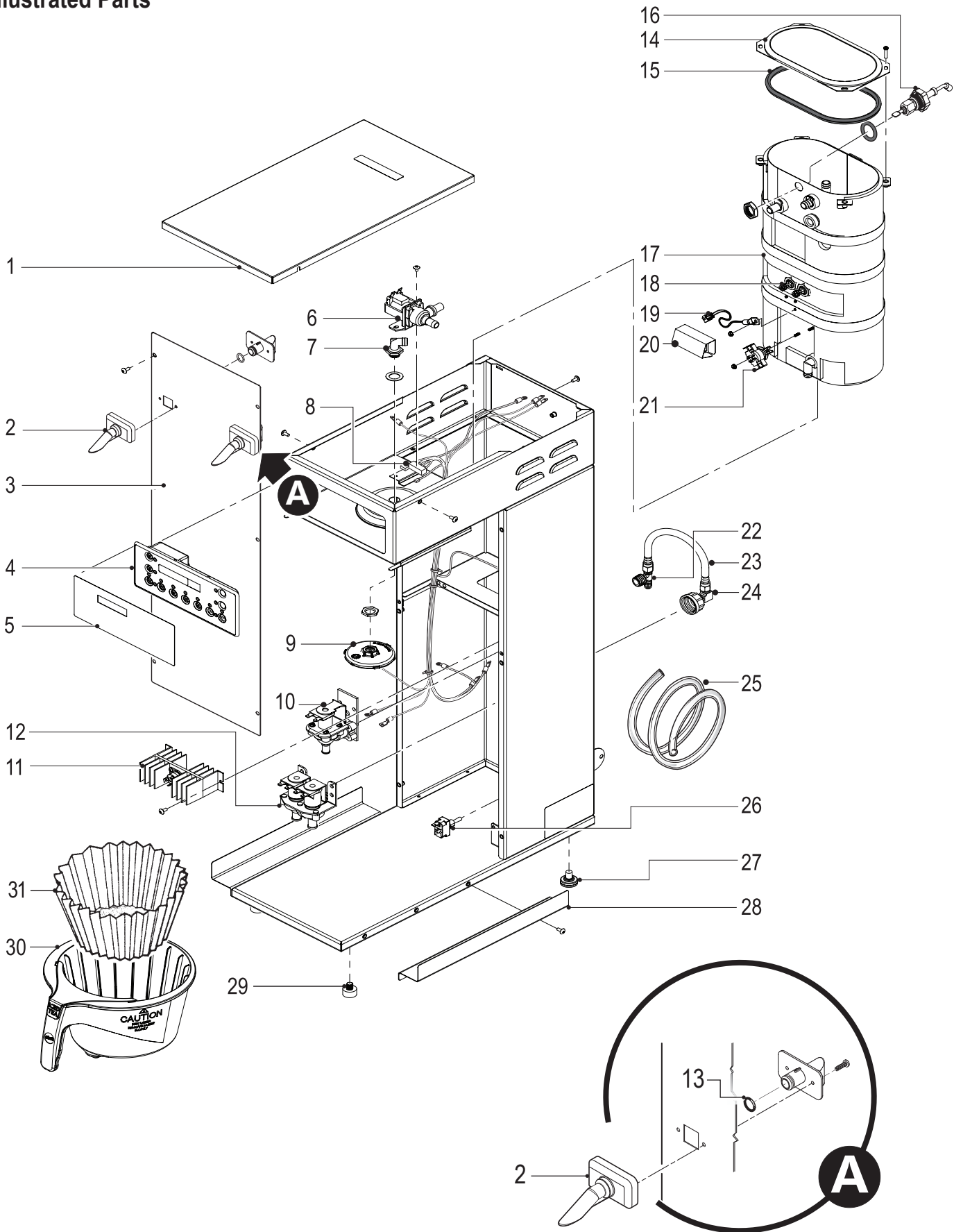
(800) 000-000  
Over Temp Error

3. This error message indicates there is an overheating problem. The sensor is reading that temperature in the heating tank has risen above 210°F.

Usually the screen will display a service call phone number. Once a malfunction is corrected, the error message must be cleared. To reset the control panel and return to normal operation, press the  button for 5 seconds.



