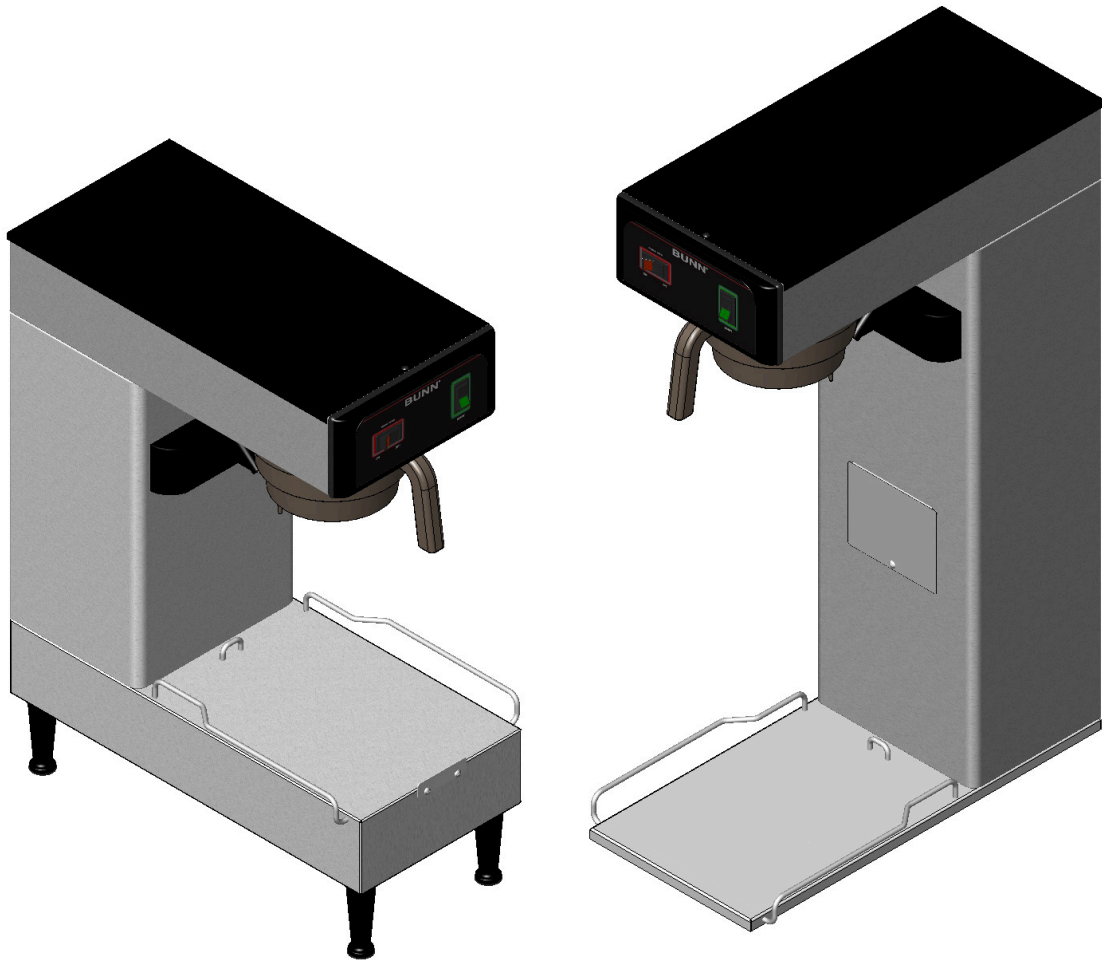


BUNN®

TB3 Series
Including: TB3; TB3-LP;
TB3Q; TB3Q-LP
STARTING WITH SERIAL NUMBER: TU000200000



INSTALLATION & OPERATING MANUAL

BUNN-O-MATIC CORPORATION

POST OFFICE BOX 3227
SPRINGFIELD, ILLINOIS 62708-3227
PHONE: (217) 529-6601 FAX: (217) 529-6644

To ensure you have the latest revision of the Operating Manual, or to view the Illustrated Parts Catalog, Programming Manual, or Service Manual, please visit the Bunn-O-Matic website, at www.bunn.com. This is absolutely FREE, and the quickest way to obtain the latest catalog and manual updates. For Technical Service, contact Bunn-O-Matic Corporation at 1-800-286-6070.



