

## Service Manual, TCC

### Models Included

- TCC1
- TCC2
- TCC2P
- TCC3

### Important Safeguards/Conventions

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

- Do NOT immerse the unit in water or any other liquid
- Never clean with scouring powders, bleach or harsh implements.

#### Conventions:



WARNINGS – To help avoid personal injury



Important Notes/Cautions



Sanitation Requirements

### Curtis TCC Units are Factory Pre-Set and Ready to Go... Right out of the Carton.

Generally there will never be a reason to change factory settings. However, should you need to make slight adjustments to meet your tea needs, adjustment instructions are provided later in this manual.

#### System Requirements:

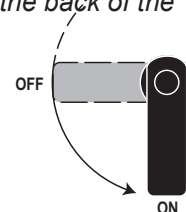
- Water Source 30 – 90 PSI (Minimum Flow Rate of 1 GPM)
- Water pipe connections and fixtures directly connected to a potable water supply shall be sized, installed and maintained in accordance with federal, state, and local codes.

### SETUP STEPS

The unit should be level (left to right and front to back), located on a solid counter top. Connect a water line from the water filter to the TCC server. NOTE: Some type of water filtration device must be used to maintain a trouble-free operation. (In areas with extremely hard water, we suggest that a sedimentary and taste & odor filter be installed.) This will prolong the life of your system and enhance tea quality.

### INSTALLATION

1. Remove dispenser from carton.
2. Run a water line to the inlet fitting behind the dispenser. Flush the new waterline to remove foreign particles.
3. Connect a ¼" flared flexible or copper waterline to the male fitting on the back of the dispenser.
4. Locate the water supply valve behind the unit and turn the handle counter-clockwise to a vertical position to turn on.



CAUTION: We recommended that the water supply valve, behind unit, be turned off during non-business hours.



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.

5. Clean out the tea concentrate system before using the TCC server. Use a Bag-in-Box style cleaning solution to simplify the cleaning procedure. A cleaner like Bev-Clean beverage line cleaner comes in a 3 gallon bag-in-box that connects directly to your bag-in-box system for line cleaning (<http://bevclean.com>).
  - a. Remove the quick disconnect from the tea concentrate bag.
  - b. Place the BIB cleaner container next to the TCC tea dispenser. Pull the spout from the cleaner box through the marked area. Remove the clear travel cap from spout. Don't worry about cleaner spilling when the cap is removed. The cap has an internal seal.
  - c. Snap the QCD bag connector onto the bag spout.



NOTE: Water source pressure must be a minimum of 30 PSI pressure at all times to insure the quality of the of the product.



ISO 9001 REGISTERED

WILBUR CURTIS COMPANY  
Montebello, CA 90640

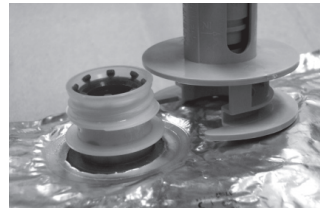
- d. Grasping the bag connector (as shown in Load Product, step 6), push the sliding probe all the way into the bag spout. A “click” will be heard when it is fully inserted.
- e. Once the cleaning solution box is connected, open the dispensing valve on the dispenser and run liquid through the valve until the sanitizer (clear liquid) is detected. The dispensing line is now clean.
- f. Disengage the bag connector by snapping the connector probe out and remove the connector from the spout.
- g. Reattach the tea concentrate BIB.
- h. Open dispensing valve on dispenser until tea flows freely.

**LOAD PRODUCT**  
**Bag-In-Box**

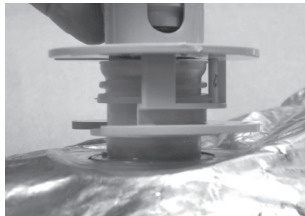
- 1. Place a tea concentrate bag on the counter next to the TCC dispenser.
- 2. Remove the top cover from the TCC dispenser and pull out the hose with the QCD bag connector.



