

# LIPTON TEA BREWING EQUIPMENT



## Iced Tea Dispensers

## Hot Tea Dispensers



## MANUAL

- SPECIFICATIONS
- INSTALLATION

- OPERATIONAL INSTRUCTIONS

- ADJUSTMENTS
- COMPONENTS

- PARTS IDENTIFICATION
- WIRING DIAGRAMS

### MACHINE MODELS

LTB-303 or PORTABLE  
 LTB-505 or PORTABLE  
 LTB-103 or PORTABLE  
 LTB-105 or PORTABLE  
 LTB-1010  
 LTB-1010 TWIN

### ICED TEA DISPENSERS

LB1-3 gal.  
 LB1-5 gal.  
 LRB-3 gal.  
 LRB-5 gal.  
 SU-10P [10 gal.]

### HOT TEA DISPENSER

3 Lt. AIRPOT V226A

### PLASTIC TRAYS and S.S. GRILLS

SINGLE M634A and RV29A  
 DOUBLE M633A and RV30A  
 TRIPLE M618A and RV31A

For Equipment Repair & Service Please Call 1-800-737-5064

# LTB MODELS:

**LTB-303** W/ LIT STEEPING FUNNEL  
[HOT WATER SPOUT - OPTIONAL]



**LTB-505**  
W/ LIT STEEPING FUNNEL



**LTB-1010 TWIN**  
WITH PLATFORM FUNNEL



**LTB-103**  
W/ PLATFORM FUNNEL



**LTB-105**  
W/ PLATFORM FUNNEL



**LTB-1010** W/PLATFORM FUNNEL



## ELECTRICAL SPECIFICATIONS

MODEL NO.	VOLTS	PHASE	HZ	WATTS KW	NO. OF HEATERS	AMPS	RECEPTACLE NEMA NO.	POWER CORD	CIRCUIT BREAKER AMPS
LTB-303C, 505-IT, LTB-103, 105 * LTB-PORTABLE - OPTIONAL	120	1	60	1.8	1	15	5-15R	5-15P [2 WIRES+GND]	15A
LTB-303, 505, LTB-103, 105	240	1	60	3.0	1	12.5	6-20R	6-20P [2 WIRES+GND]	20A
LTB-1010, LTB-1010 DUAL	240	1	60	4.8	2	20	6-30R	6-30P [2WIRES+GND]	30A

### **OPERATING ENVIRONMENTAL TEMPERATURE:**

Minimum Ambient Temperature: 32° F [0° C]

**NOTE:** The appliance is not suitable for unsupervised use by young children or aged or infirm persons, according to national standards.

### **UNPACKING AND ASSEMBLY:**

The LTB- 303, 505, 103, 105 is shipped with a set of short adjustable legs mounted on and an additional set of 4" legs with drip tray, funnel, and a water inlet fitting. Install 4" legs to use drip tray. **The LTB-1010 and LTB-1010 Twin is** shipped with a set of short adjustable legs mounted on, a funnel, and a water inlet fitting.

### **WATER INLET CONNECTION:**

**HIGHLY RECOMMENDED:** A water shut-off valve and a water filter, preferably a combination charcoal/ phosphate filter, to remove odors and inhibit lime and scale build up in the machine.

Note: In areas with extremely hard water, a water softener must be installed in order to prevent a malfunctioning of the equipment and in order not to void the warranty.

The tea dispenser is equipped with a ¼" flare water inlet fitting which is located in the back of the unit. Connect the ¼" dia. Copper waterline to the ¼" flare water inlet fitting of the valve.

This equipment is to be installed to comply with the applicable federal, state, or local plumbing codes having jurisdiction. In addition:

1. A quick disconnect water connection or enough extra coiled tubing (at least 2x the depth of the unit) so that the machine can be moved for cleaning underneath.
2. An approved back flow prevention device, such as a double check valve to be installed between the machine and the water supply.
3. For use of machine outside the United States of America, connection to water supply mains should comply with the national "Model Water Byelaws"

### **NOTES:**

1. The machine is equipped with a low temperature lockout system and will not brew until the hot water tank is filled with water and has reached the proper brew temperature of 195° f. To test machine with cold water, leave heater switch off.
2. For Portable [-P] units: As the machine brews and dispenses tea, the pump will automatically draw water from the water bottle to maintain tank full. Be sure to keep a second full bottle of water next to the machine, so that when one bottle runs out of water you can transfer the hose to the next bottle.
3. For Portable [-P] units: The pump needs to be reprimed whenever the pump priming button lights up:
  - a) If the bottle runs out of water.
  - b) If the hose inside the bottle is pulled out of the water while the pump is drawing water, causing airlock.
4. For Portable [-P] units: From time to time after the tank is full, and machine has not been used for some time, the priming button will light up, indicating that the pump is airlocked, due to pressure build up. When the brew button is pressed, it releases the trapped air between the pump and the dispense valve, and normal operation will resume.

After the tank is full the pump will stop drawing water, it will not start drawing water again until the brew button is pressed causing the dispense valve to open up and dispense water.

# FAST START UP INSTRUCTIONS FOR LTB-303, 505, 103, 105

**CAUTION:** BEFORE PLUGGING POWER CORD INTO GROUNDED OUTLET [15A, 120V Or 240V] MAKE SURE HEATER SWITCH IS OFF [Heater Switch is located inside Top Housing. Remove Top Cover for Access].

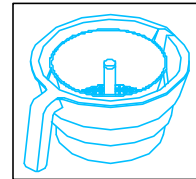
## I. PRIMING - FIRST TIME START UP - CONNECTED TO DIRECT WATERLINE

1. CONNECT A 1/4 Inch COPPER WATER LINE TO THE 1/4 FLARE WATER INLET FITTING ON THE VALVE.
2. PLUG POWER CORD INTO DEDICATED OUTLET [120V, 15A, GROUNDED.]
3. PRESS POWER SWITCH ON. Tank will start filling.
4. WAIT APPROX. 4 MIN. FOR TANK TO FILL UP.
5. TURN HEATER SWITCH ON [Heater Switch is located inside Top Housing. Remove Top Cover for Access].

## II. NORMAL EVERYDAY BREWING OPERATION:

For LTB-303 & LTB-505:

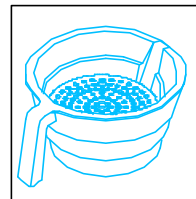
1. Insert Paper filter with hole over stem and place tea IN PAPER FILTER - OPTIONAL OR PLACE TEA DIRECTLY IN FUNNEL INSERT.  
[for 3 gal. (1) 3 oz. bag or 2.5 - 3 oz. loose tea] [for 5 gal. (1) 4 oz. bag or 3.5 - 4 oz. loose tea]
2. Place iced tea dispenser or airtop under funnel.
3. Press Power Switch ON. Allow approx. 20 minutes for water in tank to reach brewing temperature 197°F.
4. When "Ready Light" [green] comes ON, press Brew Button [HOT TEA or ICED TEA].



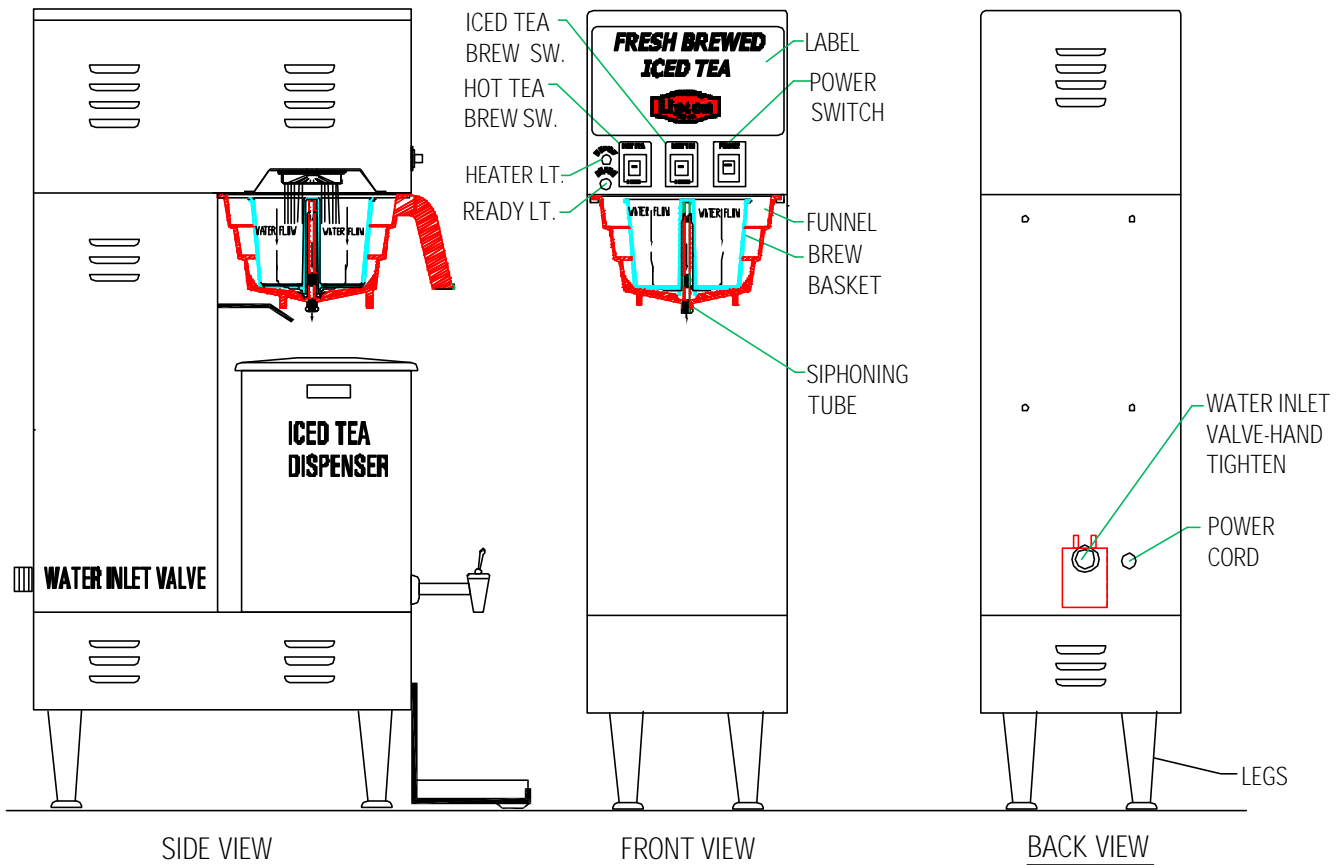
**LTB-303**  
[2.5 - 3 OZ. TEA]  
**LTB-505**  
[3.5 - 4 OZ. TEA]

For LTB-103, 105:

1. PLACE TEA BAG (3 OZ.) DIRECTLY INTO FUNNEL.
2. Place iced tea dispenser or airtop under funnel.
3. Press Power Switch ON. Allow approx. 20 minutes for water in tank to reach brewing temperature 197°F.
4. When "Ready Light" [green] comes ON, press Brew Button [HOT TEA or ICED TEA].



**LTB-103**  
[2.5 - 3 OZ. TEA]  
**LTB-105**  
[3.5 - 4 OZ. TEA]



## FAST START UP INSTRUCTIONS FOR LTB PORTABLE (Lipton Portable Tea Brewer with Pump)

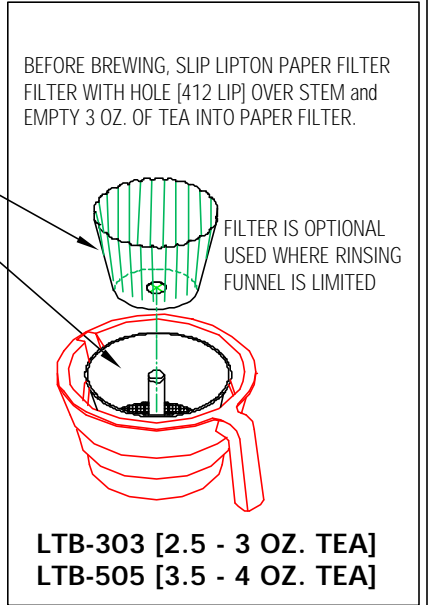
**CAUTION:** BEFORE PLUGGING POWER CORD INTO GROUNDED OUTLET [15A, 120V Or 240V] MAKE SURE HEATER SWITCH IS OFF [inside top cabin].

### I PRIMING - FIRST TIME START UP USING PUMP

1. SET WATER SELECTION SWITCH [see lower back panel] TO "PUMP" [TOGGLE UP]
2. PLACE HOSE FROM PUMP [on back panel] INTO A 6 GAL. FULL WATER BOTTLE.
3. PLUG POWER CORD INTO OUTLET [120V, 15A, GROUNDED, DEDICATED].
4. PRESS POWER SWITCH ON. Pump priming button [red], located on lower front panel, will light up, indicating pump needs to be primed.
5. PUSH and HOLD PRIMING BUTTON UNTIL LIGHT GOES OFF, THEN RELEASE BUTTON. Pump begins to draw water from water bottle.  
Pump will continue to draw water from the bottle on it's own, until the tank inside the machine is full.  
Pump will take approximately 4 minutes to fill Tank.
6. TURN HEATER SWITCH ON [on lower back panel].  
Allow approx. 20 minutes for water inside tank to reach proper brewing temperature of 197°F.

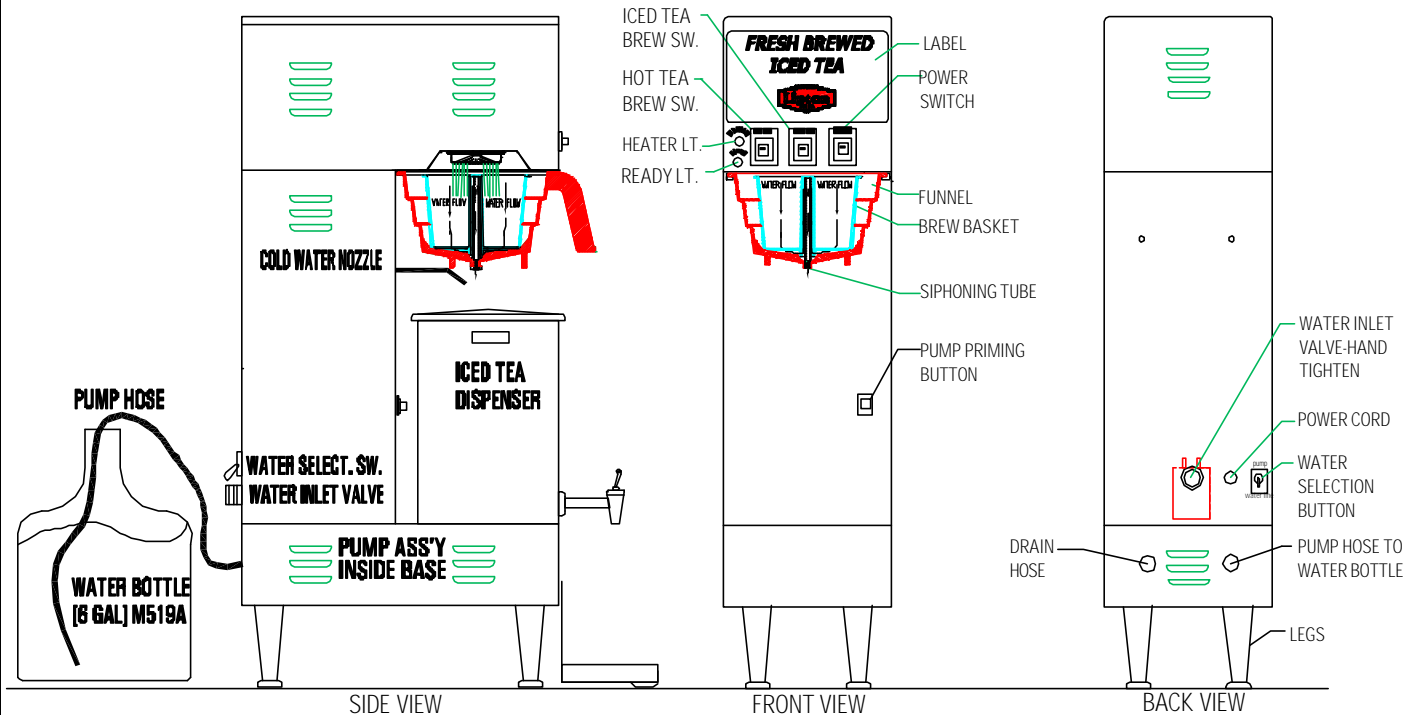
### II. NORMAL EVERYDAY BREWING OPERATION:

1. Insert Paper Filter with hole over stem and place Tea IN PAPER FILTER - OPTIONAL or PLACE TEA [FOR LTB-303 [(1) 3 oz. bag or 2.5 - 3 oz. loose tea] or [FOR LTB-505 [(1) 4 oz. bag or 3.5 - 4 oz. loose tea] DIRECTLY IN FUNNEL INSERT.
2. Place iced tea dispenser or airtop or satellite under funnel.
3. Turn power on. Allow approx. 20 minutes for water in tank to reach brewing temperature 195°F.
4. When "Ready" [green] light [front panel] comes ON, press Brew Button [HOT TEA or ICED TEA].
5. IF IN BETWEEN BREW CYCLES, THE PRIMING BUTTON LIGHTS UP, PRESS BREW SWITCH, TO CONTINUE WITH NORMAL OPERATION.



### III. AFTER DEMONSTRATION- PACK UP MACHINE:

1. SHUT OFF ALL SWITCHES
  2. UNPLUG POWER CORD
  3. DRAIN TANK INTO WATER BOTTLE [Drain Hose located in back]
- CAUTION:** WATER IN TANK IS HOT, 197°F.