BUNN-O-MATIC COMMERCIAL PRODUCT WARRANTY

Bunn-O-Matic Corp. ("BUNN") warrants equipment manufactured by it as follows:

- 1) All equipment other than as specified below: 2 years parts and 1 year labor.
- 2) Electronic circuit and/or control boards: parts and labor for 3 years.
- 3) Compressors on refrigeration equipment: 5 years parts and 1 year labor.
- 4) Grinding burrs on coffee grinding equipment to grind coffee to meet original factory screen sieve analysis: parts and labor for 3 years or 30,000 pounds of coffee, whichever comes first.

These warranty periods run from the date of installation BUNN warrants that the equipment manufactured by it will be commercially free of defects in material and workmanship existing at the time of manufacture and appearing within the applicable warranty period. This warranty does not apply to any equipment, component or part that was not manufactured by BUNN or that, in BUNN's judgment, has been affected by misuse, neglect, alteration, improper installation or operation, improper maintenance or repair, damage or casualty. This warranty is conditioned on the Buyer 1) giving BUNN prompt notice of any claim to be made under this warranty by telephone at (217) 529-6601 or by writing to Post Office Box 3227, Springfield, Illinois 62708-3227; 2) if requested by BUNN, shipping the defective equipment prepaid to an authorized BUNN service location; and 3) receiving prior authorization from BUNN that the defective equipment is under warranty.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF EITHER MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The agents, dealers or employees of BUNN are not authorized to make modifications to this warranty or to make additional warranties that are binding on BUNN. Accordingly, statements by such individuals, whether oral or written, do not constitute warranties and should not be relied upon.

If BUNN determines in its sole discretion that the equipment does not conform to the warranty, BUNN, at its exclusive option while the equipment is under warranty, shall either 1) provide at no charge replacement parts and/or labor (during the applicable parts and labor warranty periods specified above) to repair the defective components, provided that this repair is done by a BUNN Authorized Service Representative; or 2) shall replace the equipment or refund the purchase price for the equipment.

THE BUYER'S REMEDY AGAINST BUNN FOR THE BREACH OF ANY OBLIGATION ARISING OUT OF THE SALE OF THIS EQUIPMENT, WHETHER DERIVED FROM WARRANTY OR OTHERWISE, SHALL BE LIMITED, AT BUNN'S SOLE OPTION AS SPECIFIED HEREIN, TO REPAIR, REPLACEMENT OR REFUND.

In no event shall BUNN be liable for any other damage or loss, including, but not limited to, lost profits, lost sales, loss of use of equipment, claims of Buyer's customers, cost of capital, cost of down time, cost of substitute equipment, facilities or services, or any other special, incidental or consequential damages.

BrewWISE, BrewLOGIC, BrewWIZARD, BUNN Gourmet Ice, BUNN Pour-O-Matic, BUNN, Bunn-OMatic, Bunn-O-Matic, BUNNlink, BUNNserve, BUNN Espresso, DBC, Dr. Brew, Dual, EasyClear, EasyGard, Easy Pour, FlavorGard, Gourmet Ice, Gourmet Juice, High Intensity, IMIX, Infusion Series, Legendary for Quality, Quality Beverage Equipment Worldwide, The Mark of Quality in Beverage Equipment Worldwide, My Café, PowerLogic, Safety-Fresh, Scale-Pro, Single, Smart Funnel, Smart Hopper, SmartWAVE, Soft Heat, SplashGard, System III, ThermoFresh, 392, AutoPOD, AXIOM, Beverage Profit Calculator, Beverage Bar Creator, BrewMETER, BUNNSERVE, BUNNsource, Coffee At Its Best, Cool Froth, Digital Brewer Control, Intellisteam, Nothing Brews Like a BUNN, Pouring Profits, Pulse Wave, Signature Series, Silver Series, Smart Heat, Tea At Its Best, The Horizontal Red Line, Titan, Ultra, are either trademarks or registered trademarks of Bunn-O-Matic Corporation.

INTRODUCTION

This equipment will brew a three-gallon batch of fresh tea into an awaiting dispenser. The tea will be dispensed at approximately room temperature. The brewer is only for indoor use on a sturdy counter or shelf.