Illustrated Parts



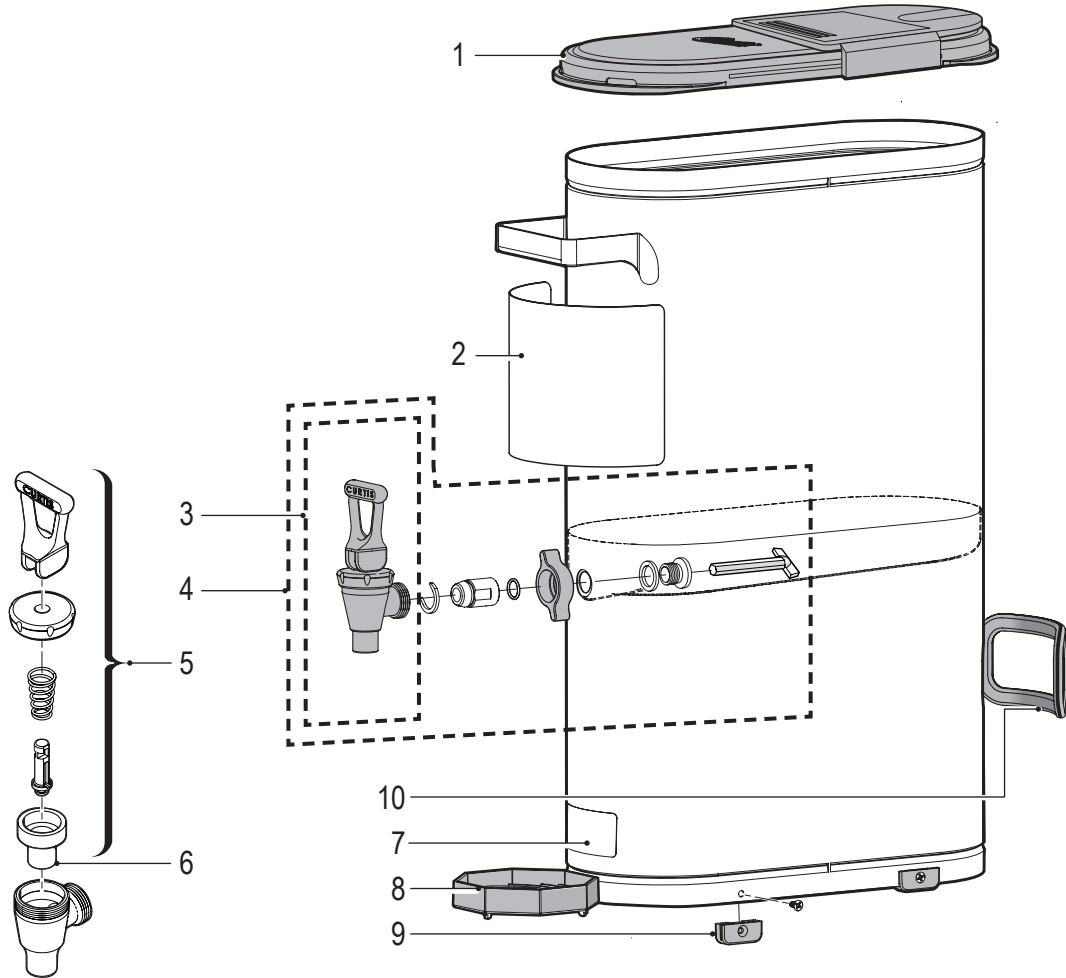
## Illustrated Parts

ITEM №	PART №	DESCRIPTION
1	WC-58117	COVER, TOP
2	WC-66079	SPOUT ASSEMBLY , DILUTION PLASTIC
3	WC-58017-105	COVER, FRONT - DUAL DILUTION
4	WC-37442*	KIT, UCM & LABEL TCTS-RC 120V
4A	WC-729-104	CONTROL MODULE, (UCM) 220V TEA/COMBO/SWT TEA (EXPORT ONLY)
5	WC-390172	LABEL, UCM OVERLAY TCTS10600/ RTB 2-BATCH CURTIS LOGO
6	WC-889*	VALVE, DUMP LEFT 120VAC12W
6A	WC-860	VALVE, DUMP LEFT 220V 12W (EXPORT ONLY)
7	WC-2977-101K	KIT, SPRAYHEAD FITTING PLASTIC
8	WC-13043-106	HARNESS ASSEMBLY COMPLETE TCTS/T-10600
8A	WC-13044	HARNESS, ASSY TCTS/PTT3-30
9	WC-29025*	SPRAYHEAD, ASSEMBLY AFS-PURPLE
10	WC-826L *	VALVE, INLET 1.15GPM 120Vac 10W
10A	WC-856	VALVE, INLET 1 GPM 240V 10W (EXPORT ONLY)
11	WC-8556*	HEATSINK and TRIAC ASSEMBLY 40A 600V
12	WC-895-104*	VALVE, DUAL DISPENSE 120V-10W .5GPM x .5GPM
12A	WC-878-104	VALVE, INLET DUAL 240V 10W .5GPM X .5GPM (EXPORT ONLY)
13	WC-43134	O'RING, .426 X 9/16 O.D. X .070 WALL EDPM TCTS
14	WC-5853-102	COVER, TOP HEATING TANK
15	WC-43062*	GASKET, TANK LID
