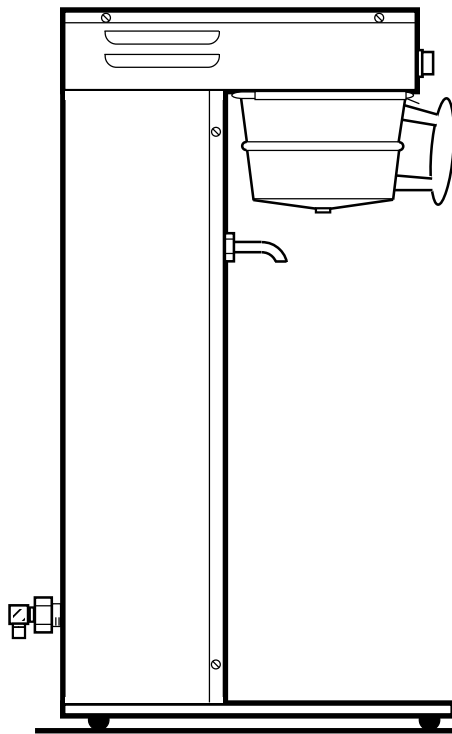


# TCT-35 and TCT-35S Iced Tea Brewers

## Service Manual

Included in this service manual is information on the TCT-35 and TCT-35S. The information is common to both TCT brewers except where noted. For 220 volt units, a separate wiring diagram and parts list will be provided.



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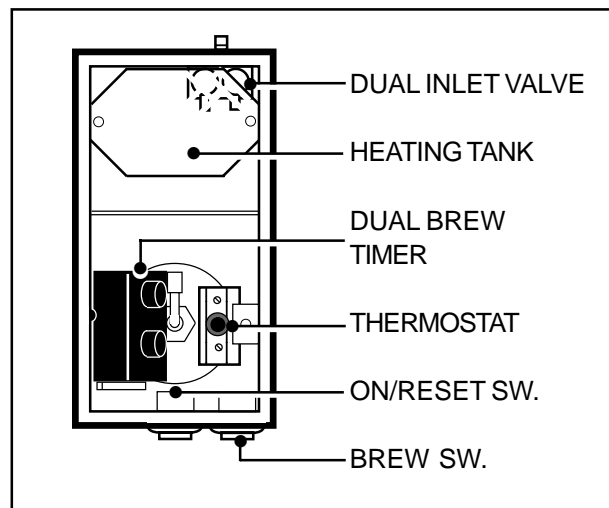
**FOR THE LATEST SPECIFICATION INFORMATION GO TO WWW.WILBURCURTIS.COM**

# SHIPPING LIST

Item	Part Number	Quantity Supplied
1. Iced Tea Brewer	TCT-35 or -35S	1
2. PB-2 Brew Basket	WC-3322	1
3. Brew Cone	WC-3320	1
4. Paper Filters	GEM - 6	25

# SET-UP INSTRUCTIONS

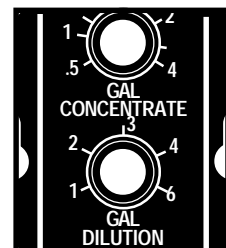
- Loosen the four slotted screws and remove the top cover. Remove the heating tank lid.
- Pour water into the heating tank until the water level is one to two inches below the siphon tube. Replace the tank lid.
- Connect a water line to the inlet valve behind the machine. Turn on water.
- Locate the thermostat. Turn the stem of the thermostat clockwise until it stops.
- Plug in the electrical cord to a 120 VAC, 20 Amp, outlet. Flip the toggle switch, located behind the machine, to the *ON* position. At this time the *READY TO BREW* light will be off.
- Wait about 20-25 minutes for the water to reach brewing temperature.
- Because of the siphon system, proper water level in the heating tank must be established:
  - Place iced tea dispenser on the brewer, under the empty brew cone.
  - Press the brew switch.
  - As soon as you see water flowing, switch off the *ON/RESET* switch.
  - The water level in the heating tank is now correct and the machine is ready to brew.
  - Make sure the *READY TO BREW* light is on. This indicates the water in the heating tank is at operating temperature.

