

BUNN®

***ICB-TWIN
Infusion Series®
with Smart Funnel®***



INSTALLATION & OPERATING MANUAL

BUNN-O-MATIC CORPORATION

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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.

BUNN, Infusion Series, iCB TWIN, Pre-Infusion, Pulse Brew, Smart Funnel, Energy Savings, BUNNLink, Smart Reader, are either trademarks or registered trademarks of Bunn-O-Matic Corporation.

INTRODUCTION

This equipment will brew coffee into an awaiting server or airpot. The brewer may have an auxillary hot water faucet. It is only for indoor use on a sturdy and level counter or shelf. Please install in an area where there are no water jet devices.

The Infusion Series, similar to the DBC BrewWISE, incorporates a wireless interface system that allows the MHG or DBC Grinders to load certain information into the "programming chip" located inside the handle of the funnel. This information includes what flavor of coffee is being ground and what batch size will be brewed (half or full). Once the correct flavor name and amount of coffee is ground, the funnel is loaded into the brewer. The information from the funnel handle is then transferred into the brewer. The brewer then takes this information and dispenses the amount of water preset in the brewer for that particular flavor of coffee and batch size. The brewer can also be programmed to adjust different functions of the brewing process, such as brew temperature, brew volumes, bypass percentages, pulse brew, etc. This allows the operator to program a certain "recipe" for each coffee flavor to be brewed.

The Infusion Series Coffee Brewer is able to brew both hot tea and coffee with recipe settings and has the following features: By-Pass, Pre-Infusion and Pulse Brew, BrewWISE, and LCD for digital readout and programming along with the Smart Funnel options for coffee. Other features are Energy Savings mode, BUNNLink compatible, Smart Reader compatible, Freshness Timer and Sanitation Alert.

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⚠ WARNING

To reduce the risk of electric shock, do not remove or open cover. No user-serviceable parts inside. Authorized service personnel only. Disconnect power before servicing.

⚠ WARNING

Risk of Fire. Use a UL listed grounding type attachment plug, rated 125/250 Vac, 30 A, 1 phase, 4 conductor. Plug to be selected and installed only by qualified service personnel.

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⚠ WARNING

Risk of Fire. Use a UL listed grounding type attachment plug, rated 125/208 Vac, 30 A, 1 phase, 4 conductor. Plug to be selected and installed only by qualified service personnel.

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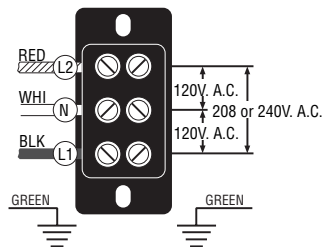
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ELECTRICAL REQUIREMENTS

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.

Refer to Data Plate on the Brewer, and local/national electrical codes to determine circuit requirements.



120/208 & 120/240V ac single phase models

Note: This electrical service consists of 3 current carrying conductors (Neutral, L1 and L2) and a separate conductor for earth ground.

ELECTRICAL HOOK-UP

CAUTION – Improper electrical installation will damage electronic components.

1. An electrician must provide electrical service.
2. Using a voltmeter, check the voltage and color coding of each conductor at the electrical source.
NOTE - The brewer is shipped without a plug on the power cord. Qualified service personnel must select and install the proper UL listed grounding type attachment plug specified on the rear of the brewer.
3. Install the specified plug on the attached power cord.
4. Remove the front access panel to gain access to the terminal block.
5. Connect the brewer to the power source and verify the voltage at the terminal block before proceeding.
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*.

PLUMBING REQUIREMENTS

This brewer must be connected to a cold water system with operating pressure between 20 and 90 psi (138 and 620 kPa) from a 1/2" 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 3/8" flare.

NOTE - Bunn-O-Matic recommends 3/8" copper tubing for all installations from the 1/2" water supply line. A tight coil of copper tubing in the water line will facilitate moving the brewer to clean the counter top. 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). For models installed outside the U.S.A., you must comply with the applicable Plumbing/Sanitation Code for your area.

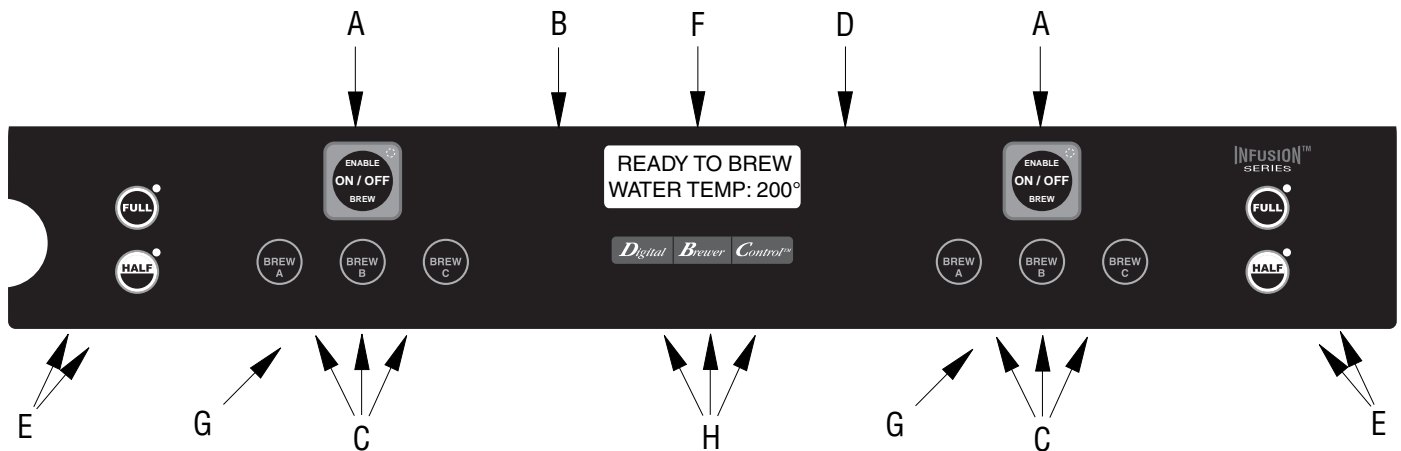
PLUMBING HOOK UP

1. Remove the shipping cap from the fitting on the rear of the brewer.
2. Attach the flare elbow fitting (supplied separately with the brewer) to the fitting.
3. Flush the water line and securely attach it to the flare elbow fitting.
4. Turn on the water supply.

TANK DRAIN

1. Loosen screws that secure the front access panel. Remove the panel.
2. Unfasten the hose clamp at the end of the drain hose. Remove the plug.
3. Place the end of the drain hose in a container that has a minimum capacity of 6.0 gallons (22.7 liters).
4. Release the white clamp to drain water from the tank.
5. When tank is empty, close the white clamp, replace the plug, and tighten the clamp at the end of the drain hose.
6. Replace the front panel and tighten screws.

OPERATING CONTROLS



A. ON/OFF SWITCH

Pressing the "ON/OFF" pad will alternately turn the selected brewing side on and off. Pressing this pad during the brew cycle will interrupt the brew cycle, stopping the flow of water. Pressing this pad during programming of the brewer will exit the setup and return to the main screen.

B. PROGRAMMING (left)

This hidden pad can be used to scroll backwards through the function list while in programming mode.

C. BREW (A,B,C)

When the ON/OFF switch is ON and the main screen is visible, momentarily pressing and releasing this pad will begin a brew cycle on the selected side.

D. PROGRAMMING (right)

Pressing and holding this pad allows entry into the programming menus. Pressing and releasing the pad steps through each function screen while in the programming mode.

E. BATCH SELECTOR PADS

Pressing the pad corresponding to the Half or Full batch selects the amount of product to be brewed on the selected side. Pressing a different pad after a brew cycle has been initiated does not change the brew batch in progress. Light indicates the selected batch to brew. Also used in programming to adjust settings on both batch sizes.

F. FUNCTION SCREEN

This is the display which shows the various functions of the brewer and allows the programming to be accomplished.

G. FUNNEL SENSING COIL

These are used to "receive" information from the Smart Funnel handle, recipe cards, and ad cards.

H. FUNCTION SCREEN PADS

These are hidden pads which are used to program the brewer when in the programming mode.

INITIAL SET-UP

1. Insert an empty funnel into the funnel rails of one of the brew stations.
2. Place an empty server under the funnel.
3. Connect the brewer to the power source. Make sure the corresponding ON/OFF switch is ON (LED will be lit).
4. Water will flow into the tank and stop when the tank is filled to its capacity. Display will show **PLEASE WAIT... TANK FILLING** until tank is filled with water.
5. Wait approximately twenty-five minutes for the water in the tank to heat to the proper temperature. Display will show **READY TO BREW...WATER TEMP: 200°** when tank is at operating temperature. Some water may drip from the funnels during this time; this is due to expansion and should not occur thereafter.
6. Place a small vessel beneath the faucet and open the faucet handle. Release it when you hear the tank refilling.
7. Water volumes and flow settings have been preset at the factory. Refer to adjustments for the Set Brew Volumes or Calibrate Flow section of this manual should the volume need to be increased or decreased.
8. The brewer is now ready for use in accordance with the instructions for Coffee Brewing.

-1000	213.8	101.0	200
-500	212.9	100.5	200
0	212.0	100.0	200
500	211.1	99.5	200
1000	210.2	99.0	200
1500	209.3	98.5	200
2000	208.4	98.0	200
2500			
3000	206.5	96.0	200

VIEWING ASSIGNED RECIPES & ASSET NUMBER

1. Make sure the ON/OFF switch is OFF on the right side (LED will not be lit).
2. Press and hold BREW A on the right side. The display will show the name of the recipe assigned to Brew A along with SWITCH NOT ON. This is to indicate that a brew cannot be initiated while the ON/OFF switch is OFF on this side.
3. Repeat for BREW B and BREW C.
4. Repeat steps 1 -3 for left side.
5. Make sure the ON/OFF switch is OFF. To view the asset number of the machine, press and hold the left hidden button until the display reads: **ANXXXXXX...ASSET NUMBER**. Release the left hidden button.
6. After a 5 second delay, the display will read: **ICBTXXXXXX**. This is the serial number of the machine.

COFFEE BREWING

WITHOUT A SMART FUNNEL AND MHG or DBC GRINDER:

1. Begin each brew cycle with a clean empty brew funnel.
2. Insert a BUNN filter into the funnel.
3. Pour the fresh coffee into the filter and level the bed of grounds by gently shaking.
4. Slide the funnel into the funnel rails of the selected side until it stops.
5. Place an empty server under the funnel.
6. The ON/OFF switch for the selected side must be ON. Select the desired batch size.
7. Momentarily press and release the assigned BREW button. There may be certain situations in which the brew cycle will not begin when BREW is pressed:
 - a. **SWITCH NOT ON** - ON/OFF must be ON.
 - b. **BREW TEMPERATURE TOO LOW** - wait until heated or cancel **BREW LOCKOUT** option (Page 16).
 - c. **CHECK FUNNEL** - remove funnel, empty previously brewed grounds and replace with fresh.
 - d. **DISABLED** - select different brew button or batch size.
8. If none of the above messages are displayed, the display will read **NOW BREWING** and show the time remaining in the brew cycle.
9. Following the brew will be a countdown of drip time **DRIPPING** which shows the time remaining until the coffee no longer drips from the funnel tip.
10. Carefully remove the brew funnel and discard the grounds and filter only after visible dripping stops.