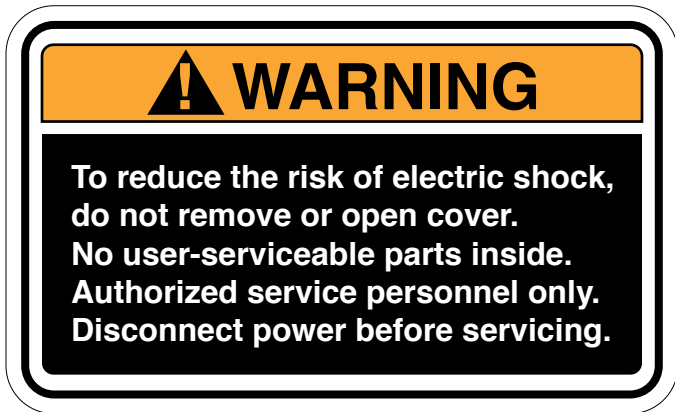
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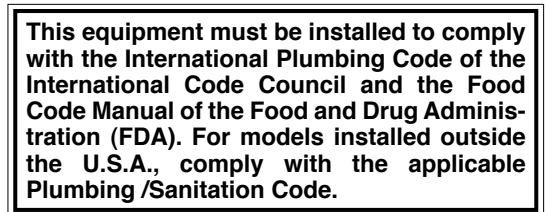
USER NOTICES

Carefully read and follow all notices on the equipment and in this manual. They were written for your protection. All notices on the equipment should be kept in good condition. Replace any unreadable or damaged labels.

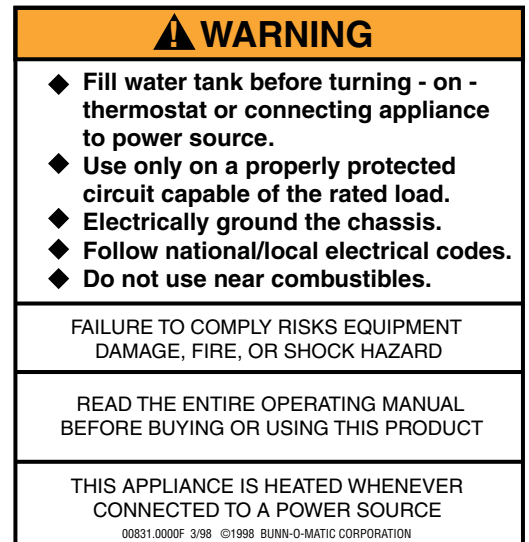
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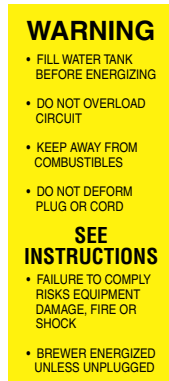
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ELECTRICAL REQUIREMENTS

CAUTION - The brewer must be disconnected from the power source until specified in *Initial Set-Up*.

120V model brewers require 2-wire, grounded service rated 120 volts ac, 15 amp, single phase, 60 Hz.

"A" model brewers require 2-wire, grounded service rated 230 volts ac, 10 amp, single phase, 50 Hz.

"B" model brewers require 2-wire, grounded service rated 100 volts ac, 15 amp, single phase, 60 Hz.

WARNING - If the power cord is ever damaged, it must be replaced by the manufacturer or its service agent with a special cord available from the manufacturer or its service agent in order to avoid a hazard.

Proceed as follows:

Electrical Hook-Up

CAUTION – Improper electrical installation will damage electronic components.

1. An electrician must provide electrical service as specified.
2. Using a voltmeter, check the voltage and color coding of each conductor at the electrical source.
3. Remove top cover from the brewer.
4. Rotate the control thermostat knob fully counterclockwise to the "OFF" position and replace the top cover.
5. Connect the brewer to the power source.
6. If plumbing is to be hooked up later be sure the brewer is disconnected from the power source. If plumbing has been hooked up, the brewer is ready for *Initial Set-Up*.

CE REQUIREMENTS

- This appliance must be installed in locations where it can be overseen by trained personnel.
- For proper operation, this appliance must be installed where the temperature is between 0°C to 35°C.
- Appliance shall not be tilted more than 10° for safe operation.
- An electrician must provide electrical service as specified in conformance with all local and national codes
- This appliance must not be cleaned by water jet.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given instructions concerning use of this appliance by a person responsible for its safety.
- If the power cord is ever damaged, it must be replaced by the manufacturer or authorized service personnel with a special cord available from the manufacturer or its authorized service personnel in order to avoid a hazard.

