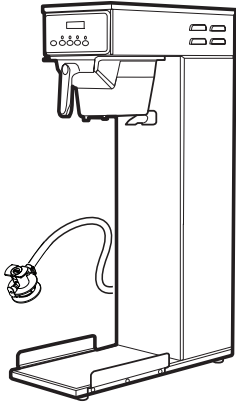




Service Manual – STB Sweet Tea Brewer



Models Included

- STB

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

IMPORTANT **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.

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

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

ISO 9001:2008 REGISTERED

WILBUR CURTIS CO., INC.
Montebello, CA 90640
For the latest information go to
www.wilburcurtis.com
Tel: 800/421-6150

Important Safeguards/Symbols

This appliance is designed for commercial use. Any servicing other than cleaning and routine maintenance should be performed by an authorized Wilbur Curtis Company 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. There are no user serviceable parts inside.
- Keep hands and other items away from hot areas of the unit during operation.
- Never clean with scouring powders or harsh chemicals.

Symbols:



WARNINGS – To help avoid personal injury



Important Notes/Cautions – from the factory



Sanitation Requirements

Your Curtis G3 Brewer is Factory Pre-Set and Ready to Go, Right Out of the Box. Following are the Factory Settings for your Iced Tea Brewing System:

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

Generally there will never be a reason to change your G3 programming. 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 1 GPM)
- Electrical: See attached schematic for standard model or visit www.wilburcurtis.com for your model.

Equipment to be installed to comply with applicable federal, state, or local plumbing/electrical codes having jurisdiction.

SETUP STEPS

The unit should be level (left to right and front to back), located on a secure surface. Connect a water line from the water filter to the brewer.

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, please log on to 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) so that the machine can be moved for cleaning underneath.
2. This equipment is to 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 potable water supply shall be sized, installed and maintained in accordance with federal, state, and local codes.

1. Plug in power cord.
2. Plumb water line. A 1/4" Flare has been supplied for water line connection. Use tubing sized sufficiently to provide a minimum of 1.0 GPM.

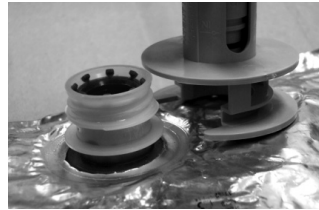
SETUP STEPS (Continued)

3. Connect the Bag-in-Box sweetener. Take the clear line with the QCD bag connector and hookup to the matching connector on the BIB sweetener (see Sweetener Connection, below).
4. Turn on the main power switch (toggle switch, behind the brewer). The heating tank will start to fill. When the water level in the tank rises to the correct volume, the heating element will energize automatically. This eliminates the possibility of element burnout caused by an empty tank.
5. The heating tank will require 20 to 30 minutes to reach operating temperature (204°F) indicated by READY-TO-BREW on the LCD readout.
6. Prime the sweetener pump to prepare the unit for brewing. Hold a cup under the dilution spout to catch liquid sweetener. Press the PRIME button. Hold down the button until sweetener flows from the dilution spout. Release the button. The sweetener pump is now primed. Perform this at the initial tea brewer setup and thereafter, each time the BIB sweetener is replaced.
7. Run one full brew cycle, to purge the water lines and valves of air. Five seconds of dilution water at the beginning of each brew cycle is a normal function. This is a default of the system.
8. The unit is ready to brew tea.

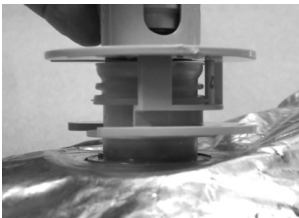
SWEETENER CONNECTION PROCEDURE



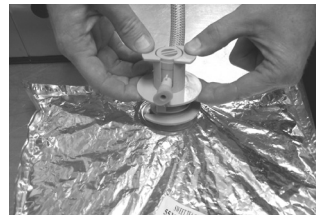
1. Pull off the shipping cap that covers the spout on the bag.



2. Place the QCD next to the spout.

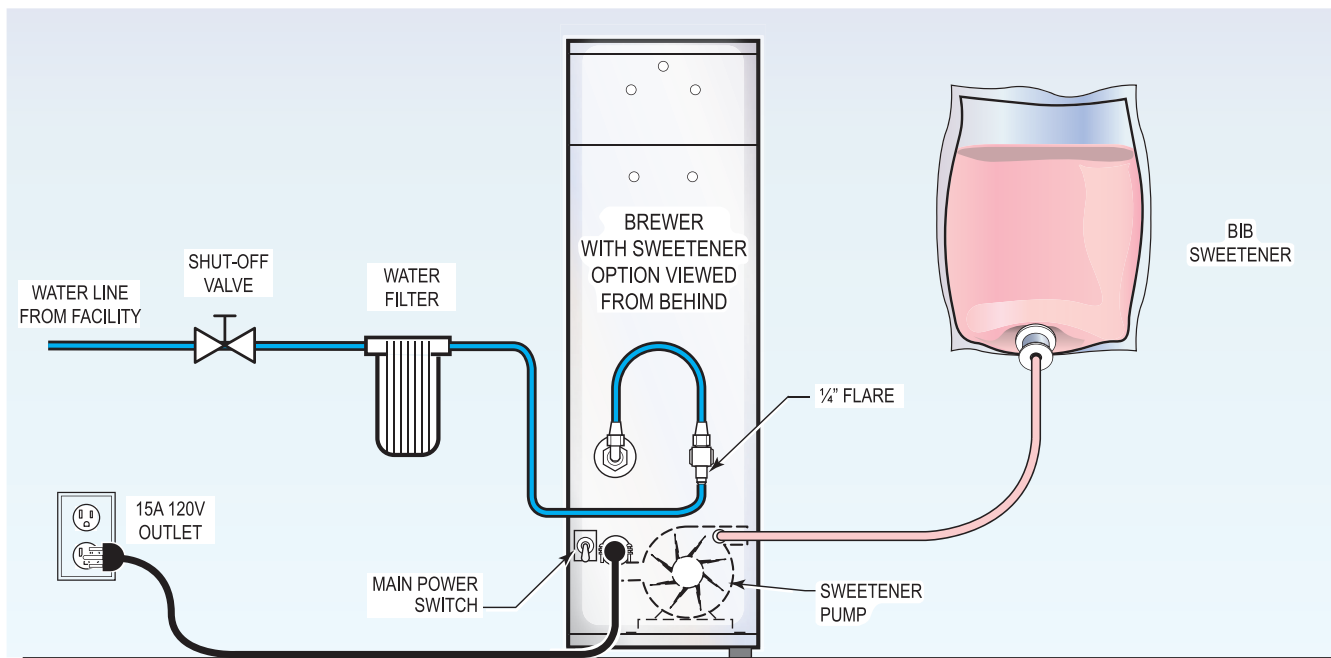


3. Slide QCD sideways, over the bag spout. QCD snaps in place.



4. Push QCD plunger into bag spout until plunger top is flush with top of QCD. A "click" will be heard when it is fully inserted.