# FAST START UP PROCEDURE FOR LTB -1010 & LTB-1010 TWIN

**CAUTION:** BEFORE PLUGGING POWER CORD INTO GROUNDED OUTLET [15A, 120V Or 240V] MAKE SURE HEATER SWITCH IS OFF [on back panel or inside top cabin].

## I. PRIMING - FIRST TIME START UP CONNECTED TO DIRECT WATERLINE

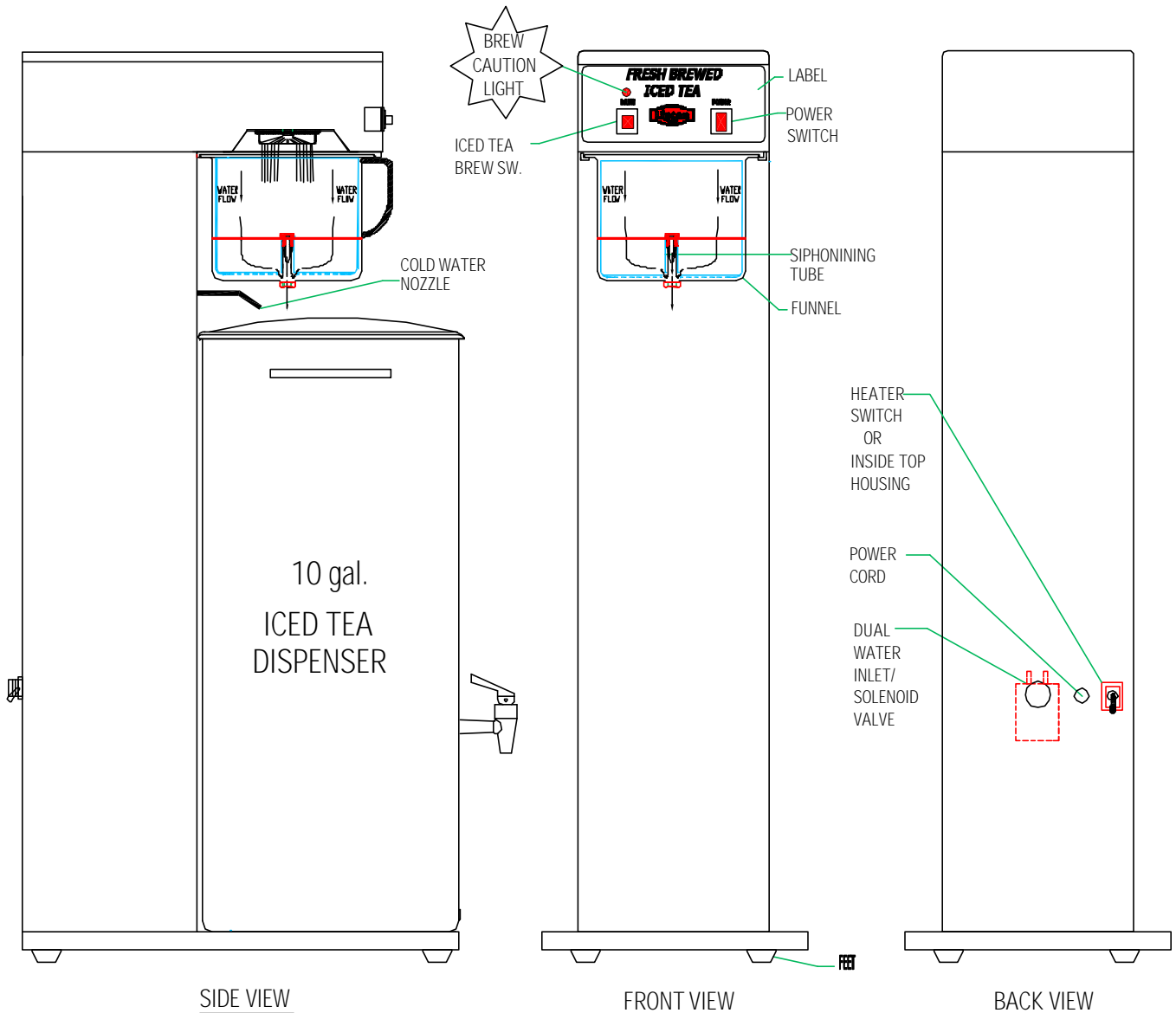
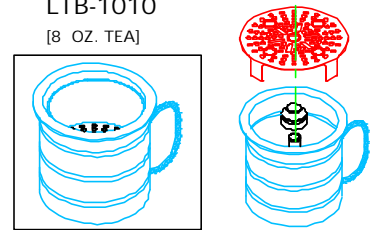
1. CONNECT A 1/4 COPPER WATER LINE TO THE 1/4 FLARE WATER INLET FITTING ON THE VALVE.
2. PLUG POWER CORD INTO OUTLET [120V, 15A, GROUNDED, DEDICATED].
3. PRESS POWER SWITCH ON. Tank will start filling.
4. WAIT APPROXIMATELY 4 MIN. FOR TANK TO FILL UP, THEN TURN HEATER SWITCH ON [ Toggle UP - see lower back panel ]

## II. NORMAL EVERYDAY BREWING OPERATION:

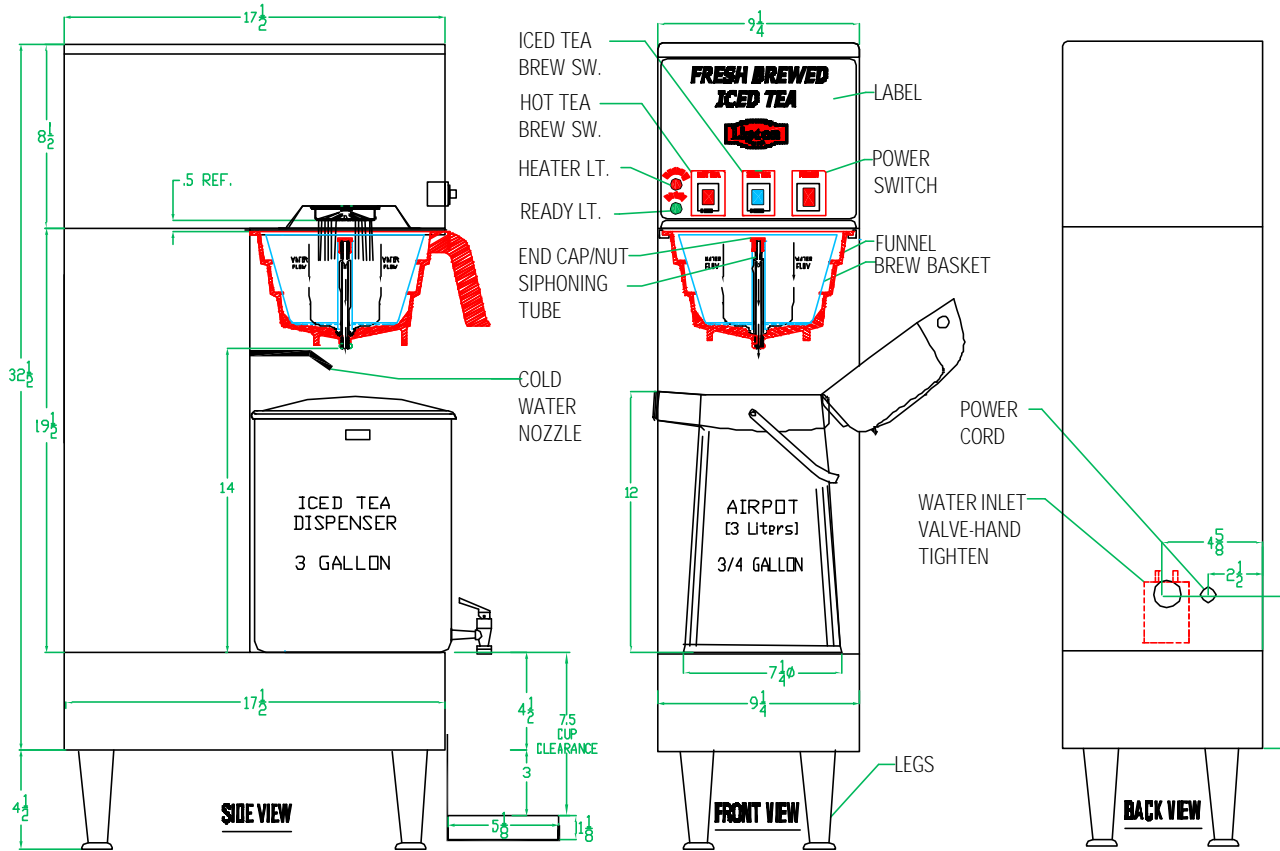
For LTB-1010:

1. PLACE TEA BAGS [2] 4 oz. each, 8 oz. total, DIRECTLY ONTO FUNNEL PLATFORM.
2. Place Iced Tea Dispenser under funnel.
3. Turn power on. Allow approx. 15 minutes for water in tank to reach brewing temperature 197°F.
4. When "BREW" [green] light comes ON, press Brew Button [toggle down].  
BREW/CAUTION LIGHT flashes during brewing cycle. DO NOT REMOVE FUNNEL WHILE LIGHT IS FLASHING.

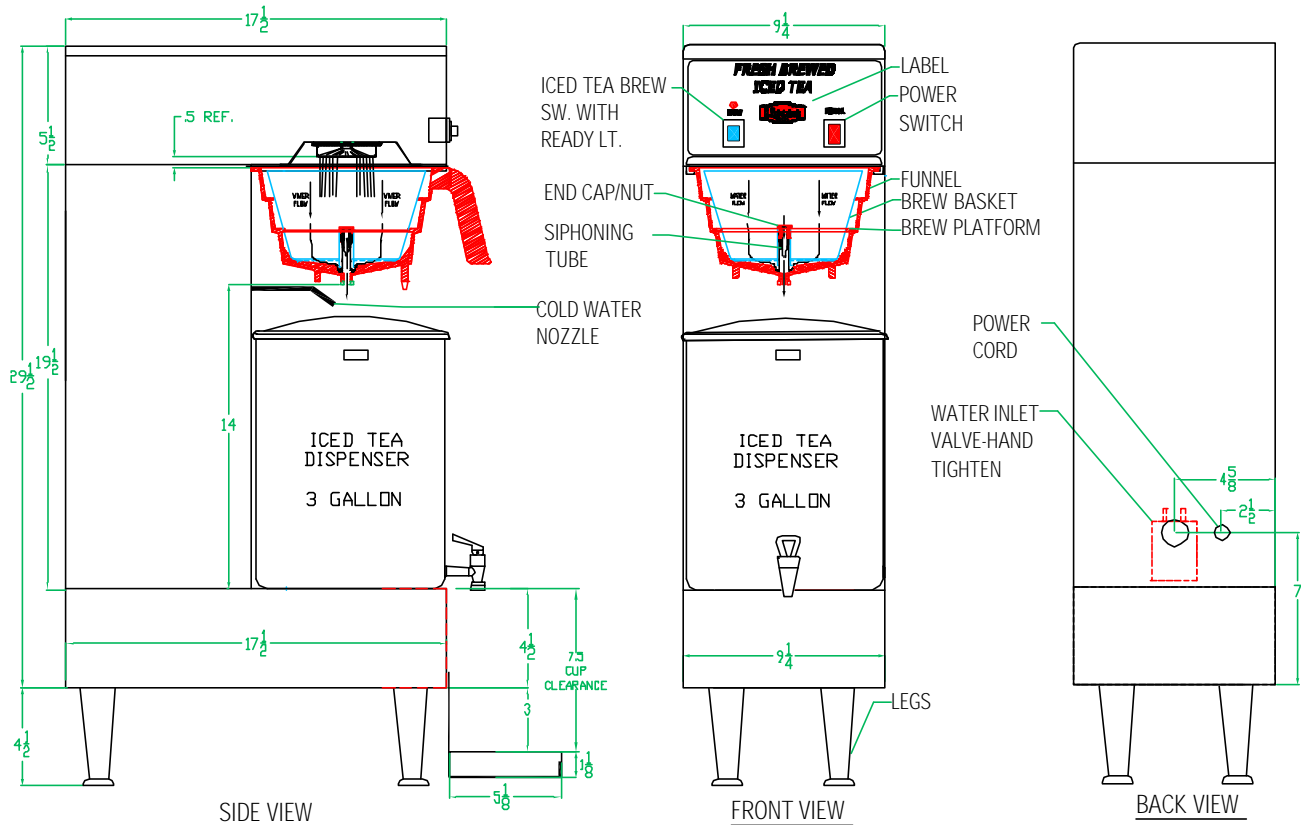
LTB-1010  
[8 OZ. TEA]