- 3. Pull off the shipping cap that covers the spout on the bag.



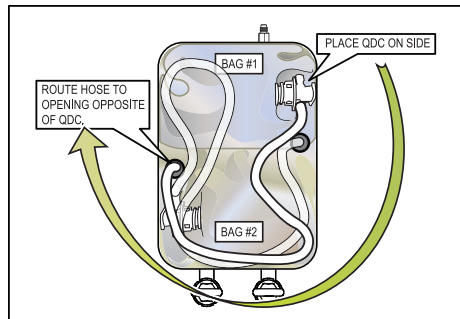
- 4. Place the QCD next to the spout.



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



- 6. 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.

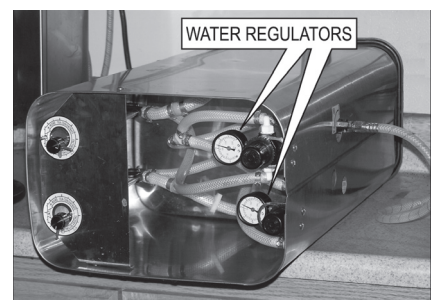


TOP VIEW OF TCC SHOWING PREFERRED ORIENTATION OF TEA CONCENTRATE BAGS AND HOSE ROUTING

- 7. Carefully lift the bag and set the bag into the dispenser.
- 8. Rest tubing on top of the bag. Route tubing to opposite product intake – hole on floor of dispenser (see illustration, left).
- 9. Replace the top cover.
- 10. Dispense beverage from faucet until darker product starts to appear (~5 seconds).
- 11. The TCC server is now ready to dispense tea.

**WATER PRESSURE AND MIXING VALVE**

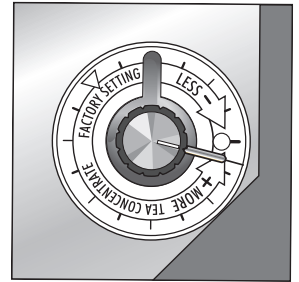
The dispenser has been factory adjusted to the proper drink strength. The location should have a minimum water pressure of 30 psi. The TCC dispenser has been arranged with the water regulator set for 18 psi (static). The concentrate ratio is 7:1. If you must change pressure or concentrate ratio, proceed with the following steps (page 3).



### MIXING VALVE ADJUSTMENT:

This valve changes the water to concentrate ratio. This valve is very sensitive. Only slight rotation of the knob is needed to change the ratio (1/16th to 1/8th of a turn). The standard setup, as the unit comes from the factory, is 5 brix.

1. Tilt the dispenser on it's side.
2. Reach underneath to find the adjustment knob (see illustration, right).
3. Turn counter-clockwise for stronger drink – turn clockwise for weaker drink. Taste the tea with each adjustment to determine the desired consistency.




**CAUTION** – Do not rotate knob more than 2 full turns from closed position.

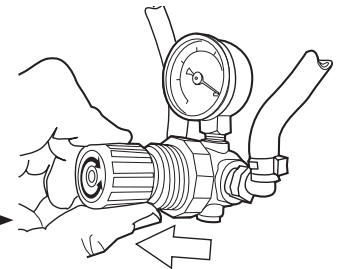
More turns will cause the adjustment rod to disengage from the mixing valve, with a resulting leak.

### WATER REGULATOR:

If your water pressure is too low, you may be able to increase concentration by adjusting the pressure at the regulator.

Steps:

1. Lay the unit on it's side to locate the regulator knob.
2. Pull back on the knob to prepare for adjustment.
3. Lift the unit upright. Carefully place the back of the TCC hanging over the counter top. This is so you can access the regulator during adjustment.
4. Fully open the serving faucet on front of the unit. Simultaneously, adjust the knob on the water regulator to change the pressure. 
5. Once the pressure is at the desired adjustment, push knob in to lock.