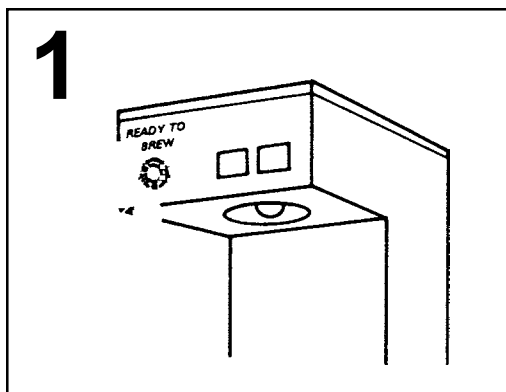


COMPONENTS, TOP VIEW

**NOTE: These brewers are set at the factory to brew 3 gallons (TCT-35S) or 5 gallons (TCT-35).**

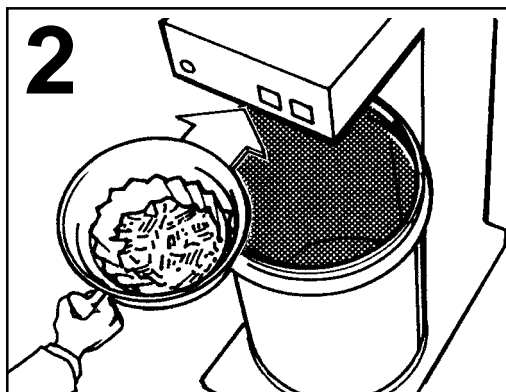
- The dual timer operation and setting: The Concentrate Knob determines the entire length of brew cycle, while the Dilution Knob establishes the length of each of the five (5) cold water cycles within the brew cycle in order to reach the correct hot to cold water ratio.
  - The amount of tea concentrate brewed can be adjusted by the timer knob marked *CONCENTRATE*. Use one (1) gallon as the standard setting.
  - The ratio of tea concentrate to cold water can be adjusted by the timer knob marked *DILUTION*.
  - The starting ratio will be one gallon concentrate and two gallons of dilution. The ratio can be adjusted to obtain the desired brew.



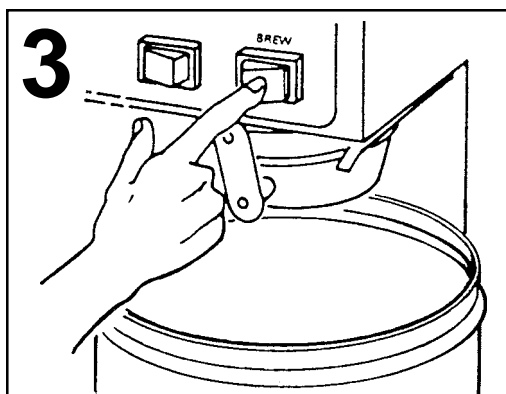


## BREWING INSTRUCTIONS

1. Once the water in the tank reaches the proper temperature (200° F), the READY TO BREW light will come on.



2. Place filter into filter basket. Pour leaf tea into basket. Slide brew cone into brew rails.

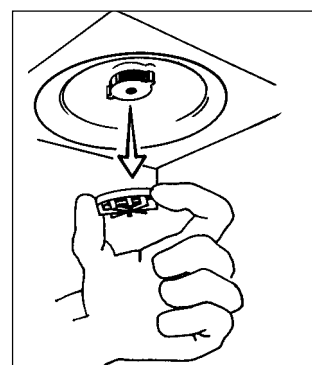


3. With an iced tea dispenser in place, push the brew switch. Brewed tea will start to fill the tea dispenser.

**Caution: Do not pull out brew cone until it stops dripping to avoid scalding from hot liquid.**

## SPECIAL INSTRUCTIONS FOR BREWING WITH FILTER PACKS

If you will be using tea that is packaged in a filter pack, it is recommended that the water spreader portion of the two-piece Sprayhead be removed. This will allow for a single stream of hot water to pour directly onto the tea package. The penetration of water into the filter will help to increase the extraction from the tea package. The threaded part of the Sprayhead is tightly fitted to the Spreader section. To remove, grab the Spreader (with the sprayhead still on the brewer) and pull it firmly downward. The two pieces will separate, leaving the threaded half still on the machine.