WITH A SMART FUNNEL AND G9-2T DBC or MHG GRINDER:

1. Select the small batch size on the grinder.
2. Insert a BUNN filter into the funnel.
3. Grind the selected amount of fresh coffee into the Smart Funnel using the G9-2T DBC or MHG with Smart Funnel operation and level the grounds by gently shaking.
4. Slide the funnel into the funnel rails of the selected side. The brewer will read the coffee name and size ground through the chip in the funnel handle.

NOTE: The brewer will automatically match the brew batch size to the grinder batch size:

<u>GRINDER</u>	<u>BREWER</u>
Small	Half Batch
Medium	Full Batch
Large	*Full Batch

*If BREW is pressed with a large grinder batch, the display will read: **INCORRECT GRIND... BATCH SIZE WRONG**, and then **PRESS BREW TO BREW ANYWAY**.

5. Place an empty server under the funnel.
6. The ON/OFF switch for the selected side must be ON.
7. Momentarily press and release the assigned BREW button. There may be certain situations in which the brew cycle will not begin when BREW is pressed:
 - a. **SWITCH NOT ON** - ON/OFF must be ON.
 - b. **BREW TEMPERATURE TOO LOW** - wait until heated or cancel **BREW LOCKOUT** option (Page 16).
 - c. **CHECK FUNNEL** - remove funnel, empty previously brewed grounds and replace with fresh.
 - d. **INCORRECT GRIND** - Indicates a large batch was ground using the grinder. Check batch size and grind weight.
8. If none of the above messages are displayed, the display will read **NOW BREWING** and show the time remaining in the brew cycle. Arrows will point to the side that is brewing. If both sides are brewing simultaneously, the arrows will alternate from left to right on the display.
9. Following the brew will be a countdown of drip time **DRIPPING** which shows the time remaining until the coffee no longer drips from the funnel tip.
10. Carefully remove the brew funnel and discard the grounds and filter only after visible dripping stops.

CLEANING

1. The use of a damp cloth rinsed in any mild, nonabrasive, liquid detergent is recommended for cleaning all surfaces on Bunn-O-Matic equipment. Do **NOT** clean this equipment with a water jet device.
2. Check and clean each sprayhead. The sprayhead holes must always remain open.

NOTE: Any buildup on the sprayhead may restrict water flow, and impact your coffee brewing. For consistently great coffee, clean sprayheads weekly. Upon visual inspection it may appear that light passes through all holes in the sprayhead plate, but a thin film of residue can pass light and still impede water flow.

3. Remove sprayhead from brewer. Disassemble by removing the seal.
4. Use the pointed end of sprayhead cleaning tool to remove any mineral deposits from the sprayhead holes.
5. Insert the long end of sprayhead cleaning tool into the sprayhead fitting, and rotate several times to remove any mineral deposits from the fitting.
6. Insert the short end of sprayhead cleaning tool into the bypass fittings, and rotate several times to remove any mineral deposits from the fitting.
7. Reassemble sprayhead and reattach. Sprayhead only needs to be hand tightened.

See page 43 of instruction manual for calibration routine to verify sprayhead flow rate matches programmed flow rate. Machine may need to be re-calibrated due to lime build up. If machine is cleaned and build up removed, machine must be re-calibrated to achieve desired volumes.

GLOSSARY

AD CARD: An assembly consisting of computer chips and an instruction label. Used for loading advertising messages into the brewer.

AUTO PULSE BREW SETUP: The setting of a pulse brew routine by entering in the total desired water delivery time. The brewer will then calculate and perform a pulse brew routine using a predetermined formula.

BREW LOCKOUT: The inability to initiate a brew if the water temperature is less than the ready temperature programmed into the brewer.

BYPASS: The process of diverting a portion of the brew water to the outside of the paper filter so that it does not pass through the coffee grounds. This process is sometimes used to optimize the flavor of the finished brew.

CHIP: A computer chip containing either recipes for specific coffee flavors or advertising messages that are read by the sensing coil on the brewer. One chip is embedded in each Smart Funnel handle to carry the coffee flavor name and batch size ground from the grinder to the brewer.

DRIP TIME: The length of time from when the water spray over the grounds ends to the time when no water or product drips from the funnel tip.

ENERGY SAVINGS MODE: If enabled, the heaters will either shut down or reduce the tank holding temperature to 140°F (60°C) after the set idle time.

FACTORY DEFAULTS: The factory preset brew settings that were installed into the brewer's memory.

FIRST ON-TIME: During a pulse brew, this is the time set for the initial flow of water over the grounds.

FRESHNESS TIMER: If enabled, the brewer will display an alert if a new coffee batch has not been brewed before the set time has expired.

FUNNEL LOCK: A solenoid controlled plunger locking mechanism which engages when a brew cycle has begun preventing the removal of the funnel until end of Drip Time.

FUNNEL SENSING COIL: A sensor at the front of the brewer that reads what name and batch size of coffee was ground into the funnel and allows for the brewer to automatically set itself to what is read from the funnel handle. Also used to read in recipe and ad card information.

IDLE TIME (ENERGY SAVINGS MODE): If ENERGY SAVINGS Mode is enabled, the length of time the brewer is inactive before the heaters turn off or hold at 140°F (60°C).

LAST ON-TIME: During a pulse brew, this is the time set for the second on-time and each alternative on-time for the remainder of the brew.

MAIN SCREEN: The term used to describe the screen that is displayed when the brewer is not in use. This screen is also displayed after exiting the programming mode.

MANUAL PULSE BREW SETUP: The setting of a pulse brew routine by manually entering in the 1st on time, off time and last on time.

SET TEMP: The temperature at which the tank will heat to and hold.

OFF-TIME: During a pulse brew or preinfusion, this is the time set for the length of time that the water is not spraying over the grounds.

PREINFUSION: The process of beginning a brewing cycle with an initial spray of water onto the grounds followed by a pause in the spray. After the programmed pause, the spray continues without interruption until the end of the brewing cycle.

PULSE BREW: The process that allows the brew water to start, and then stop, repeatedly over the grounds in order to derive the best flavor from the coffee. Pulse brew is also used in some instances to prevent a funnel overflow.

GLOSSARY (Continued)

RECIPE: Set of brewing parameters stored in the brewer. The parameters are unique for each coffee name. Coffee recipes include brew ounces, bypass percentages, pulse brew or pre-infusion and drip time.

RECIPE CARD: An assembly consisting of a computer chip and an instruction label. Used for loading a recipe into the brewer and the companion DBC or MHG Grinder.

SANITATION MODE: If enabled, the brewer will display a message after a set amount of time indicating the machine needs cleaning and sanitizing.

STANDARD RECIPE: The preset recipes and recipe names stored in the brewer.

WARNING TIME (FRESHNESS TIMER): If the Freshness Timer is enabled, the length of time from when the brew was completed until a “Freshness Alert” message will display, communicating that a fresh batch of product needs to be brewed.

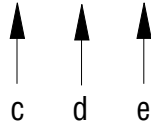
PROGRAMMING

Using the menu-driven display on the front of the brewer, the operator has the ability to alter or modify various brewing parameters such as brew temperatures, brew volumes, bypass percentages, pulse brew, etc. This allows for the precise brewing of various flavors of coffee.

Programming of the brewer is achieved by entering a certain function. Then, by the use of the hidden programming and function pads, the operator can customize the brewing process to their specifications.

PROGRAMMING SWITCHES

To access the programming mode, and to scroll through the different function screens, hidden programming pads are used. There are five of these pads that will be used for the setup of the brewer.



a) Right Programming (hidden) pad (just to the right of the display): This is used to access the programming



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PROGRAMMING THE BREWER (cont.)

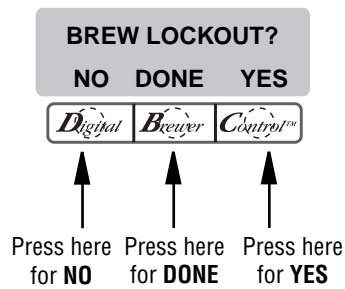
PROGRAMMING FUNCTIONS - LEVEL I

BREW LOCKOUT

This function allows the operator to prevent or allow brewing if the water temperature is less than the set **READY** temperature.

Procedure for setting Brew Lockout:

1. To access this function screen press and hold the right hidden button. Release when the display reads:



2. The **YES** or **NO** should be flashing. Select **YES** to prevent brewing if the water temperature is below the set **READY** temperature. Select **NO** to permit brewing at any water temperature.
3. When finished, press and release **DONE**. This will exit this function screen and return to the **MAIN SCREEN** on the display.

PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

The functions in the second level of programming allow the operator to adjust brew settings and other feature options.

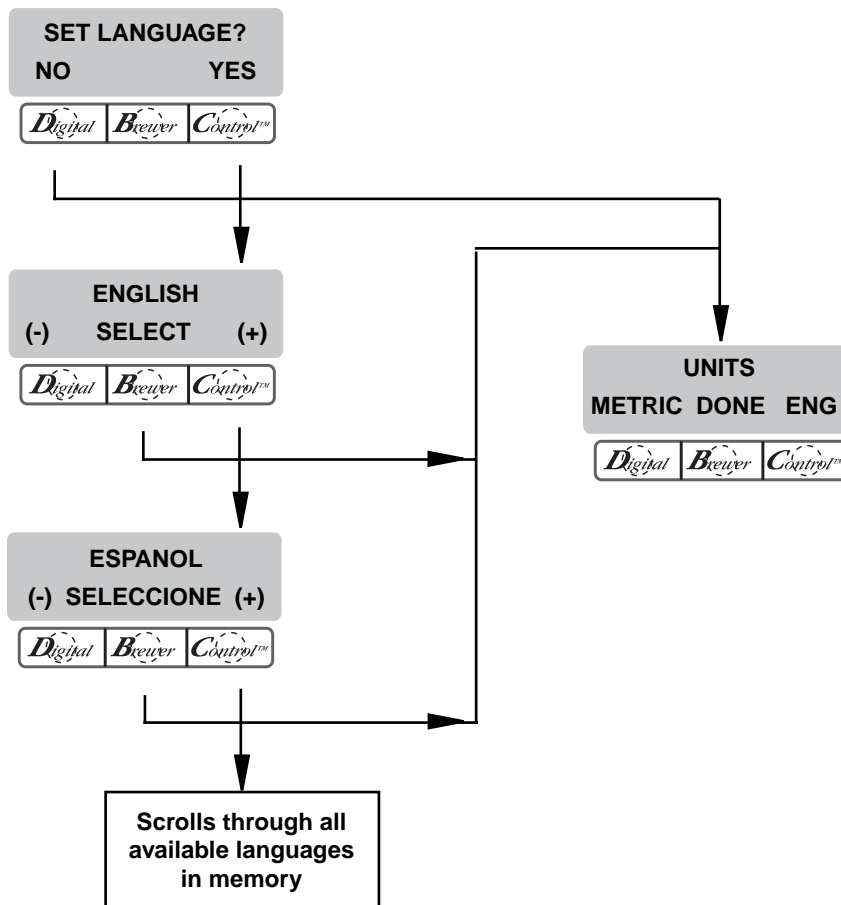
To access the level 2 function screens press and hold the right hidden button for approximately 5 seconds. Release when the display reads:

SET LANGUAGE

This function allows the operator to select the language used for the display.

Procedure for setting Language:

1. Press and hold the right hidden button until the display reads **SET LANGUAGE?** and release.
2. Press **YES** to proceed. The display should now read **ENGLISH**. Using **(-)** and **(+)**, scroll through the available languages until the desired language is shown on the display.
3. When finished, press **SELECT**. If the language selected is different from the current settings, the display will read **CHANGE LANGUAGE? ARE YOU SURE?** and then will change to **CHANGE LANGUAGE?** To convert the display to the new language, press **YES**. To retain the current language, press **NO**.
4. The display should now read **UNITS**. To exit programming and return to the **MAIN SCREEN**, press and release either ON/OFF button.



PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

UNITS

This function allows the operator to select if numeric settings are displayed in English or Metric units.

Procedure for setting the Units:

1. Press and hold the right hidden button until the display reads **SET LANGUAGE?** Press and release the right hidden button until the display reads **UNITS**. The **METRIC** or **ENG** should be flashing.
2. Select **METRIC** to have settings displayed in Metric units. Select **ENG** to have setting displayed in English units.

NOTE: Changing the **UNIT** settings will restore ALL settings to Factory Default.

3. When done, press and release **DONE** to advance to the next programming screen. To exit programming and return to the Main Screen, press and release either ON/OFF button.

NOTE: This manual is written based on Factory Default Settings (English Units). If brewer is set for Metric Units, displays will be different (ex: Brew oz will become Brew ml).



PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

ASSIGN RECIPE

This function allows the operator to assign recipes to the six brew buttons (three each side). Standard recipes and any saved recipes from a Smart Funnel or Recipe Card can be assigned to a brew button. Only one recipe per brew button is allowed, three per side, for a total six recipes available to brew.

NOTE: Factory Defaults assign the REGULAR recipe to Brew A, DECAF recipe to Brew B, and BREAKFAST BLEND to Brew C for both sides.



Procedure to select switch recipes

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **ASSIGN RECIPE?** Press **YES**.
2. The display should now read **SELECT RECIPE BREW SWITCH A**, and then **REGULAR**.
3. Using **(-)** and **(+)**, scroll through the stored recipes in the brewer's memory until the desired recipe name is reached.
4. Press and release **DONE** to set that recipe for the left side brew button A.
5. The display should now read **SELECT RECIPE BREW SWITCH B**, and then **DECAF**.
6. Using **(-)** and **(+)**, scroll through the stored recipes in the brewer's memory until the desired recipe name is reached.
7. Press and release **DONE** to set that recipe for the left side brew button B.
8. The display should now read **SELECT RECIPE BREW SWITCH C**, and then **BREAKFAST BLEND**.
9. Using **(-)** and **(+)**, scroll through the stored recipes in the brewer's memory until the desired recipe name is reached.
10. Press and release **DONE** to set that recipe for the left side brew button C.
11. Repeat steps 2 through 10 for the right side Brew A, B, and C.
12. The display should now read **SET NEW RECIPE**

Procedure to disable a Brew Switch:

1. Follow the same procedure as above. When selecting the recipe for the brew switch to

PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

SET NEW RECIPE (to set a new COFFEE recipe using a Smart Funnel or RECIPE CARD)

Using a Smart Funnel and a G9-2T DBC or MHG Grinder:

This function allows the operator to set **BREW VOLUMES, BYPASS PERCENTAGE, PULSE BREW TIMES AND DRIP OUT TIMES** for each coffee name preset in the grinder's memory.

SET NEW RECIPE?
NO YES



INSERT FUNNEL
WITH NEW NAME

QUIT SETUP?
YES



Certain coffee names are stored in the grinder's memory. When a particular name of coffee is ground into the Smart Funnel, that name and the batch size selected are transferred from the grinder to the programming **CHIP** located in the funnel handle. The funnel is then inserted into the brewer's funnel rails. The **SENSING COIL** on the brewer reads the information contained in the handle. The name of the coffee flavor will then appear on the display. This allows the operator to set the **BREW VOLUME, %BYPASS, PULSE BREW TIMES** and **DRIP OUT TIME** for that particular coffee name. It also allows the operator to set other brewing parameters, such as **BREW TEMPERATURE, BREW LOCKOUT**, etc. Each coffee name can be set individually to provide optimum brewing quality.

PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

27 for description of %**BYPASS** function).

13. Using (-) and (+), set the amount of bypass water (percentage) to be dispensed around the grounds.
14. When finished, press the other batch size and repeat step #13.
15. When finished setting both batch sizes, press and release **DONE**. The display should read **2 BATCHES DONE?**
16. If both batch sizes are not correct press and release **NO** to return to the %**BYPASS** function and repeat steps #13, 14 and 15.
17. If both batch sizes are correct, press **YES**. This will advance to the **SET PULSE BREW** function (Refer to page 28 for description of **SET PULSE BREW** function).
18. To **SET PULSE BREW** press **YES** and proceed with the setup instructions for *SETTING PULSE BREW*, on page 29.
19. To skip setting the **PULSE BREW** and to use the **FACTORY DEFAULTS**, press **NO** to proceed to the **DRIP TIMES** function.
20. The display should now read **DRIP TIME**, along with either the word **OFF** or a time showing. A batch light will also be blinking.
21. Using (-) and (+), set the amount of time from when the brew spray ends to when the funnel is emptied of hot liquid.
22. When finished, press the other batch size and repeat step #21.
23. When finished setting both batch sizes, press and release **DONE**. The display should read **2 BATCHES DONE?**
24. Press and release **YES**. The screen should show the name of the coffee being programmed (modified) along with **SETUP COMPLETE**.
25. After a 5 second delay, the display will advance to the next coffee name in the brewer's memory. If no other coffee names are present, the display will read **THAT WAS THE LAST RECIPE**, and advance to the **SET TEMP** screen.

PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

SET NEW RECIPE

Using a RECIPE CARD to load coffee names and brew settings

The G9-2T DBC or MHG Grinder's memory contains certain coffee names. If the operator uses a coffee name that is not already stored in the grinder's memory, a **RECIPE CARD** can be obtained from the factory. The **RECIPE CARD** would include all the information needed to set up that particular coffee name. The information from the **RECIPE CARD** is loaded into the grinder's memory, then into the brewer's memory by holding the chip area up to the equipment's **SENSING COIL**. This information can include the coffee name, **BREW VOLUMES, PULSE BREW TIMES** and **DRIP OUT TIME** for that particular coffee name. These can all be loaded in seconds.

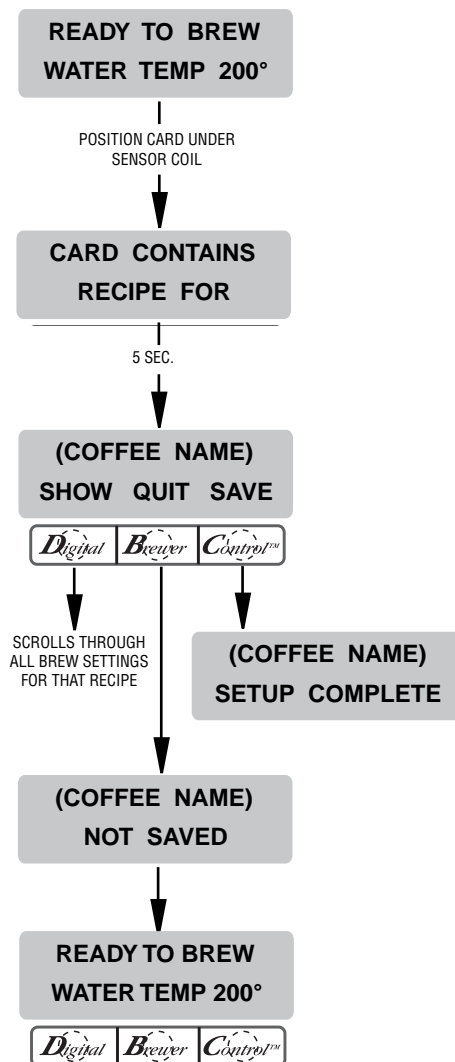
Contact Bunn-O-Matic Corporation for the availability of **RECIPE CARDS** and the **RECIPE WRITER** used to program the **RECIPE CARDS**.

NOTE: Instructions to program the brewer and grinder are printed on the **RECIPE CARD**, along with the coffee name that is being programmed.

Procedure to program the coffee name:

1. Remove the funnel (if present) from the funnel rails.
2. Position the **RECIPE CARD** vertically, so that the top end of the **CHIP** is beneath the **SENSING COIL** (located on the underneath side of the front display panel).
3. After a short pause the display will read **CARD CONTAINS RECIPE FOR** then will change to **(COFFEE NAME) SHOW QUIT SAVE**. All brewing parameters for that coffee flavor are now transferred from the **CARD** to the brewer.
4. To show (view) this information, press and release **SHOW**. The display will scroll through all of the brew settings for that recipe. This display will then return to **CARD CONTAINS RECIPE FOR** then will change to **(COFFEE NAME) SHOW QUIT SAVE**.

5. If all brew settings are correct, press **SAVE**. The display will read **(COFFEE NAME) SETUP COMPLETE**. All brew settings for that name are now stored in the brewer's memory.
6. If the brewing information is not correct, or it is desired to exit the setup before the settings are loaded into the brewer's memory, press **QUIT**. The display will read **(COFFEE NAME) NOT SAVED**. The display will then return to the **MAIN SCREEN**.



PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

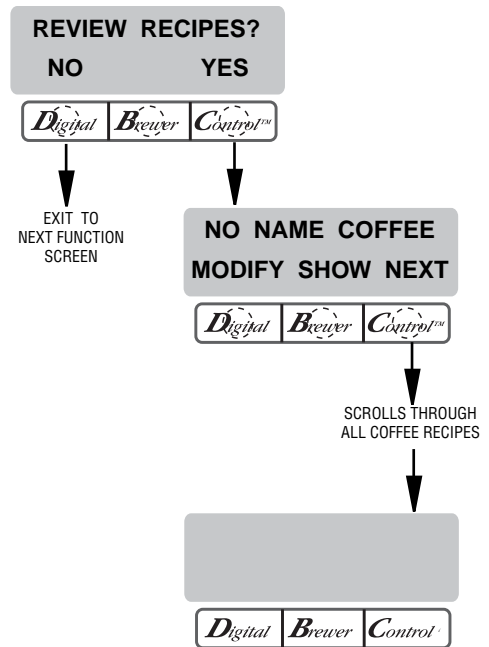
SET NEW RECIPE

If not using a Smart Funnel and/or a G9-2T DBC or MGH Grinder and/or a Recipe Card

It is possible to operate the brewer without using a Smart Funnel and/or G9-2T DBC or MGH Grinder. If a standard funnel or if a non-DBC grinder is used the brewer will automatically select the recipe assigned to that brew button. This means that no recipe name was read from the funnel's handle.

For instructions on programming the standard recipe settings, refer to the **REVIEW RECIPES** function on page 26. The same steps are followed for setting the standard recipe as those that are used to modify a recipe.

NOTE: Before beginning setup, insert a funnel into the funnel rails and place a server or airpot beneath the brew funnel.



PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

Procedure for modifying COFFEE recipes:

Coffee recipes: BREW OZ:

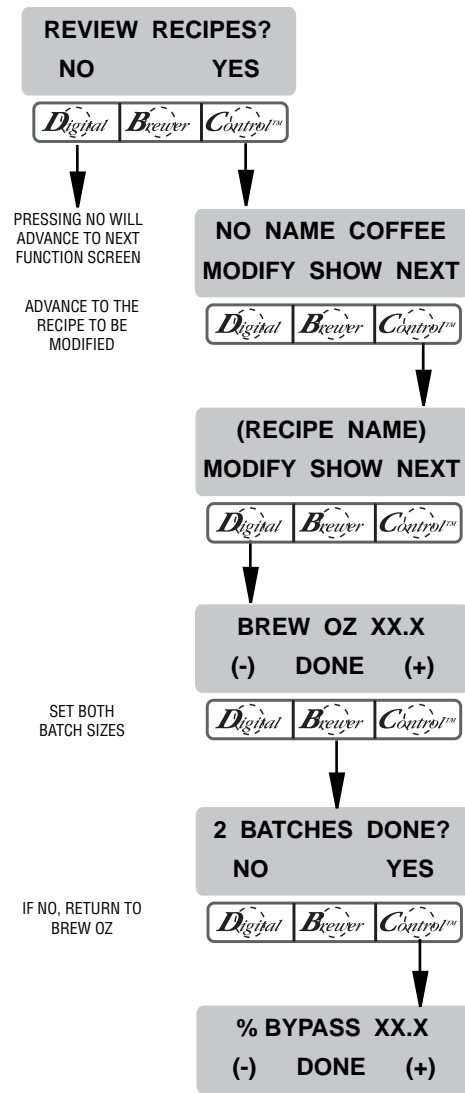
Range: OFF, 10.0 oz to 224.0 oz (.3 - 6.6 L) for both batch sizes.