SWEETENER – SCHEMATIC LAYOUT



Quick Start

Your Curtis G3 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 **<TEA-SWEET>
CURTIS**. After a three second delay, **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.

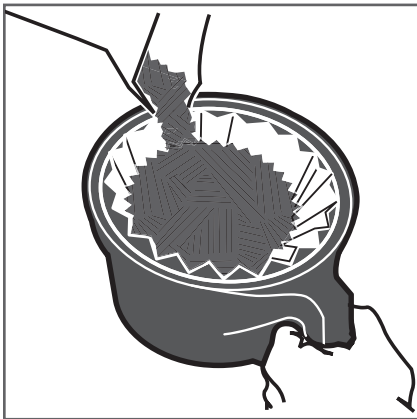
Control will display **CURTIS READY TO BREW** when temperature reaches the set point (204°F). Unit is now ready to brew.

BREWING INSTRUCTIONS

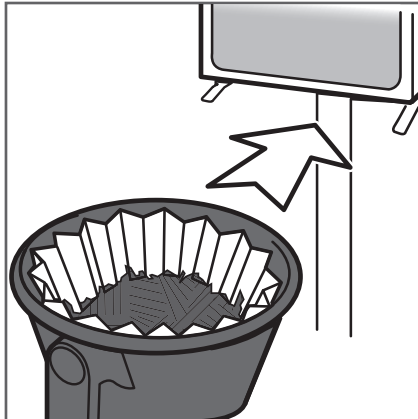
1. Brewer should be ON (Confirm at rear toggle switch, then press ON/OFF button) and Ready-to-Brew is displayed on the screen.



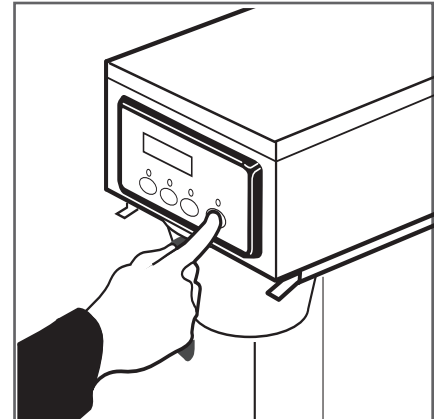
CAUTION HOT LIQUID, Scalding may occur. Avoid splashing.



2. Place a filter into the brew basket. Pour leaf tea into the filter.



3. Place a tea container on the brew deck. Slide the filled brew cone into the brew rails.



4. Press the BREW button to start a brew cycle.

TEA TIPS

- Store tea bags in a dark, cool and dry place away from strong odors and moisture. Do not refrigerate.
- Do not hold brewed tea overnight.
- Make sure your equipment is clean at all times. Clean tea-brewing equipment at least once a day.
- Sanitize equipment at least once per week.
- Do not let fresh-brewed iced tea sit at room temperature for more than 8 hours.

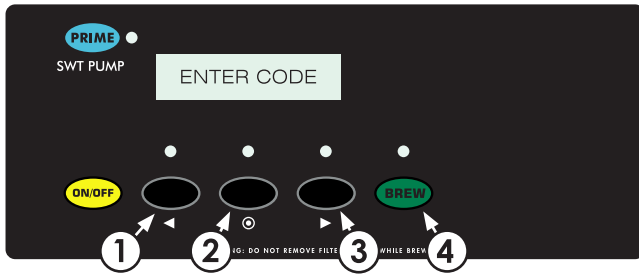
As with other food products, if you adhere to proper preparation, holding, and sanitation procedures, fresh-brewed iced tea is a safe beverage.

The primary cause for high bacteria counts found in tea from food service businesses is related to excessive holding times and/or poor cleaning and sanitizing procedures.

Programming

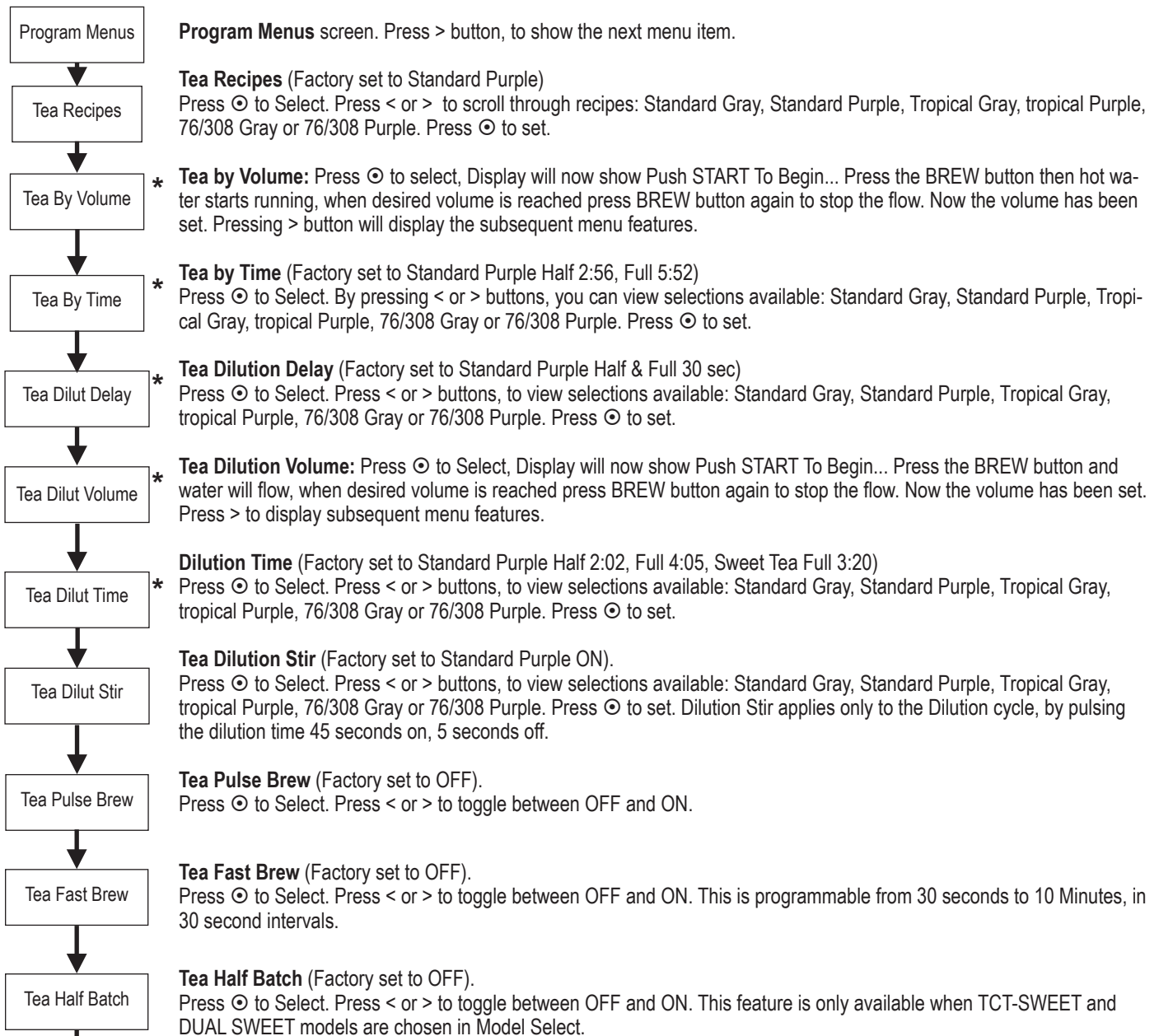
ENTER PROGRAMMING: Turn off at the ON/OFF button (yellow). Press and hold BREW button (green) and then press and release ON/OFF button (yellow).