SEPARATING SPRAYHEAD

## TCT-35, TROUBLESHOOTING

<b>PROBLEM:</b> No response when Brew Switch is depressed. No hot or cold water dispensed.	
POSSIBLE CAUSE	SOLUTION
Water line turned off or filter clogged	Disconnect the water line from the inlet valve and check the water pressure. Reconnect the water line. Replace the filter cartridge and remove any obstruction. Note: The minimum pressure on the inlet valve should be 20 PSI.
Faulty Brew Switch WC-122	While pressing the Brew Switch, check for continuity between the two side terminals, 4B and 5B. If you do not read 110 - 120V from 5B to L2, the switch is defective. Replace the switch.
Faulty Brew Timer WC-655	<ol style="list-style-type: none"> <li>With a voltmeter, check the incoming power across terminals L1 and L2 (you should read 110 - 120V). If correct, the timer is energized.</li> <li>Check the voltage across terminals S/S and L2 while pushing the brew switch. At this time the timer should be energizing the coils of the water inlet valves to open them. You should read 110V to 120V between the terminals of each coil. If there is no voltage, replace the timer.</li> </ol>

<b>PROBLEM:</b> No hot water flowing from Sprayhead. Only cold water cycles.	
POSSIBLE CAUSE	SOLUTION
Faulty Water Inlet Valve Coil, WC-824	With a voltmeter, check for voltage to the valve coil for the HOT water side. If there is power to the coil and no water is flowing, the valve must be replaced.
Faulty Brew Timer, WC-655	With a voltmeter, check the voltage across terminals L2 and HOT terminal (press brew switch to test). If voltage is not present, timer is faulty.

<b>PROBLEM:</b> No cold water is flowing from the outlet.	
POSSIBLE CAUSE	SOLUTION
Faulty Water Inlet Valve, WC-824	With a voltmeter, check for voltage to the valve coil for the COLD water side. If there is power to the coil and no water is flowing, the valve must be replaced.
Faulty Brew Timer, WC-655	With a voltmeter, check the voltage across terminals L2 and COLD terminal. If voltage is not present, timer is faulty.

<b>PROBLEM:</b> Low temperature or cold water in the heating tank.	
POSSIBLE CAUSE	SOLUTION
Thermostat is turned off	Check to see that the thermostat is turned on. Twist the stem clockwise as far as it will go.

<b>CONTINUED... PROBLEM:</b> Water in Tank does not get hot.	
POSSIBLE CAUSE	SOLUTION
Burned out heating element	Read the current with a clamp ammeter on one of the two 14 gauge wires connected to the element. Turn on the machine. The meter should read approximately 16 amperes. If you cannot get an ampere reading, use a voltmeter to check for voltage across the heating element terminals. If there are approximately 115 volts, the element is burned out. Replace elements.

NOTE: On these brewers, the Low Water Cutoff Thermostat, part no. WC-508R, serves to automatically cut off the power to the heating element in case the water level drops too low. When the water level is so low that the element is exposed, the very hot temperature will cause the reset button, on the thermostat, to pop out; thus preventing the heating element from burning out. When the low water condition has been corrected, push in the red button on the thermostat to reset. You will know when it has reset by a distinct click.

## TCT-35, CLEANING

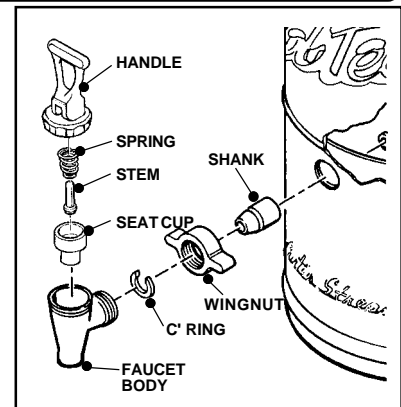
Regular cleaning of the TCT-35 Iced Tea Brewer is essential in maintaining the best quality iced tea flavor that the unit is capable of brewing.

1. Wipe any spills, dust or debris from the exterior surfaces with a damp cloth. The outside surfaces of the TCT-35 should be cleaned with **stainless steel polish** only, to prevent scratches.
2. Clean the sprayhead and domed area around the sprayhead with a detergent solution and scrub well to remove residue. Rinse with and clear water. Dry with clean cloth.
3. Remove the wire filter holder from the brew basket and wash both parts with a detergent solution or put these parts through a dishwasher.
4. Wash the tea container and top cover with a detergent solution. Remove 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.
5. After the cleaning, place the parts (sprayhead, brewcone and basket and faucet parts) into a sink to be sanitized.