This function allows adjustment of the brew volumes for each batch.

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **REVIEW RECIPES**.
2. Press **YES** to proceed. The display should now read **NO-NAME COFFEE**, along with **MODIFY SHOW NEXT**.
3. Press and release **NEXT** to advance to the desired recipe to be modified.
4. Press and release **MODIFY**. The display should read **BREW OZ:** and a batch light will be blinking. Press and release the batch size to be modified.
5. Using **(-)** and **(+)**, set the amount of brew water to be dispensed **over** the grounds for that particular batch size.
6. When finished, press the other batch size and repeat step #5.
7. When finished setting both batch sizes, press and release **DONE**. The display should read **2 BATCHES DONE?**
8. If both batch sizes are not correct, press and release **NO** to return to the **BREW OZ:** setup screen and repeat steps #5, 6, and 7.
9. If both batch sizes are correct, press **YES**. This will advance to **%BYPASS**. To exit to the **MAIN SCREEN**, press and release either ON/OFF button.

Procedure to disable a batch size:

1. Follow same procedure as above. Select the batch size to be disabled.
2. Using **(-)** and **(+)**, scroll until the display reads **BREW OZ OFF**.
3. Press and release **DONE**. This will disable this batch size for that recipe.



PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

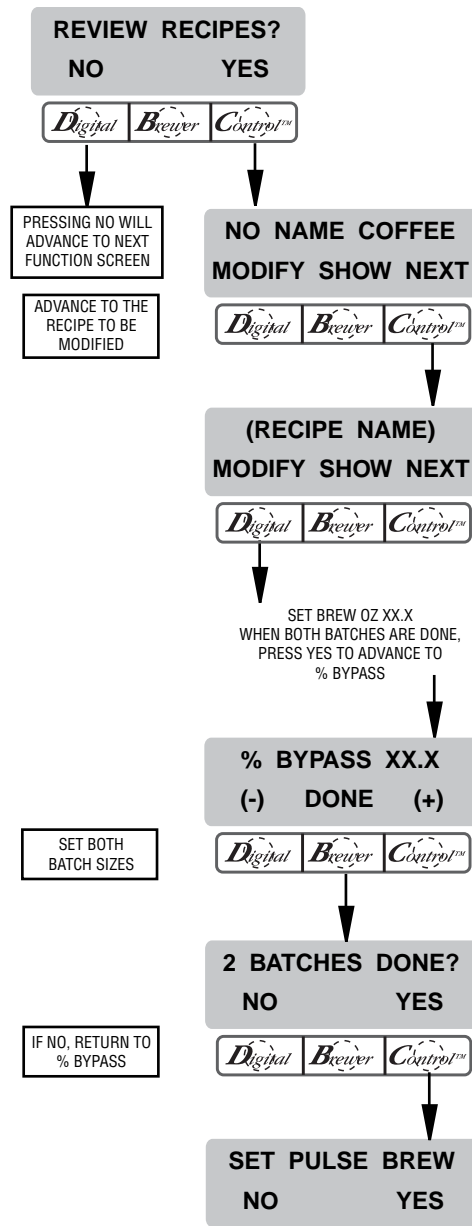
Coffee recipes: %BYPASS:

Range: 0 to 90% for both batch sizes

This function allows adjustment of the amount of water that bypasses the grounds. The number signifies the percentage of the brew volume which does not flow over the coffee grounds.

NOTE: If the brewer is already on the **%BYPASS:** screen, skip steps 1 through 6, and proceed directly to step 7.

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **REVIEW RECIPES**.
2. Press **YES** to proceed. The display should now read **NO-NAME COFFEE**, along with **MODIFY SHOW NEXT**.
3. Press and release **NEXT** to advance to the desired recipe to be modified.
4. Press and release **MODIFY**. The display should read **BREW OZ:**
5. Press and release **DONE**. The display should read **2 BATCHES DONE?**
6. Press and release **YES**. The display should now read **%BYPASS:** and a batch light will be blinking. Press and release the batch size to be modified.
7. Using **(-)** and **(+)**, set the amount of bypass water (percentage) to be dispensed around the grounds.
8. When finished, press the other batch size and repeat step # 7.
9. When finished setting both batch sizes, press and release **DONE**. The display should read **2 BATCHES DONE?**
10. If both batch sizes are not correct, press and release **NO** to return to the **%BYPASS:** setup screen and repeat steps 7, 8 and 9.
11. If both batch sizes are correct, press **YES**. This will advance to the **SET PULSE BREW** function. To exit to the **MAIN SCREEN**, press and release either **ON/OFF** button.



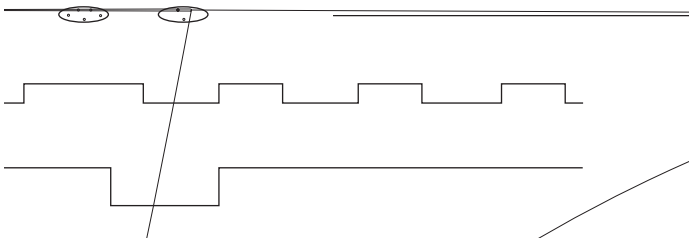
PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

COFFEE RECIPES:

SET PULSE BREW/PREINFUSION

This function allows the operator to program the brewer to “pulse” the sprayhead flow on and off during a brew cycle (start and stop the flow of water out of the sprayhead). This feature allows the ability to “fine-tune” the brewer for specific flavor profiles. Pulse brewing can be set up for any and all batch sizes.



- a) 1st ON TIME** – This time is the duration from when the brew button is pressed to when the desired water level in the funnel is reached. (Soaking the grounds)
- b) OFF-TIME** – This time is the duration from when the water in the funnel reached the desired **ON TIME** to when it drains out of the funnel to a desired lower level.
- c) LAST ON-TIME** – This time is the duration from when the water in the funnel drains down to the lower level to when it fills the funnel to a desired higher level. (Soaking the grounds)

PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

Setting PulseBrew/Preinfusion – MANUAL Pulse Brew

NOTE: If the brewer is already on the **SET PULSE BREW** screen, skip steps 1 through 6, and proceed directly to step 9.

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **REVIEW RECIPES**.
 2. Press **YES** to proceed. The display should now read **NO NAME COFFEE**, along with **MODIFY SHOW NEXT**.
 3. Press and release **NEXT** to advance to the desired recipe to be modified.
 4. Press and release **MODIFY**. The display should read **BREW OZ:**
 5. Press and release **DONE**. The display should read **2 BATCHES DONE?**
 6. Press and release **YES**. The display should now read **%BYPASS**.
 7. Press and release **DONE**. The display should now read **2 BATCHES DONE?**
 8. Press and release **YES**. The display should now read **SET PULSE BREW**.
 9. Press and release **YES**. The display should now read **SELECT METHOD**.
 10. Press and release **MANUAL**. With **MANUAL** flashing, press and release **NEXT**.
 11. The display should now read **1st ON TIME** and a batch light will be blinking. Press and release the batch size to be modified.
 12. Using **(-)** and **(+)**, adjust the **1st ON TIME**.
 13. When finished, press the other batch size and repeat step # 12.
- NOTE:** To disable pulse brew, set **1st ON TIME** to **OFF**.
14. When finished setting both batch sizes, press and release **DONE**.
 15. The display should now read **OFF TIME**. Adjust the **OFF TIME** using **(-)** and **(+)**.
 16. When finished, press the other batch size and repeat step # 15.
 17. When finished setting both batch sizes, press and release **DONE**.
 18. The display should now read **LAST ON:**. Adjust the **LAST ON TIME** using **(-)** and **(+)**. If **PREINFUSION** is desired, set the **LAST ON TIME** to **Prel**.
 19. When finished, press the other batch size and repeat step # 18.
 20. When finished setting both batch sizes, press and release **DONE**.
 21. The display will show the three times just entered. Press and release each batch size to display the settings for that batch. If the **1st ON TIME** is set to **OFF**, the display will read **PULSE BREW DISABLED**. After a 5 second delay, the display will read **2 BATCHES DONE?**
 22. If both the pulse brew settings for both batch sizes are not correct, press and release **NO** to return to the **1st ON TIME** setup screen and repeat steps 12 through 21.
 23. If both batch sizes are correct, press **YES**. The display should now read **DRIP TIME**. To exit to the **MAIN SCREEN**, press and release either **ON/OFF** button.

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PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

COFFEE RECIPES:

DRIP TIME

This function allows the operator to adjust the **DRIP TIME** (time from end of sprayhead flow to when liquid stops dripping from the funnel). When the brew cycle is complete, the display will show **DRIPPING** and will countdown the time until the funnel empties.

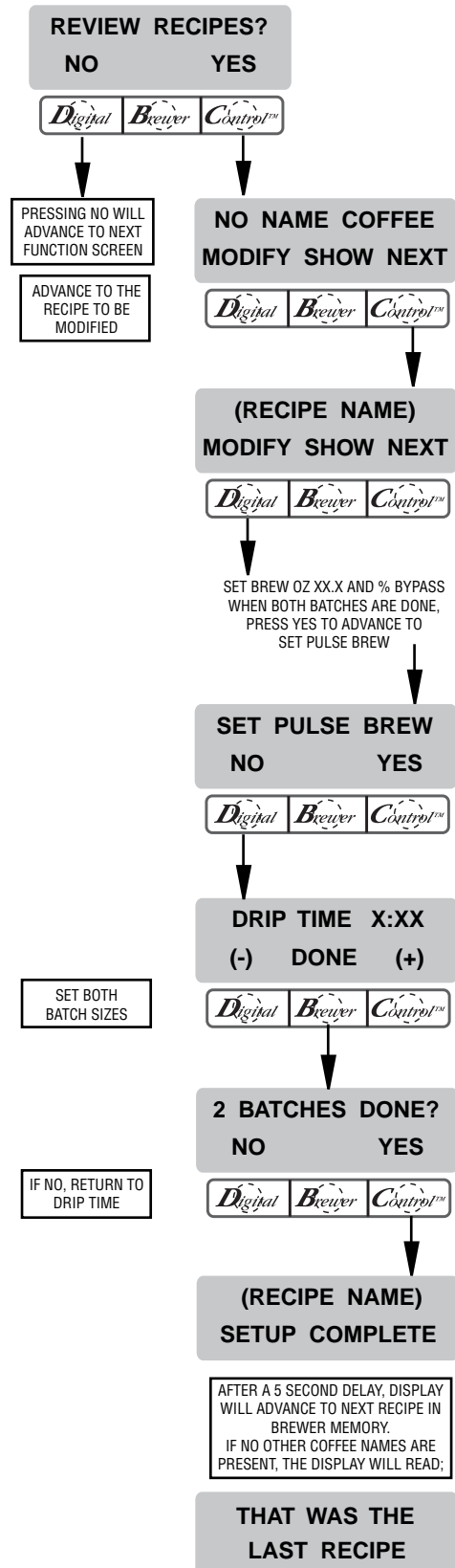
Setting DRIP TIME:

Range: OFF to 5 minutes for all batch sizes.