Continue holding BREW 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.



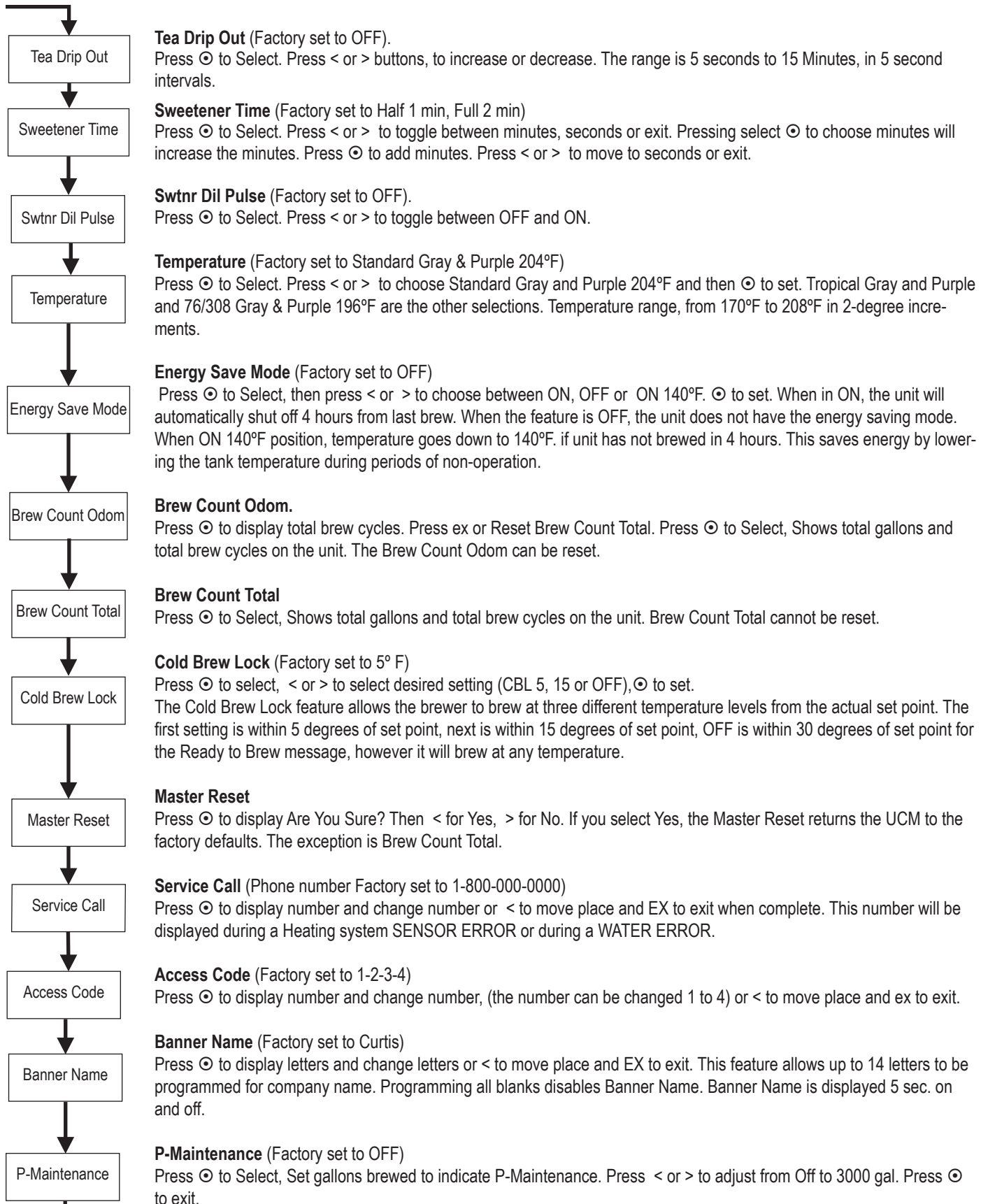
All programming selections are performed with the three center buttons.
The symbols below the buttons are:

- ◀ Scroll LEFT
 - ⊙ SELECTION or ENTER to save new parameter
 - ▶ Scroll RIGHT
- Exit Press ⊙ to select, exits program mode and returns unit to operation.