**CAUTION - DO NOT USE UNDILUTED BLEACH OR CHLORINE.**

Mix one of three sanitizing solutions **before** pouring over the parts to be sanitized: Chlorine (50 ppm), Iodine (14 ppm), or Quaternary Ammonium compound (100 ppm). This solution should be warm (75° F.) Let the parts soak for at least one minute.

6. Thoroughly rinse parts with clear, hot water.
7. Air dry, all parts that were sanitized.
8. After cleaning, sanitizing and drying, assemble any parts taken from the TCT-35 and tea container.



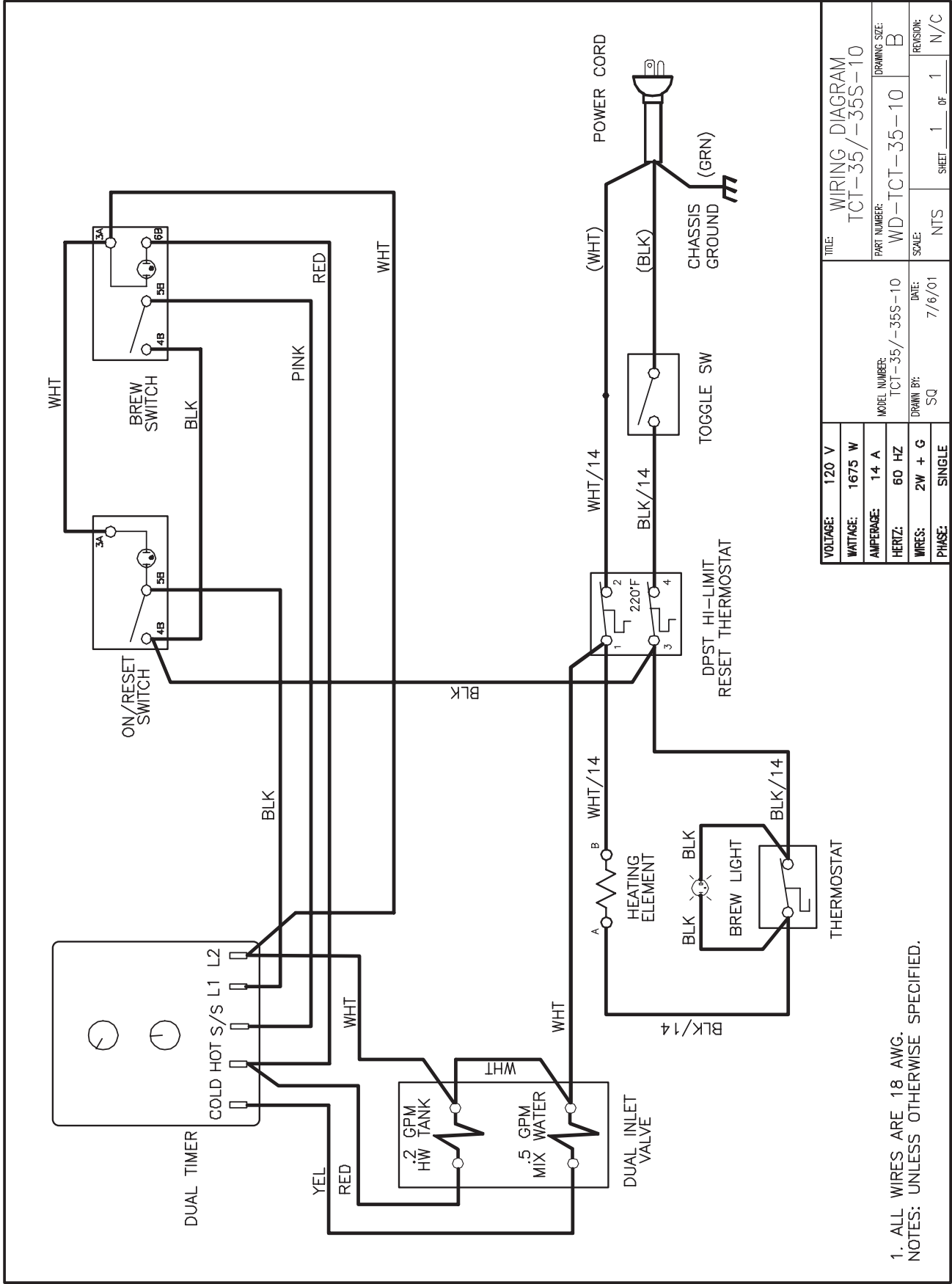
TC FAUCET

## 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 finished brewed tea for more than eight hours at room temperature. Discard all unused brewed tea after eight hours.