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

### TEA TIPS

1. Never hold finished dispensed tea for more than eight hours at room temperature. Discard any unused tea after eight hours
2. Dispense only enough tea that you reasonably expect to sell within a few hours.
3. 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.

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## DAILY CLEANING

Regular cleaning of the TCC dispenser is essential in maintaining the highest quality iced tea your equipment is capable of producing.

1. Wipe any spills, dust or debris from the exterior surfaces with a damp cloth. Apply a stainless steel polish to prevent scratches.
2. Turn off water supply at valve behind unit.
3. Open the dispensing faucet to relieve pressure in the dispensing lines.
4. Remove the top cover and clean with detergent solution.
5. Clean the faucet assembly.
  - a. Unscrew the handle assembly from the faucet and remove.
  - b. Clean the faucet cap and silicone seat cup.
  - c. Use a spiral brush to clean inside the faucet body.
6. Rinse and dry parts that were removed. Assemble them to the unit.

## WEEKLY CLEANING & SANITIZING

Use a Bag-in-Box style cleaning solution to simplify the cleaning procedure. A cleaner like BevClean (<http://bevclean.com>) beverage line cleaner comes in a 3 gallon bag-in-box that connects directly to your bag-in-box system for line cleaning.

1. Remove the quick disconnect from the tea concentrate bag.
2. Place the BIB cleaner container next to the TCC tea dispenser. Pull the spout from the cleaner box through the marked area. Remove the clear travel cap from spout. Don't worry about cleaner spilling when the cap is removed. The cap has an internal seal.
3. Snap the QCD bag connector onto the bag spout.
4. Grasping the bag connector (as shown in Load Product, step 6), push the sliding probe all the way into the bag spout. A "click" will be heard when it is fully inserted.
5. Once the cleaning solution box is connected, open the dispensing valve on the dispenser and run liquid through the valve until the sanitizer (clear liquid) is detected. The dispensing line is now clean.



**DO NOT FLUSH.** Allow the cleaning/sanitizing solution to sit in the tea lines overnight before proceeding with steps 6 through 8, flushing the lines.