NOTE: If the brewer is already in the **DRIP TIME** screen, skip steps 1 through 9 and proceed directly to step 10.

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **REVIEW RECIPES**.
2. Press **YES** to proceed. The display should now read **NO NAME COFFEE**, along with **MODIFY SHOW NEXT**.
3. Press and release **NEXT** to advance to the desired recipe to be modified.
4. Press and release **MODIFY**. The display should read **BREW OZ:**
5. Press and release **DONE**. The display should read **2 BATCHES DONE?**
6. Press and release **YES**. The display should now read **%BYPASS**.
7. Press and release **DONE**. The display should now read **2 BATCHES DONE?**
8. Press and release **YES**. The display will read **SET PULSE BREW**.
9. Press and release **NO**. The display should now read **DRIP TIME** and a batch light should be flashing.
10. Using the **(-)** and **(+)**, set the amount of time from when the brew solenoid shuts off to when drip-out occurs for that batch size.
11. When finished, press the other batch size and repeat step 10.
12. When finished, press **DONE**. The display should read **2 BATCHES DONE?**
13. If both batch sizes are not correct, press and release **NO** to return to the **DRIP TIME** setup screen and repeat steps 10 through 12.
14. If both batch sizes are correct, press **YES**. The display should show the name of the recipe being programmed (modified) along with **SETUP**

COMPLETE. After a 5 second delay, the display will advance to the next recipe name in the brewer's memory. If no other coffee names are present, the display will read **THAT WAS THE LAST RECIPE**. To exit to the **MAIN SCREEN**, press and release either **ON/OFF** button.



PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

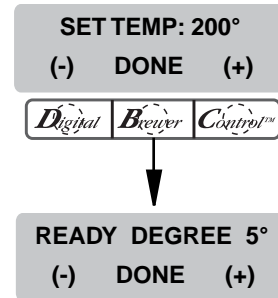
SET TEMP

This function allows the operator to adjust the brew water temperature in the tank. This also sets the hot water faucet dispense temperature.

Procedure for setting the Set Temp

Range: 185° to 205° F (85° - 96° C)

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **SET TEMP**.
2. Using **(-)** and **(+)**, adjust the brew and faucet temperature.
3. When finished, press and release **DONE** to save the new setting and to advance to the next function screen, **READY DEGREE**. Press and release either ON/OFF pad to exit programming and return to the **MAIN SCREEN**.



PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

READY DEGREE

This function allows the operator to set the minimum temperature allowable to start a brew cycle. The range can be from 2° to 20° F within the set temperature. The water must be at the **READY** temperature or higher for the display to indicate **READY TO BREW**. If brew lockout is enabled, the brewing process will not start below this **READY** temperature.

Procedure to set ready temperature

Range: 2° to 20° F (2° to 10° C)

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **READY DEGREE**.
2. Using (-) and (+), adjust the ready temperature.
3. When finished, press and release **DONE** to save the new setting and to advance to the next function screen, **ENABLE ADS**. Press and release either ON/OFF pad to exit programming and return to the **MAIN SCREEN**.

READY DEGREE 5°(-)

DONE (+)38112.cm 4 d

Digital Brewer Control™

ENABLE ADS

NO

YES

PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

ENABLE ADS

This function allows the operator to choose whether or not to display an advertising message. An ad can be saved to the brewer by either writing the ad using the programming commands, or by entering the ad into the brewer using an **AD CARD**. This message will be displayed when the brewer is not in use.

Procedure to Enable/Disable Ads:

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **ENABLE ADS**. The **YES** or **NO** will be flashing to indicate the current selection.
2. Press and release the **NO** button to disable this function, or:
3. Press and release the **YES** button to enable this function.
4. When finished, press and release **DONE** to save the new setting and advance to the next function screen.
5. If **NO** was selected, the display should now read **ENABLE SANITATION**. To exit programming and return to the **MAIN SCREEN**, press and release either ON/OFF pad.
6. If **YES** was selected, the display should now read **NEW AD?**. This screen allows the operator to select between using an ad card to read in a new ad, writing an ad, or using the ad currently stored in the brewer's memory (if an ad was previously saved).

Procedure to WRITE an Ad:

NOTE: Writing and saving a new ad will erase any previously saved ad in the brewer's memory.

7. From the **NEW AD?** screen, press and release **WRITE**.
8. The display should now read **2 LINES 16 CHARS AVAILABLE**, and then **SCROL THRU ALPHA, NEXT -> NEXT LETTER**, and then **WRITE TOP LINE?**. The ad can be up to 32 characters long, 16 per line. The ad will be written in two steps, first the top line, then the bottom line.

9. To write the top line of a new ad, press and release **YES**. To skip the top line and only write a bottom line, press and release **NO** and proceed to step 13.
10. The display will now read **A** with a flashing cursor below it. Press and hold the **SCROLL** button to scroll through the alphabet and available characters. When the desired character is shown on the display, press and release **NEXT** to move to the next character in the top line.
11. Repeat step 10 until the top line is complete.
12. Press and release **DONE**. The display should now read **WRITE BTM LINE?**.
13. To write the bottom line of the new ad, press and release **YES**.
14. To skip the bottom line, press and release **NO**.
 - a. If neither a top nor bottom line was written, the display should now read **ENABL SANITATION**.
 - b. If only a top line was written, the ad will be displayed followed by **SAVE?** Proceed to step 18.
15. The display will now read **A** with a flashing cursor below it. Press and hold the **SCROLL** button to scroll through the alphabet and available characters. When the desired character is shown on the display, press and release **NEXT** to move to the next character in the bottom line.
16. Repeat step 15 until the bottom line is complete.
17. Press and release **DONE**. The display will now show the written ad, and then **SAVE?**
18. To cancel saving the ad, press and release **NO**. The display should now read **ADVERTISEMENT NOT SAVED!** and then will return to the **NEW AD** screen.
19. To correct or edit the ad, press and release **EDIT**. The display should now read **WRITE TOP LINE?** Repeat steps 10 through 17.
20. To save the ad as it is shown, press and release **YES**. The display should now read **ADVERTISEMENT SETUP COMPLETE**, and then **ENABL SANITATION**. To exit programming and return to the **MAIN SCREEN**, press and release either ON/OFF pad.

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PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

ENABL SANITATION

This function allows the operator to enable the sanitation function and set the time before a cleaning alert will be displayed.

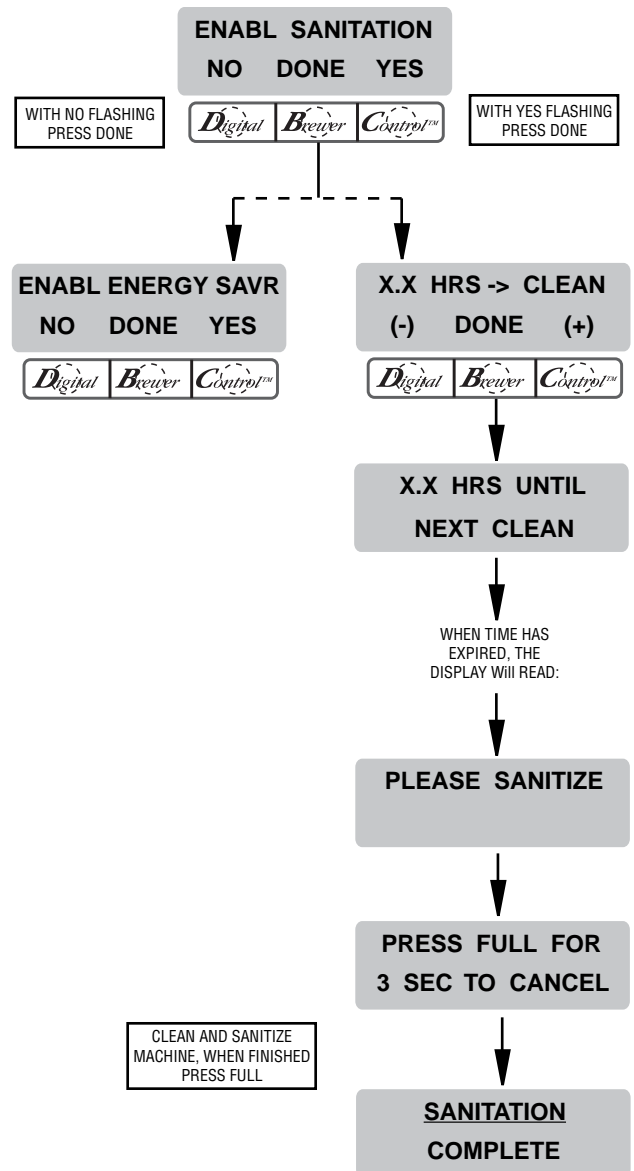
Procedure for enabling sanitation:

Range: 0.0 to 72.0 hrs

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **ENABL SANITATION**. The **YES** or **NO** will be flashing to indicate the current selection.
2. Press and release the **NO** button to disable this function (no sanitation alert will be displayed on the screen), or:
3. Press and release the **YES** button to enable this function (a sanitation alert will displayed on the screen).
4. When finished, press and release **DONE** to save the new setting and advance to the next function screen.
5. If **NO** was selected, the display should now read **ENABLE ENERGYSAVR**. To exit programming and return to the **MAIN SCREEN**, press and release either ON/OFF pad.
6. If **YES** was selected, the display should now read **X.X HRS -> CLEAN**. This screen allows the operator to set the amount of time from when a brew is completed until a sanitize alert will be displayed. Use **(-)** and **(+)** to adjust the set time. When finished, press and release **DONE**.

NOTE: The timer will not begin until after a brew cycle has been completed.

7. The display should now read **X.X HRS UNTIL NEXT CLEAN**, and then advance to the next programming function, **ENABLE ENERGYSAVR**.
8. Once the set time has expired, the display will read **PLEASE SANITIZE**, and then **PRESS FULL FOR 3 SEC TO CANCEL**.
9. Clean and sanitize the machine.
10. When finished, press and hold the FULL batch button to reset the Sanitation timer. The display should now read **SANITATION COMPLETE** and then will return to the **MAIN SCREEN**.



PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

ENABLE ENERGYSAVR

This function allows the operator to enable the ENERGY SAVINGS mode function and set the idle time. Once the set idle time has expired, the operator can choose to have the heaters either turn off, or reduce the tank holding temp to 140° F (60° C).

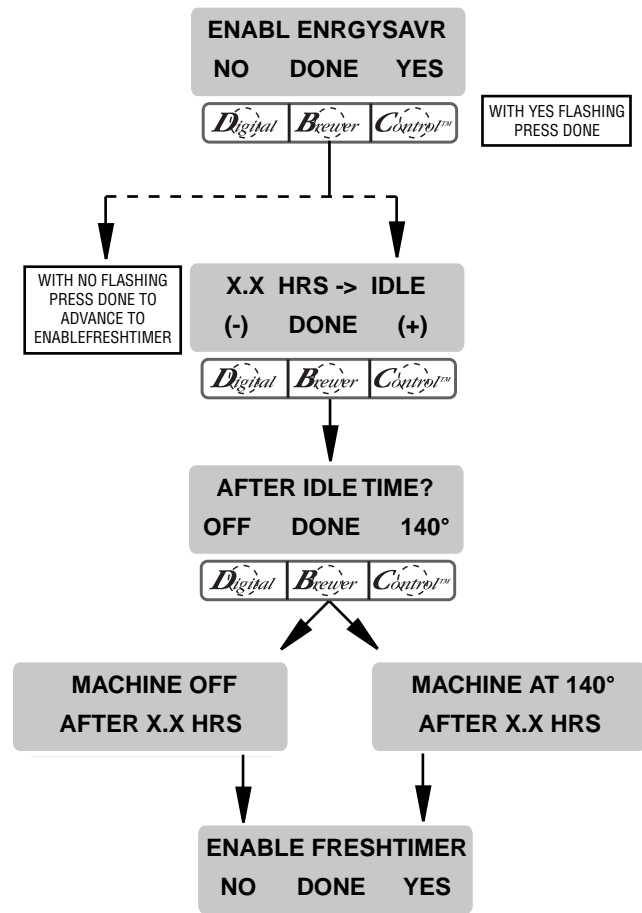
Procedure to enable energy savings mode:

Range: 0.5 to 24.0 hrs

If enabled, default setting is 140° F (60° C) tank temperature after 4.0 hrs. idle time.