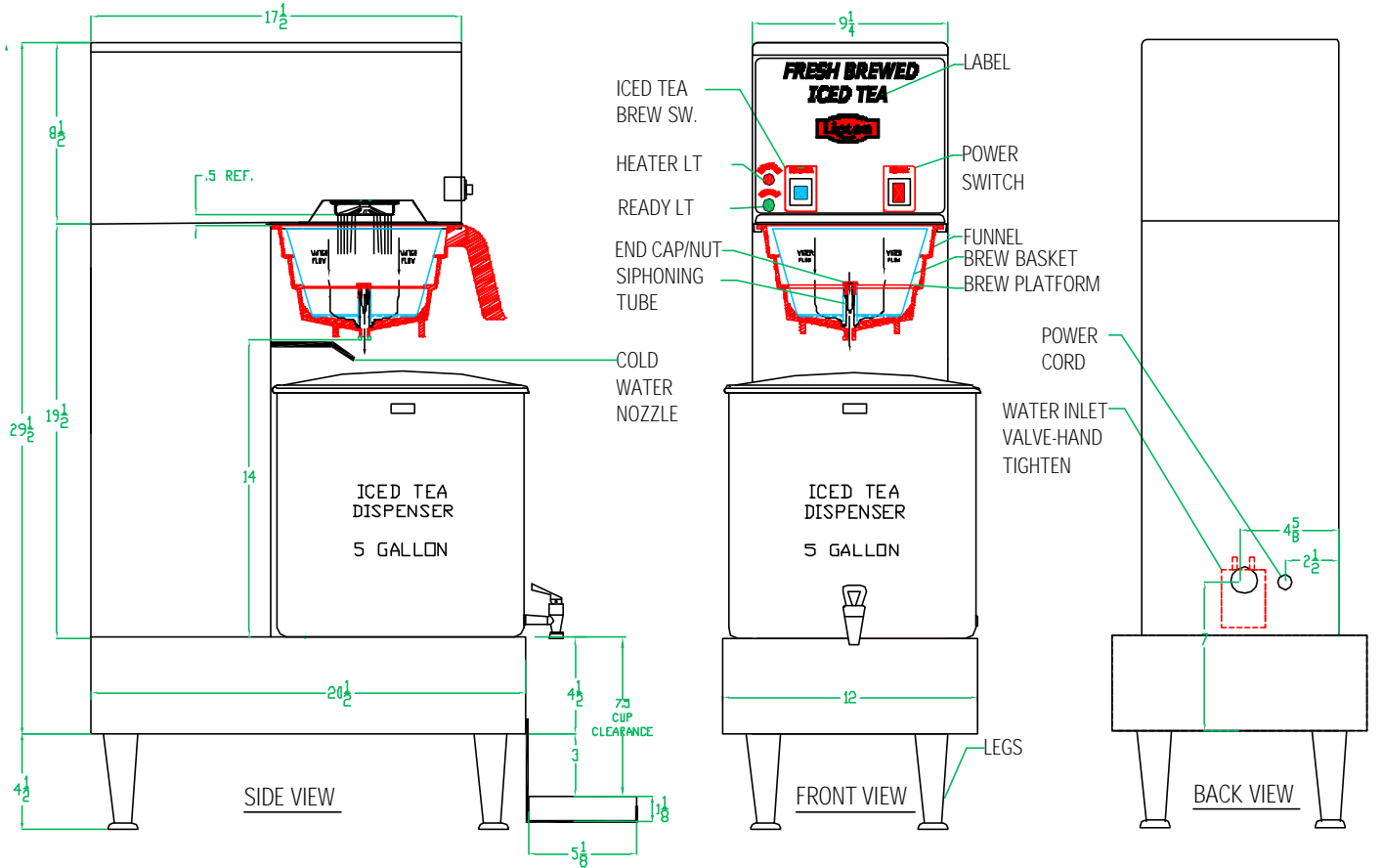
# LTB-303 DIMENSIONAL SPECIFICATIONS



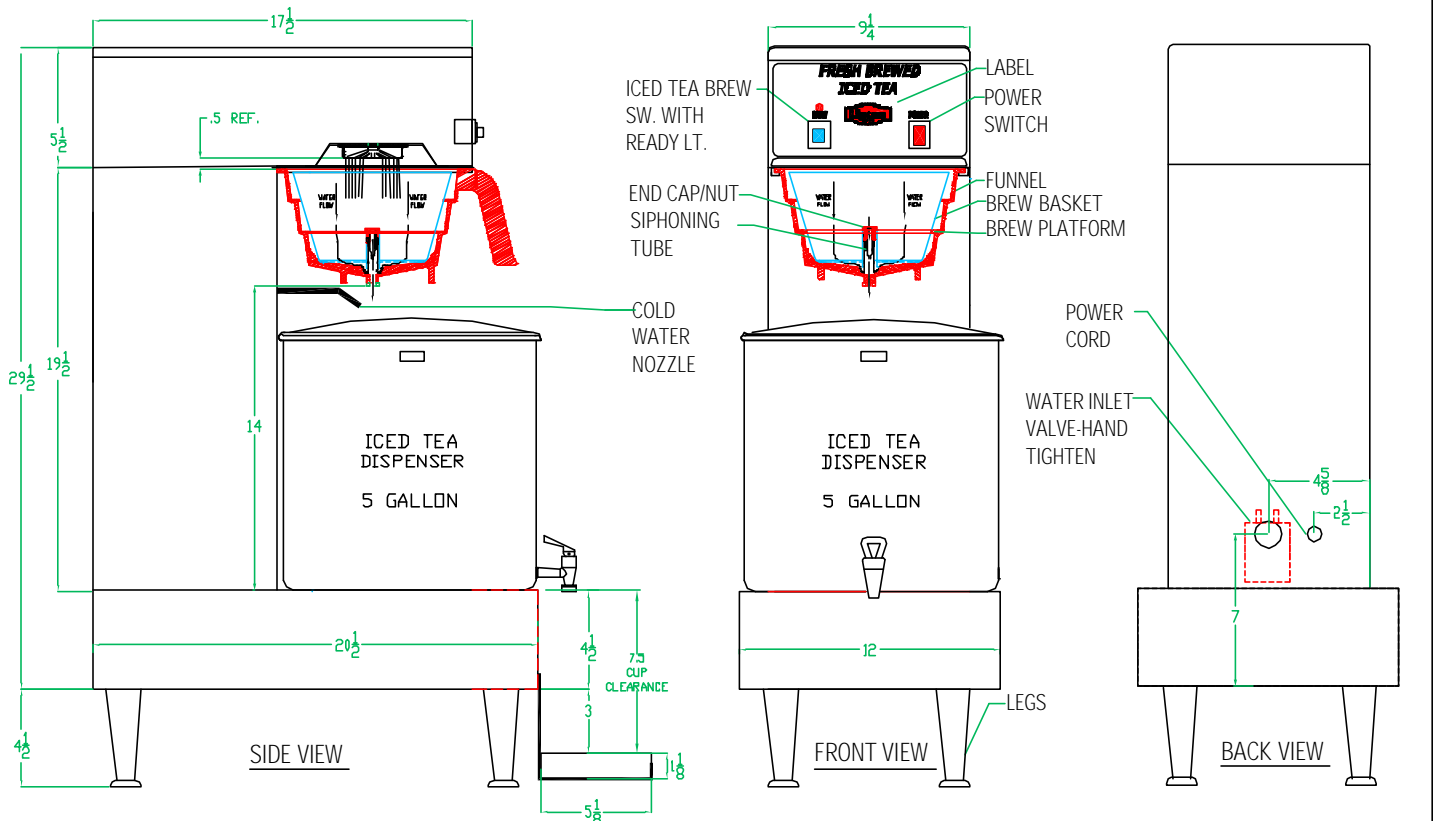
# LTB-103 DIMENSIONAL SPECIFICATIONS



# LTB-505 DIMENSIONAL SPECIFICATIONS

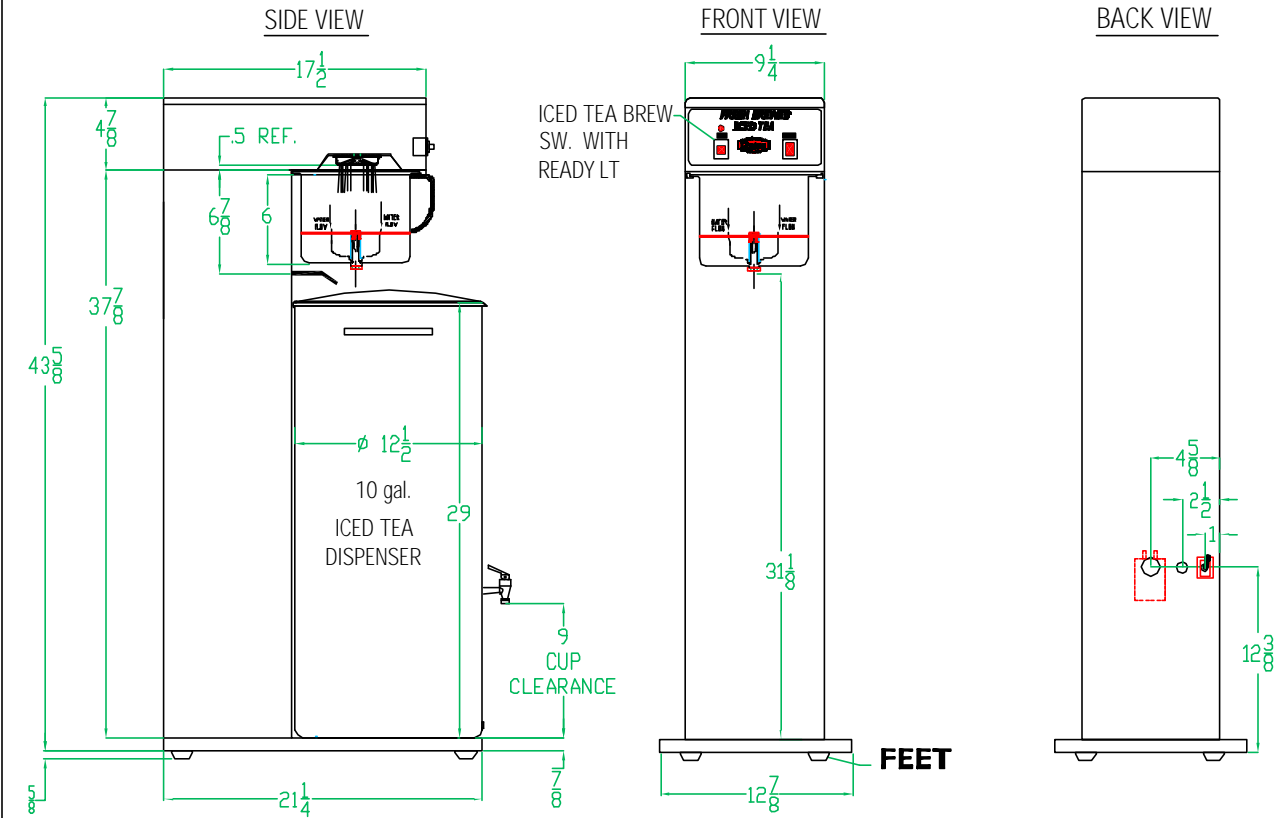


# LTB-105 DIMENSIONAL SPECIFICATIONS

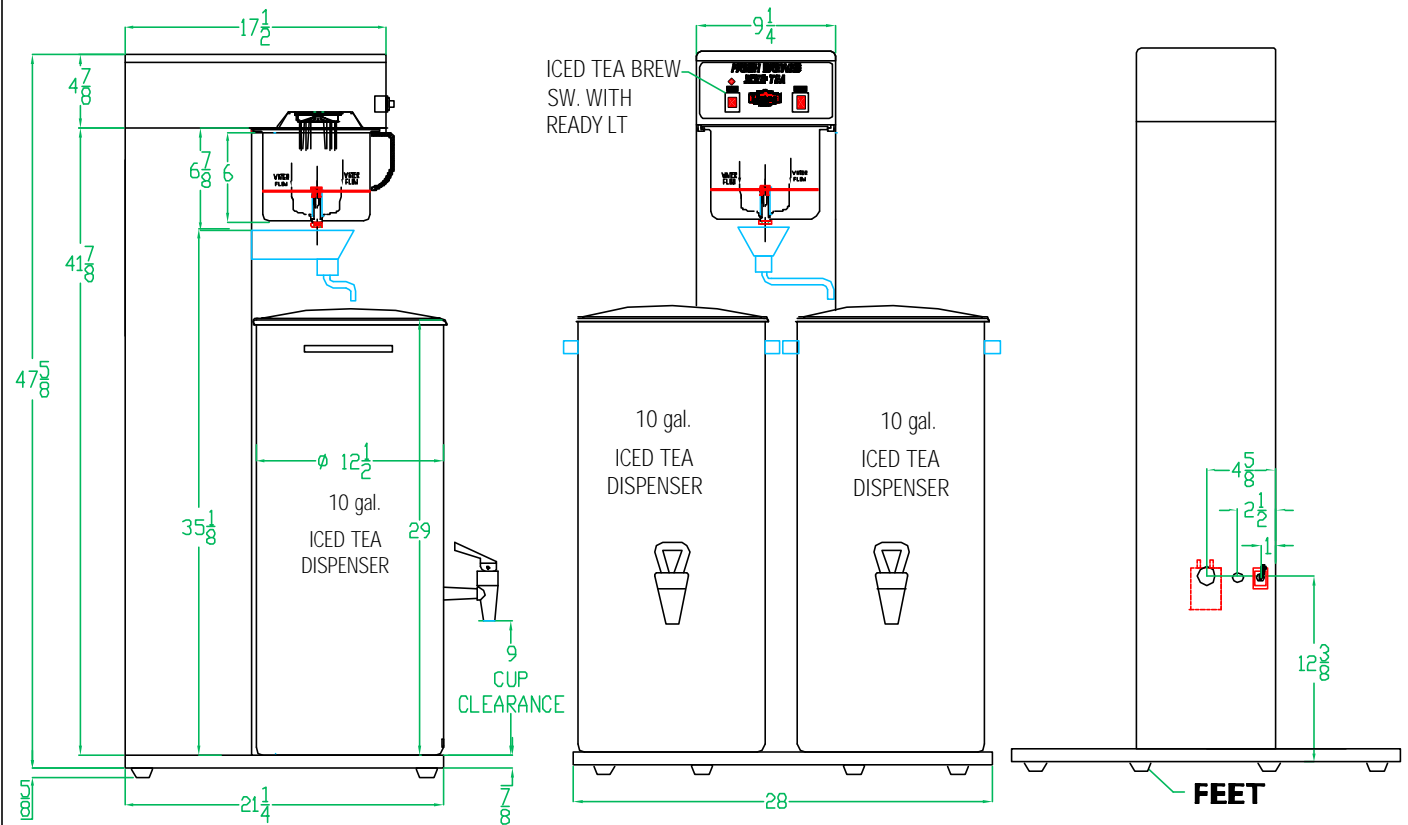




## LTB-1010 DIMENSIONAL SPECIFICATIONS

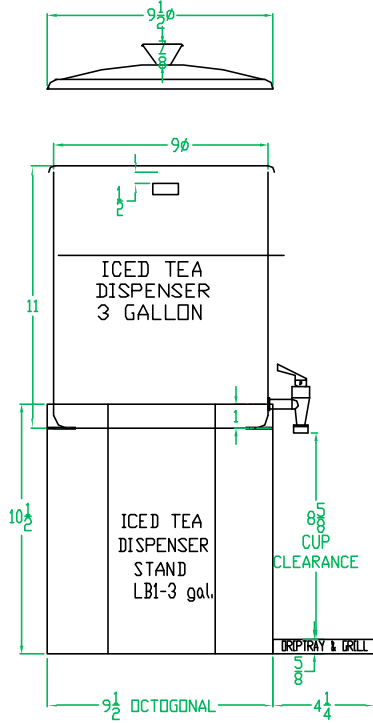


## LTB-1010 TWIN DIMENSIONAL SPECIFICATIONS

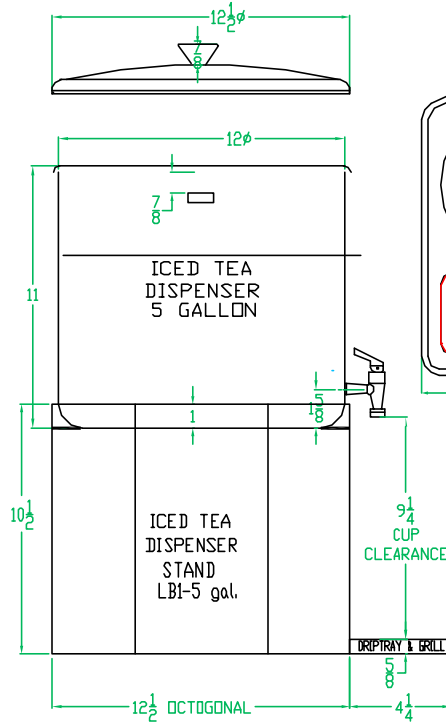


# ACCESSORIES - DIMENSIONAL SPECIFICATIONS

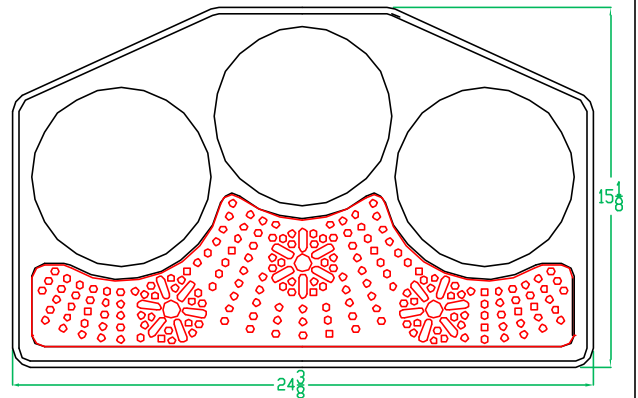
**LB1-3**



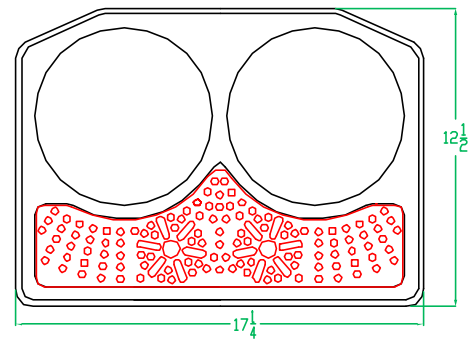
**LB1-5**



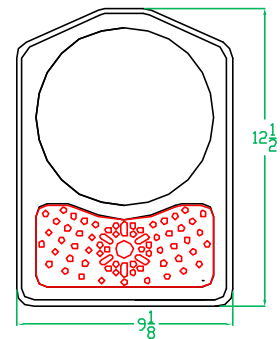
**HTT3**



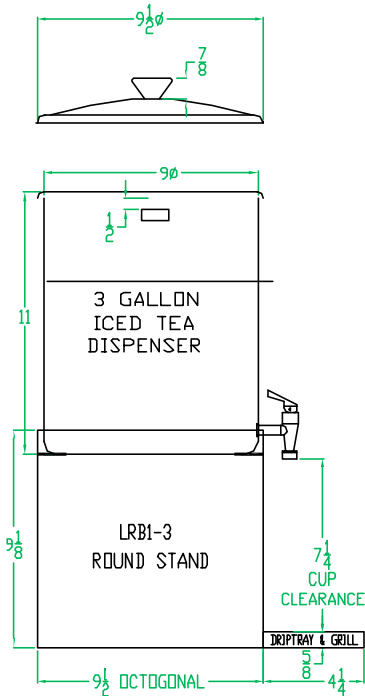
**HTT2**



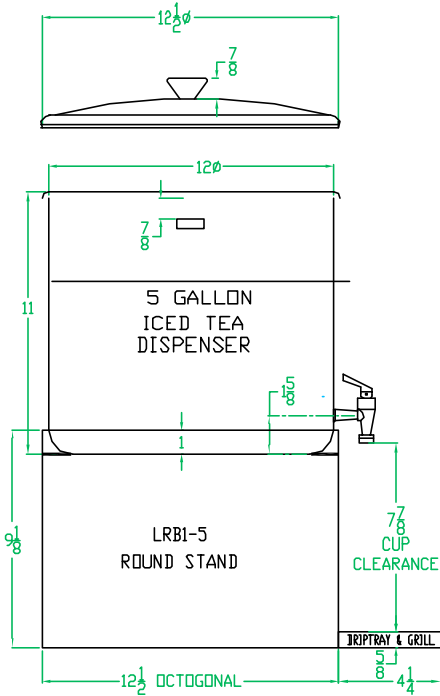
**HTT1**



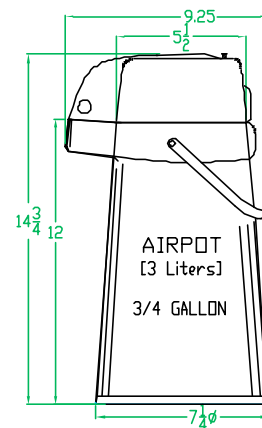
**LRB-1-3**



**LRB1-5**



**3 LITER AIRPOT**



# TEA BREWING RECOMMENDED MEASUREMENTS

MODEL #	GROUND TEA	
	LOOSE	or BAGGED
LTB-303, LTB-103	2.5 - 3 oz.	(1) 3 oz. bag
LTB 505, LTB-105	3.5 - 4 oz.	(1) 4 oz. bag
LTB-1010	8 oz.	(2) 4 oz. bag

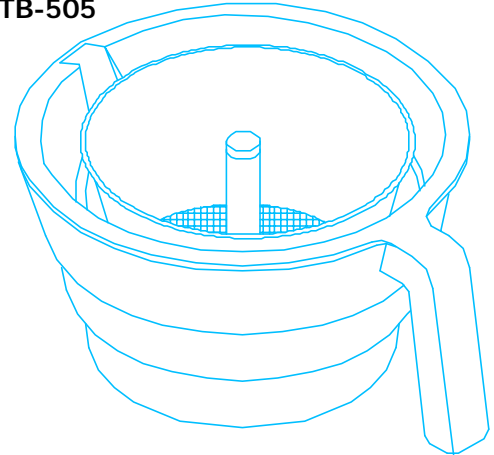
Allow approximately 10 minutes for a complete brew cycle.  
DO NOT remove brew funnel until it has stopped dripping.  
Serve Fresh Brewed Tea from dispensing faucet into tea glass over ice.