16	WC-5527K*	KIT, PROBE WATER LEVEL O-RING, & NUT
17	WC-6277*	TANK, COMPLETE 1600W 120V TCT
17A	WC-6290-101	TANK, COMPLETE TCT/CB w/WC- 934-101 ELEMENT (EXPORT ONLY)
18	WC-904-04*	KIT, ELEMENT, HEATING 1.6KW120V W/ JAM NUT & SILICONE WASHERS
18A	WC-934-04	KIT, ELEMENT HEATING 2.5KW 220V NUT & WASHERS (EXPORT ONLY)
19	WC-1438-101*	SENSOR, TEMPERATURE TANK
20	WC-4394	GUARD, SHOCK/HEATING ELEMENT
21	WC-523*	THERMOSTAT, MANUAL RESET 120/240VAC 25A 220°F MAX
21A	WC-522	THERMOSTAT, HI LIMIT HEATER CONTROL DPST 277V (EXPORT ONLY)
22	WC-2707	TEE, 1/4 FLARE x 1/4 FLARE x 3/8 NPT BRASS
23	WC-53038	TUBING, NYLON BRAIDED 1/4" FLARE x 11-1/8" LG. FLEXIBLE
24	WC-37255*	KIT, DUAL VALVE WATER INLET
25	WC-5310*	TUBE, 5/16 ID x 1/8W SILICONE
26	WC-102*	SWITCH, TOGGLE SPST 15A 125Vac RESISTIVE
26A	WC-103	SWITCH, TOGGLE DPST 25A 125/250VAC RESISTIVE (EXPORT ONLY)
27	WC-3518*	LEG, 3/8"-16 x 1/2" LG. GLIDE
28	WC-8531-101*	RAIL, BASE
29	WC-3503*	LEG, 3/8"-16 STUD SCREW BUMPER
30	WC-3396-101*	BREW CONE ASSEMBLY BLK ROTATING NON-METAL - STD TEA
31	GEM-6-101*	FILTER, PAPER 15 X 5-1/2" ALTRA 4-3/4" H

