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# BUNN®

## IC3 & IC3B ICED COFFEE BREWERS

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# INSTALLATION & OPERATING INSTRUCTIONS

## INTRODUCTION

This equipment will brew a batch of fresh coffee into an awaiting vessel and dispense at approximately room temperature to conserve ice. The brewer is only for indoor use on a sturdy counter or shelf and requires a minimum of 33 inches of clearance above the counter.

### **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.

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## **BUNN-O-MATIC CORPORATION**

**POST OFFICE BOX 3227**

**SPRINGFIELD, ILLINOIS 62708-3227**

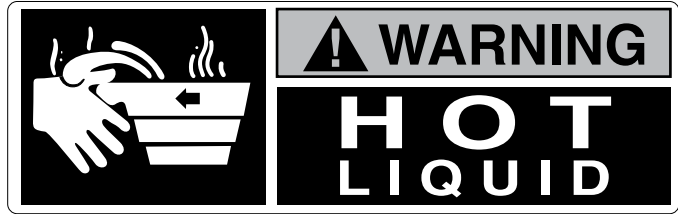
**PHONE: (217) 529-6601 FAX: (217) 529-6644**

## USER NOTICES

The notices on this brewer should be kept in good condition. Replace unreadable or damaged labels.



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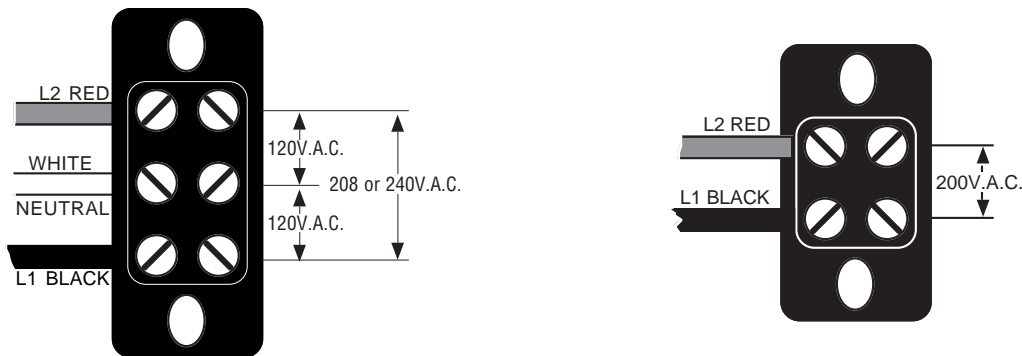
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<b>⚠ WARNING</b>
<ul style="list-style-type: none"> <li>◆ Fill water tank before turning -on thermostat or connecting appliance to power source.</li> <li>◆ Use only on a properly protected circuit capable of the rated load.</li> <li>◆ Electrically ground the chassis.</li> <li>◆ Follow national/local electrical codes.</li> <li>◆ Do not use near combustibles.</li> </ul>
FAILURE TO COMPLY RISKS EQUIPMENT DAMAGE, FIRE, OR SHOCK HAZARD
READ THE ENTIRE OPERATING MANUAL BEFORE BUYING OR USING THIS PRODUCT
THIS APPLIANCE IS HEATED WHENEVER CONNECTED TO A POWER SOURCE
<small>00831.0000F 3/98 © 1988 BUNN-O-MATIC CORPORATION</small>

00831.0000

## ELECTRICAL REQUIREMENTS

**CAUTION** - Do not connect the brewer to the power source until specified in Initial Set-Up.



These brewers require either 3-wire, grounded service rated 120/208 or 120/240 volts ac or 2-wire, grounded service rated 200 volts ac, or 20 amp, single phase, 60 Hz. Refer to the product's data plate above the dilution nozzle for actual voltage of your particular brewer model.