**TEA BAGS** - Place correct number of tea bag(s) directly into brew funnel.

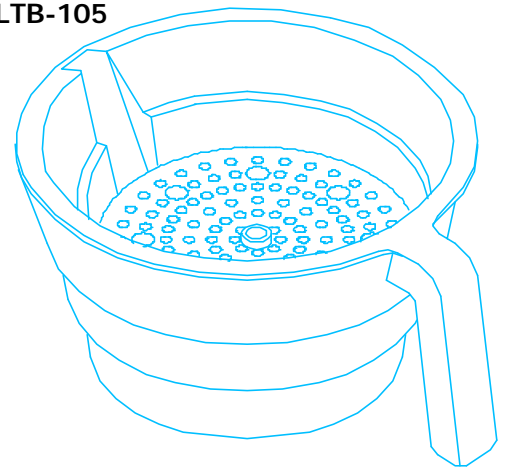
Replace funnel into brew head of unit and push brew switch, when GREEN READY LIGHT comes on.

**GROUND TEA LEAVES** - Place paper filter into brew funnel and add proper amount of fresh ground tea leaves into filter. Replace funnel into brew head of unit and push brew switch when GREEN READY LIGHT comes on. See chart above for the recommended ounces of ground tea leaves.

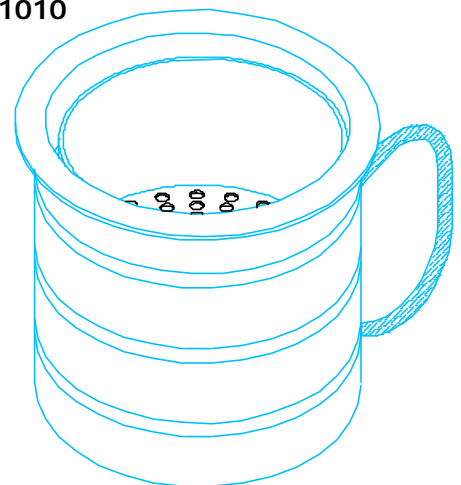
**LTB-303  
LTB-505**



**LTB-103  
LTB-105**



**LTB-1010**



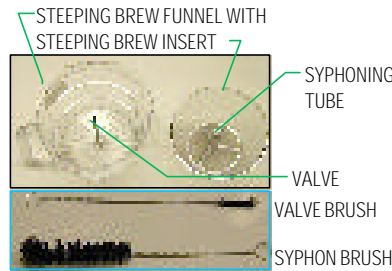
# SANITIZING AND CLEANING INSTRUCTIONS FOR LIPTON TEA BREWING EQUIPMENT

**I. DAILY CLEANING OF MACHINE** - Wipe clean all surfaces of the machine.

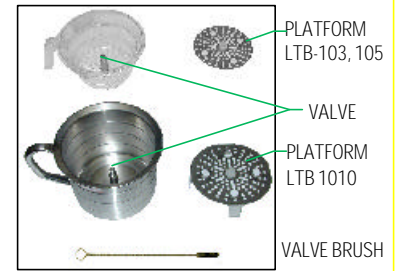
**II. DAILY CLEANING OF FUNNELS**

1. Clean and rinse brew funnel between brewing cycles.
2. Wash steeping brew funnel weekly with soap and warm water, rinse thoroughly with fresh water.
3. Remove brew basket from steeping funnel by spinning it off (ccw) or pull out platform from platform funnel.
4. Use small/valve brush to clean brew funnel valve. Use larger/syphon brush to clean syphoning tube.

**STEEPING BREW FUNNEL**  
LTB-303, 505



**PLATFORM BREW FUNNEL**  
LTB-103, 105, 1010



**III. DAILY CLEANING OF STAINLESS STEEL ICE TEA DISPENSERS**

Proper cleaning and sanitizing of the faucet on your tea dispenser is necessary to deliver great tasting fresh brewed iced tea. Tomlinson SPB faucets do not require tools for cleaning and sanitizing. Important: To prevent bacterial growth and protect tea flavor, clean and sanitize tea brewing and dispensing equipment at least once a day as follows:

- 1) Inside surface: Using hot water (140° F) and dishwashing detergent, scrub interior of dispenser and covers with non abrasive bristle brush, including corners and bottom. Be sure the interior of the outlet shank is scrubbed out to remove residues, then rinse thoroughly.
- 2) Outside surface: Wash surface with sponge using hot water and dishwashing detergent.
- 3) Sanitize all interior surfaces of the dispenser, including any mixing utensils and covers, with a chlorine solution (50 ppm).  
Note: A chlorine solution is easily prepared by putting two capfuls of chlorine into one gallon of warm water.
- 4) Sponge all outside surfaces with chlorine solution (50 ppm).  
Note: Commercial dishwasher is acceptable.



LRB Dispenser

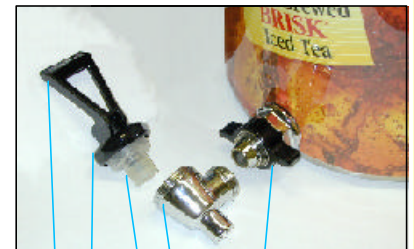


LB Dispenser

**IV. CLEANING AND SANITIZING FAUCET**

- 1) Remove Faucet assembly from dispenser by loosening wing nut.
- 2) Dis-assemble faucet by unscrewing the bonnet. Pull seat cup from faucet stem, and inspect seat cup for wear or hardening, replace if necessary.
- 4) Scrub clean all faucet parts with bristle brush, using hot water (140° F) and dishwashing detergent to remove all tea residues.
- 5) Sanitize by soaking all parts for a minimum of 3 minutes in the chlorine solution (50 ppm). Let all sanitized parts drain and dry. Re-assemble faucet and reattach to dispenser.  
**HAND TIGHTEN ONLY!**

**TOMLINSON FAUCET**



SHANK  
TOMLINSON FAUCET LOWER ASS'Y  
SEAT CUP  
FAUCET HANDLE  
BONNET

## ADJUSTMENTS - TO BE PERFORMED BY QUALIFIED SERVICE PERSONNEL ONLY.

### Caution:

**Brewers should be unplugged from electrical outlets before any service is performed.**

The water flow rate coming from the hot water tank is constant/fixed at 0.75 gal/min.

Increasing or decreasing the amount of hot water dispensed from tank can also be used to adjust the strength of the tea.

The Longer water flows - More water - Weaker tea; Less water flows - Less water - Stronger tea.

The LTB-303, 505, 103, 105, 1010 Machine will complete a full cycle in approximately 5 TO 10 min.

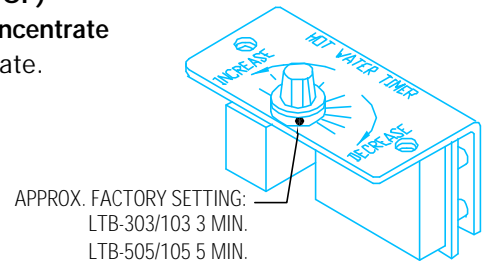
### 1. HOT WATER TIMER (BLACK L265A) ADJUSTMENT (MOUNTED ON TOP)

Controls the **brewing time (min.)** for brewing Coffee and Hot Tea Concentrate

Factory set at **3 min.** for brewing **3 liters** [3/4 gal.] of Tea Concentrate.

[later to be diluted with 2 1/4 gal. of cold water which makes up the total **3 gal. Iced tea**].

To increase or decrease dispensing time and volume of **hot water** dispensed, turn knob in the direction shown on timer.



**Note:** The brewing time, temperature, and amount of product used in the funnel effects the drink strength. See chart of Tea Flavors and Grams to be used, supplied by Lipton.

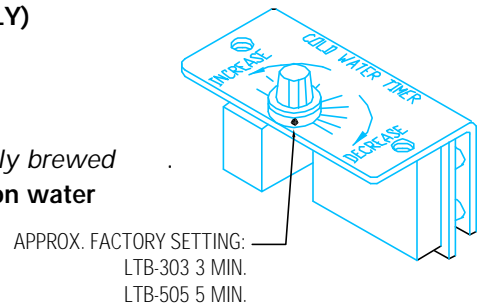
### 2. COLD WATER TIMER (BLUE L264A) ADJUSTMENT (LTB-303, 505 ONLY) (MOUNTED ON TOP)

Controls the **dispensing time (min.)** for cold water dilution of iced tea.

Factory set at **3 min.** for dispensing **2 1/4 gal of cold water** -

dispensed & mixed with 3 liters [3/4 gal.] of hot tea concentrate previously brewed

To increase or decrease dispensing time and volume of **Iced Tea dilution water** dispensed, turn knob in the direction shown on timer.



#### TO RESET TO FACTORY SETTINGS:

\*Push the **Brew Button (HOT TEA)**, then adjust **Timer to 3 or 5 min. [for 3 or 5 gal.]** depending on the water pressure in the main water line.

\*Adjust the Dispense Valve 1/4 turn at a time, if necessary, to increase or decrease the Hot Water Flow.

\*Push the **Brew Button (ICED TEA)**, then adjust the **Timer to 3 min. or 5 min. [for 3 or 5 gal.]** depending on the water pressure in the main water line.

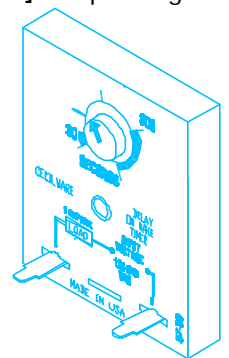
### 3. DELAY TIMER (L595A) [ALL LTB UNITS] -NEAR BASE, ABOVE WATER INLET VALVE. (MOUNTED IN BACK)

Set Delay Timer knob approximately as shown in picture. This setting corresponds to a delay time of 1.5 minutes after the hot tea begins to dispense.

If the water pressure requires a different setting on the Cold Water Timer,

then the Delay Timer also needs to be adjusted so that it delays the Cold Water

1.5 minutes after the hot tea begins to dispense.



If the water pressure is **higher than 20 PSI**, decrease the setting on the Cold Water Timer and Delay Timer.

If the water pressure is **lower than 20 PSI**, increase **only** the setting on the Cold Water Timer to Max.

#### 4. PROGRAMMABLE TIMER "TEACH ME" L576A ADJUSTMENTS - LTB-1010 :

This timer can be programmed from the brew button to dispense different volume of hot water.

##### **PRIMING:** \_

- Make sure heater switch is **off**.
- Push & hold down** brew button **while** switching **power on** .
- Release brew button.
- Push brew button again & wait for water to start flowing out of spray head.
- Switch power **off** .

##### **Put timer into program mode:**

- Start with power off.
- While holding down brew button, turn power on.
- Release dispense button.

##### **Program the brew button** :

- Push brew button to start time [product begins dispensing].
- Push brew button again to stop time [about 2" from top of dispenser for 10 gal.] [product stops dispensing] .
- Brew button can be jogged to top off container.

##### **Put timer into run mode:**

- Turn power **off** and **on** again [this locks in total dispense time].

**Normal Operation:** turn power on, turn heater switch on, wait 20 minutes until ready light comes on. Unit is ready to brew.

#### 5. DUAL WATER INLET VALVE CD241 [WAS L496A]:

The Water Inlet Valve is located on the lower part of the main body with the threaded end protruding out of in the back.

The Water Inlet Valve allows water flow up to .87 gal./min. [gpm]. One side supplies water to the tank and one side supplies water directly to the Iced Tea dilution water nozzle. The time that each side draws water is controlled by the Hot Water timer and Cold Water Timer.

#### 6. DISPENSE VALVE L467A :

Locate Dispense Valve, by removing the top lid of machine. Looking down into the machine, the Dispense Valve is mounted on the tank.

**FIXED FLOW: 1 LITER/MINUTE [0.26 gal./ minute]**

- LTB-303      3 liters in 3 minutes [0.78 gal. in 3 minutes]  
LTB-505      5 liters in 5 minutes [1.3 gal. in 5 minutes]  
LTB-1010    10 liters in 10 minutes [2.6 gal. in 10 minutes]

#### 7. THERMOSTAT ADJUSTMENT L681A (WAS L002A or L626A):

**Locate Thermostat:** Remove the top cover. Thermostat is mounted on top of tank. The thermostat is factory set to deliver hot brewing water at **195° F** with the thermostat knob turned to full ON position. If adjustments should be necessary to increase or decrease the water TEMPERATURE, proceed as follows:

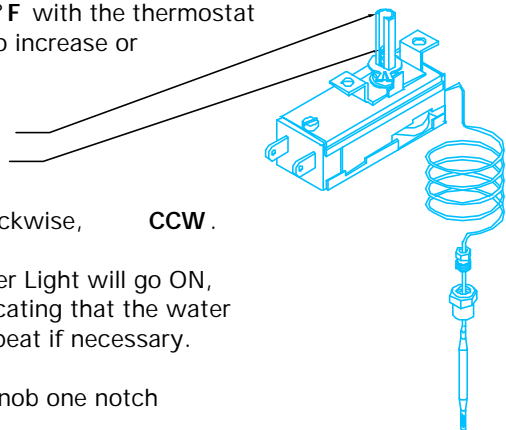
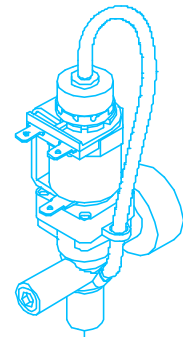
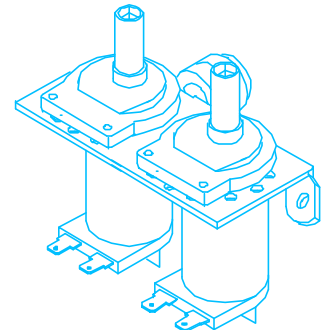
To **INCREASE** the water temperature,

Turn **Thermostat Shaft** to its maximum clockwise, **CW**, position.

Remove the knob and locate the **Slotted Adjustment Screw** inside the hollow thermostat shaft. Using a narrow-bladed screwdriver, engage slotted adjustment screw and turn it ¼ turn slowly counterclockwise, **CCW** .

Allow a few minutes for the temperature to reach set level. The Heater Light will go ON, indicating the heating element is activated, wait for it to go OFF, indicating that the water has reached new set temperature. Take a temperature reading and repeat if necessary.

To **DECREASE** the water temperature - simply turn the Thermostat Knob one notch **counterclockwise CCW** to the next lower dial setting.



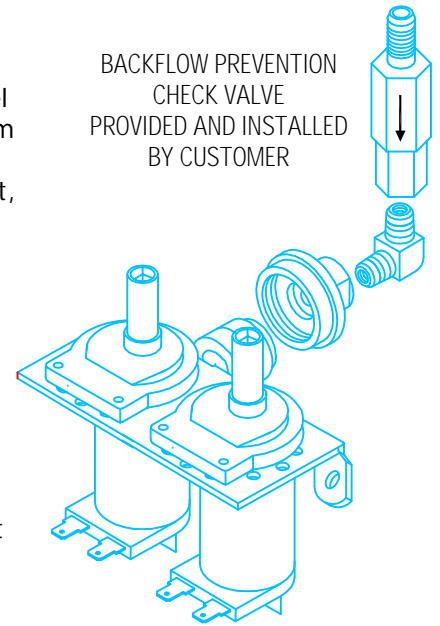
**CRITICAL COMPONENTS TESTS**

**A) Water Inlet Valve Test**

Check hot water side, going to tank: Turn power off. If the water level rises inside the tank, the Water Inlet Valve is leaking. Disconnect wires from the Water Inlet Valve coil and connect a 2 wire line cord to the terminals. Plug it into electrical outlet. If water flows in and stops when you pull it out, the Valve is working fine. Repeat this test a few times. The problem may be in the Probe or Water Level Control Board. If water does not flow in when the cord is plugged into an electrical outlet, the Solenoid coil may be damaged, opened, or the valve may have an obstruction preventing the water from flowing in. Clean or replace it.

Check cold water side, going to dilution nozzle: Turn power off. If water keeps coming out of the dilution nozzle, the solenoid might be clogged or damaged.

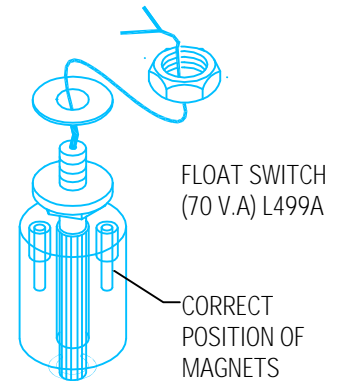
A Check Valve should be provided and installed by the customer to prevent backflow. To check proper function of Check Valve, disconnect water line from the Check Valve, check for dripping from the disconnected end of the Check Valve. If it leaks replace it.



**B) Hi-Level Float Switch Test**

The Float Switch acts as a guardian for the Solid State Level Control Board and its Probe. If they malfunction and cause the water inside the tank to rise, the Float Switch will prevent flooding by terminating the power to the Solid State Control Board and the Water Inlet Valve. The correct mounting position of the Float Switch in the tank is as shown in picture, with the magnets in the Float Switch in the upper part of the switch.

After tank is full, unplug the wire to the Level Control Probe, the water should run into the tank for a few more seconds until it reaches the Float Switch and it should stop. If not, and water starts coming out of the Breather tube, the Float Switch is malfunctioning.