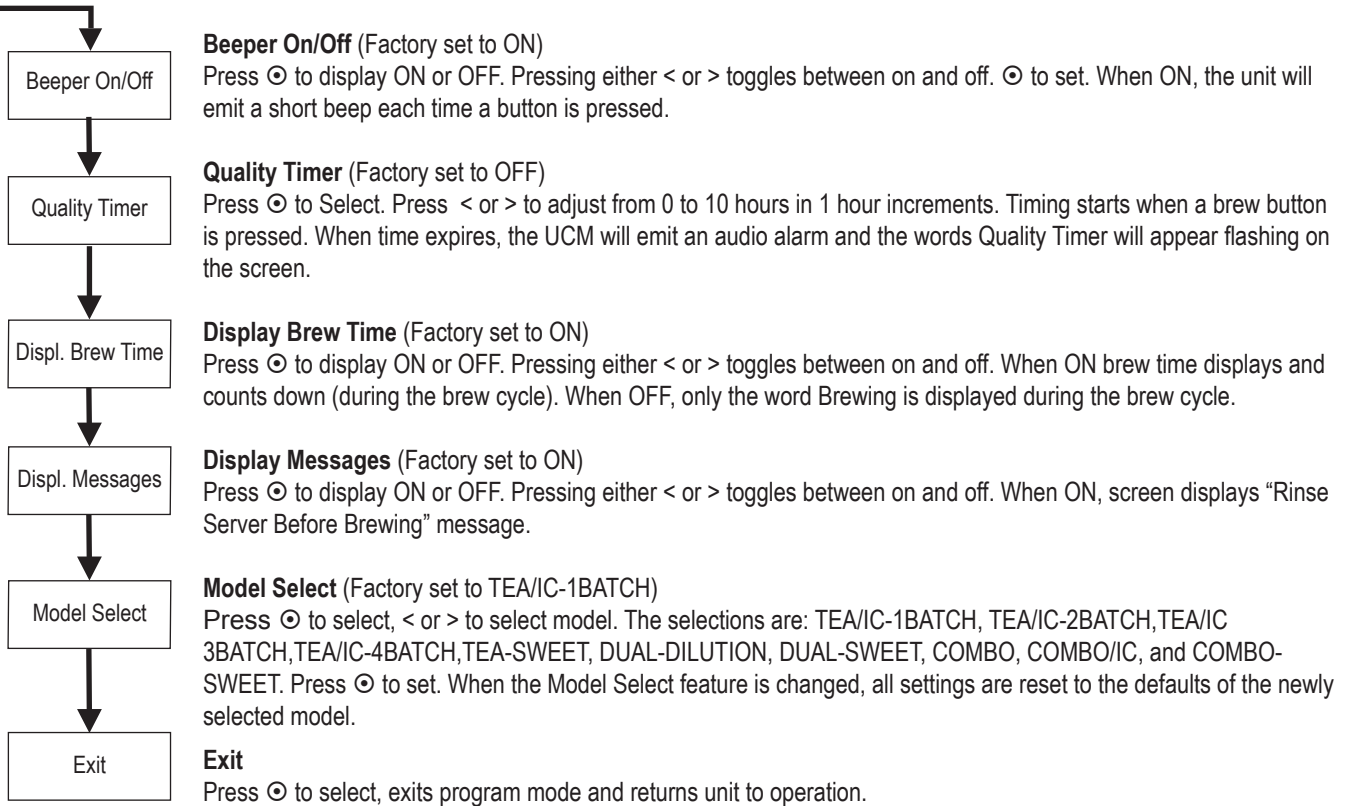
* On units with the **half batch option**, the half batch brew button may be independently set.

PROGRAM MENUS CONTINUED



Continued on Page 6

PROGRAM MENUS CONTINUED



TEA BREWER CLEANING

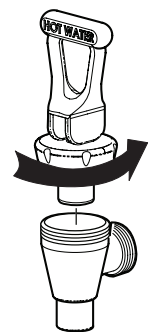
DAILY

Regular cleaning and preventive maintenance is essential in keeping your tea brewer looking and working like new. To clean the tea brewer and components, prepare a mild solution of dish washing detergent and warm water.



CAUTION – Do not use cleansers, bleach liquids, powders or any other substance containing chlorine. These products promote corrosion and will pit the stainless steel. **USE OF THESE PRODUCTS WILL VOID THE WARRANTY.**

1. Wipe any spills, dust or debris from the exterior surfaces with a damp cloth. The outside surfaces of the brewer should be cleaned with stainless steel polish only, to prevent scratches.
2. Clean the sprayhead and domed area around the sprayhead with the detergent solution. Scrub well to remove residue. Rinse with a water soaked cloth, removing all traces of the detergent solution. Dry with a clean cloth.
3. Remove the plastic brew cone and wash with a detergent solution or put through a dishwasher.
4. Wash the tea container.
 - a. Clean the container and top cover with a detergent solution.
 - b. Remove the faucet assembly. Unscrew the handle assembly from the faucet and remove. Clean the faucet shank with a gauge glass brush (circular bristle) by pushing the brush through the shank.
 - c. Unscrew the bonnet assembly from the faucet. Brush clean the faucet body inlet and outlet. Clean the faucet cap and silicone seat cup. Dry and assemble parts.



IMPORTANT: Clean out the screen, within the brew cone, to maintain the flow of brewed tea. Neglecting this screen will eventually cause the brew cone to overflow, spilling hot liquid over the unit.

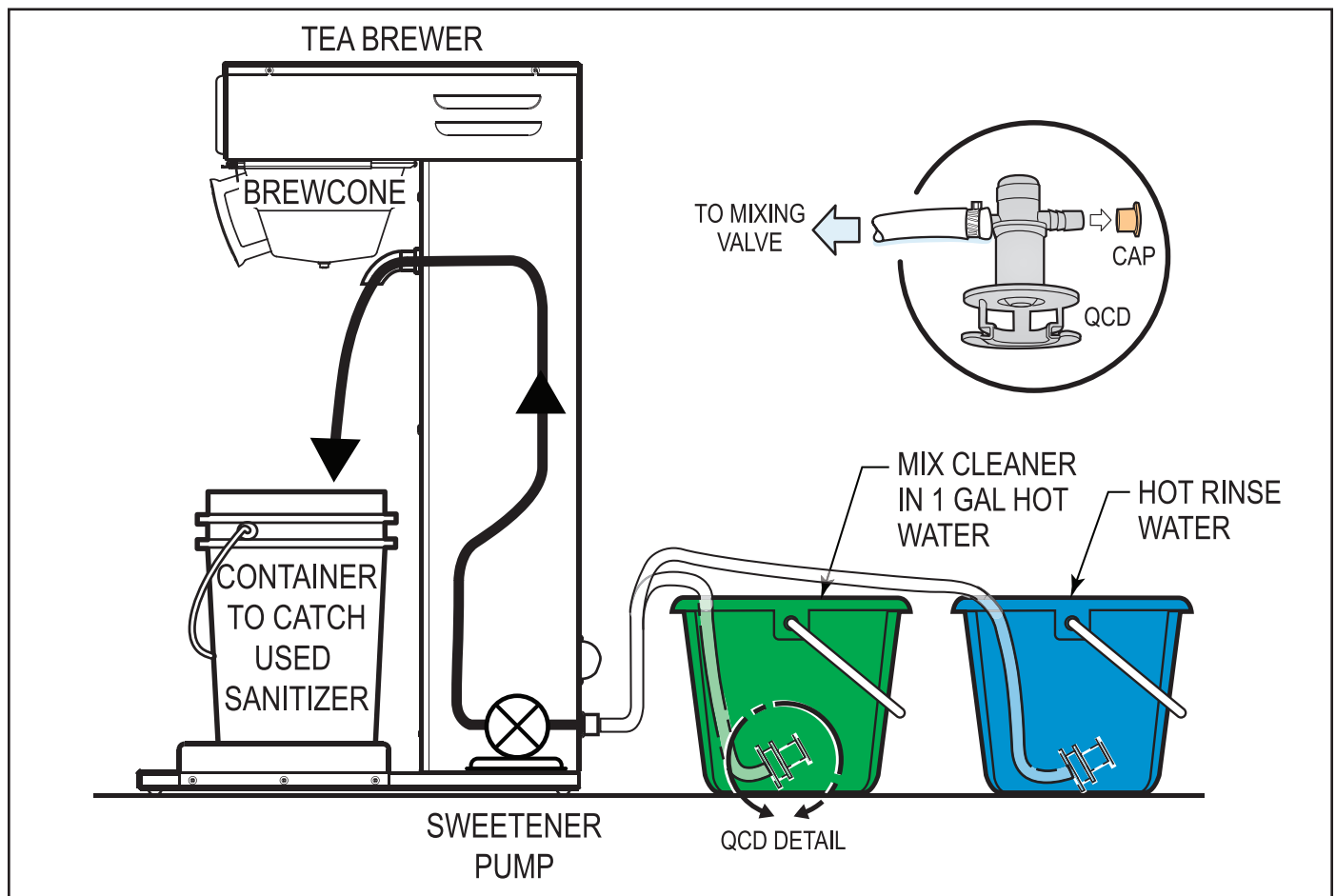
SWEET TEA MIXING SYSTEM CLEANING & SANITIZING