## Electrical Hook-Up

**CAUTION** – Improper electrical installation will damage electronic components.

1. An electrician must provide electrical service as specified.
2. Remove the top lid and rotate the control thermostat knob fully counterclockwise to the “OFF” position and reinstall the top lid.
3. Remove the rear trunk panel, feed the cord through the strain relief at the rear of the brewer and connect it to the terminal block.
4. Using a voltmeter, check the voltage and color coding of each conductor at the power source.
5. Connect the brewer to the power source and verify the voltage at the terminal block and reinstall the rear trunk panel.
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*.

**WARNING** – The brewer must be electrically grounded using the green screw near the terminal block. Do not assume a plumbing line will provide an adequate ground.

## PLUMBING REQUIREMENTS

This brewer must be connected to a cold water system with operating pressure between 30 (207 kPa) 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.

This equipment must be installed to comply with the Basic Plumbing Code of the Building Officials and Code Administrators International, Inc. (BOCA) and the Food Service Sanitation Manual of the Food and Drug Administration (FDA).

## Plumbing Hook-Up

1. Attach the female fitting from the short piece of tubing on the strainer assembly (supplied) to the water inlet fitting on the rear of the brewer.
2. Flush the water line and securely attach it to the flare fitting on the strainer assembly.
3. Turn on the water supply.

## INITIAL 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 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, and momentarily press the START switch.

## INITIAL SET-UP (cont.)

Water will flow into the tank and dispenser for five minutes and forty-five seconds. 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. Disconnect the brewer from the power source, remove the rear trunk panel, and turn the handle on the needle valve approximately one-quarter turn counterclockwise to enable the flow of dilution water. This valve is fully closed at the factory.

**NOTE** - The next step requires the use of a stopwatch to calculate the amount of dilution water flowing from the nozzle in one minute. You'll need to capture and measure the timed dilution water in a separate vessel than the one used for the water flowing from the funnel.

7. Place a vessel under the brew funnel to catch the brew water. Use a hose or other means to divert the water from the dilution nozzle to a separate container.
8. Connect the brewer to the power source. Simultaneously press the start switch to begin another brew cycle and start the stop watch. Place the ON/OFF switch in the "OFF" position at exactly sixty-seconds (one-minute). When the flow of water stops, measure the volume of the captured dilution water. It should be approximately twenty-two ounces.
9. If not, disconnect the brewer from the power source, and adjust the handle on the needle valve clockwise to decrease the amount of water or counterclockwise to increase the amount of dilution water as required.
10. Repeat steps 8 & 9 until the recommended dilution water volume (twenty-two ounces) is achieved.
11. Disconnect the brewer from the power source and reinstall the rear trunk panel.
12. Unplug the brewer, remove the top lid, rotate the control thermostat knob fully clockwise to the "ON" position and replace the top lid.
13. Empty the dispenser.
14. Connect the brewer to the power source and wait for the ready light to glow indicating the water in the tank has heated 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.
15. Begin another brew cycle and measure the total water volume from the dispenser. It should be approximately 3 gallons and 12 ounces. (396 ounces).
16. If not adjust the timer as required. See *Adjusting Brew Volumes*.
17. Start, and measure another cycle.
18. Repeat steps 16-17 until the recommended total water volume is achieved.
19. The brewer is now ready to brew a batch of freshly brewed room temperature coffee.

## ADJUSTING BREW VOLUMES

**CAUTION** - Disconnect the power source from the brewer prior to the removal of any panel for the replacement or adjustment of any component.

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

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.

**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

## ADJUSTING BREW VOLUMES (cont.)

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 (approximately 10 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” (lower). The brewer remembers this volume and will continue to brew batches of this size until the volume setting procedure is repeated.

**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 until switch is once again placed in the “SET” position.

## CLEANING

**CAUTION** - Clean and sanitize your iced coffee brewer daily

1. Remove and thoroughly clean the entire brew funnel. The funnel must be free from any coffee particles or residue.
2. Disconnect the brewer from the power source. Remove and thoroughly rinse the sprayhead. Wipe the sprayhead panel clean with a damp cloth.
3. Insert the delimiting spring into the sprayhead fitting until no more than one inch 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 coffee overnight. The dispenser must be cleaned and sanitized daily.