**C) Probe Test**

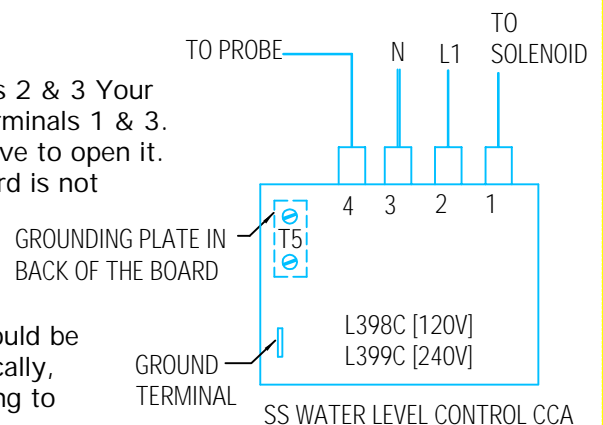
If lack of water persists, check the probe as follows: Turn on the power and water supply. Check inside the tank to make sure the water is not touching the Probe. Pull wire and terminal out of the Probe rod. If water still does not flow after the wire is disconnected from the Probe, the problem may be in the Solid State Water Level Control Board. If water starts flowing into the tank, the Probe may be grounded, due to excessive liming. Check with Ohm meter. Clean or replace probe.



**D) Solid State Water Level Control Board Test**

Check the Board as follows:

1. Make sure there is power input to the Board at the terminals 2 & 3 Your voltmeter should read 115 Volts. It should read the same at terminals 1 & 3. This is the output power to electrify the coil of the Solenoid Valve to open it. The lack of voltage at terminals 2 & 4 will indicate that the Board is not working properly.
2. Make sure all wire connections to the Board are tight.
3. The grounding plate at the top, in the back of the board should be securely Grounded. The Board will not work or will work erratically, if it is not grounded properly. If after this, the Board is still failing to open the Water Inlet Valve, replace it.



## TROUBLESHOOTING GUIDE

**WARNING:** To reduce the risk of electrical shock unplug the dispenser power cord before repairing or replacing any internal components of the

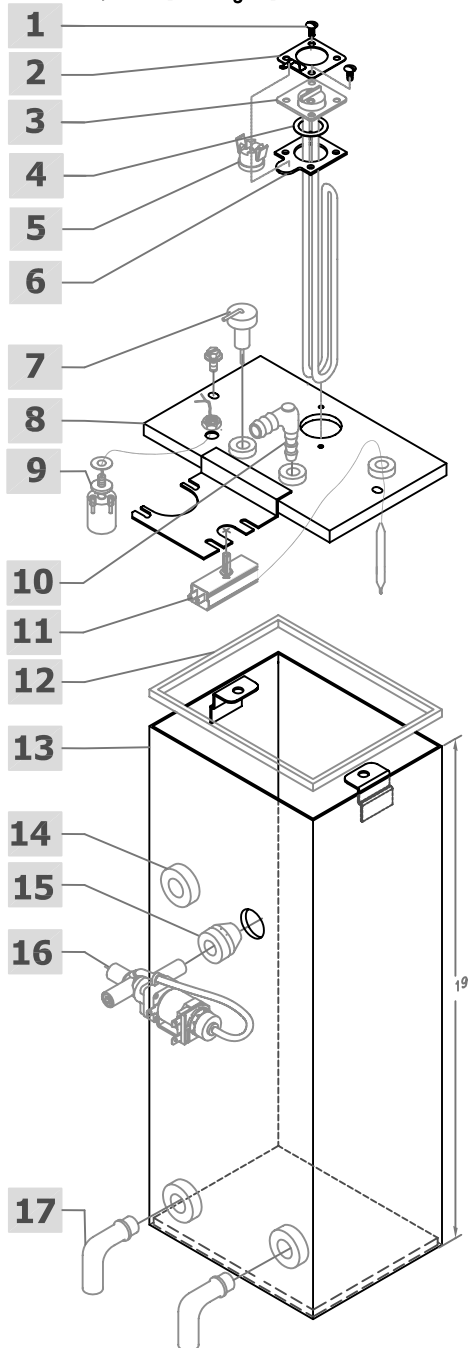
PROBLEM	PROBABLE CAUSE	REMEDY
1 Brewed Cold Tea.	<ul style="list-style-type: none"> <li>a) Heater Switch OFF.</li> <li>b) Run out of hot water</li> <li>c) Thermostat is OFF.</li> <li>d) Loose electrical connection.</li> <li>e) Thermostat is defective.</li> <li>f) Hi-Limit Temperature Switch is tripped.</li> <li>g) Bad Heating Element or Heater is burned out.</li> <li>h) Bad low temperature cutout circuit. Contactor/Relay L538A</li> </ul>	<ul style="list-style-type: none"> <li>a) Turn Heater Switch ON.</li> <li>b) Allow time for water in tank to heat after filling.</li> <li>c) Set Thermostat at 197°F [to max. position].</li> <li>d) Check all electrical connections for contact.</li> <li>e) Replace Thermostat.</li> <li>f) Reset the Hi-Limit button, If heater still does not work, replace the Hi-limit Temperature Switch. See Item 6 of Tank Ass'y.</li> <li>g) Replace Heater.</li> <li>h) Replace Contactor/Relay. See item 2 of Description of Components.</li> </ul>
2 Tea too weak.	<ul style="list-style-type: none"> <li>a) Not enough Tea in the funnel insert.</li> <li>b) Water flow too low.</li> <li>c) Brew time is too short.</li> <li>d) Water is too cold.</li> </ul>	<ul style="list-style-type: none"> <li>a) Put more Tea in the funnel insert [see Lipton's chart]</li> <li>b) Check flow [should be .26 gal /min.] Replace Dispense Valve.</li> <li>c) Adjust hot water timer to 3 min. max.</li> <li>d) Adjust Thermostat to 197°F [to max. position]</li> </ul>
3 Tea too strong.	<ul style="list-style-type: none"> <li>a) Too much tea in the funnel.</li> <li>b) Water flow is high</li> <li>c) Brew time is too long.</li> <li>d) Water is too hot.</li> </ul>	<ul style="list-style-type: none"> <li>a) Put less Tea in the funnel insert [see Lipton's chart]</li> <li>b) Check flow [should be .26 gal /min.] Replace Dispense Valve.</li> <li>c) Adjust hot water timer to 3 min. 197°F [to max. position]</li> <li>d) Adjust Thermostat to 197°F [to max. position]</li> </ul>
4 Water keeps dripping or running from dilution nozzle.	<ul style="list-style-type: none"> <li>a) Leaking Water Inlet Valve.</li> <li>b) Clogged/stuck Water Dispense Valve</li> </ul>	<ul style="list-style-type: none"> <li>a) Clean/check fittings of Water Inlet Valve. Replace Water Inlet Valve if needed. See "Water Inlet Valve Test"</li> <li>b) Clean/unclog Water Dispense Valve. Replace Dispense Valve if defective.</li> </ul>
5 No water is going into tank at all. or No water is coming from dilution nozzle	<ul style="list-style-type: none"> <li>a) Water Inlet Valve malfunction.</li> <li>b) Hi-Level Float Switch malfunction.</li> <li>c) Probe malfunction.</li> <li>d) Solid State Water Level Controls board malfunction.</li> <li>e) Timer malfunction.</li> </ul>	<ul style="list-style-type: none"> <li>a) Check Water Inlet Valve. Replace if necessary. See "Water Inlet Valve Test"</li> <li>b) Test High-Level Float Switch. See "High-Level Float Test"</li> <li>c) Check Probe. Replace if necessary.</li> <li>d) Check The Water Level Controls. Replace if necessary.</li> <li>e) Check Timer: Time dispensing time vs. set time on Timer. Replace if necessary.</li> </ul>
6 Water will not stop flowing into water tank.	<ul style="list-style-type: none"> <li>a) Water Level Probe malfunction.</li> <li>b) Solenoid (Water Inlet Valve) malfunction.</li> <li>c) Solid State Water Level Control board malfunction.</li> <li>d) Float Switch malfunction.</li> </ul>	<ul style="list-style-type: none"> <li>a) Check Level Control Probe. Replace if necessary. See "ProbeTest".</li> <li>b) Check Solenoid. Replace if necessary.</li> <li>c) Check The Water Level Controls. Replace if necessary.</li> <li>d) Replace Float Switch.</li> </ul>
7 Water is not heating up in the water tank.	<ul style="list-style-type: none"> <li>a) Heater Switch is OFF.</li> <li>b) Thermostat is OFF.</li> <li>c) Loose connection on Thermostat.</li> <li>d) Hi-Limit Temperature Switch is tripped or defetive.</li> <li>e) Heater is burned out or defective.</li> <li>h) Bad Low Temperature Cutout Circuit. Contactor/Relay L538A.</li> </ul>	<ul style="list-style-type: none"> <li>a) Turn Heater Switch ON.</li> <li>b) Turn Thermostat ON. Turn Thermostat Knob <b>Clockwise</b>.</li> <li>c) Make sure all wires and ring terminals on the Thermostat are tight.</li> <li>d) Reset the Hi-Limit Button, If heater still does notwork, replace the Hi-limit Temperature Switch (see Item 6 in Tank ill.).</li> <li>e) Replace the Heater.</li> <li>h) Replace Contactor/Relay. See item 2 of Description of Components.</li> </ul>



# TANK ASSEMBLIES

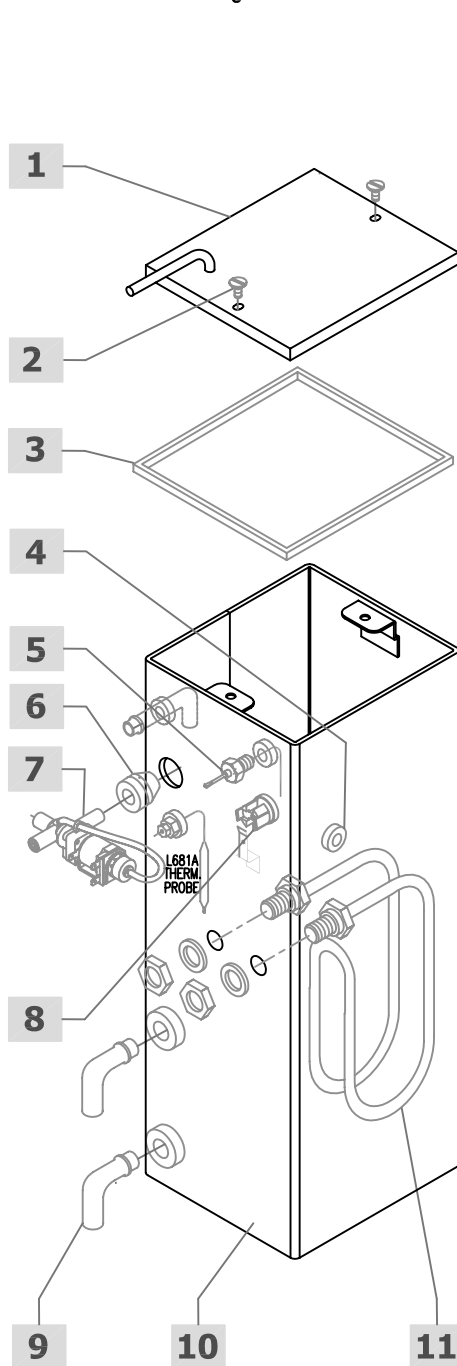
ITEM	PART NO.	QTY	PART DESCRIPTION
			LTB-303, LTB-2C3IT, LTB-505
1	P465A	2	SCREW, S.S., 1/4 - 20 x 5/8
2	K667Q	1	SHIM ASSEMBLY, HEAT SINK W/HI-LIMIT
3	G267A or G266A	1	HEATER, 120 V, 1700 W
4	M773A	1	O-RING, HEATER GASKET
5	L656A	1	HI-LIMIT, #500, 200°F CUTOUT
6	K661A	1	HEATSINK, 1/8" ALU. F/ HI-LIMIT
7	L355Q	1	LEVEL CONTROL SENSOR
8	RK70Q	1	TANK TOP ASSEMBLY
9	L499A	1	FLOAT SWITCH, 70 VA
10	M744A	1	ELBOW FITTING - BREATHER TUBE
11	L002A	1	THERMOSTAT [L681A ALTERNATIVE]
12	M601A	1	GASKET, SILICONE BUTT SPLICED
13	RK71Q	1	TANK BODY ASSEMBLY
14	M494A	1	PLUG GROMMET (.446 ID)
15	M461A	7	GROMMET (.446 ID)
16	L467A	1	DISPENSE VALVE [L598A F/220V]
17	K525A	2	TUBE, DRAIN WATER INLET, BREATHER

## LTB-303, 505 [3.25 gal.] HOT WATER TANK



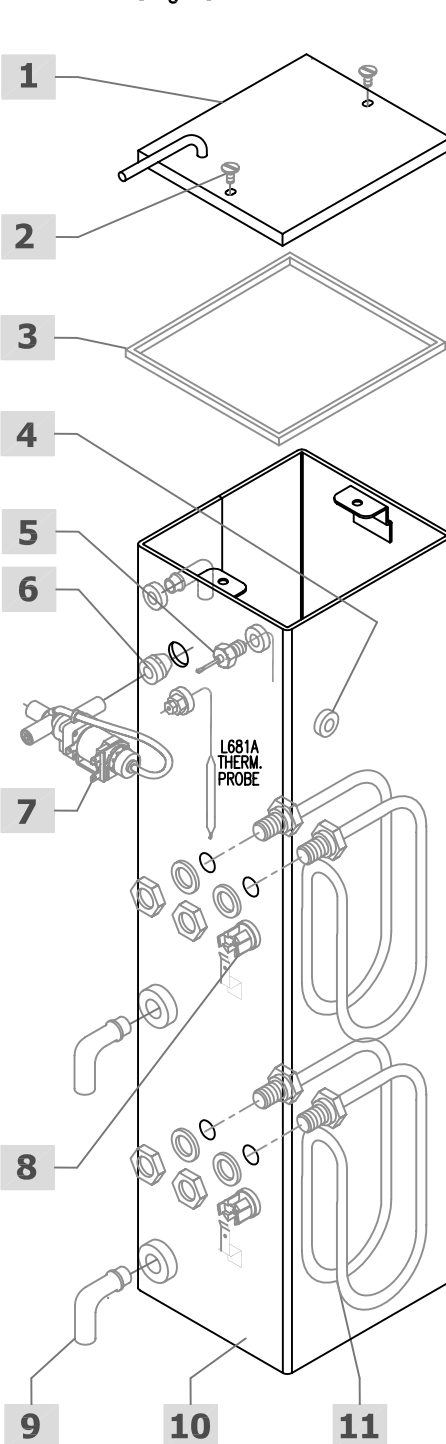
ITEM	P/N	QTY	PART DESCRIPTION LTB-103, LTB-105
1	RV34Q	1	TANK TOP ASSEMBLY
2	P465A	2	1/4-20x5/8 S.S. SL HD SCREW
3	M600A	1	GASKET, SILICONE BUTT SPLICED
4	M494A	1	PLUG GROMMET (.446 ID)
5	L355Q	1	LEVEL CONTROL SENSOR
6	M461A	6	GROMMET (.446 ID)
7	L467A	1	DISPENSE VALVE
8	L573A	1	HI-LIMIT
9	K525A	3	TUBE, DRAIN, WATER INLET, BREATHER
10	RV33Q	1	TANK WELDMENT ASSEMBLY
11	G382A	1	HEATER, 120 V, 1700 W

## LTB-103, 105 [3.25 gal.] HOT WATER TANK



ITEM	P/N	QTY	PART DESCRIPTION LTB-103, LTB-105
1	RV34Q	1	TANK TOP ASSEMBLY
2	P465A	2	1/4-20x5/8 S.S. SL HD SCREW
3	M600A	1	GASKET, SILICONE BUTT SPLICED
4	M494A	1	PLUG GROMMET (.446 ID)
5	L355Q	1	LEVEL CONTROL SENSOR
6	M461A	7	GROMMET (.446 ID)
7	L467A	1	DISPENSE VALVE
8	L573A	2	HI-LIMIT
9	K525A	3	TUBE, DRAIN, WATER INLET, BREATHER
10	RX51Q	1	TANK WELDMENT ASSEMBLY
11	G382A	2	HEATER, 120 V, 1700 W, G257A F/220V

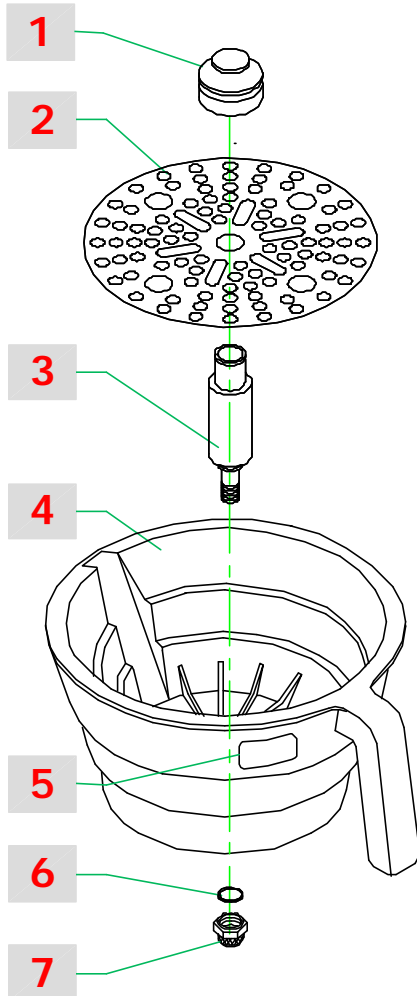
## LTB-1010 [5 gal.] HOT WATER TANK



## FUNNEL ASSEMBLIES

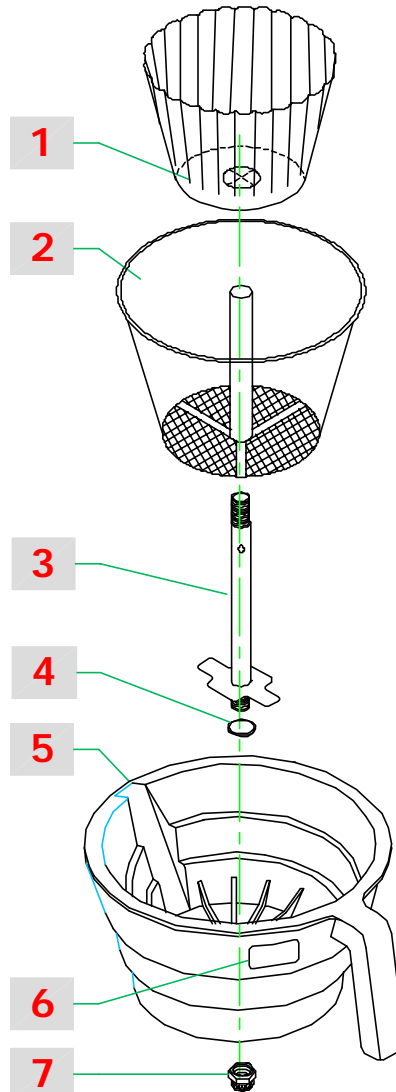
### V239P BREWING FUNNEL ASS'Y LTB-103 LTB-105