WEEKLY

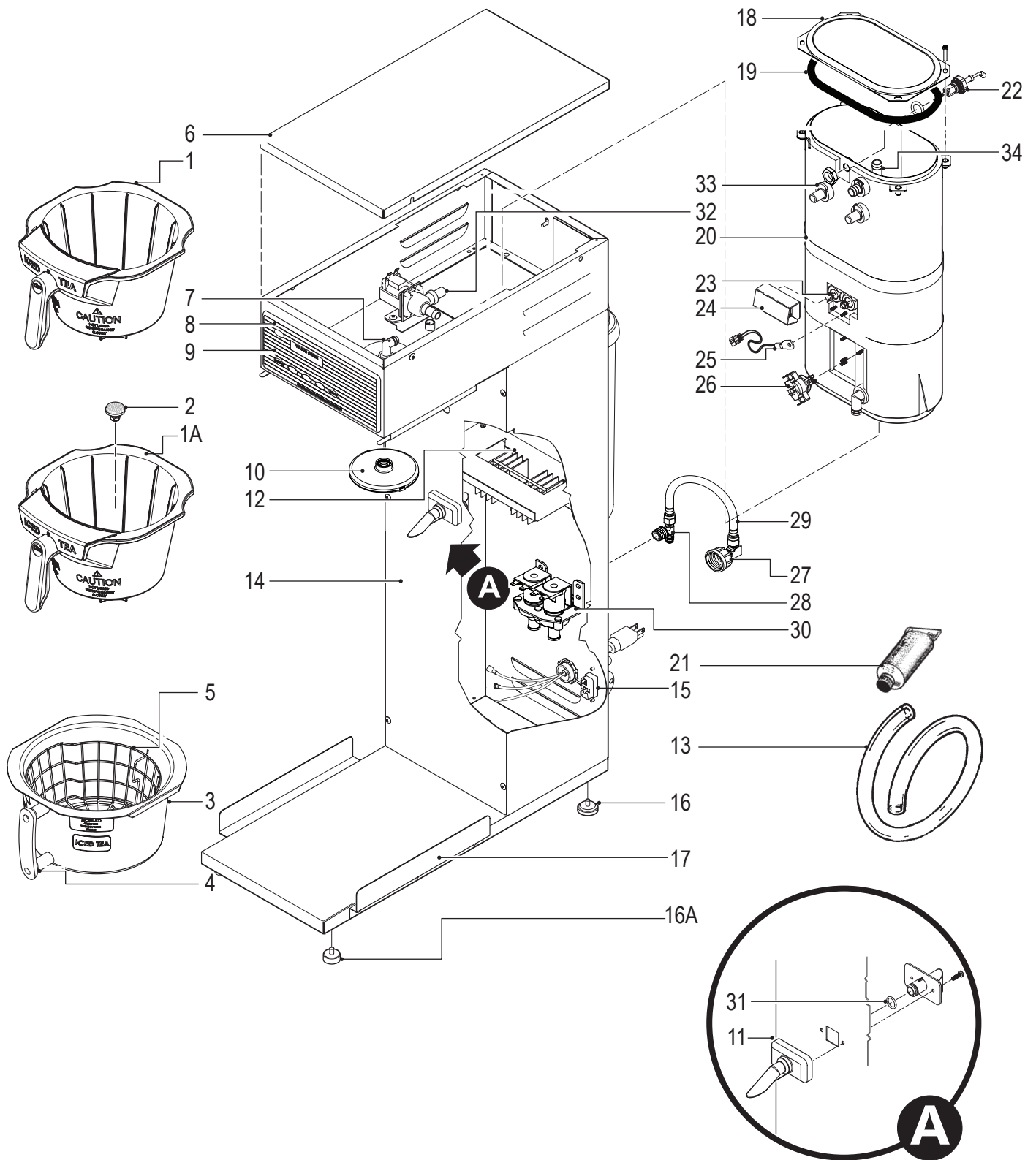
The brewer is programmed for the sweetener to pour into the tea at the end of the brew cycle. Setting the brewer to Tea Fast Brew can speed up the cleaning procedure (see page 4 for programming instructions to turn on Tea Fast Brew).

Use a concentrated cleaning solution to simplify the cleaning procedure. This procedure requires a one gallon bucket of a cleaning solution of hot water (minimum 160°F) and a granulated concentrated cleaner (a cleaner like Coffee Dispenser Cleaner Corporation JavaClean3), diluted at 1.5 oz per gallon and a one gallon bucket of clean hot water (minimum 165°F).

1. Make sure brewer is on and water supply line is connected.
2. Remove the quick disconnect from the tea sweetener bag-in-box product.
3. Pull the cap off of the QCD and place this end of the line into the container containing the cleaning solution (see illustration below).
4. Place an empty tea container on the brew deck and an empty brew cone into the rails below the sprayhead.
5. Press the SWEET TEA brew button to run one complete brew cycle.
6. Allow the brewer to sit overnight with the cleaning solution in the sweetener line before flushing cleaning solution.
7. Flush the system by filling a one gallon container with clean hot water (no cleaning solution) and press the SWEET TEA brew button to run a brew cycle until all the cleaning solution has been flushed from the system.
8. Discard solution that poured into the container.
9. Remove the QCD from the flushing container and replace the cap. Reconnect the QCD to the Bag in the Box sweetener.
10. If desired, reset Tea Fast Brew to OFF. The unit is ready to resume brewing.