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **ENABLE ENERGYSAVR**. The **YES** or **NO** will be flashing to indicate the current selection.
2. Press and release the **NO** button to disable this function, or:
3. Press and release the **YES** button to enable this function (the heaters will either turn off or the tank will hold at 140° F).
4. When finished, press and release **DONE** to save the new setting and advance to the next function screen.
5. If **NO** was selected, the display should now read **EnableFreshTimer**. To exit programming and return to the **MAIN SCREEN**, press and release either ON/OFF pad.
6. If **YES** was selected, the display should now read **X.X HRS -> IDLE**. This screen allows the operator to set the amount of time the brewer is not in use before nap mode engages. Using **(-)** and **(+)**, adjust the idle time. When finished, press and release **DONE**.
7. The display should now read **AFTER IDLE TIME?** Once the set idle time has expired, the heaters can either be shut off or held at a lower temperature of 140° F.
8. To have the machine shut off after the set idle time, press and release **OFF** and then **DONE** to save the settings. The display should read **MACHINE OFF AFTER X.X HRS**, and then **EnableFreshTimer**.
9. To have the heaters hold at the lower 140° F temperature, press and release **140°** and then **DONE** to save the settings. The display should read **MACHINE AT 140° AFTER X.X HRS**, and then **EnableFreshTimer**.

10. Once the idle time has expired, the display will read either **ENERGY SAVER...NO TEMPERATURE** or **ENERGY SAVER...REDUCED TEMPERATURE**, depending on the settings. This screen will alternate with **PRESS ANY SWITCH TO RE-HEAT**.



PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

ENABLE FRESH TIMER

This function allows the operator to enable the Freshness Alert and set the expiration time. The expiration time is the amount of time the product is allowed to sit in the server/dispenser before a fresh batch is brewed.

Procedure for enabling/setting the Freshness Timer:

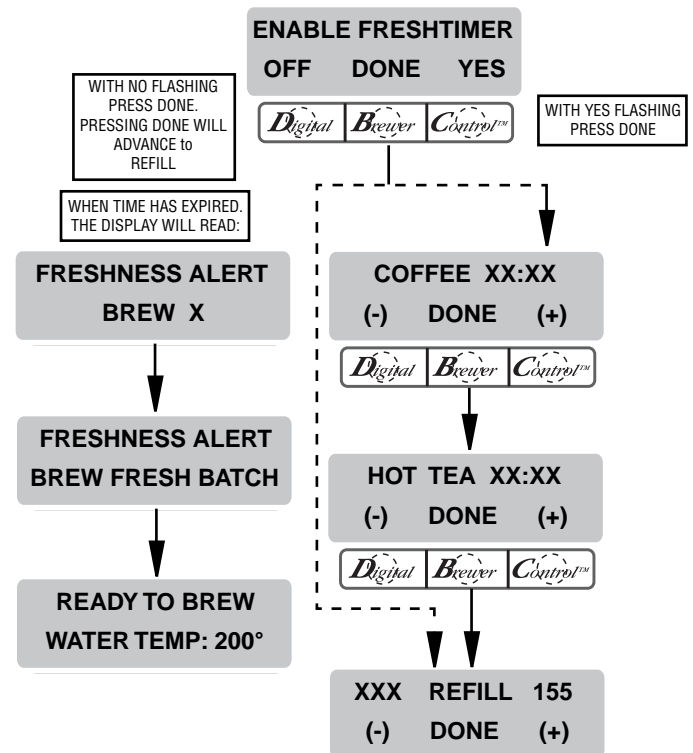
Range: Coffee 0.5 to 4.0 hrs

Hot Tea 0.5 to 8.0 hrs

If enabled, default setting is 2.0 hrs. for Coffee and 2.0 hrs. for Hot Tea.

- Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **ENABLE FRESHTIMER**.
- Press and release the **NO** button to disable this function, or:
- Press and release the **YES** button to enable this function (the unit will display a message once the set time has expired).
- When finished, press and release **DONE** to save the new setting and advance to the next function screen.
- If **NO** was selected, the display should now read **REFILL**. To exit programming and return to the **MAIN SCREEN**, press and release either ON/OFF pad.
- If **YES** was selected, the display should now read **COFFEE**. This screen allows the operator to set the amount of time from the end of brewing a batch of coffee until a Freshness Alert message will be displayed. Using **(-)** and **(+)**, adjust the freshness time for coffee. When finished, press and release **DONE**.
- The display should now read **HOT TEA**. Using **(-)** and **(+)**, adjust the freshness time for hot tea. When finished, press and release **DONE**.
- This display should now read **REFILL**. To exit programming and return to the **MAIN SCREEN**, press and release either ON/OFF pad.
- Once the set time has expired, the display will read **FRESHNESS ALERT BREW (A,B or C)**, and then **FRESHNESS ALERT BREW FRESH BATCH** alternating with the **MAIN SCREEN**.
- Empty the server/dispenser the previous batch was brewed into and replace under the funnel.

- Brew a new batch
- The freshness timer will reset. The display should now return to the **MAIN SCREEN**.





PROGRAMMING THE BREWER (cont.)

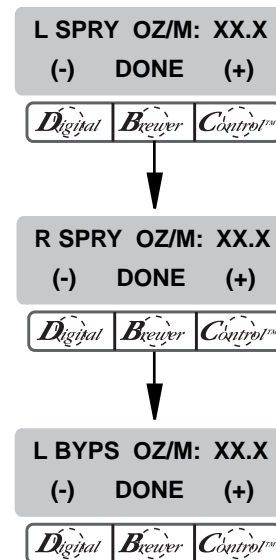
PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

L/R SPRAY OZ/M

This function allows the operator to view or to enter the actual flow rate coming out of the sprayhead for each side of the brewer. This is **NOT** used to control the actual flow rate, but to tell the internal controller how fast the water is flowing.

Procedure to adjust the sprayhead flow rate setting:

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **L SPRY OZ/M**. The number represents what the brewer thinks is the flow rate out of the left sprayhead.
2. If the actual flow rate of the sprayhead is known but is different than the number on the display, use the **(-)** and **(+)** to enter the correct flow rate.
3. Press and release **DONE**. The display will now read **R SPRY OZ/M**. The number represents what the brewer thinks is the flow rate out of the right sprayhead.
4. Repeat step #2 for the right sprayhead.
5. When finished, press and release **DONE** to advance to the next function screen, **L BYPS OZ/M: XX.X**. To exit programming and return to the **MAIN SCREEN**, press and release either ON/OFF pad.



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CALIBRATE SPRAY. Press
...button on the side to be cali-
...the sprayhead flow for calibration.
...should read **CALIBRATE SPRAY...60**
FINISH. The 60-second timer on the display
will count down to zero. When the counter reaches
zero, the display will change to **LEFT or RIGHT OZ,**
along with a number.

6. Measure the amount of water in the container and use the **(-)** and **(+)** pads to adjust the amount of the display to match the amount in the container. Then press **DONE.**
7. The display should now read **NEW L or NEW R SPRY FLOW,** along with the correct flow rate of the sprayhead. After about 5 seconds, the display will return to the **CALIBRATE FLOW** screen.
8. Repeat steps 1-7 to calibrate the other side.
9. To exit the **CALIBRATE FLOW** function and advance to the next function screen, press and release **NO.** To exit programming, press and release either ON/OFF button to return to the **MAIN SCREEN.**

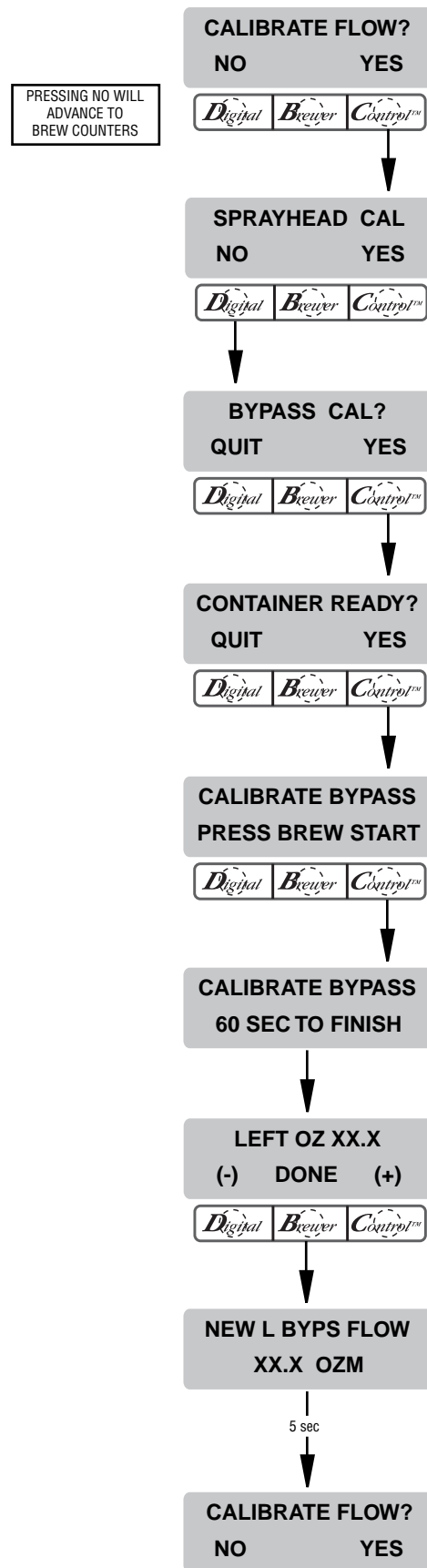
PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

CALIBRATE FLOW (Continued)

Procedure to calibrate the bypass flow rate:

1. Place a container, accurately graduated and with a minimum capacity of 60 ounces, beneath the funnel.
2. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **CALIBRATE FLOW**.
3. Press and release **YES** to advance to the **SPRAY HEAD CAL** function screen. Press and release **NO** to advance to **BYPASS CAL**.
4. Press and release the **YES** pad. The display should read **CONTAINER READY?** If the container is under the funnel, press **YES**.
5. The display should read **CALIBRATE BYPASS**. Press and release any **BREW** button on the side to be calibrated to begin the flow for calibration. The display should read **CALIBRATE BYPASS...60 SEC TO FINISH**. The 60-second timer on the display will count down to zero. When the counter reaches zero, the display will change to **LEFT** or **RIGHT OZ/M**, along with a number.
6. Measure the amount of water in the container and using the **(-)** and **(+)** pads, adjust the amount of the display to match the amount in the container. Then press **DONE**.
7. The display should now read **NEW L** or **NEW R BYPS FLOW**, along with the correct flow rate of the bypass. After about 5 seconds, the display will return to the **CALIBRATE FLOW** screen.
8. Repeat steps 1-7 to calibrate the other side.
9. To exit the **CALIBRATE FLOW** function and advance to the next function screen, press and release **NO**. To exit programming, press and release either **ON/OFF** button to return to the **MAIN SCREEN**.



PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

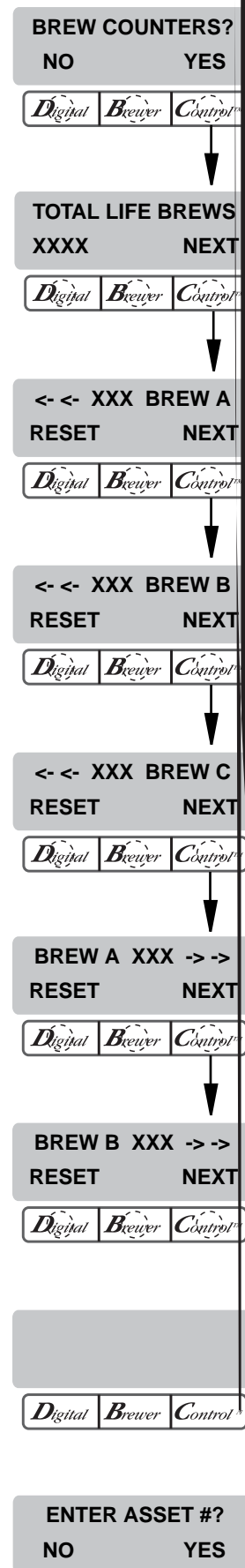
BREW COUNTERS

This function allows the operator to track the total number of brew cycles completed, as well as the number of batches brewed using each of the brew buttons. There are six resettable counters, and one life counter that is not resettable.

Procedure to view/reset the brew counters:

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **BREW COUNTERS**.
2. Pressing **NO** will advance to the next programming function, **ENTER ASSET #?**. Press **YES** to view the first brew counter (**TOTAL LIFE BREWS**). This number represents the total number of brew cycles this brewer has completed. This counter is non-resettable. Press **NEXT** to advance to the next brew counter, <- <- **BREW A** (left side).
3. This counter represents the number of brews for Brew A on the left side of the brewer. To reset the counter to zero, press and release **RESET**. Press and release **NEXT** to advance to the next counter.
4. Repeat step 3 for the remaining two left counters, **BREW B** and **BREW C**.
5. Repeat step 4 for the three right side brew counters.
6. When finished, press **NEXT** to advance to the next programming function, **ENTER ASSET #**. To exit programming, press and release either ON/OFF button to return to the **MAIN SCREEN**.

PRESSING NO WILL
ADVANCE TO
ENTER ASSET #



PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

ASSET NUMBER

This function allows the operator to enter the machine's asset number. This can be useful for tracking the usage or service of an individual machine within a group.

Procedure to enter the asset number:

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads:

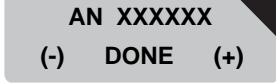
ENTER ASSET #?

2. Press and release **YES**. The display will now read **ANXXXXXX**.
3. Using **(-)** and **(+)**, set the asset number of the machine.
4. When finished, press and release **DONE**. The display will now read **SERVICE #**.

NOTE: See page 8 for steps on how to view the Asset Number.



Digital Brewer



AN XXXXXX

(-) DONE (+)



Digital Brewer Control™

PROGRAMMING THE BR

PROGRAMMING FUNCTI

SERVICE NUMBER

This function allows the o
phone number to call if ser
number will be displayed a
sage displayed (see *Troubl*

Procedure to enter the serv

1. Press and hold the righ
display reads **SET LAN**
hidden button until the d
ENTER SERVICE #?
2. Press and release **YES**. Th
SCROL THRU #'S NEXT ->N
by **000-000-0000**. UP TO
AVAILABLE.
3. Press the **SCROL** button to s
bers. When the desired num
and release **NEXT** to move to
phone number.
4. Repeat Step 3 until the entire
5. Press and release **DONE**. The d
SERVICE TOOLS?

PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

SERVICE TOOLS

This function allows the testing of individual components and the ability to check switches for proper function. This function also tests the funnel sensor coil's frequency (diagnostic tool for troubleshooting purposes only).

Procedure to test components and outputs:

The following components can be individually tested:

Left Brew Valve
Right Brew Valve
Left Bypass Valve
Right Bypass Valve
Refill Valve
Tank Heater Relay
Tank Heater Triac
Left Funnel Lock (Optional)
Right Funnel Lock (Optional)

1. Place a funnel into the rails on both sides of the brewer.
2. Place a server beneath each funnel.
3. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **SERVICE TOOLS**.
4. Press and release **YES**. The display should now read **TEST OUTPUTS?** Press and release **YES** to test individual components and outputs. Pressing **NO** will advance to the next programming function, **TEST SWITCHES**.
5. The display should now read <- <- **BREW VALVE**. To test the left brew valve, press **ON**. If the brew valve is functional, water should run from the left funnel.
6. Press **OFF** to end the flow of water.
7. Press **NEXT** to advance to the next component to be tested.

NOTE: To bypass testing any component, press **NEXT** to advance to the next component without testing the previous one.

8. The display should now read <- <- **BYPASS VALVE**. To test the left bypass valve, press **ON**. If the bypass valve is functional, water should run from the left funnel.

9. Press **OFF** to end the flow of water.
10. Press **NEXT** to advance to the next component to be tested, <- <- **FUNNEL LOCK**.
11. To test the left **FUNNEL LOCK**, press **ON**. If the funnel lock is functional, the lock will drop to hold funnel in place.
12. Press **OFF** to retract the funnel lock.
13. Follow steps 5-12 to test the right side components.
14. To test the **REFILL VALVE**, press **ON**. If the refill valve is functional, the sound of the valve operating will be heard.
15. Press **OFF** to end testing of the refill valve.
16. Press **NEXT** to advance to the next component to be tested, **TANK HEATR RELAY**.
17. To test the tank heater relay, connect a voltmeter across each of the tank heaters to check for voltage.
18. Press **ON**. The correct voltage should be present at the heater terminals.
19. Press **OFF** to end testing of the tank heater relay.

NOTE: The tank heater will automatically turn off if left on too long.

20. Press **NEXT** to advance to the next component to be tested, **TANK HEATR TRIAC**.
21. To test the tank heater triac, connect a voltmeter across each of the tank heaters to check for voltage.
22. Press **ON**. The correct voltage should be present at the heater terminals.
23. Press **OFF** to end testing of the tank heater triac.
24. Press **NEXT** to return to the **TEST OUTPUTS** screen. To advance to the next function screen, **TEST SWITCHES**, press **NO**. To exit programming, press and release either ON/OFF button to return to the **MAIN SCREEN**.



PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

Procedure to test switches:

The following switches can be individually tested:

<- <- Full Batch	Full Batch -> ->
<- <- Half Batch	Half Batch -> ->
<- <- Power	Power -> ->
<- <- Brew Switch A	Brew Switch A -> ->
<- <- Brew Switch B	Brew Switch B -> ->
<- <- Brew Switch C	Brew Switch C -> ->
Left Hidden	DONE
(-)	(+)



1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **SERVICE TOOLS**.
2. Press and release **YES**. The display should now read **TEST OUTPUTS?** Press and release **NO** to advance to **TEST SWITCHES**.
3. Press and release **YES**. The display should now read **RIGHT HIDDEN TO EXIT**, and then **NOTHING PRESSED**.
4. From this screen, press any of the switches on the front of the brewer. While the switch is pressed, the display shows the name of that switch. If the name does not appear, or if it remains after the switch has been released, the switch is defective. Each switch can be tested in this manner.

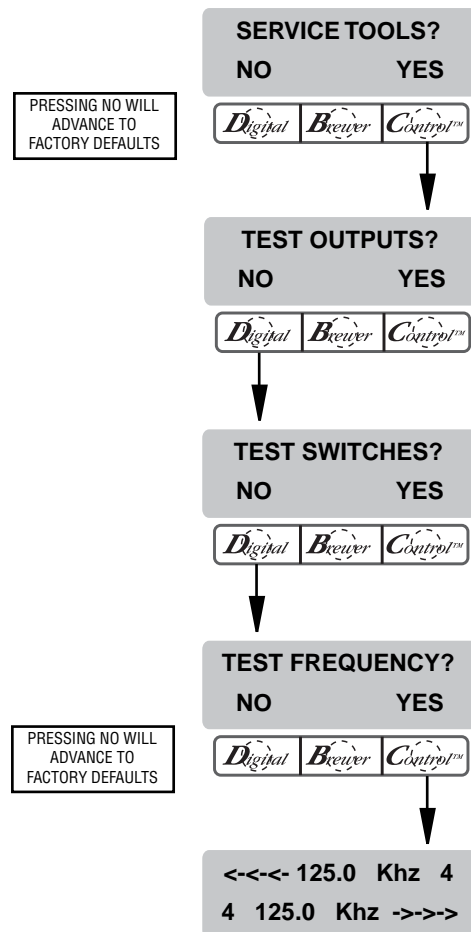
After all switches have been tested, press and release the right hidden button to return to the **TEST SWITCHES** screen. To exit programming, press and release either ON/OFF button to return to the **MAIN SCREEN**.

PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

Procedure to test coil frequency:

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **SERVICE TOOLS**.
2. Press and release **YES**. The display should now read **TEST OUTPUTS?** Press and release **NO** to advance to **TEST SWITCHES**.
3. Press and release **NO** to advance to **TEST FREQUENCY**.
4. The display should now show the frequency of the sensor coil circuits. This is for diagnostic service use when troubleshooting this circuit.
5. After the coils have been tested, press and release either ON/OFF button to return to the **MAIN SCREEN**.



PROGRAMMING THE BREWER (cont.)

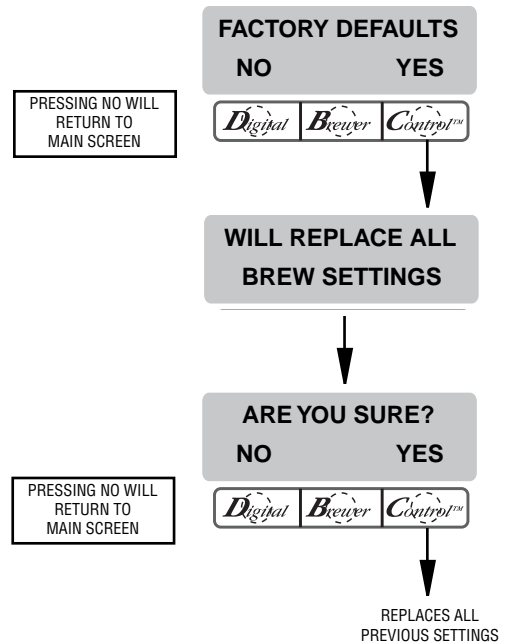
PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

FACTORY DEFAULTS

This function allows the operator to erase **ALL** of the previously entered recipes and ad messages. Factory-set default values will replace **ALL** previous settings.

Procedure to set factory defaults:

1. Press and hold the right hidden button until the display reads **SET LANGUAGE**. Press the right hidden button until the display reads **FACTORY DEFAULTS**.
2. Pressing **NO** will return to the **MAIN SCREEN**. Press **YES** to restore defaults. The display will read **WILL REPLACE ALL BREW SETTINGS** followed with **ARE YOU SURE?**
3. Pressing **NO** in this confirmation screen will revert to the **MAIN SCREEN** without resetting the brewing setups to the defaults. Press **YES** to load the defaults. After factory defaults have been restored, the display will return to the **MAIN SCREEN**. The factory default valves will have replaced **ALL** previously entered values. It will NOT reset the life brew counter. If factory defaults are restored, it will be necessary to recalibrate the flow rates. Refer to pages 43-44.