P/N	DESCRIPTION
1	M494A SEAL PLUG GROMMET
2	RX60A TEA BAG SHELF
3	K612A SIPHONING TUBE-DRIP FREE
4	V239A BREW FUNNEL, CLEAR POLYCARBONATE
5	N816A CAUTION LABEL
6	4100A "O" RING
7	P499A LOCK NUT



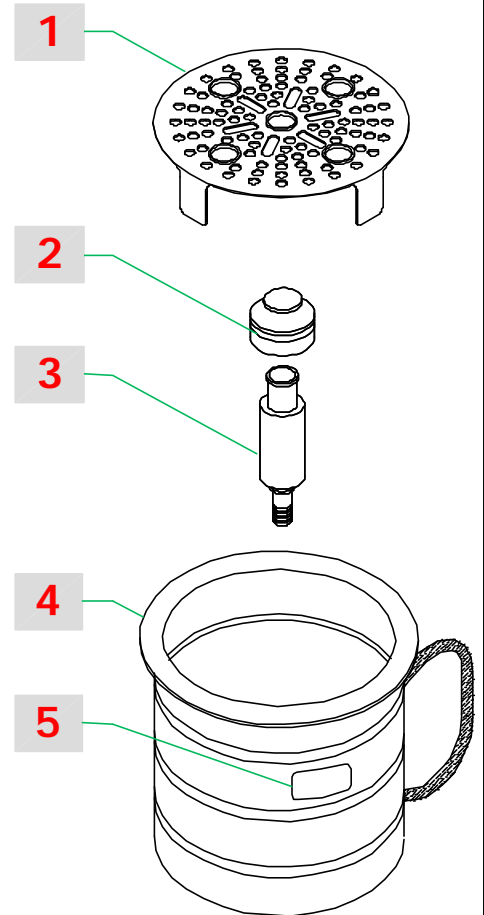
### V239S STEEPING FUNNEL ASS'Y LTB-303C, LTB-505C LTB-303IT, LTB-505IT LTB-2C3IT, LTB-3C5IT LTB-303CIT

P/N	DESCRIPTION
1	F412-LS PAPER FILTER W/HOLE- OPTIONAL
2	M615A BREW BUCKET- MOLDED
3	H326Q SYPHONING TUBE S.S.-DRIP FREE
4	4100A "O" RING
5	V239A BREW FUNNEL, CLEAR POLYCARBONATE [WAS RED V212Q]
6	N816A CAUTION LABEL
7	P499A LOCK NUT



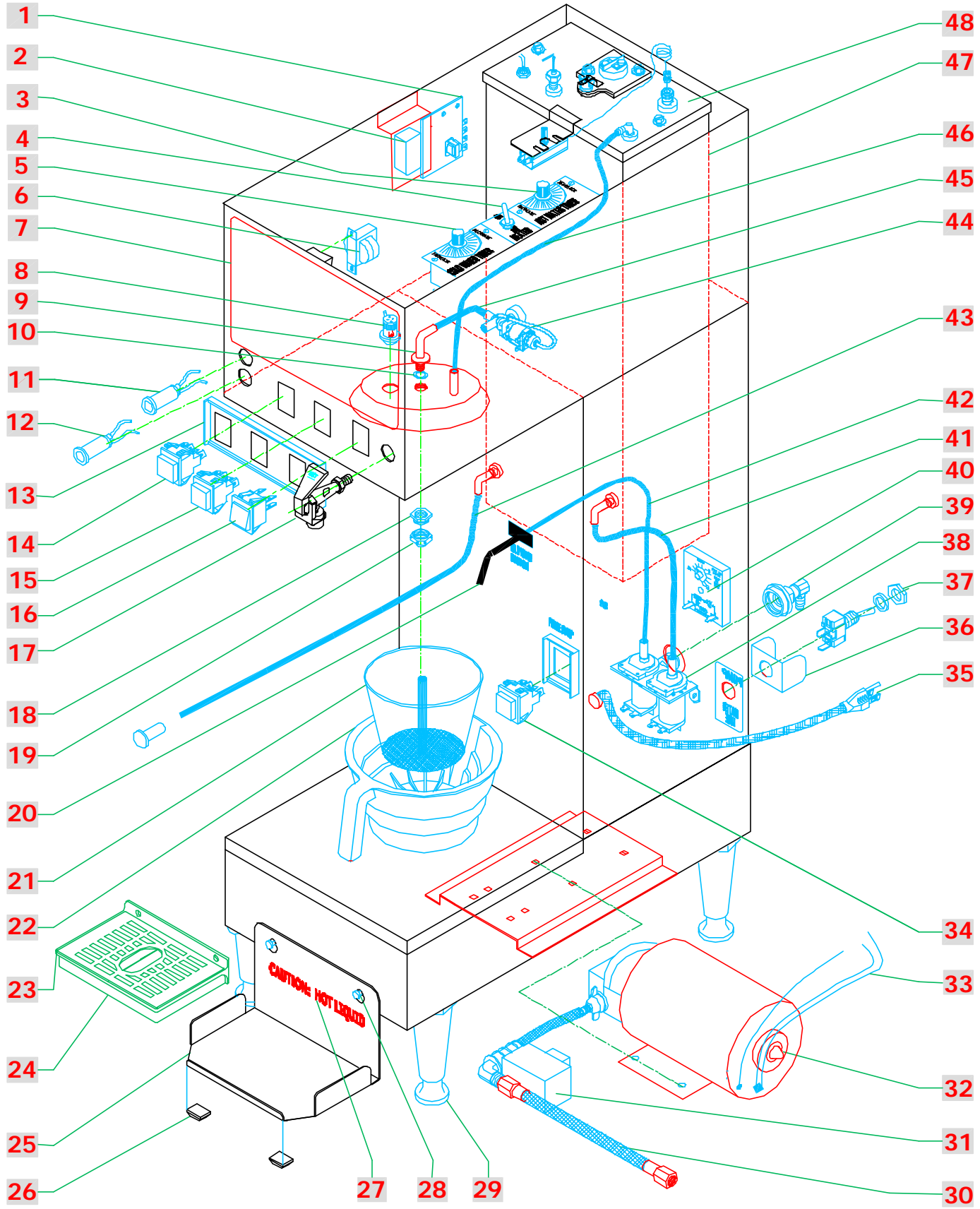
### Q196P BREW FUNNEL ASS'Y WITH PLATFORM LTB-1010

P/N	DESCRIPTION
1	SC16A TEA BAG PLATFORM / PLATE
2	M494A SEAL PLUG GROMMET
3	K612A SYPHONING TUBE - DRIP FREE
4	Q196A BREW FUNNEL, S.S. - 1GAL.
5	N816A CAUTION LABEL



# DESCRIPTION AND LOCATION OF COMPONENTS

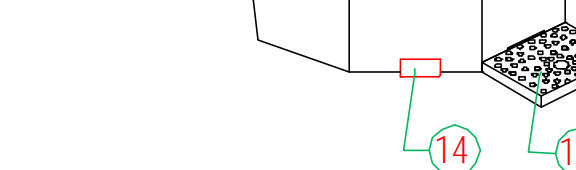
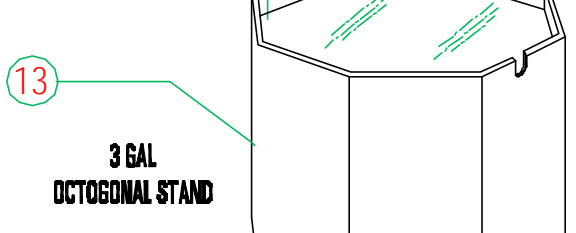
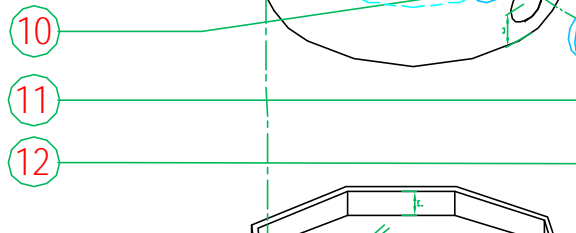
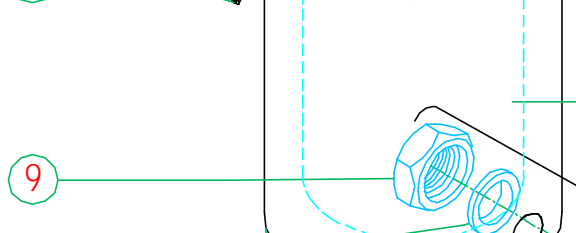
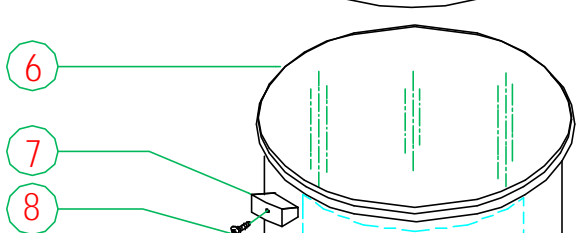
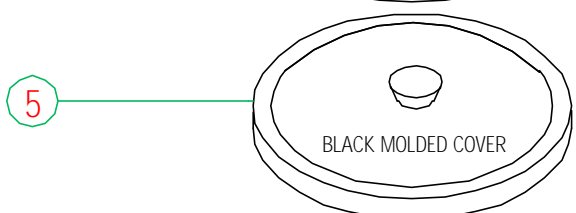
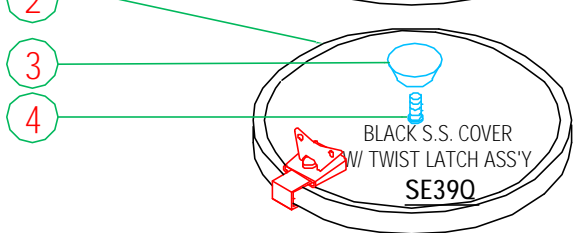
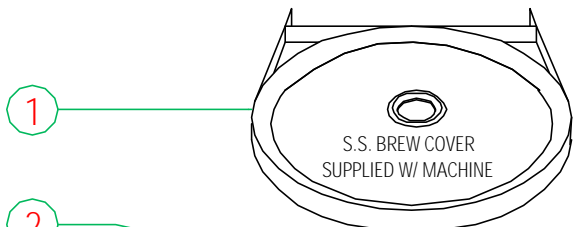
## LTB-303, 303-P, 505, LTB-103, 105, LTB-1010 IT



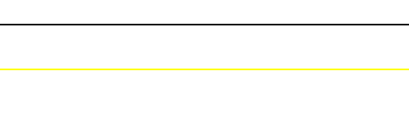
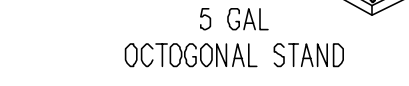
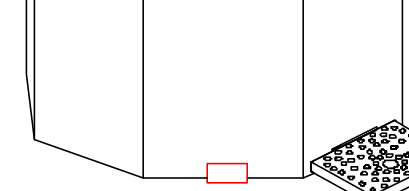
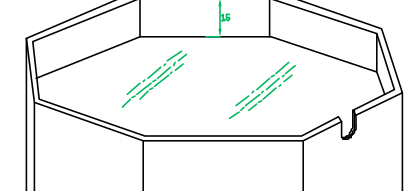
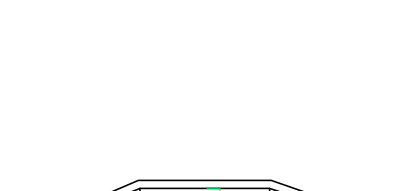
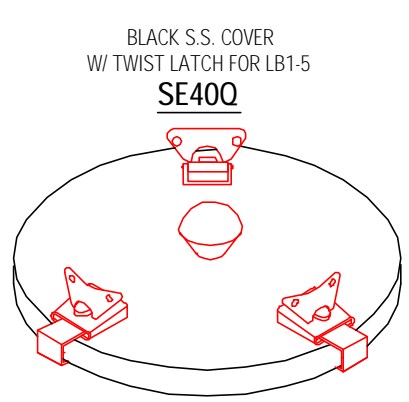
ITEM	P/N LTB-303 LTB-505	P/N LTB-303 Portable	P/N LTB-103 LTB-105	P/N LTB-1010	PARTS DESCRIPTION (LIPTON TEA BREWER)	QTY
1	L566A	L566A	L566A	L566A	WATER LEVEL CONTROL SENSOR (CCA)	1
2	L539A	L539A	L539A	L539A	RELAY, DOUBLE POLE (120V) [LOW TEMP. LOCK OUT] [L538A F/ 220V]	1
3	L265A	L265A	----	L576A	SINGLE-TIMER – F/Hot Water Dispensing time – BLACK [L265E F/220V]	1
4	L069A	L069A	L069A	L299A	HEATER SWITCH (120V)	1
5	L264A NF94A	L264A NF94A	L264A ----	--- ---	SINGLE-TIMER – F/Cold Water Dispensing time–BLUE [L263A F/ 220V] LABELS FOR TIMERS – “COLD WATER” & “HOT WATER”	1 1
6	CH41A	CH41A	---	---	TRANSFORMER F/ FUNNEL LIGHT [LTB-303, 505, 2C3IC ONLY]	1
7	NC49A	NC49A	NH04A	NH04A	SWITCH PANEL LABEL	1
8	L636A	L636A	----	---	BREW LIGHT FOR LIT FUNNEL	1
9	H360A	H360A	H360A	H360A	SPRAY HEAD TUBE ASS'Y	1
10	M197A	M197A	M197A	---	RUBBER WASHER (FOR SPRAY HEAD)	1
11	C002A	C165A	C165A	C260A	HEATER PILOT LIGHT (RED)	1
12	C072A	C072A	C260A	C072A	READY PILOT LIGHT (GREEN) (SHORT) [120V & 220V]	1
13	SC340	SC340	SC340	SC340	SWITCH GUARD ASS'Y w/clear cover [SC34A+M713A+SCREW #304 SS 6-32x3/8]	1
14	L291A	L291A	L291A	L291A	BREW SWITCH (HOT TEA) (GREEN) [or L383A] [use L292A for EXPORT]	2
15	L565	L565A	-----	-----	BREW SWITCH (ICED TEA) (AMBER 120V & 220V)	1
16	L155A	L155A	L155A	L155A	POWER SWITCH (RED) [120V & 220V]	1
17	D042A	D042A	D042A	D042A	FAUCET ASS'Y [HOT WATER - OPTIONAL]	1
18	K107A	K107A	K107A	H322Q	NUT, SPRAY HEAD	1
19	E004A	E004A	E101A	E101A	SPRAY HEAD [WAS K219A]	1
20	H304Q	H304Q	H304Q	H304Q	U-TUBE ASS'Y, (cold water dispenser on front panel)	1
21	M615A	M615A	M615A	SA270	BASKET ASS'Y STEEPING or BREW-[W/SHELF] [FUNNEL INSERT]	1
22	V239A	V239A	V239A	Q183A	FUNNEL [3 and 5 gal. units ALTERNATE V212A RED W/ NF24A ON HANDLE]	1
23	75015	75015	75015	---	GRILL – BLACK MOLDED PLASTIC	1
24	75060	75060	75060	---	DRIP TRAY PAN – BLACK MOLDED PLASTIC	1
25	RE73A	RE73A	RE73A	---	DRIP TRAY BRACKET	1
26	M098A	M098A	M098A	M098A	BUMPER – BLACK	2
27	NA52A	NA52A	NA52A	NA52A	LABEL “CAUTION HOT LIQUID”	1
28	P488A	P488A	P488A	---	STUD FOR DRIPTRAY [WAS 92007]	2
29	M172S M042A	M172S M042A	M172S M042A	---	4” LEGS PLASTIC [SET OF 4] & [SUPPLY BOTH SETS] 1” FEET – STAINLESS STEEL	1 4
30	---	H339A	---	---	HOSE [24” LONG – WIRE MESHED] [incoming water to pump]	1
31	---	E098A	---	---	LOW PRESSURE CUT OFF SWITCH	1
32	---	E097A	---	---	PUMP ASS'Y [E102A 220V] [w/ high pressure cutoff switch 60 psi]	1
33	---	CH01A	---	---	PUMP HARNESS	1
34	---	L455A	---	---	PRIME SWITCH –TO PRIME PUMP	1
35	C032A	C032A	C032A	C032A	POWER CORD	1
36	U810A	U810A	U810A	U810A	SWITCH GUARD – S.S. SQ.	2
37	---	L069A	---	---	PUMP/WATERLINE SELECTION SWITCH [same as heater switch]	1
38	CD241	CD241	CD241	CD241	WATER INLET VALVE DUAL .871 GAL/MIN. [use CD244 for 220V]	1
39	K331A	K331A	K331A	K331A	ELBOW FITTING F/BACK OF INLET VALVE	1
40	L595A	L595A	L595A	L595A	DELAY TIMER [120/240V] .	1
41	M324A	M324A	M324A	M324A	FILL HOSE [water inlet valve to tank] [.312 ID. x 15”]	1
42	M324A	M324A	M324A	M324A	DILUTION HOSE [water inlet valve to cold water nozzle] [.312 ID. x 19”]	1
43	M324A	M324A	M324A	M324A	DRAIN HOSE [ drain tube/ tank top to vent hole] [.312 ID x 26”LTB-303 or 32.5” LTB-505]	1
44	L467A	L467A	L467A	L467A	DISPENSE VALVE [was L596A] [use CA38A for 220V]	1
45	M324A	M324A	M324A	M324A	DISPENSE HOSE (dispense valve to spray head fitting) [.312 ID. x 10”]	1
46	M324A	M324A	M324A	M324A	VENT HOSE (vent tube/tank top to spray head fitting) [.312 ID. x 32”]	1
47	RK71Q	RK71Q	RN33Q	SA29Q	TANK BODY ASS'Y	1
48	RK70Q	RK70Q	RN34Q	RN34Q	TANK TOP ASS'Y	1
	---	----	----	L635A	CUBE FLASHER .25-5 SEC. [220V] F/LIGHT- TOP CABIN – NOT SHOWN IN PICTURE	1