PLUMBING REQUIREMENTS

This equipment must be installed to comply with the International Plumbing Code of the International Code Council and the Food Code Manual of the Food and Drug Administration (FDA). For models installed outside the U.S.A., comply with the applicable Plumbing /Sanitation Code.

120V MODELS

These brewers must be connected to a cold water system with operating pressure between 20 and 90 psi (138 and 620 kPa) from a ½" or larger supply line. A shut-off valve should be installed in the line before the brewer. Install a regulator in the line when pressure is greater than 90 psi (620 kPa) to reduce it to 50 psi (345 kPa). The water inlet fitting is .75-11.5 NH (HOSE THREAD). For convenience an elbow adaptor is provided to convert to a ¼" flare fitting. Bunn-O-Matic does not recommend the use of a reverse-osmosis or deionized water supply to this equipment.

NOTE - Bunn-O-Matic recommends ¼" copper tubing for installations of less than 25 feet and ⅜" for more than 25 feet from the ½" water supply line. A tight coil of tubing in the water line will facilitate moving the brewer to clean the countertop. Bunn-O-Matic does not recommend the use of a saddle valve to install the brewer. The size and shape of the hole made in the supply line by this type of device may restrict water flow.

Plumbing Hook-Up

1. Flush the water line.
2. Securely attach the adaptor elbow assembly to the ¼" water supply line.
3. Securely attach adaptor elbow assembly to the the .75-11.5 NH (HOSE THREAD) fitting at the rear of the brewer.
4. Turn on the water supply.

NOTE: TheFlow Control/Strainer assembly is internal, located inside the inlet solenoid.

LP & "A/B" MODELS

These brewers must be connected to a cold water system with operating pressure between 20 (138) and 90 psi (620 kPa) from a ½" or larger supply line. A shut-off valve should be installed in the line before the brewer. Install a regulator in the line when pressure is greater than 90 psi (620 kPa) to reduce it to 50 psi (345 kPa). The water inlet fitting is ¼" flare.

NOTE - Bunn-O-Matic recommends ¼" copper tubing for installations of less than 25 feet and ⅜" for more than 25 feet from the ½" water supply line. A tight coil of copper tubing in the water line will facilitate moving the brewer to clean the countertop. Bunn-O-Matic does not recommend the use of a saddle valve to install the brewer. The size and shape of the hole made in the supply line by this type of device may restrict water flow.

Plumbing Hook-Up

1. Remove the shipping cap from the bulkhead fitting on the rear of the brewer.
2. Flush the water line and securely attach it to the bulkhead fitting on the rear of the brewer.
3. Turn on the water supply.

NOTE: TheFlow Control/Strainer assembly is internal, located inside the back panel.

ADJUSTING BREW VOLUMES

NOTE: Check that the brewer is connected to water supply, the tank is properly filled, and a funnel and server are in place, prior to setting or modifying batch sizes.

1. Modifying batch sizes. To modify a batch volume, first check that the SET/LOCK switch is in the “SET” position on the circuit board. If the brewer has a batch selector switch, position it to the size to be changed.

To increase a batch size, Press and hold the START or BREW switch until three clicks are heard. Release the switch (Failure to release the switch within two seconds after the third click causes the volume setting to be aborted and previous volume setting will remain in memory) and press it again one or more times. Each time the switch is pressed, two seconds are added to the brew time period. Allow the brew cycle to finish in order to verify that the desired volume has been achieved.

To decrease a batch size, Press and release the START or BREW switch once for every two-second interval to be removed from the total brew time period; then immediately press and hold down the START or BREW switch until three clicks are heard. Release the switch. (Failure to release the switch within two seconds after the third click causes the volume setting to be aborted and previous volume setting will remain in memory). Allow the brew cycle to finish in order to verify that the desired volume has been achieved.

2. Setting batch sizes. To set a batch volume, first check that the SET/LOCK switch is in the “SET” position on the circuit board. Press and hold the START or BREW switch until three distinct clicks are heard (this will take approximately ten seconds), and then release the switch. (Failure to release the switch within two seconds after the third click causes the volume setting to be aborted and previous volume setting will remain in memory). View the level of the liquid being dispensed. When the desired level is reached, turn the ON/OFF switch to “OFF”. The brewer remembers this volume and will continue to brew batches of this size until the volume setting procedure is repeated. Empty server, flip selector switch to position that has yet to be set, and repeat batch setting procedure until both batch sizes are set.