ILLUSTRATED PARTS LIST



PARTS LIST

STB

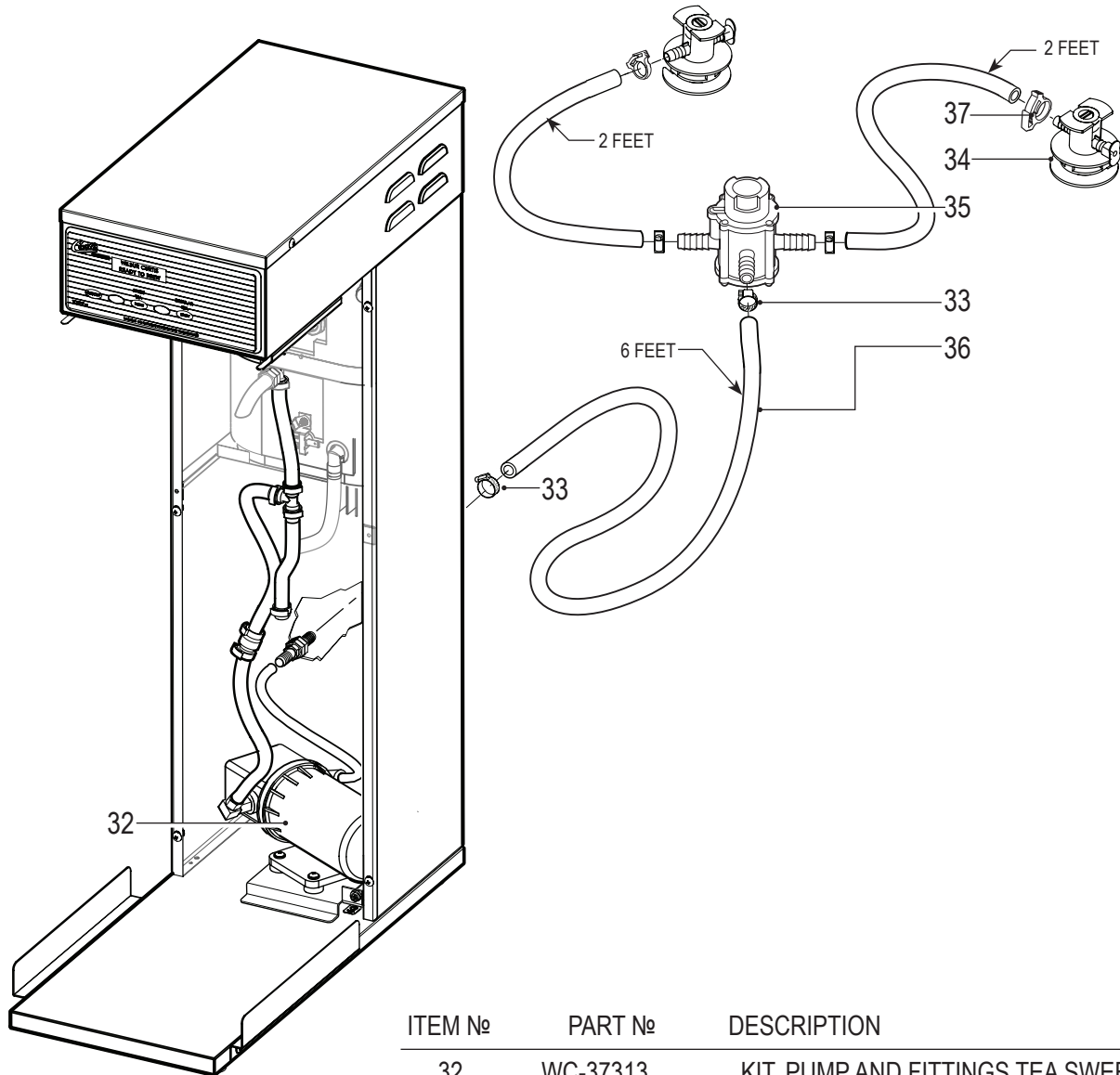
| ITEM № | PART № | DESCRIPTION |
|--------|--------------|--|
| 1 | WC-3398 | BREW CONE, ASSY STD TEA NON METAL W/BLU SPLASH PKT |
| 1A | WC-3399** | BREW CONE, ASSY TROPICAL TEA YEL SPLASH PKT STRAINER |
| 2 | WC-8532** | STRAINER, ASSY BASKET SCTCTDP/SCPTTDP/SCTCTPS |
| 3 | WC-33001-101 | BREW CONE ASSY, TEA W/STRAINER (OPTIONAL) |
| 4 | WC-3201M | HANDLE, BREW CONE BLACK (FOR WC-33001-101) |
| 5 | WC-3353 | WIRE BASKET, LARGE CAPACITY (OPTIONAL) |
| 6 | WC-58117 | COVER, TOP BREWER |
| 7 | WC-2977-101K | KIT, SPRAYHEAD FITTING W/O-RING |
| 8 | WC-37456* | KIT, UCM & LABEL STB CURTIS LOGO |
| 9 | WC-37458 | KIT, UCM & LABEL STB W/HALF BATCH CURTIS LOGO |
| 10 | WC-29025* | SPRAYHEAD, PURPLE ADVANCE FLOW |
| 10A | WC-2942 | SPRAYHEAD, GRAY |
| 11 | WC-66079 | SPOUT ASSY , DILUTION PLASTIC |
| 12 | WC-8556* | HEAT SINK ASSY DV |
| 13 | WC-5310* | TUBING, 5/16" ID X 1/8" W SILICONE |
| 14 | WC-58017-104 | COVER, FRONT TCTS |
| 15 | WC-102* | SWITCH, TOGGLE SPST 25A 125/250VAC RESISTIVE |
| 16 | WC-3518 | LEG, GLIDE 3/8"-16 STUD SCREW |
| 16A | WC-3503 | LEG, 8-32 STD SCREW BUMPER |
| 17 | WC-8531 | RAIL, BASE TCTD |
| 18 | WC-5853-102 | COVER, TOP HEATING TANK GEN USE |
| 19 | WC-43062 | GASKET, TANK LID |
| 20 | WC-6277 | TANK ASSY, COMPLETE TEA BREWER |
| 21 | WC-5231* | COMPOUND SILICONE 5 OZ |
| 22 | WC-5527K* | KIT, PROBE WATER LEVEL O-RING & NUT |
| 23 | WC-904-04* | ELEMENT, HEATING 1.6KW 120V W/JAM NUTS |
| 24 | WC-4394 | SHOCK GUARD, HEATING ELEMENT |
| 25 | WC-1438-101* | SENSOR, TEMPERATURE TANK |
| 26 | WC-523* | THERMOSTAT, MANUAL RESET 120/240VAC 25A 220°F |
| 27 | WC-37255 | KIT, DUAL VALVE WATER INLET |
| 28 | WC-2707 | TEE, FLARE ¼ x ¼ x ⅜ BRASS |
| 29 | WC-53038 | TUBE ASSY, FLEXIBLE 1/4 FLARE 11-1/8" |
| 30 | WC-895-105* | VALVE, INLET DUAL 120V 10W 2 GPM X .5 GPM |
| 31 | WC-43134 | O'RING, .426 X 9/16 O.D X .070 WALL EDPM TCTS |
| 32 | WC-889 * | VALVE, DUMP LEFT 120VAC 12W |
| 33 | WC-37317* | KIT, STRAIGHT FITTING & BUSHNG 8MM |
| 34 | WC-37266* | KIT, FITTING TANK OVERFLOW |