# LB1- 3 gal. AND LB1-5 gal.

ITEM	LB1-3.3 AND LB1-5 COMPONENTS DESCRIPTION	LTB-303	LTB-505	QTY
1	SS BREW COVER [SHIPPED W/ MACHINE]	Q184Q	Q190Q	1
2	COVER, S.S., BLACK (COVER & LATCH ASS'Y SE390 & SE400)	Q080A	R021A	1
3	BLACK KNOB	M028A	M028A	1
4	SCREW, PAN HD 10-24 SS	P264A	P264A	1
5	MOLDED COVER - BLACK	M776A	M777A	1
6	TANK 3.3 GAL / 5 GAL [3 GAL. Q172A]	Q181A	Q182A	1
7	HANDLES - BLACK	M632A	M632A	2
8	HANDLE SCREW 8-32 x 1/2	P015A	P015A	2
9	NUT	K105A	K105A	1
10	BLACK WASHER, RUBBER	M080A	M080A	2
11	SHANK ASS'Y, W/PLASTIC WING NUT	D025S	D025S	1
12	S.S. FAUCET [WAS PLASTIC FAUCET D077A] or PINCH FAUCET USED W/BAG	D064A D084A	D064A D084A	1
13	OCTOGONAL BASE-10.5" HIGH - BLACK	RT31A	RW47A	1
14	EDGE WEAR STRIPS [SET OF 4]	M803A	M803A	4
15	GRILL - STAINLESS STEEL	RT34A	RT34A	1
16	DRIP TRAY PAN - BLACK	RT33A	RT33A	1
17	TOWER JOINT BRACKET - BLACK	RT35A	RT35A	0/1/2
18	WRAP LABEL - BRISK TEA - ICE CUBES [WAS NG08A] WRAP LABEL - BRISK - YELLOW [WAS NF71A] WRAP LABEL - JASMINE GREEN - GREEN [WAS NG09A] WRAP LABEL - RASPBERRY - PINK [WAS NF73A] WRAP LABEL - PEACH - PEACH [WAS NF72A] WRAP LABEL - TROPICAL - BLUE [WAS NF74A] WRAP LABEL - TEA BAR - GREEN [WAS NG92A]	NH38A NH41A NH42A NH43A NH44A NH45A NH71A	NG32A	1

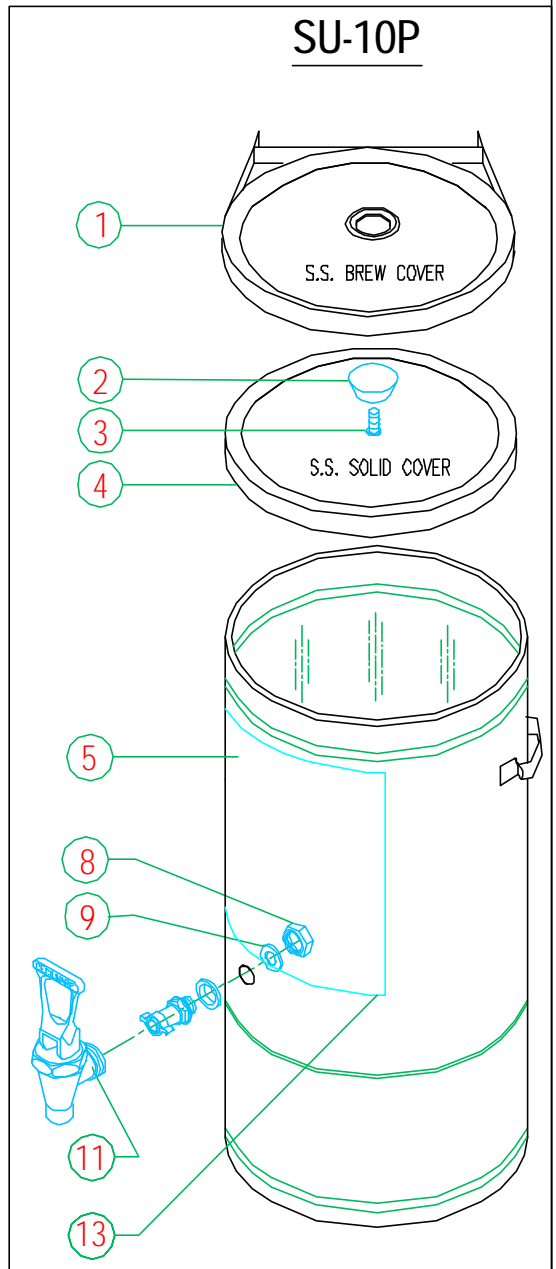
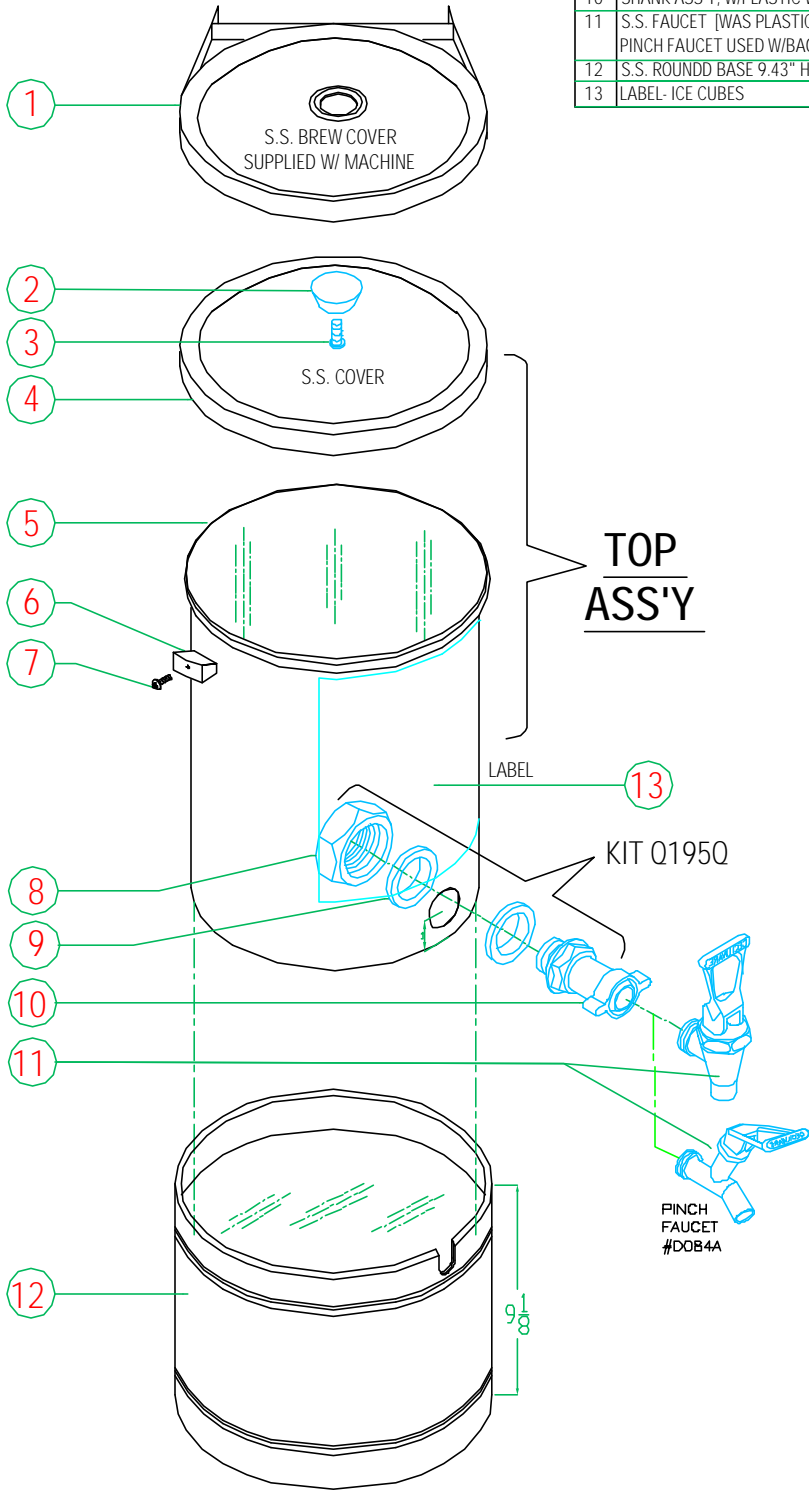


## TOP ASS'Y



# LRB1- 3 gal., LRB1-5 gal., SU-10P [with S.S. ROUND BASE]

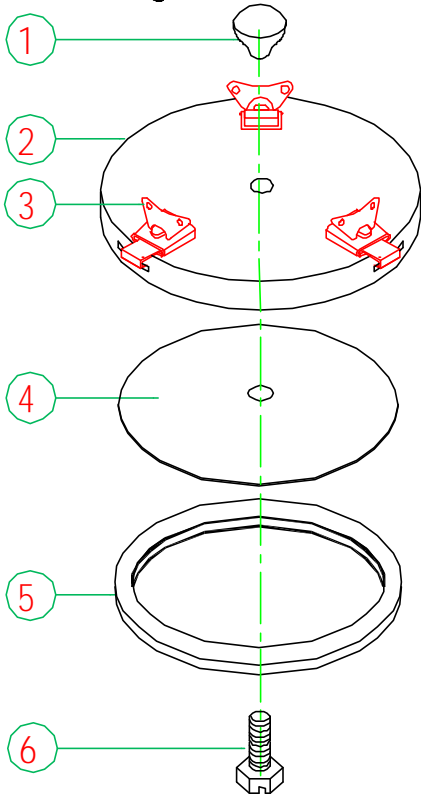
ITEM	LB1-3 AND LB1-5 COMPONENTS DESCRIPTION	LB-3.3 gal.	LB-5 gal.	SU-10P	QTY
1	SS BREW COVER [SHIPPED W/ MACHINE]	O184Q	O190Q	O190Q	1
2	KNOB	M028A	M028A	M028A	1
3	SCREW, PAN HD 10-24	P264A	P264A	P021A	1
4	SS COVER - BLACK	Q080A	R021A	R021A	1
5	TANK 3.3 GAL / 5 GAL [Q172A 3 GAL.]	O181A	O182A	----	1
6	HANDLES - BLACK	M632A	M632A	----	2
7	HANDLE SCREW 8-32 x 1/2	P015A	P015A	----	2
8	NUT	K105A	K105A	K105A	1
9	BLACK WASHER, RUBBER	M080A	M080A	M080A	1
10	SHANK ASS'Y, W/PLASTIC WING NUT - MODIFIED	D025S	D025S	D089A	1
11	S.S. FAUCET [WAS PLASTIC FAUCET D077A] or PINCH FAUCET USED W/BAG	D064A D084A	D064A D084A	D088A ----	1 1
12	S.S. ROUND BASE 9.43" HIGH	RZ86A	SA32A	----	1
13	LABEL- ICE CUBES	NH63A	NH63A	NH63A	1



# COVERS W/TWIST LATCH

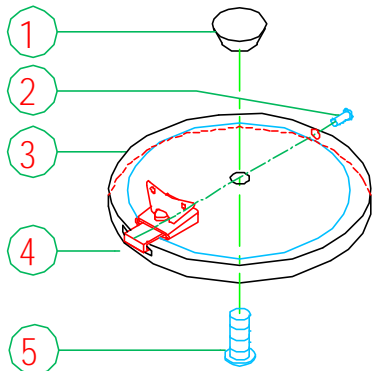
ITEM	P/N	DESCRIPTION FOR LB1-5 gal.
1	M027A	KNOB
2	Q021A	COVER - BLACK
3	P546A	TWIST LATCH
4	SE39A	PLATE, S.S. F/ GASKET
5	M768A	GASKET, BUT SPLICED
6	P049A	HEX BOLT 3/8-16x7/8

## SE40Q COVER FOR LB1-5



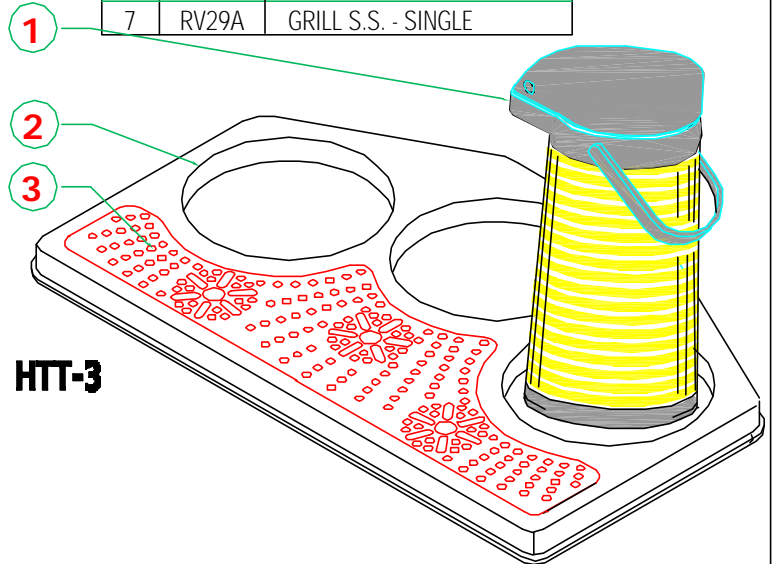
ITEM	P/N	DESCRIPTION FOR LB1-3 gal.
1	M028A	KNOB
2	P536A	WELD STUD
3	Q080A	COVER - BLACK
4	P546A	TWIST LATCH
5	P264A	SCREW, PAN HD 10-24 SS

## SE39Q COVER FOR LB1-3



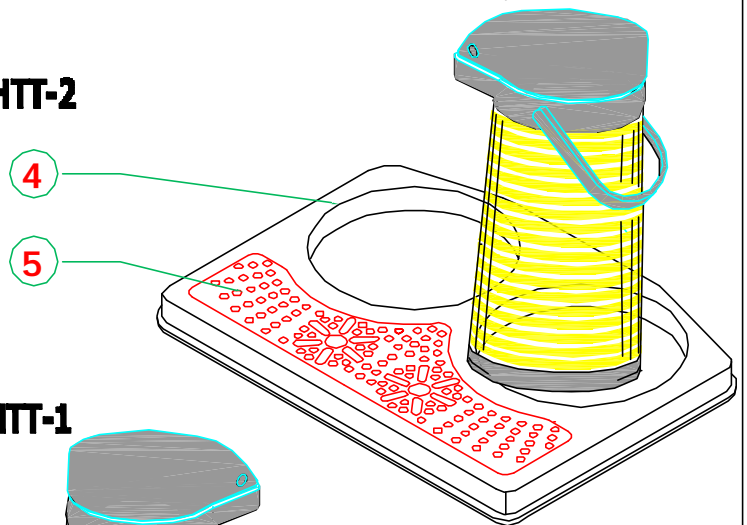
# HTT-1, HTT-2, HTT-3

ITEM	P/N	DESCRIPTION
1	V226A	AIRPOT - 3 Liters [3/4 Gal.]
2	M618A	MOLDED TRAY - TRIPPLE
3	RV31A	GRILL S.S. - TRIPPLE
4	M633A	MOLDED TRAY - DOUBLE
5	RV30A	GRILL S.S. - DOUBLE
6	M634A	MOLDED TRAY - SINGLE
7	RV29A	GRILL S.S. - SINGLE