\* RECOMMENDED SPARE PARTS



**Illustrated Parts List**  
**TCN**

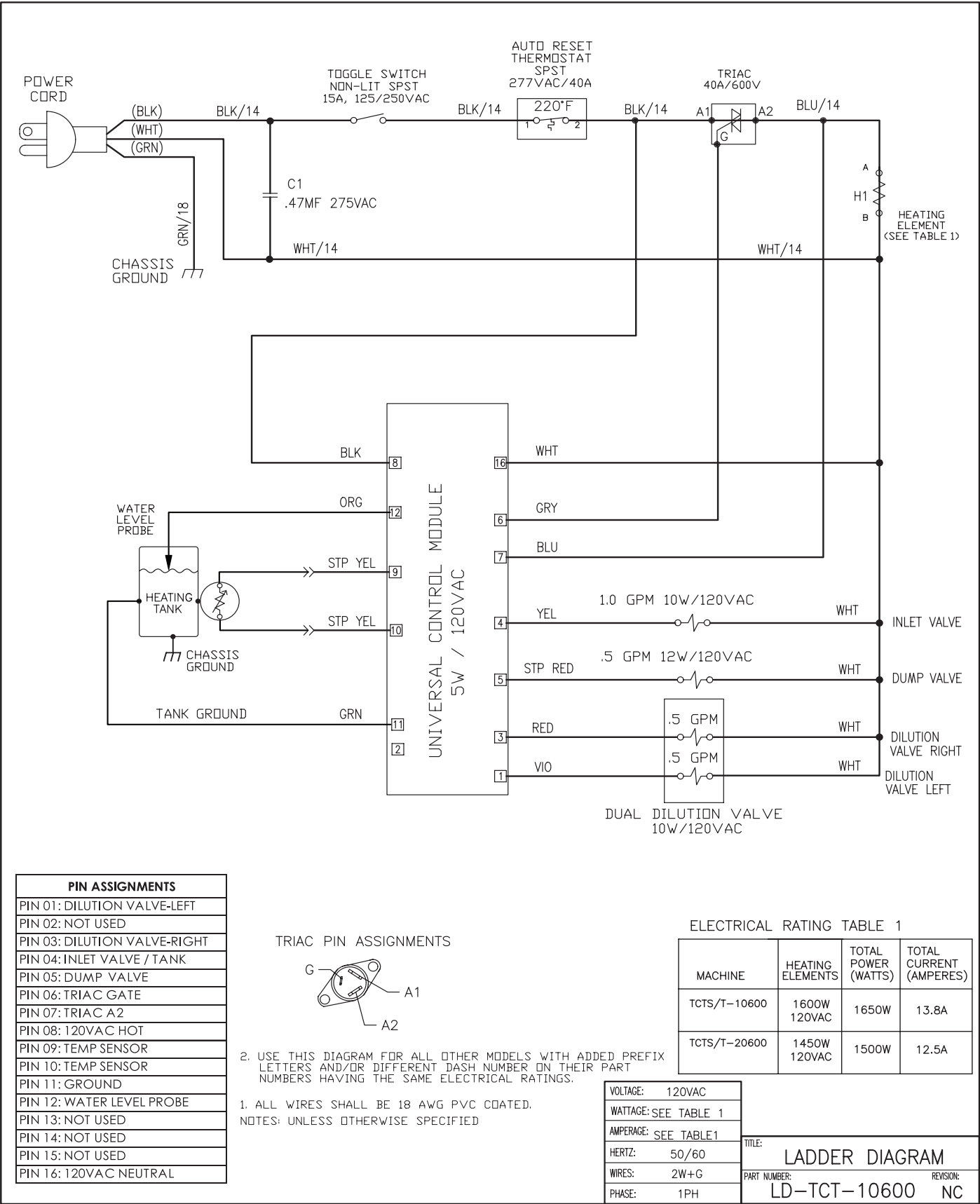


ITEM	PART N°	DESCRIPTION
1	WC-61436	LID, BLACK PLASTIC TCN
2	WC-38471	LABEL, FRONT TCN GENERIC
3	WC-1803*	FAUCET, SPB
4	WC-37260	KIT, FAUCET W/ADAPTER COMPLETE
5	WC-3707*	KIT, REPAIR SPB FAUCET
6	WC-1805*	SEAT CUP, FAUCET S'
7	WC-38163	LABEL, CURTIS SWP CLR/WHT
8	WC-5686	DRIP TRAY, OCTAGON STYLE
9	WC-3531*	LEG, PLASTIC GLIDE TCN
10	WC-3289	HANDLE, GASKET