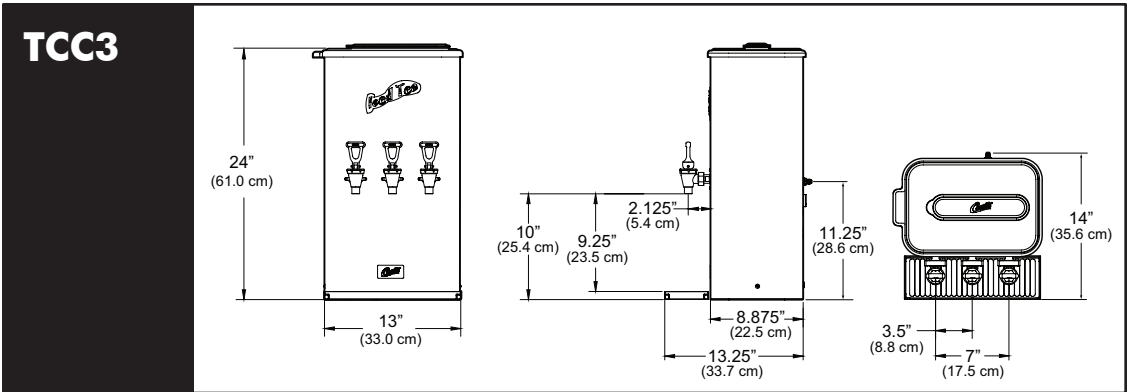
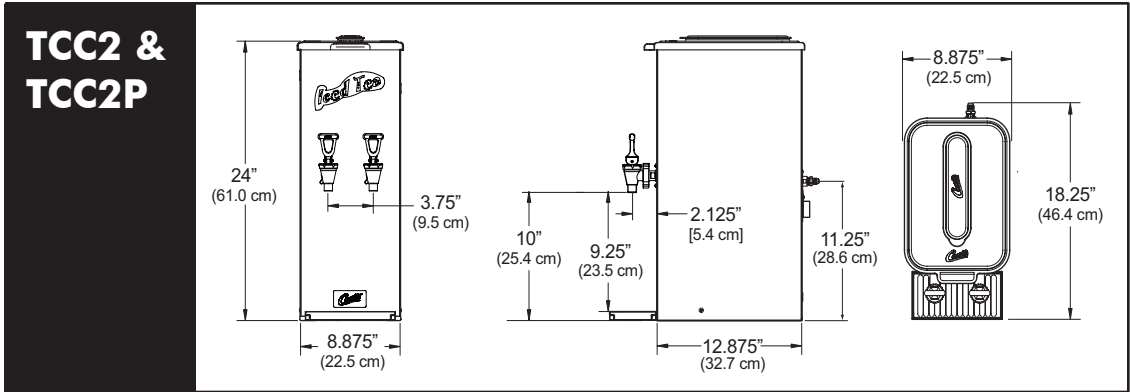
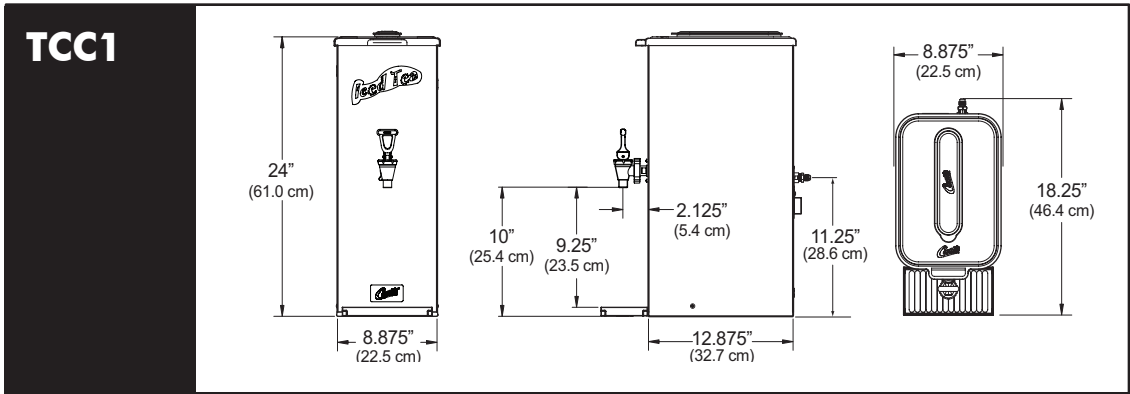
6. Remove the QCD from the BIB cleaner. Un-snap the connector probe, pulling out and removing the connector from the spout.
7. Reattach the tea concentrate BIB product.
8. Flush the system by opening the dispensing faucet in front of the dispenser until tea flows freely.
9. Repeat the process for any additional faucets on dispenser.

Note: Multi-outlet manifolds are available for cleaning up to eight beverage lines from one bag-in-box cleaner. This allows you to clean all systems at one time.

## STRAINER CLEAN-OUT

1. Turn off the water flow running from the facility to the strainer.
2. Use pliers to grab the housing of the strainer and with an adjustable wrench, remove the cap.
3. Take out the wire strainer and clean out the contents. Use a spiral bristled brush to clean inside the strainer.
4. Rinse the strainer and replace it into the housing.
5. Return the cap to the housing and turn on the water line.

**ROUGH-IN  
DRAWINGS**



**ILLUSTRATED PARTS LIST.**

TCC1 (single) is shown on page 6. The twin (TCC2) has two faucet/mixing valve systems and two QDC connectors. The TCC2P has, in addition to the items mentioned on the TCC2, two regulator assemblies. Parts are common between both units except where noted below. TCC3 Illustrated Parts Breakdown is shown on page 7.