NOTE: When brewing tea, batch volumes will decrease due to absorption by the tea leaves.

3. Setting programming disable feature. If it becomes necessary to prevent anyone from changing brew times once programmed, you can set the SET/LOCK switch to the “LOCK” position. This will prevent any programming to be done.

Brew water temperature is factory set at 200° F (93.3° C)
 Areas of high altitude will require lowering this temperature to prevent boiling. This chart should be used as a guide when readjusting the brew water temperature.

Altitude (Feet)	Boiling point of water		Recommended water temperature	
	° F	° C	° F	° C
-1000	213.8	101.0	200	93.3
-500	212.9	100.5	200	93.3
0	212.0	100.0	200	93.3
500	211.1	99.5	200	93.3
1000	210.2	99.0	200	93.3
1500	209.3	98.5	200	93.3
2000	208.4	98.0	200	93.3
2500	207.4	97.4	200	93.3
3000	206.5	96.9	199	92.8
3500	205.6	96.4	198	92.2
4000	204.7	95.9	197	91.7
4500	203.8	95.4	196	91.1
5000	202.9	94.9	195	90.6
5500	201.9	94.4	195	90.6
6000	201.0	93.9	194	90.0
6500	200.1	93.4	193	89.4
7000	199.2	92.9	192	88.9
7500	198.3	92.4	191	88.3
8000	197.4	91.9	190	87.8
8500	196.5	91.4	189	87.2
9000	195.5	90.8	188	86.7
9500	194.6	90.3	187	86.1
10000	193.7	89.8	186	85.6

INITIAL SET-UP (TB3Q/TB3Q-LP ONLY)

CAUTION - The brewer must be disconnected from the power source throughout the Initial Set-Up, except when specified in the instructions.

1. Remove the top lid from the brewer.
2. Rotate the control thermostat knob fully counterclockwise to the "OFF" position and replace the top lid.
3. Insert an empty funnel into the funnel rails.
4. Place an empty dispenser on the brewer base. Be prepared to empty the dispenser during these initial steps.
5. Plug in the brewer, place the ON/OFF switch in the "ON" position ("SWEET" or "UNSWEET" position for brewers with a sweetener option), and momentarily press the START switch. Water will flow into the tank and dispenser for three and one-half minutes. Empty the dispenser when this first cycle stops and press the START switch again. Empty the dispenser when the second cycle stops and press the START switch once more. During the third cycle, the tank will fill to its capacity and the excess will flow from the funnel into the dispenser. Empty the dispenser when this third cycle stops.
6. Begin another brew cycle and measure the total water volume from the dispenser. It should be approximately 3 gallons and 12 ounces. (396 ounces). CONCENTRATE MACHINES WILL YIELD ONLY 76 OZ.
7. If not, adjust the timer as required. See Adjusting Brew Volumes.
8. Start, and measure another cycle.
9. Repeat steps 6-8 until the recommended total water volume is achieved.
10. The concentrate valve is pre-adjusted to deliver the correct ratio of brew water to dilution water.
11. Unplug the brewer, remove the top lid, rotate the control thermostat knob fully clockwise to the "ON" position and replace the top lid.
12. Empty the dispenser.
13. Plug in the brewer and wait for the water in the tank to heat to brewing temperature (approximately 20 minutes). Some water will drip from the funnel during this time; this is due to expansion and should not occur thereafter.
14. Begin another brew cycle. Empty the reservoir after water has stopped flowing from the funnel.
15. Allow the water in the tank to heat to the proper temperature.
16. The brewer is now ready to brew approximately 3 gallons of freshly brewed room temperature tea from three to five ounces of loose leaves.

INITIAL SET-UP (TB3/TB3-LP ONLY)

CAUTION - The brewer must be disconnected from the power source throughout the initial set-up, except when specified in the instructions.