## OPERATING CONTROLS

### A. Lighted On/Off Switch

**ON** - Placing the switch in the lighted upper position allows the start switch to activate a brew cycle.

**OFF** - Placing the switch in the lower 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.

**NOTE** - The switch should always be placed in the “OFF” position after a brew cycle and whenever the brewer is unattended.

### B. Full/Half Batch Selector Switch

**Full** - Placing the switch in the upper position produces a full batch of room temperature coffee from the brew cycle.

**Half** - Placing the switch in the lower position produces half of a full batch of room temperature coffee from the brew cycle.

### C. Start Switch

Starts a brew cycle when the lighted On/Off switch is in the “ON” position.

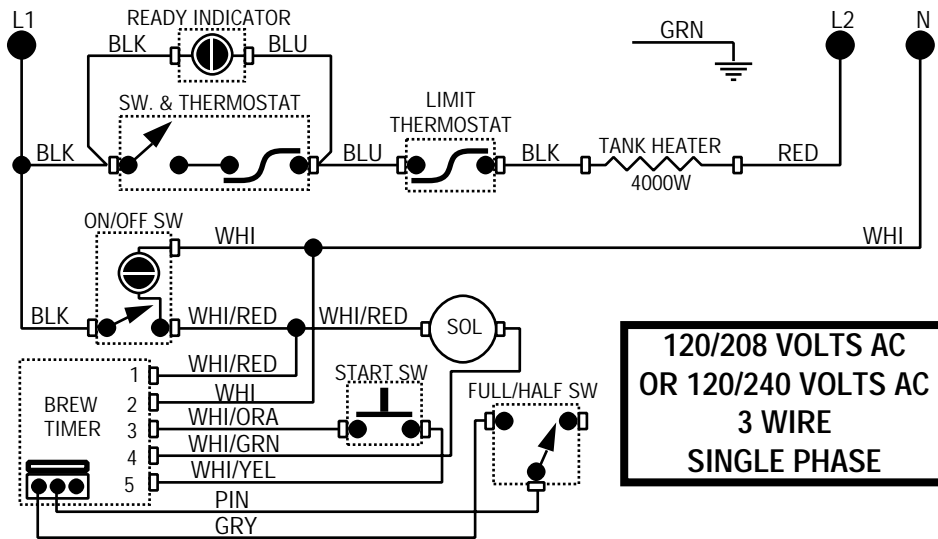
## COFFEE BREWING

1. Begin each brew cycle with a clean empty brew funnel and dispenser. (Be sure the dispenser lid doesn't interfere with the flow of dilution water.)
  2. Insert a BUNN® 3-gallon urn filter into the funnel.
  3. Pour the recommended amount of fresh coffee into the filter.
  4. Level the bed of coffee grounds by gently shaking.
  5. Slide the funnel into the funnel rails until it stops.
  6. Place the On/Off switch in the lighted "ON" position.
  7. Place the batch selector switch in the desired position.
  8. Momentarily press the start switch.
- CAUTION** - The funnel contains hot liquids. Remove funnel slowly.
9. Carefully remove the funnel and discard the used filter when coffee no longer drips from the funnel.
  10. Place the lighted On/Off switch in the "OFF" position to prevent a false start.
  11. Room temperature fresh coffee is available at the faucet.