* Recommended parts to stock

** Tropical tea only

ILLUSTRATED PARTS LIST CONTINUED ON PAGE 10

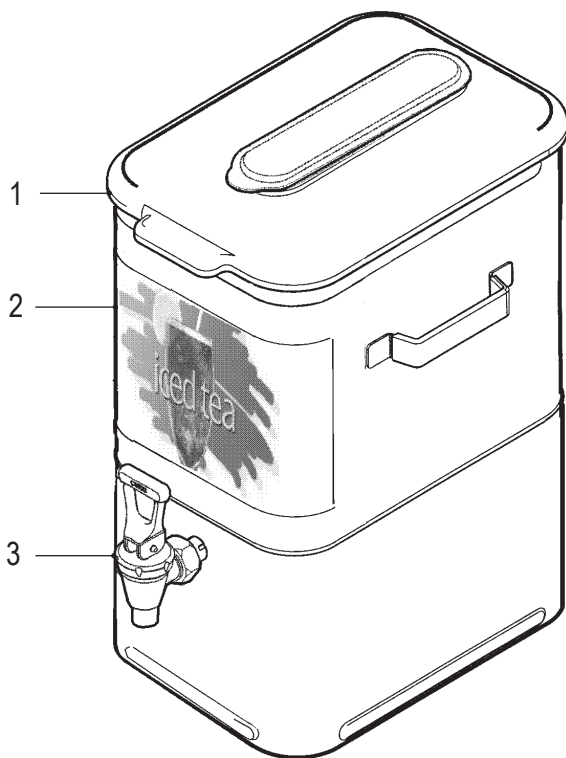
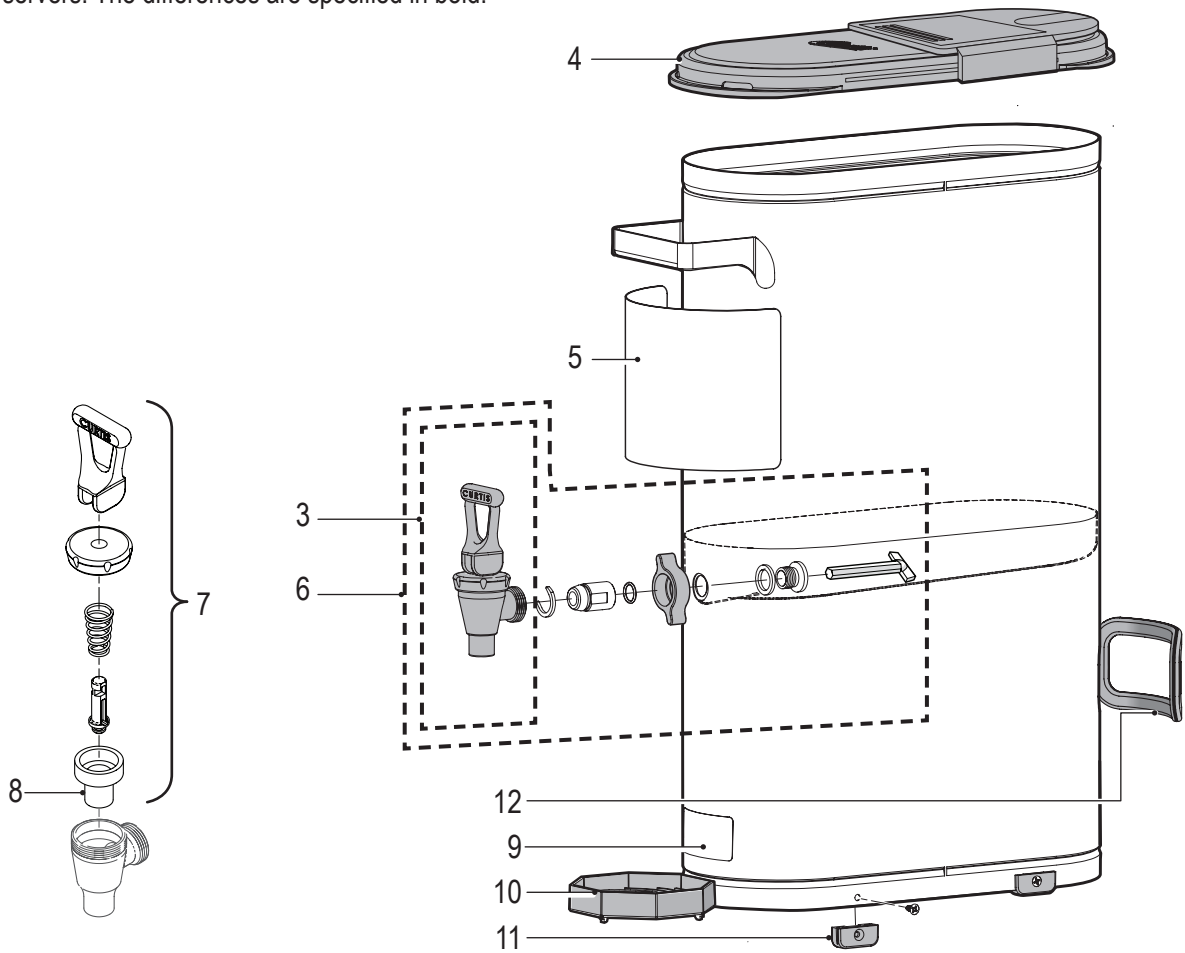
**PARTS LIST
SWEET TEA DETAIL**



| ITEM No | PART No | DESCRIPTION |
|---------|----------|--------------------------------------|
| 32 | WC-37313 | KIT, PUMP AND FITTINGS TEA SWEETENER |
| 33 | WC-43003 | CLAMP, WORM GEAR 7/32"-5/8" SS |
| 34 | WC-8653 | QCD, LIQUID BOX BAG CONNECTOR |
| 35 | WC-800 | VALVE, TRANSFER FLOJET SWEET TEA |
| 36 | WC-53116 | TUBE, CLEAR BEV 3/8 SWEETENER SYS |
| 37 | WC-43059 | CLAMP, HOSE SNAP NYLON .616/.707 |