**DO NOT REFRIGERATE UNUSED TEA OVERNIGHT FOR LATER CONSUMPTION.**

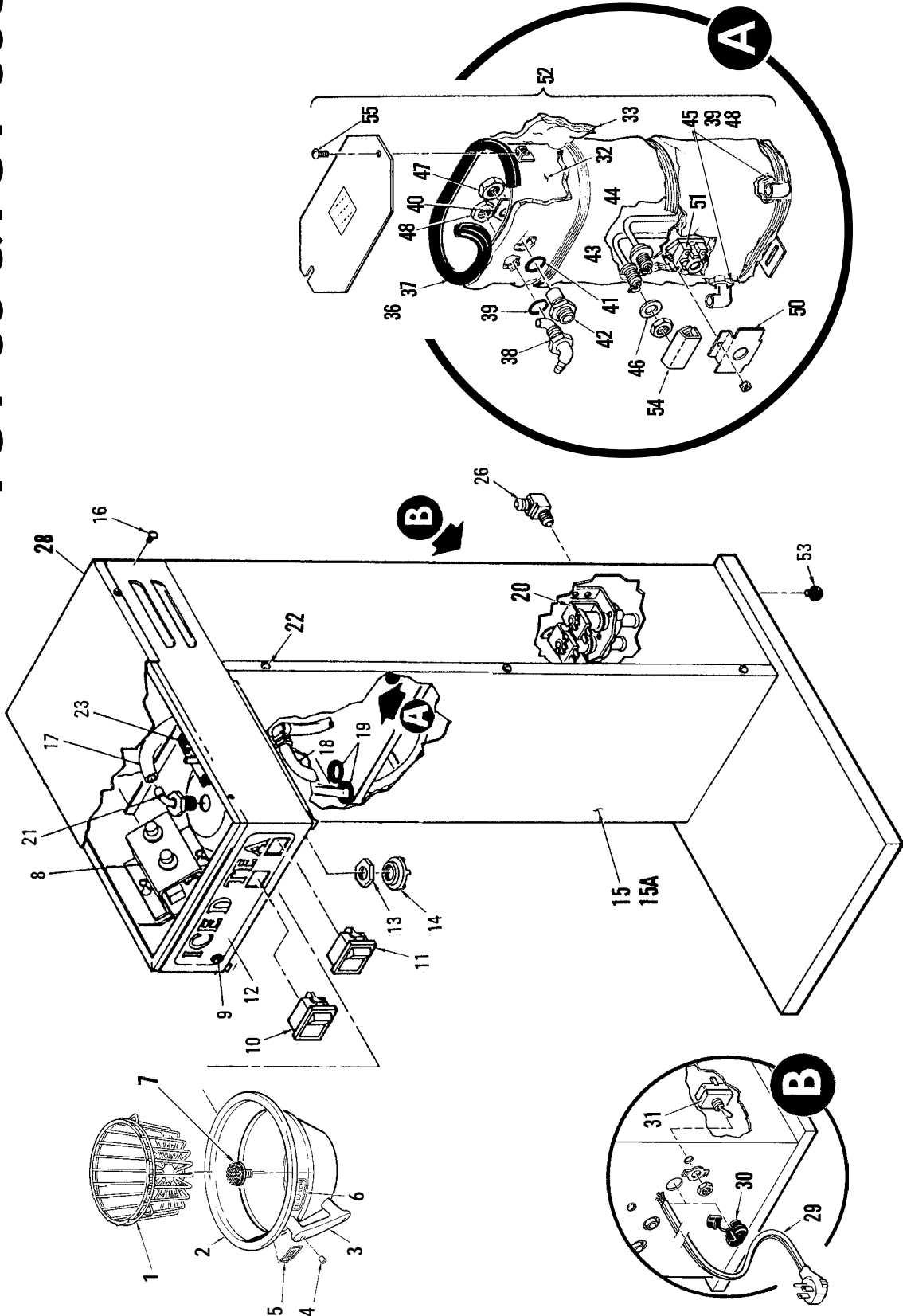
3. Brew only enough tea that you reasonably expect to sell within a few hours.
4. To protect tea flavor and to avoid bacterial contamination and growth, clean and sanitize tea brewing, storage and dispensing equipment at least once a day.
5. For any method described, use a thermometer to make sure that brewing water in your equipment meets the temperature specified.