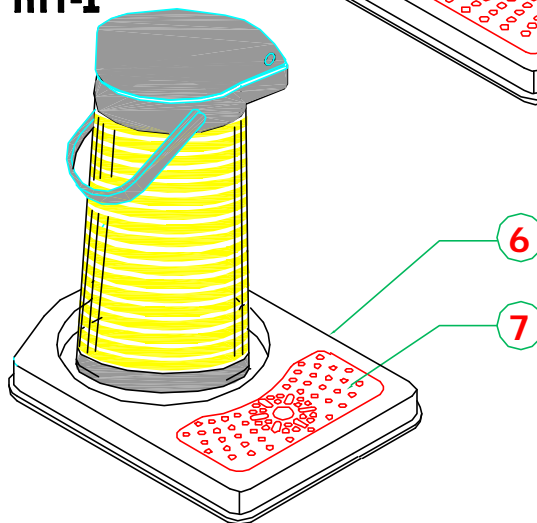


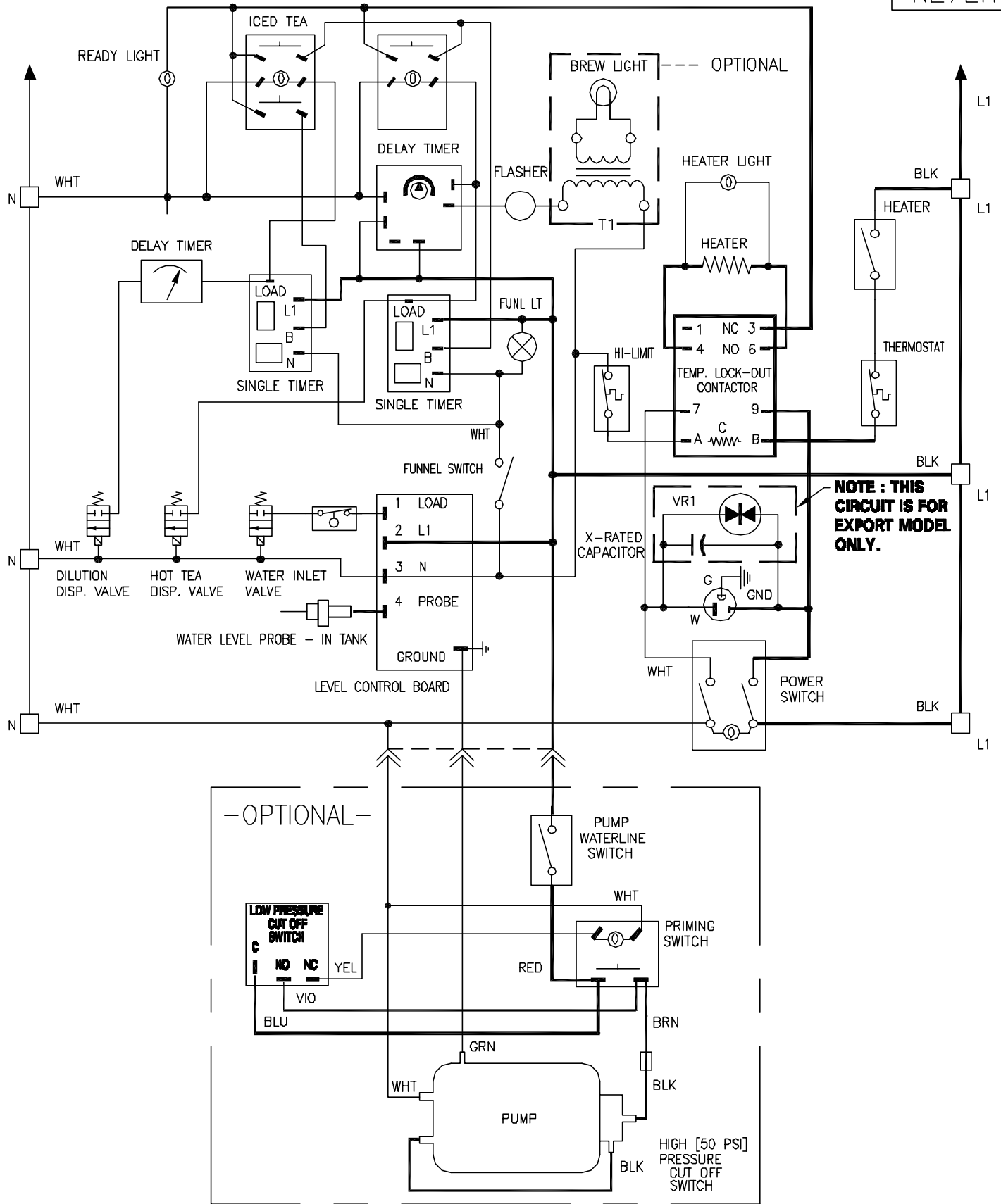
HTT-3

HTT-2



HTT-1





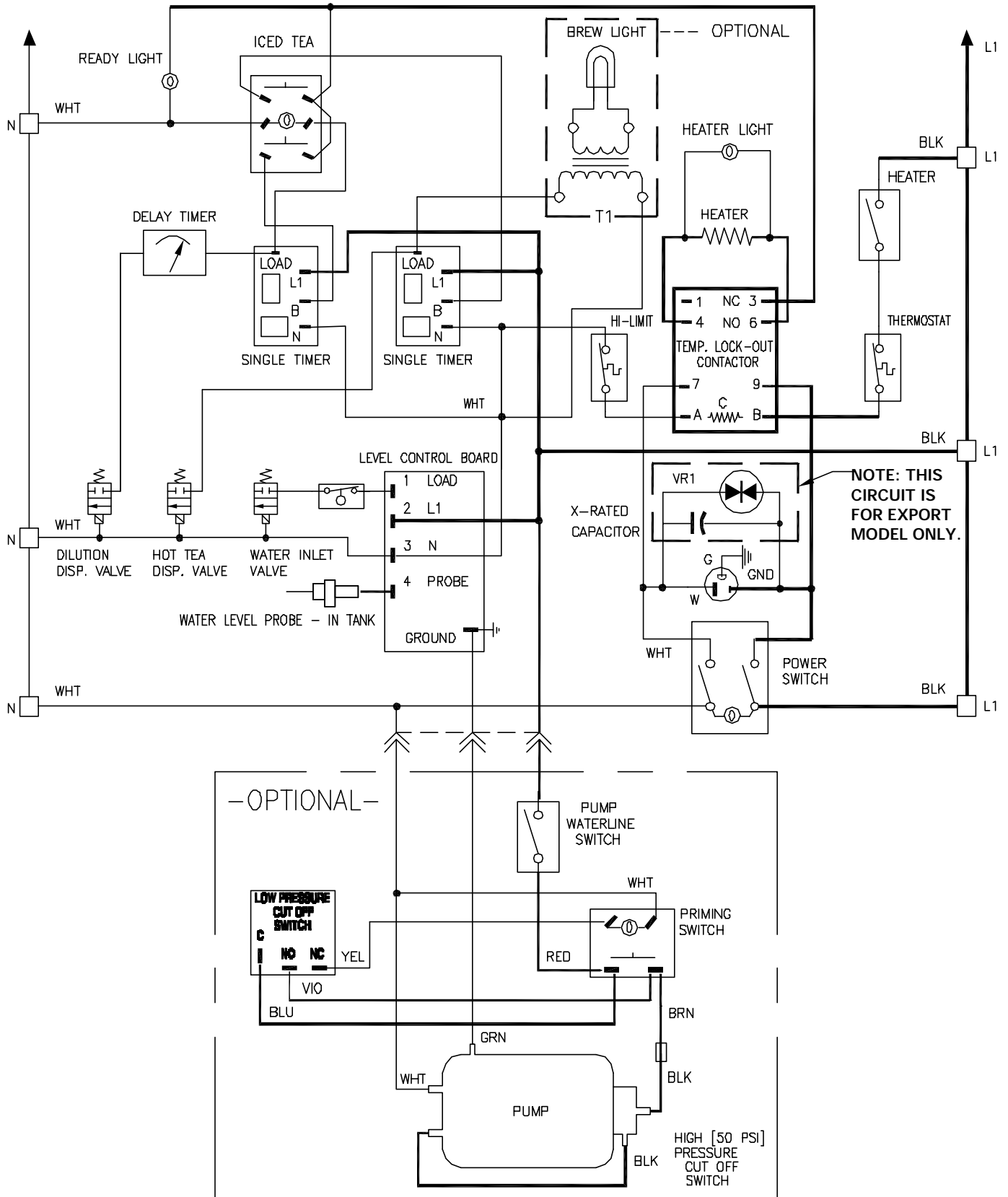
REV	BY	DATE	DESCRIPTION	APP'D BY	DATE	PART NO NE72A
					1/14/99	
<b>CECILWARE CORPORATION 43-05 20 AVE. L.I.C. NY 11105</b>				SCALE 1 : 1		
TITLE: ELECTRICAL DIAGRAM, LTB-303-C, LTB-505-C [120V OR 240V]						REV. J

NE72A

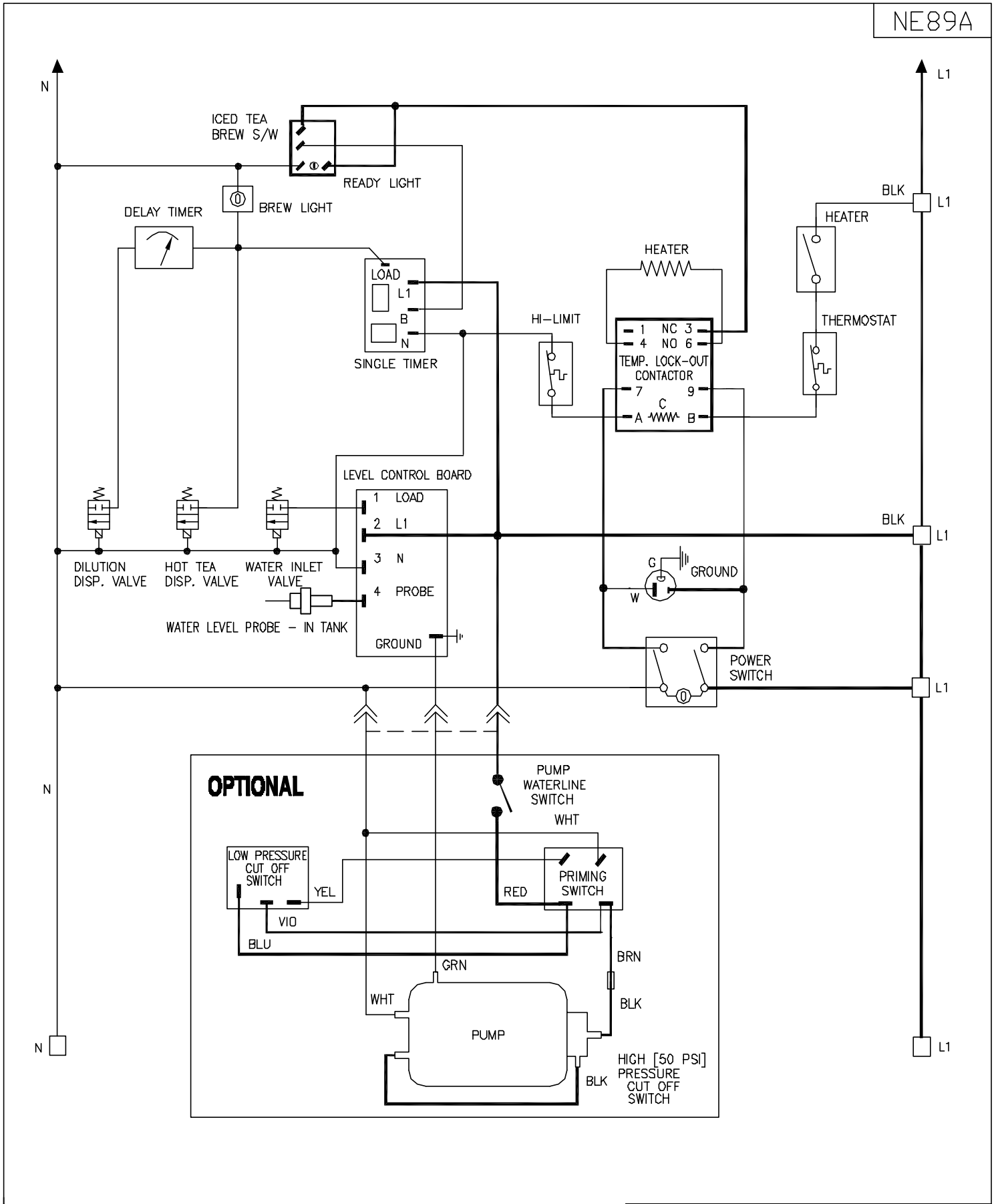


# ELECTRICAL SCHEMATIC FOR LTB-303-IT, LTB-505-IT

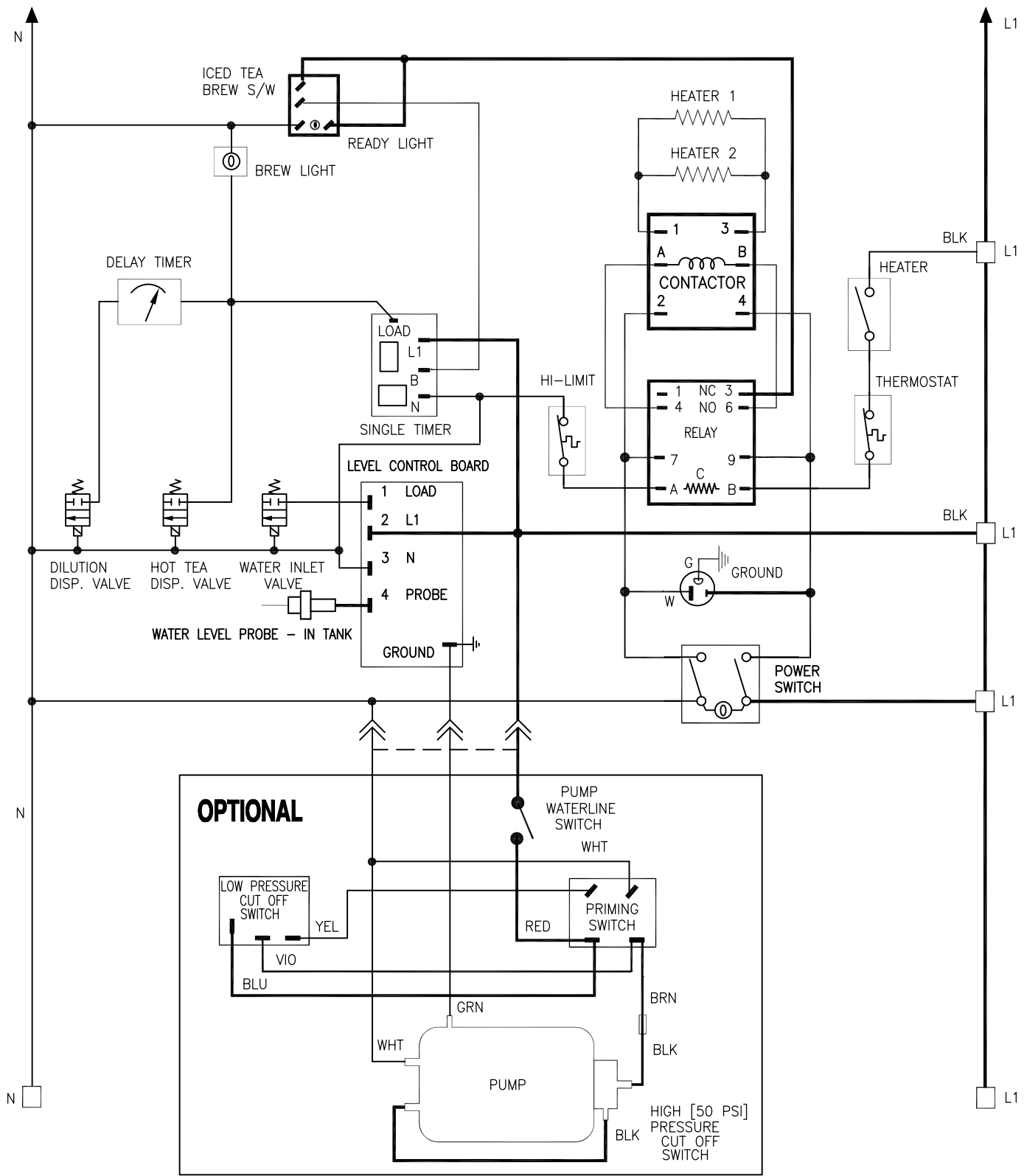
NE77A



F	M.M.	3/9/2000	CHANGED LAMP POSITION ON POWER SWITCH	APP'D BY	DATE	PART NO NE77A
REV	BY	DATE	DESCRIPTION	DRAWN BY G.V.	DATE 1/14/99	SCALE 1 : 1
<h2>CECILWARE CORPORATION 43-05 20 AVE. L.I.C. NY 11105</h2>						NE77A
TITLE: ELECTRICAL DIAGRAM, LTB-303-IT, LTB-505-IT [ICE TEA ONLY] [ 120V OR 240V]						REV. F



REV			BY			DATE			DESCRIPTION			APP'D BY	DATE	PART NO NE89A
												DRAWN BY G.V.	DATE 10/1/98	SCALE 1 : 1
<b>CECILWARE CORPORATION</b>												<b>43-05 20 AVE. L.I.C. NY 11105</b>		
TITLE: ELECTRICAL DIAGRAM, LTB-103, LTB-105 120V OR 240V												REV.		
												NE89A		



REV	BY	DATE	DESCRIPTION	APP'D BY	DATE	PART NO NE150
				DRAWN BY M.M.	DATE 10/31/2000	SCALE 1 : 1
<h1 style="margin: 0;">CECILWARE CORPORATION</h1> <p style="margin: 0;">43-05 20 AVE. L.I.C. NY 11105</p>				<p style="margin: 0;">REV.</p>		
<p style="margin: 0;">TITLE: ELECTRICAL DIAGRAM, LTB-1010 120V OR 240V</p>						