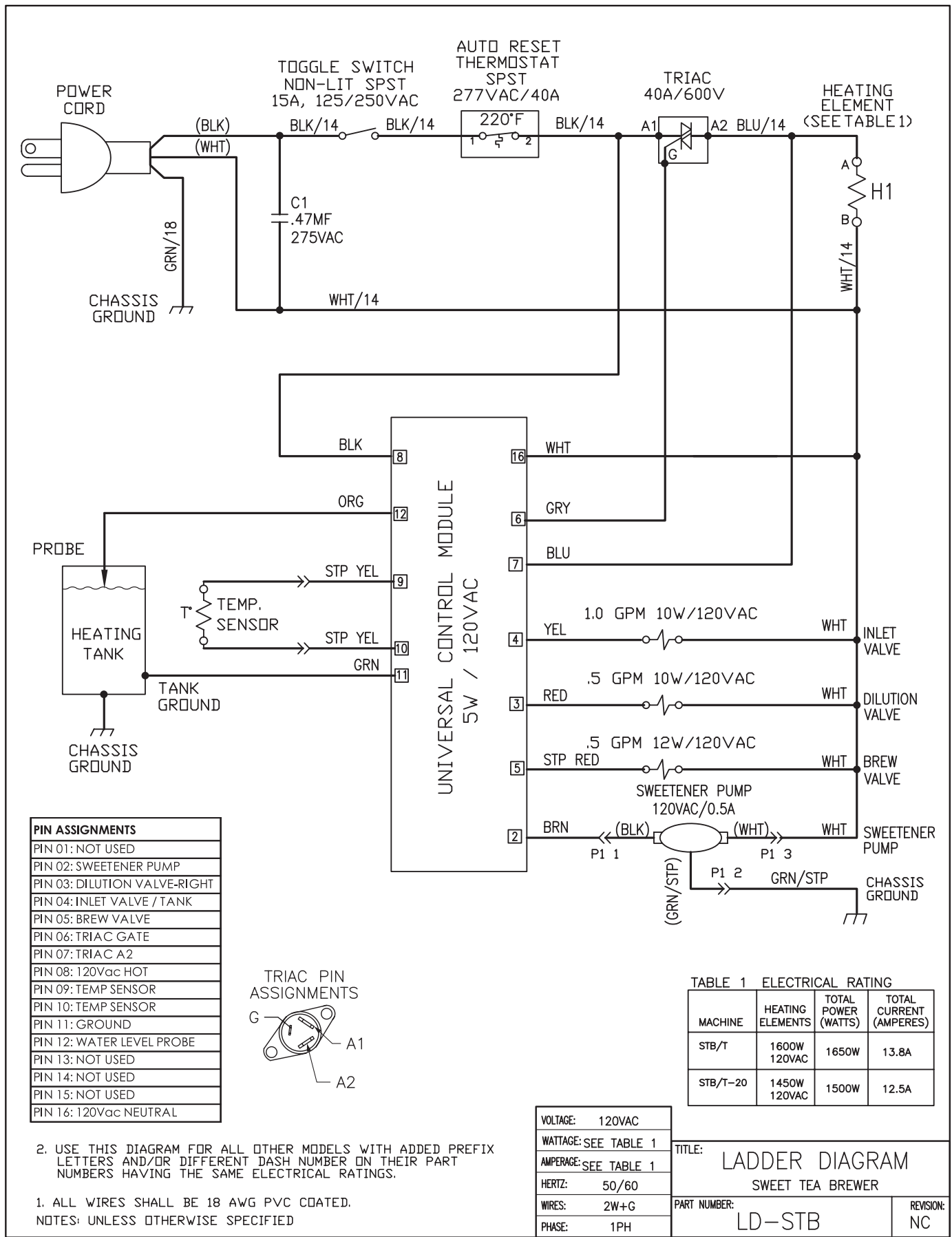
ILLUSTRATED PARTS LIST TCO & TCN TEA SERVERS

The faucet parts are common to both the TCN tea server and the TCO tea servers. The differences are specified in bold.



| ITEM | PART N° | DESCRIPTION |
|------|----------|---|
| 1 | WC-5683 | LID ASSY, TCO |
| 2 | WC-38471 | LABEL, FRONT TCO-308/417/419/421 |
| 3 | WC-1803 | FAUCET, SPB |
| 4 | WC-61436 | LID, BLACK PLASTIC TCN |
| 5 | WC-38471 | LABEL, FRONT TCN GENERIC |
| 6 | WC-37260 | KIT, FAUCET W/ADAPTER CMLPT |
| 7 | WC-3707 | KIT, REPAIR SPB FAUCET |
| 8 | WC-1805 | SEAT CUP, FAUCET S' |
| 9 | WC-38163 | LABEL, CURTIS SWP CLR/WHT TCN |
| 10 | WC-5686 | DRIP TRAY, OCTAGON STYLE |
| 11 | WC-3531 | LEG, PLASTIC GLIDE TCN |
| 12 | WC-3289 | HANDLE, GASKET TCN |

ELECTRICAL SCHEMATIC



| PIN ASSIGNMENTS | |
|-----------------|----------------------|
| PIN 01: | NOT USED |
| PIN 02: | SWEETENER PUMP |
| PIN 03: | DILUTION VALVE-RIGHT |
| PIN 04: | INLET VALVE / TANK |
| PIN 05: | BREW VALVE |
| PIN 06: | TRIAC GATE |
| PIN 07: | TRIAC A2 |
| PIN 08: | 120Vac HOT |
| PIN 09: | TEMP SENSOR |
| PIN 10: | TEMP SENSOR |
| PIN 11: | GROUND |
| PIN 12: | WATER LEVEL PROBE |
| PIN 13: | NOT USED |
| PIN 14: | NOT USED |
| PIN 15: | NOT USED |
| PIN 16: | 120Vac NEUTRAL |

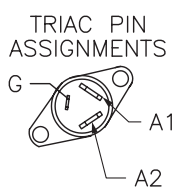


TABLE 1 ELECTRICAL RATING

| MACHINE | HEATING ELEMENTS | TOTAL POWER (WATTS) | TOTAL CURRENT (AMPERES) |
|----------|------------------|---------------------|-------------------------|
| STB/T | 1600W 120VAC | 1650W | 13.8A |
| STB/T-20 | 1450W 120VAC | 1500W | 12.5A |

| | |
|-----------|-------------|
| VOLTAGE: | 120VAC |
| WATTAGE: | SEE TABLE 1 |
| AMPERAGE: | SEE TABLE 1 |
| HERTZ: | 50/60 |
| WIRES: | 2W+G |
| PHASE: | 1PH |

TITLE: **LADDER DIAGRAM**
 SWEET TEA BREWER

PART NUMBER: **LD-STB** REVISION: **NC**

2. 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.

1. ALL WIRES SHALL BE 18 AWG PVC COATED.
 NOTES: UNLESS OTHERWISE SPECIFIED

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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 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.

ECN 16087 . 8/19/14@14.9 . rev A



WILBUR CURTIS CO., INC.

6913 Acco St., Montebello, CA 90640-5403 USA

Phone: 800/421-6150 Fax: 323-837-2410

Technical Support Phone: 800/995-0417 (M-F 5:30A - 4:00P PST) E-Mail: techsupport@wilburcurtis.com

Web Site: www.wilburcurtis.com

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