VOLTAGE:	120 V	TITLE:	WIRING DIAGRAM
WATTAGE:	1675 W	TCT-35/-35S-10	
AMPERAGE:	14 A	PART NUMBER:	WD-TCT-35-10
HERTZ:	60 HZ	MODEL NUMBER:	TCT-35/-35S-10
WIRES:	2W + G	DRAWN BY:	SQ
PHASE:	SINGLE	DATE:	7/6/01
		SCALE:	NTS
		SHEET	1 OF 1
		REVISION:	N/C

1. ALL WIRES ARE 18 AWG.  
 NOTES: UNLESS OTHERWISE SPECIFIED.

# TCT-35 & TCT-35S



# PARTS LIST - TCT-35 & TCT-35S, ICED TEA BREWER

The part numbers mentioned in this section are for 120 volt components only. For 220 volt part numbers, see the -30 wiring diagram.

ITEM Nº	PART Nº	DESCRIPTION	ITEM Nº	PART Nº	DESCRIPTION
1	WC-3322	BREW BASKET, WIRE	28	WC-54006	COVER, TOP BREWER*
2	WC-3320	BREW CONE/HANDLE ASSY	29	WC-1200	POWER CORD, 125V, 6'
3	WC-3201	BREW CONE HANDLE	30	WC-1408	CORD GRIP, 7/8"
4	WC-4003	NUT, 10-32 RETAINER	31	WC- 102	TOGGLE SWITCH, 125V, 20A
5	WC-3992	LABEL, ICED TEA BREW CONE	32	WC-54047	HEATING TANK W/FITTINGS
6	WC-3963	STICKER, CAUTION BREW CONE	33	WC-3685	INSULATION, WRAP
7	WC-3647	STRAINER	36	WC-5851	LID, TANK
8	WC- 655	TIMER, DUAL 115V	37	WC-43062	GASKET, TANK LID
9	WC- 202	BREW LIGHT, 115V	38	WC-29010	FITTING OVERFLOW, BARBED
10	WC- 114R	SWITCH, ON/OFF 115V	39	WC-4320	O' RING SEAL, 1/2"
11	WC- 122	SWITCH, BREW 115V	40	WC-6210	SHIELD, BUBBLE
12	WC-39119	LABEL, SWITCH PANEL	41	WC-4373	O' RING, 3/4"
13	WC-4213	LOCK NUT, BRASS 5/8"	42	WC-2970	FITTING, SIPHON TUBE
14	WC-2906	SPRAYHEAD, BLUE	43	WC- 904-04	ELEMENT, HEATING 1.6KW 120V
15	WC-54001	COVER, FRONT, TCB-35S	44	WC-5409	CLIP, THERMOSTAT BULB
15A	WC-54002	COVER, FRONT, TCB-35	45	WC-29009	FITTING, TANK INLET/DRAIN
16	WC-4502	SCREW, 8-32 x 3/8" PAN HEAD	46	WC-4306	WASHER, .875 O.D X .562ID SILICONE
17	WC-5310	TUBING, SILICONE 5/16"	47	WC-4243	LOCK NUT, 3/4" BRASS
18	WC-2965	SPOUT, BYPASS	48	WC-4212	JAM NUT, 5/8" BRASS
19	WC-1411	BUSHING, SNAP-IN 5/8"	50	WC-4381	SHOCK GUARD, RST T' STAT
20	WC- 895	VALVE, INLET DUAL 120V 10W	51	WC- 522	THERMOSTAT, HI LIMIT HEATER DPST
21	WC-2977	FITTING, SPRAYHEAD 45°	52	WC-54048	HEATING TANK COMPLETE
22	WC-4436	SCREW, 4x3/8 PHIL PAN HEAD	53	WC-3502	RUBBER FEET, 8-32 STUD
23	WC- 517	THERMOSTAT, CAPILLARY SPST	54	WC-4394	SHOCK GUARD, HEAT ELEMENT
26	WC-2401	FITTING, 1/4 x 1/8 FLARE ELBOW	55	WC-4506	SCREW, 8-32 x 5/8 SS PAN HD

\* PRE-'94 PRODUCTION HAD 16 3/4" LONG TOP COVER.