ITEM N°	PART N°	DESCRIPTION	ITEM N°	PART N°	DESCRIPTION
1	WC-8653*	QCD, LIQUID BOX BAG CONNECTOR	11	WC-2509	FITTING, 1/4 BARB X 1/4 NPT NYLON
2	WC-43003	CLAMP, WORM GEAR HOSE 7/32 X 5/8	12	WC-2435	ELBOW, 1/4" MNPT X 1/4 BARB NYLON
3	WC-53114*	TUBING, .375" ID X .625" OD BRAID SILCN	13	WC- 811-101*	REGULATOR, PRSUR 0-50PSI PSIG PLSTC
4	WC-2601	CONNECTOR, 1/4-FLARE X 1/4 NPT PLTD	14	WC- 569	GAUGE, REGULATOR 0-30PSI
5	WC-4208	NUT, 1/4 LOCK THIN PLATED	15	WC-2061	NUT, REGULATOR TCC
6	WC-2447	ELBOW, STREET 1/4" MPTX1/4"FTP PLTD	16	WC-68903	BRACKET, REGULATOR TCC
7	WC- 870	VALVE, BALL PANEL MOUNT	17	WC-14021	CLAMP, TUBING 14.2-706R TCC
8	WC-29078	NIPPLE, HEX 1/4" X 1/4 MNPT PLATED	18	WC-53113*	TUBING, .25" ID X .50" OD BRAID SILICONE
9	WC-1045	STRAINER, 1/4 FNPT 90° FLOW PATH PLTD	19	WC-2219	Y'FITTING BARB 1/4x1/4x1/4 WHT NYLON (TCC2P)
10	WC- 810-101*	VALVE, CHECK 1/4 X 1/4 BARB PLATED TCC	20	WC-5683	LID ASSY, TCO BLACK PLASTIC

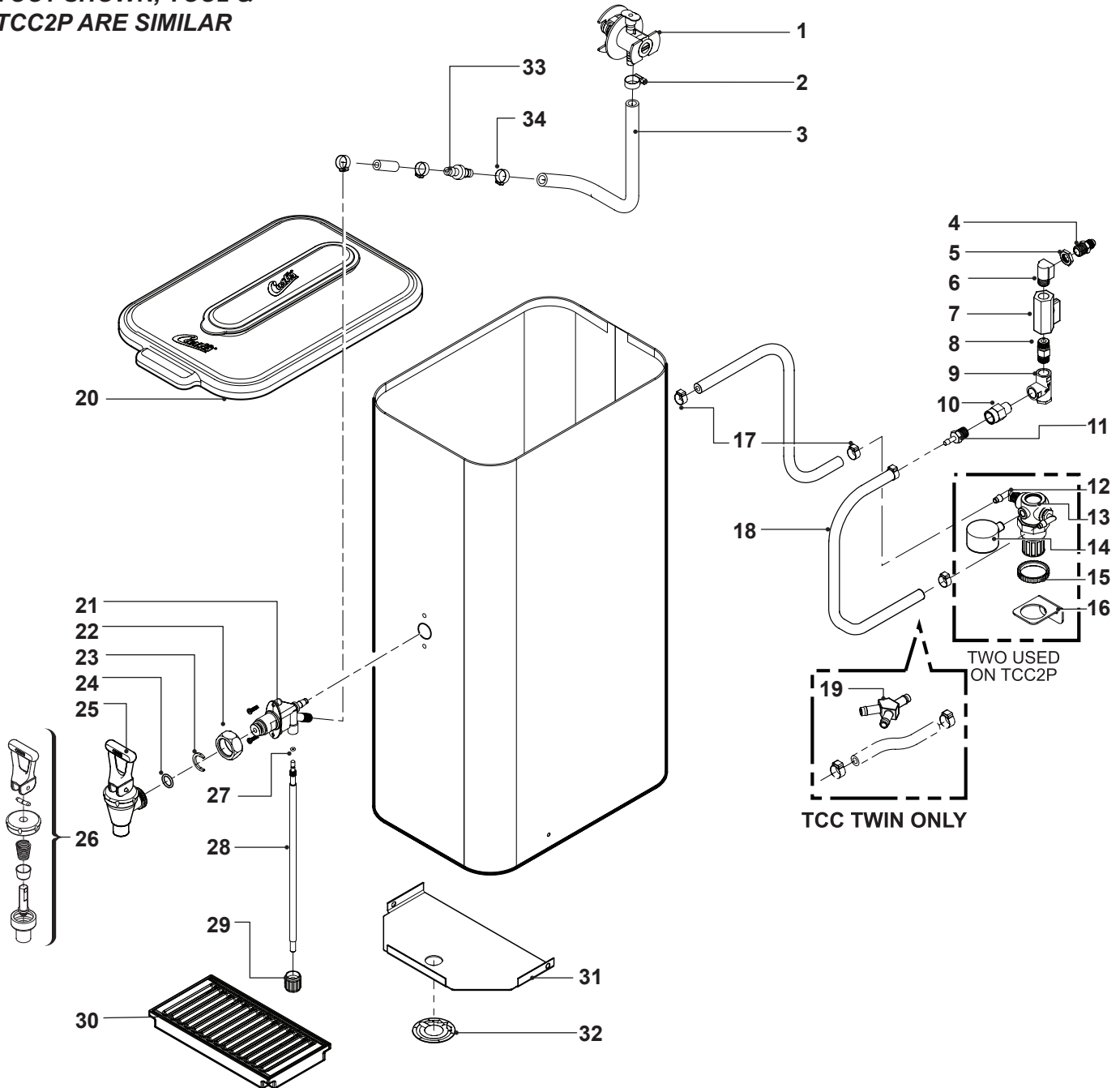
Parts List Continued on Page 6 . . .