1. Remove the top lid from the brewer.
2. Rotate the control thermostat knob fully counterclockwise to the "OFF" position and replace the top lid.
3. Set the delay dial on the timer at three minutes and set the dilution dial at three to four minutes.
4. Remove the metal discharge tip from the funnel to speed up the set-up procedure. Insert the empty funnel into the funnel rails.
5. Place an empty dispenser on the brewer base. Be sure the funnel discharge is directly above the hole in the dispenser top lid.
6. Plug in the brewer and place the ON/OFF switch in the "ON" position. Momentarily press the start switch. Water will flow into the tank and will shut off after three minutes. Press the start switch again. During the second period, the tank will fill to its capacity and the excess will flow from the funnel into the dispenser.
7. Place the ON/OFF switch in the "OFF" position.
8. Disconnect the brewer from the power source and remove the top lid.
9. Rotate the control thermostat knob fully clockwise to the "ON" position and replace the top lid.
10. Plug in the brewer and wait for the water in the tank to heat to the proper temperature (approximately 20 minutes). Some water will drip from the funnel during this time; this is due to expansion and should not occur thereafter.
11. Place the ON/OFF switch in the "ON" position and press the start switch. Empty the dispenser after water has stopped flowing from the funnel.
12. Allow the water in the tank to reheat to the proper temperature.
13. Place the ON/OFF switch in the "ON" position and press the start switch.
14. Place the ON/OFF switch in the "OFF" position immediately after water stops flowing from the funnel. Check the water volume in the dispenser. It should be seventy-six ounces.
15. If not, adjust the digital timer as required. See *Adjusting Brew Volumes on page 5*, and measure another concentrate cycle.
16. Repeat steps 12-15 until the proper water volume is achieved.
17. Unplug the brewer and remove the top lid.
18. Set the delay dial on the timer at three minutes and empty the dispenser.
19. Place the ON/OFF switch in the "ON" position, momentarily press the start switch, and allow both the concentrate and dilution cycles to occur.
20. When all water stops flowing, check the water volume in the dispenser. It should be 396 ounces.
21. If not, unplug the brewer and remove the top lid.
22. Adjust the dilution dial on the timer as required. Replace the top lid, plug in the brewer, start, and measure another brew cycle.
23. Repeat steps 19-22 until the proper water volume is achieved.
24. Return the delay dial on the timer to eight minutes. Replace the top lid and plug in the brewer.
25. Reinstall the metal discharge tip into the funnel.
26. Load the funnel with a BUNN® paper filter and approximately four ounces of loose tea leaves.
27. Place the ON/OFF switch in the "ON" position, momentarily press the start switch, and allow both the concentrate and dilution cycles to occur. Observe the funnel discharge and the dilution streams near the end of the brew cycle. The dilution stream should stop approximately thirty seconds after the funnel discharge has stopped.
28. If not, unplug the brewer and remove the top lid.
29. Adjust the delay dial on the timer as required. Replace the top lid and plug in the brewer.
30. Repeat steps 26-29 until the proper dilution timing is achieved.

AUTO SWEETENER SET-UP

CAUTION - The brewer must be disconnected from the power source throughout the Initial Set-Up, except when specified in the instructions.

1. Remove the top lid and both rear panels.
2. Make sure the brewer water supply is off.
3. Connect sweetener hose from the bag in a box delivery system to the rear fitting marked "Sweetener".

IMPORTANT - System delivery pressure must be regulated between 30-40 psi. System also needs to deliver product for at least 4 minutes without shutting off. Some pump systems shut off after a few minutes of continuous running.

(TB3Q/TB3Q-LP ONLY)

4. Plug brewer into the power source.
5. Place an empty reservoir under the dilution nozzle of the brewer.
6. Close the adjustment valve on the rear of the brewer fully (clockwise), then open (counterclockwise) 1/2 turn.
7. Set the selector switch to the "Sweetened" side and press the "Start" switch momentarily. (The sweetener will come out immediately.)
8. Run sweetener for 1 minute, then set selector switch to the "Off" position. The flow will stop.
9. Measure the amount of sweetener dispensed and calculate if the volume needs to be increased or decreased (Dilution cycle is usually between 3 to 3 1/2 minutes).
10. If adjustment is needed, turning the adjustment valve clockwise decreases the amount of sweetener dispensed and turning the adjustment valve counterclockwise increases the amount of sweetener dispensed.
11. After the desired volume has been set, turn the water supply on.
12. Reinstall the top lid and rear panels. The brewer may now be returned to service.