## REPLACEMENT PARTS

03772.0001 .... Base Guide	01079.0000 .... Solenoid Valve Base
05920.0000 .... Cable Clamp .25"	01101.0000 .... Solenoid Valve Coil, (IC3)
00603.0000 .... Cable Clamp .437"	21181.0000 .... Solenoid Valve Coil, (IC3B)
03024.0005 .... Control Thermostat	01111.0000 .... Solenoid Valve Repair Kit
03409.0000 .... Decal, Caution, Hot Liquid	01085.0002 .... Solenoid Valve, (IC3)
03408.0000 .... Decal, Caution, Remove Funnel Slowly	21180.0000 .... Solenoid Valve, (IC3B)
24447.0000 .... Decal, Hood Front	24527.0000 .... Sprayhead Assy
03717.0000 .... Dilution Nozzle	05515.0000 .... Sprayhead Tube Gasket
03773.0000 .... Dilution Nozzle Spacer Housing	24697.0000 .... Sprayhead Tube Kit
24613.0001 .... Fitting, .25" Flare x .128" MPT Adapter	02753.0000 .... Switch, Lighted On/Off, (IC3)
22397.0001 .... Fitting, .25" Hose Barb x .125" MPT	02754.0000 .... Switch, Lighted On/Off, (IC3B)
00459.0000 .... Fitting, Bulkhead, .25" Male Flare	02628.0000 .... Switch, Momentary Start
00400.0001 .... Fitting, Elbow, .25" Male Flare x .125" MPT	05789.0000 .... Switch, Rocker, Batch Selector
00412.0001 .... Fitting, Hex Nipple, .125" MPT	24612.0000 .... Tank
00432.0001 .... Fitting, Street Elbow, .125" NPT	24410.0000 .... Tank Lid
24599.0001 .... Fitting, Tee Union, .125" FPT	12377.0000 .... Tank Lid Gasket
24614.0001 .... Fitting, Union, .25" Female Flare	07038.0000 .... Terminal Block, (IC3)
20528.1330 .... Flow Control Assy, .33 gpm	01106.0001 .... Terminal Block, (IC3B)
01155.0000 .... Flow Control Gasket	32400.0002 .... Timer kit, Digital (120V) (IC3)
01154.0001 .... Flow Control Outlet	32400.0001 .... Timer, kit, Digital (240V) (IC3B)
20526.1330 .... Flow Control Washer, .33 gpm	24435.0000 .... Top Lid
24600.0000 .... Foot Replacement Kit	24427.0000 .... Trunk Extension Rear Panel
12485.0003 .... Funnel Handle	24698.0000 .... Trunk Rear Panel
24659.0000 .... Funnel Handle Mounting Bracket	00310.0005 .... Tube Assy, Bulkhead Fitting to Solenoid
12499.0002 .... Funnel Handle Screw	24569.0000 .... Tube Assy, Flow Control To Tank
24657.0000 .... Funnel, Assy, Complete	24531.0000 .... Tube Assy, Tank Fill
12305.1000 .... Heater Kit, 4000W/208V or 3700W/200V	24532.0000 .... Tube Assy, Vent
12322.1000 .... Heater Kit, 4000W/240V	00310.0000 .... Tube Assy, Water Strainer to Bulkhead Fitting
00668.0000 .... Hole Plug, .75" Dia	11707.1001 .... Tube, Silicone-.25" ID x 36"
12422.0000 .... Hose Clamp .5"	22249.0000 .... Water Strainer End Cap .25" Flare
23717.0001 .... Limit Thermostat	23721.0000 .... Water Strainer Replacement Screen
03170.0000 .... Mounting	23820.1000 .... Water strainer Assy., Complete
00484.0002 .... Needle Valve	02240.0002 .... Wire Assy, 1/2 Batch Switch to Timer
12984.0004 .... Ready Indicator Assy, Green	21014.0055 .... Wire Assy, Limit Thermostat to Tank Heater
10966.0000 .... Shipping Carton Complete	24533.0000 .... Wiring Harness, Main (IC3)
01592.0000 .... Snap Bushing 1" Dia	24533.0001 .... Wiring Harness, Main (IC3B)

# SCHEMATIC WIRING DIAGRAM IC3



# SCHEMATIC WIRING DIAGRAM IC3B