ITEM N°	PART N°	DESCRIPTION
20A	WC-5683-101	LID ASSY, TCO BLUE PLASTIC
21	WC- 894*	MIXING VALVE
22	WC-1903	NUT, UNION SHANK
23	WC-1906	C' RING .917 X .760 X .090
24	WC-4320	O' RING, .487 ID X .103 CS
25	WC-1829	FAUCET ASSY, TCC
26	WC-37222*	KIT, FAUCET WIRE REINFORCED CUP
27	WC-43084*	O-RING, .070" ID X .070"W BUNA-N
28	WC-29069	ROD, MIXING VALVE

ITEM N°	PART N°	DESCRIPTION
29	WC-3275-101	KNOB, MIXING ROD
30	DTP-08	DRIP TRAY, 8"
31	WC-61239	TRAY, BOTTOM TCC1
31A	WC-61320	TRAY, BOTTOM TCC2
31B	WC-61295	TRAY, BOTTOM TCC3
32	WC-38326	LABEL, VALVE ADJUST
33	WC-37288*	KIT, CHECK VALVE AND INSTRUCTIONS
34	WC-14022	CLAMP, TUBING .625"
35	WC-53117-101	TUBE, BOTTLE ADAPTER (OPTIONAL)

\* Recommended Parts to Stock

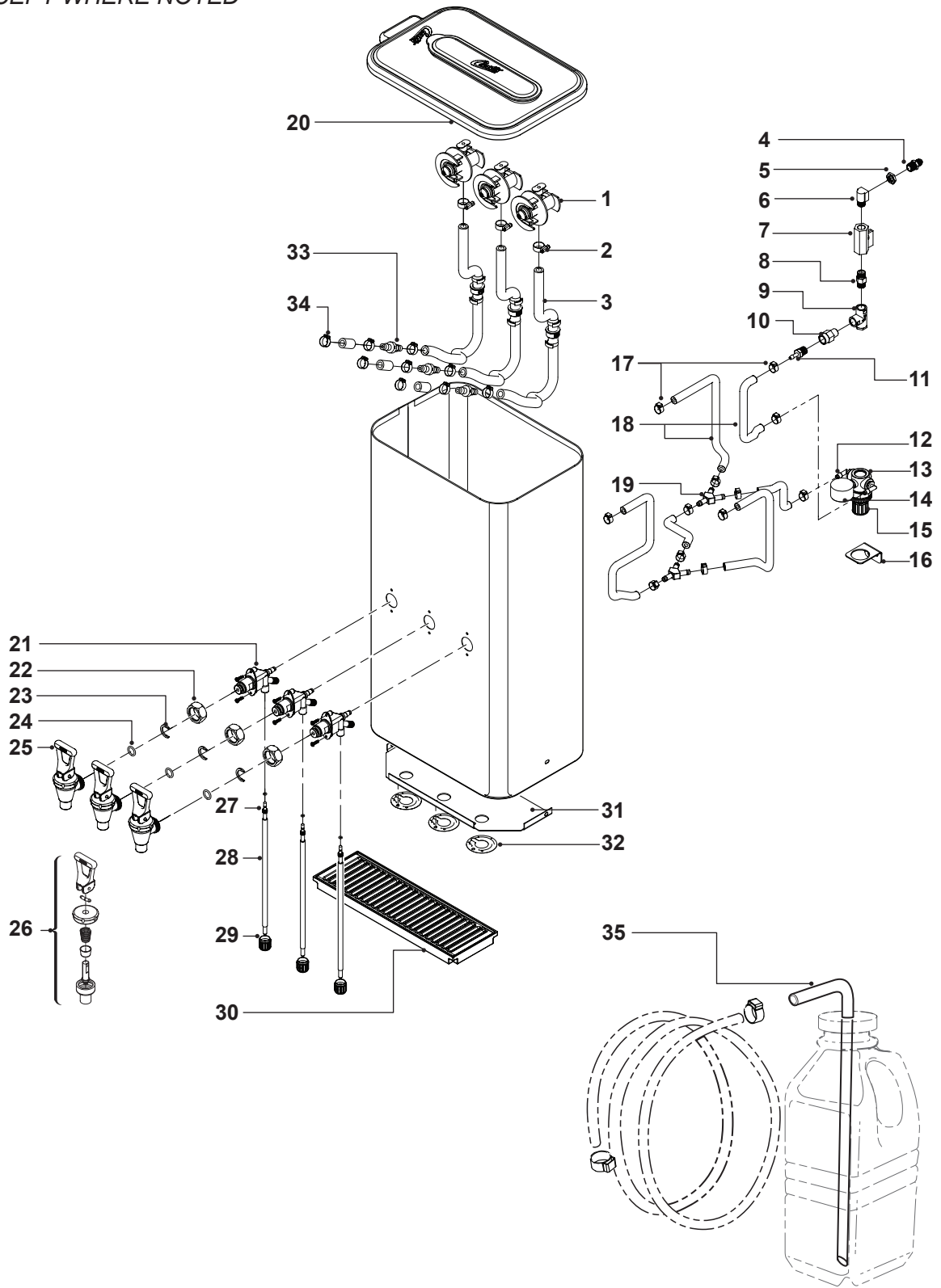
**ILLUSTRATED PARTS**  
**TCC1 SHOWN, TCC2 &**  
**TCC2P ARE SIMILAR**



# ILLUSTRATED PARTS

## TCC3

ALL PARTS ARE IDENTICAL TO TCC1 & TCC2, EXCEPT WHERE NOTED



## 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):** The 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.



WILBUR CURTIS CO., INC.

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

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

♦ Technical Service Phone: 800/995-0417 (M-F 5:30A - 4:00P PST)

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

♦ E-Mail: [techservice@wilburcurtis.com](mailto:techservice@wilburcurtis.com)

**FOR THE LATEST SPECIFICATION INFORMATION GO TO [WWW.WILBURCURTIS.COM](http://WWW.WILBURCURTIS.COM)**