(TB3/TB3-LP ONLY)

4. Set the "Delay knob on the dilution timer to the 3 minute setting. (The minimum delay setting)
5. Plug brewer into the power source.
6. Place an empty reservoir under the dilution nozzle of the brewer.
7. Close the adjustment valve on the rear of the brewer fully (clockwise), then open (counterclockwise) 1/2 turn.
8. Set the selector switch to the "Sweetened" side and press the "Start" switch momentarily. (After approximately 3 minutes the sweetener will come out of the dilution nozzle.)
9. Run sweetener for 1 minute, then set selector switch to the "Off" position. The flow will stop.
10. Measure the amount of sweetener dispensed and calculate if the volume needs to be increased or decreased (Dilution cycle is usually between 3 to 3 1/2 minutes).
11. If adjustment is needed, turning the adjustment valve clockwise decreases the amount of sweetener dispensed and turning the adjustment valve counterclockwise increases the amount of sweetener dispensed.
12. Set the "Delay" knob on the dilution timer back to the 6 to 7 minute setting.
13. After the desired volume has been set, turn the water supply on.
14. Reinstall the top lid and rear panel. The brewer may now be returned to service.

OPERATING CONTROLS

A. ON/OFF Switch

ON - Placing the switch in the left position allows the start switch to activate a timed brew cycle for three gallons of tea.

OFF - Placing the switch in the right position stops the brew cycle. Stopping a brew cycle after it has been started will not stop the flow of water into the funnel until the tank syphons down to its proper level. **The switch should always be placed in this position after a brew cycle and whenever the brewer is unattended.**

B. Start Switch

Starts a brew cycle when the ON/OFF switch is in the "ON" position.

C. UNSWEET/OFF/SWEET Selector Switch (Models with Sweetener Only)

UNSWEET - Placing the switch in the left positional allows the start switch to activate a timed brew cycle for three gallons of tea without sweetener.

OFF - Placing the switch in the middle position stops the brew cycle. Stopping a brew cycle after it has been started will not stop the flow of water into the funnel until the tank syphons down to its proper level. **The switch should always be placed in this position after a brew cycle and whenever the brewer is unattended.**

SWEET - Placing the switch in the right positional allows the start switch to activate a timed brew cycle for three gallons of tea with sweetener.

TEA BREWING

1. Begin each brew cycle with a clean empty brew funnel and server. (Be sure the server lid doesn't interfere with the flow of dilution water.)
2. Insert a BUNN® filter into the funnel.
3. Pour the packet of loose fresh tea leaves into the filter. Approximately three to five ounces is recommended for three gallons of beverage.
4. Level the bed of tea leaves by gently shaking.
5. Slide the funnel into the funnel rails until it stops.
6. Place the ON/OFF switch in the "ON" position. (For brewers with a sweetener, place the UNSWEET/OFF/SWEET switch in the "SWEET" or "UNSWEET" position.)
7. Momentarily press the START switch.

CAUTION - The funnel contains hot liquids. Remove funnel slowly.

8. Carefully remove the brew funnel and discard the used filter when tea no longer drips from the funnel tip.
9. Place the ON/OFF (UNSWEET/OFF/SWEET) switch in the "OFF" position to prevent a false start.
10. Fresh tea is available at the server faucet.

CLEANING

CAUTION - CLEAN AND SANITIZE YOUR ICED TEA BREWER DAILY

1. Remove and thoroughly clean the entire brew funnel. The funnel tip and screen must be free from any tea particles or residue. Reassemble the funnel.
2. Place the ON/OFF switch in the "OFF" position. Remove and thoroughly rinse the sprayhead. The holes must be open and clear of any mineral deposits. Wipe the sprayhead panel clean with a damp cloth.
3. Insert the delimiting spring into the sprayhead fitting until no more than two inches is visible and move it in and out 5 or 6 times. Insert the spring into the airvent hole in the sprayhead panel and move it in and out 5 or 6 times. Reattach the sprayhead.
4. Wash the entire outside surface of the brewer with a clean damp cloth.

CAUTION - DO NOT KEEP BREWED ICED TEA OVERNIGHT. THE SERVER MUST BE CLEANED DAILY.

AUTO SWEETENER CLEANING

1. Remove the connector off of the bag in a box.
2. Place the end in a bucket of hot water (120°-130°F)
3. Place an empty reservoir on the base under the dilution nozzle.
4. Set the selector switch to the "Sweetened" setting.
5. Press and release the "Start" switch.
6. Run three brew cycles in a row, emptying the reservoir after each cycle.
7. When the three cycles have been completed, hook the connector back up to the bag in a box system. (This will keep buildup from occurring in the system.)

This procedure should be performed weekly or as needed to keep the system clear.