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## Product Warranty Information

The Wilbur Curtis Company certifies that its products are free from defects in material and workmanship under normal use. The following limited warranties and conditions apply:

- 3 Years, Parts and Labor, from Original Date of Purchase on digital control boards.
- 2 Years, Parts, from Original Date of Purchase on all other electrical components, fittings and tubing.
- 1 Year, Labor, from Original Date of Purchase on all electrical components, fittings and tubing.

Additionally, the Wilbur Curtis Company warrants its Grinding Burrs for Forty (40) months from date of purchase or 40,000 pounds of coffee, whichever comes first. Stainless Steel components are warranted for two (2) years from date of purchase against leaking or pitting and replacement parts are warranted for ninety (90) days from date of purchase or for the remainder of the limited warranty period of the equipment in which the component is installed.

All in-warranty service calls must have prior authorization. For Authorization, call the Technical Support Department at 1-800-995-0417. Effective date of this policy is April 1, 2003.

Additional conditions may apply. Go to [www.wilburcurtis.com](http://www.wilburcurtis.com) to view the full product warranty information.

### CONDITIONS & EXCEPTIONS

The warranty covers original equipment at time of purchase only. The Wilbur Curtis Company, Inc., assumes no responsibility for substitute replacement parts installed on Curtis equipment that have not been purchased from the Wilbur Curtis Company, Inc. The Wilbur Curtis Company will not accept any responsibility if the following conditions are not met. The warranty does not cover and is void under the following circumstances:

- 1) **Improper operation of equipment:** The equipment must be used for its designed and intended purpose and function.
- 2) **Improper installation of equipment:** This equipment must be installed by a professional technician and must comply with all local electrical, mechanical and plumbing codes.
- 3) **Improper voltage:** Equipment must be installed at the voltage stated on the serial plate supplied with this equipment.
- 4) **Improper water supply:** This includes, but is not limited to, excessive or low water pressure, and inadequate or fluctuating water flow rate.
- 5) **Adjustments and cleaning:** The resetting of safety thermostats and circuit breakers, programming and temperature adjustments are the responsibility of the equipment owner. The owner is responsible for proper cleaning and regular maintenance of this equipment.
- 6) **Damaged in transit:** Equipment damaged in transit is the responsibility of the freight company and a claim should be made with the carrier.
- 7) **Abuse or neglect (including failure to periodically clean or remove lime accumulations):** Manufacturer is not responsible for variation in equipment operation due to excessive lime or local water conditions. The equipment must be maintained according to the manufacturer's recommendations.
- 8) **Replacement of items subject to normal use and wear:** This shall include, but is not limited to, light bulbs, shear disks, "O" rings, gaskets, silicone tube, canister assemblies, whipper chambers and plates, mixing bowls, agitation assemblies and whipper propellers.
- 9) **Repairs and/or Replacements** are subject to our decision that the workmanship or parts were faulty and the defects showed up under normal use. All labor shall be performed during regular working hours. Overtime charges are the responsibility of the owner. Charges incurred by delays, waiting time, or operating restrictions that hinder the service technician's ability to perform service is the responsibility of the owner of the equipment. This includes institutional and correctional facilities. The Wilbur Curtis Company will allow up to 100 miles, round trip, per in-warranty service call.

**RETURN MERCHANDISE AUTHORIZATION:** All claims under this warranty must be submitted to the Wilbur Curtis Company Technical Support Department prior to performing any repair work or return of this equipment to the factory. All returned equipment must be repackaged properly in the original carton. No units will be accepted if they are damaged in transit due to improper packaging.

**NO UNITS OR PARTS WILL BE ACCEPTED WITHOUT A RETURN MERCHANDISE AUTHORIZATION (RMA). RMA NUMBER MUST BE MARKED ON THE CARTON OR SHIPPING LABEL.** All in-warranty service calls must be performed by an authorized service agent. Call the Wilbur Curtis Technical Support Department to find an agent near you.



WILBUR CURTIS CO., INC.

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

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