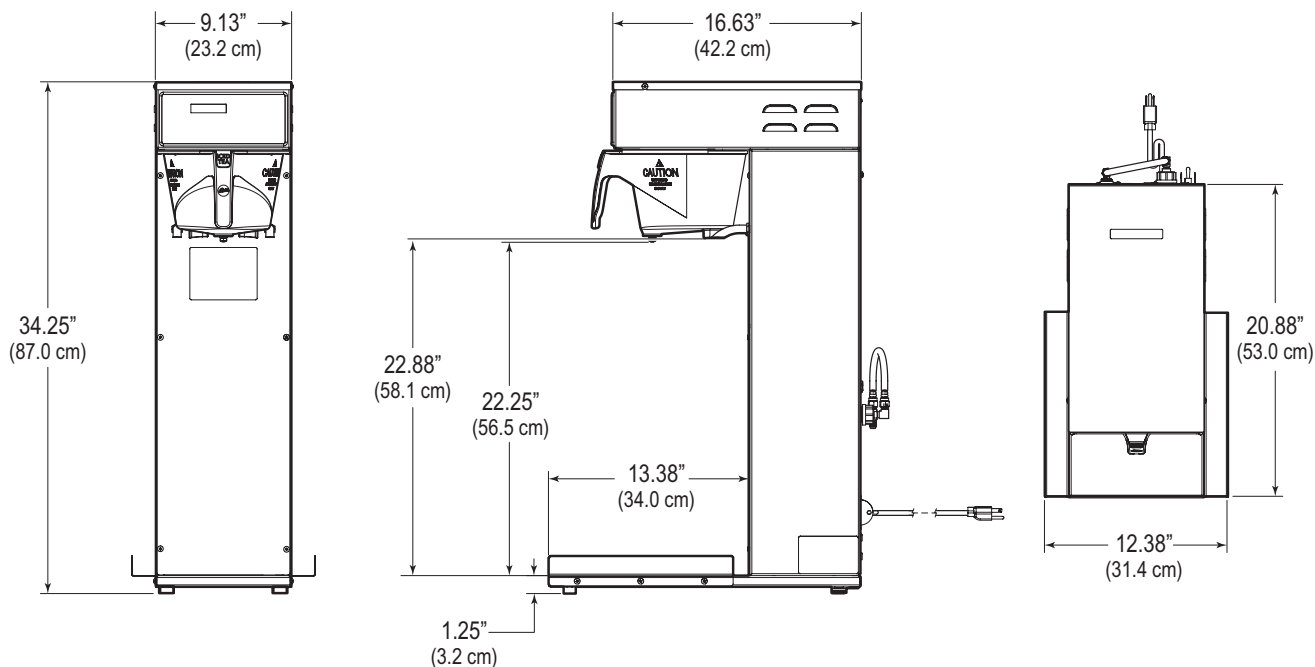
\* RECOMMENDED PARTS TO STOCK



Electrical Schematic



## Rough-In Drawing



## Tea Tips

1. Store tea bags in a dark, cool and dry place away from strong odors and moisture. Do not refrigerate.
2. Never hold brewed tea for more than eight hours at room temperature.
3. Discard any unused tea after eight hours
4. Brew only enough tea that you reasonably expect to sell within a few hours.
5. To protect tea flavor and to avoid bacterial contamination and growth, clean and sanitize tea brewing, storage and dispensing equipment at least once a day.



**WARNING** DO NOT refrigerate unused tea overnight for later consumption.

---

## Cleaning

Regular cleaning of your tea containers will maintain the highest quality coffee and iced tea your equipment is capable of producing. A proper cleaning is essential in preserving the appearance of the brewer.

1. Turn off the tea brewer at the ON/OFF button on the front control panel.
2. Wipe exterior surfaces with a damp cloth, removing spills and debris.
3. Remove the brewcone and clean it. Thoroughly scrub the spray head area with a cloth soaked in a mild detergent solution.
4. Wash the brewcone and wire brew basket, if applicable. Use a soft bristled brush for hard to clean areas. Wash both parts with a detergent solution or put these parts through a dishwasher.
5. Wash the tea container and top cover. Use a detergent solution and a soft bristled brush to clean inside the container. Wipe the exterior surfaces with a sponge and detergent solution. Rinse thoroughly.
6. Clean the faucet assembly. Unscrew the handle assembly from the faucet and remove. Clean the faucet shank with a gage glass brush (circular bristle) by pushing the brush through the shank. Using the same brush clean the faucet body inlet and outlet. Clean the faucet cap and silicone seat cup.
7. After the cleaning, place the parts (spray head, brewcone and basket and faucet parts) into a sink to be sanitized.



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

8. To sanitize the disassembled parts:
  - A. Use a clean container to submerge all parts. Wear rubber gloves for protection.
  - B. Immerse in commercial Bar Tabs/Sani-Tabs sanitizing solution. The solution must be warm (75°F.) Let the parts soak for at least one minute.
9. Air dry, all parts that were sanitized.
10. After cleaning, sanitizing and drying, assemble any parts taken from the tea container.
11. To remove hardened mineral deposits, fill liner with vinegar and allow to soak. Drain and rinse.

## Product Warranty Information

The 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, the 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. The 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. The 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):** *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 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 Co., Inc. 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.