PROGRAMMING THE BREWER (cont.)

PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

FACTORY DEFAULT VALUES

Brew Lockout - Enabled

Language - English

Units - English

SWITCH RECIPE

Left Brew A – REGULAR

Left Brew B – DECAF

Left Brew C – BREAKFAST BLEND

Right Brew A – REGULAR

Right Brew B – DECAF

Right Brew C – BREAKFAST BLEND

NO-NAME COFFEE RECIPE:

BREW VOLUMES

Half Batch – 64 OZ

Full Batch – 128 OZ

% BYPASS

Half Batch – 0 %

Full Batch – 20 %

PULSE BREW TIMES

Half Batch – Manual :40/:10/:09

Full Batch – Manual :40/:07/:22

DRIP OUT TIMES

Half Batch – 1:00

Full Batch – 1:30

REGULAR RECIPE:

BREW VOLUMES

Half Batch – 64 OZ

Full Batch – 128 OZ

% BYPASS

Half Batch – 0 %

Full Batch – 20 %

PULSE BREW TIMES

Half Batch – Manual :40/:10/:09

Full Batch – Manual :40/:07/:22

DRIP OUT TIMES

Half Batch – 1:00

Full Batch – 1:30

PROGRAMMING THE BREWER (cont.)
PROGRAMMING FUNCTIONS - LEVEL 2 (cont.)

FACTORY DEFAULT VALUES (Continued)

DECAF RECIPE:

BREW VOLUMES

Half Batch – 64 OZ

Full Batch – 128 OZ

% BYPASS

Half Batch – 0 %

Full Batch – 20 %

PULSE BREW TIMES

Half Batch – Manual :40/:10/:09

Full Batch – Manual :40/:07/:22

DRIP OUT TIMES

Half Batch – 1:00

Full Batch – 1:30

BREAKFAST BLEND:

BREW VOLUMES

Half Batch – 64 OZ

Full Batch – 128 OZ

% BYPASS

Half Batch – 0 %

Full Batch – 20 %

PULSE BREW TIMES

Half Batch – Manual :40/:10/:09

Full Batch – Manual :40/:07/:22

DRIP OUT TIMES

Half Batch – 1:00

Full Batch – 1:30

HOT TEA RECIPE:

BREW VOLUMES

Half Batch – 64 OZ

Full Batch – 128 OZ

% BYPASS

Half Batch – 0 %

Full Batch – 0 %

PULSE BREW TIMES

Half Batch – Manual :30/:15/:15

Full Batch – Manual :30/:15/:15

DRIP OUT TIMES

Half Batch – 1:15

Full Batch – 1:15

Set Temp – 200°

Ready Degree 5°

Enable Ads – Disabled

Enable Sanitation – Disabled

Enable Energy Saver Mode – Disabled
IDLE – 4 HRS, THEN 140°

Enable Freshness Timer – Disabled

COFFEE – 2 HRS

HOT TEA – 2 HRS

L Spry Oz/m – 35.0

R Spry Oz/m – 35.5

L Byps Oz/m – 30.0

R Byps Oz/m – 35.5

TROUBLESHOOTING

A troubleshooting guide is provided to suggest probable causes and remedies for the most likely problems encountered. If the problem remains after exhausting the troubleshooting steps, contact the Bunn-O-Matic Technical Service Department.

- Inspection, testing, and repair of electrical equipment should be performed only by qualified service personnel.
- All electronic components have 120-240 volt ac and low voltage dc potential on their terminals. Shorting of terminals or the application of external voltages may result in board failure.
- Intermittent operation of electronic circuit boards is unlikely. Board failure will normally be permanent. If an intermittent condition is encountered, the cause will likely be a switch contact or a loose connection at a terminal or crimp.
- Solenoid removal requires interrupting the water supply to the valve. Damage may result if solenoids are energized for more than ten minutes without a supply of water.
- The use of two wrenches is recommended whenever plumbing fittings are tightened or loosened. This will help to avoid twists and kinks in the tubing.
- Make certain that all plumbing connections are sealed and electrical connections tight and isolated.
- This brewer is heated at all times. Keep away from combustibles.

- WARNING –
- Exercise extreme caution when servicing electrical equipment.
 - Unplug the brewer when servicing, except when electrical tests are specified.
 - Follow recommended service procedures.
 - Replace all protective shields or safety notices.

TROUBLESHOOTING (cont.)

PROBLEM	PROBABLE CAUSE	REMEDY
Temperature Too Low	1. Water temperature in the tank does not meet the ready temperature.	A) Wait for the brewer to heat to the proper temperature. B) Disable the BREW LOCKOUT function. See page 16 for procedure.
Heating Time Too Long	1. Tank Heater failure. 2. Control Board/Thermistor failure	Service required Service required
Fill Time Too Long	1. Water shut off to brewer 2. Inlet Solenoid failure 3. Control Board Failure 4. ON/OFF switch is OFF	Check water supply shut-off Service Required Service Required Turn switch ON
Temp Sensor Out Of Range, Check For Bad Connections	1. Temperature Sensor Probe wire(s) broken or not making connection	Check wire and connection of both black and white wires of temperature probe.
Temp Sensor Out Of Range, Check Wire For Shorts	1. Temperature Sensor Probe wire(s) shorted to housing or to each other.	Check to confirm that wire(s) are not pinched between two surfaces or connected to each other.
Equipment will not operate	1. No power or incorrect voltage	Measure the voltage at the terminal block and confirm that it matches the voltage specified on the brewer data plate withing +/- 10%.

TROUBLESHOOTING (cont.)

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
Brew cycle will not start	1. No water	Check plumbing and shut-off valves
	2. No power or incorrect voltage to the brewer	Check for voltage across the terminals at the terminal block.
	3. ON/OFF switch	Test the ON/OFF switch. Refer to the test switch procedures on page 50.
	4. Brew switch	Test the BREW switch. Refer to the test switch procedures on page 50.
	5. Brew valve	Test the brew valve. Refer to the test outputs procedures on page 48.
	6. Control Board	Substitute a control board known to be in good working order.

TROUBLESHOOTING (cont.)

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
Automatic refill will not operate or display shows FILL TIME TOO LONG	1. No water	Check plumbing and shut-off valves
	2. Refill probe or Sensitivity setting	Remove the strainer and check for obstructions. Clear or replace.
	3. Refill valve	Check the sensitivity setting. Refer to the REFILL function on page 40. If the left three digit number is less than the right number, the machine “thinks” it is full and the refill valve should be off. If the left number is larger than the right, then the refill valve will automatically be turned on to fill the tank. The right number is the threshold setting and can be adjusted to compensate for extreme water conditions: very pure, low conductance water requires a higher setting, while high mineral content, high conductance water requires a lower setting. Note that the left number changes from a high value when water is NOT touching the refill probe to a low valve when water IS touching the probe. For best operation, the right number should be set to a value midway between these low and high numbers. Before changing the setting, confirm that the refill probe is free of scale buildup and the connection to it is secure. Test the refill valve. Refer to the test outputs procedures on page 48.

TROUBLESHOOTING (cont.)

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
Automatic refill will not operate or display shows FILL TIME TOO LONG (Continued)		Refill valve – Disconnect the brewer from the power source and remove wires from refill valve coil. Check for continuity across the terminals of the solenoid coil. If continuity is not present, replace the refill valve. If continuity is present, the coil may be stuck closed. Shut water off to brewer. Press the ON/OFF switch to turn off the brewer. Open the faucet and drain water down in the tank until flow stops or slows to a trickle. Attach a voltmeter to the terminals of the refill solenoid. Connect the brewer to the power source. Press the ON/OFF switch to turn the brewer on. Within five seconds, voltage should be present at the solenoid terminals. If voltage is not present, refer to the wiring schematic and check the wiring harness.
	4. Control Board	Substitute a control board known to be in good working order.
	5. ON/OFF Switch	ON/OFF switch must be ON for the refill circuit to operate. Turn ON.

TROUBLESHOOTING (cont.)

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
Water flows into tank continuously with power removed from brewer.	1. Refill valve	Foreign material lodged in valve, holding it in open state.
	2. Refill probe or sensitivity setting	Check the sensitivity setting. Refer to the REFILL function on page 40. If the left three digit number is less than the right number, the machine “thinks” it is full and the refill valve should be off. If the left number is larger than the right, then the refill valve will automatically be turned on to fill the tank. The right number is the threshold setting and can be adjusted to compensate for extreme water conditions: very pure, low conductance water requires a higher setting, while high mineral content, high conductance water requires a lower setting. Note that the left number changes from a high value when water is NOT touching the refill probe to a low value when water IS touching the probe. For best operation, the right number should be set to a value midway between these low and high numbers. Before changing the setting, confirm that the refill probe is free of scale buildup and the connection to it is secure.
	3. Control Board	Substitute a control board known to be in good working order.

TROUBLESHOOTING (cont.)

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
Water will not heat or display shows HEATING TIME TOO LONG.	1. Limit Thermostat	Remove power from the brewer. Check for continuity through the limit thermostat. CAUTION: Do not eliminate or bypass limit thermostat. Use only replacement part 29329.0001.
	2. Temperature probe	Remove the probe from the grommet and submerge in a water bath of approximately 70°F (21°C). Connect an ohmmeter to the pins in the connector. At 60°F (16°C), the reading should be 15.3k ± 2k OHMS, at 70°F (21°C) the reading should be 11.8k ± 2k OHMS, and at 80°F (27°C) the reading should be 9.3k ± 2k OHMS. If the probe is within these parameters, reconnect to the control board.
	3. Tank heaters	Remove power from the brewer. Check for continuity through the tank heaters. If no continuity is present, check for a wiring problem (consult wiring schematic), then replace the tank heater if no wiring problem is found.
	4. Control Board	Remove power from the brewer. Connect a voltmeter across the tank heater. Reapply power to the brewer and refer to testing outputs on page 48. If the voltage measured when the tank heater is turned on is very low or zero, then substitute a control board known to be good working order.

TROUBLESHOOTING (cont.)

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
No bypass water	1. Bypass valve	Test the bypass valve. Refer to the test outputs procedures on page 48.
	2. Recipe settings	Check to make sure bypass % has been set for the current recipe.
	1. Lime buildup	Inspect the probe and tank assembly for excessive lime deposits. Delime as required.
Spitting or unusual steaming from sprayhead or air vent.	2. Temperature probe	Remove the probe from the grommet and submerge in a water bath of approximately 70°F (21°C). Connect an ohmmeter to the pins in the connector. At 60°F (16°C), the reading should be 15.3k ± 2k OHMS, at 70°F (21°C) the reading should be 11.8k ± 2k OHMS, and at 80°F (27°C) the reading should be 9.3k ± 2k OHMS. If the probe is within these parameters, reconnect to the control board.
	3. Control Board	Remove power from the brewer. Connect a voltmeter across the tank heater. Reapply power to the brewer and refer to testing outputs on page 48. If the voltage measured when the tank heater is turned on is very low or zero, then substitute a control board known to be good working order.

TROUBLESHOOTING (cont.)

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
Inconsistent beverage level in server/dispenser	1. Improper water pressure	Check operating water pressure to the brewer. It must be between 20 and 90 psi (138 and 620 kPa).
	2. Brew valve	Test the brew valve. Refer to test outputs on page 48. Turn the valve on for 30 seconds and collect the water dispensed from the spray-head. Repeat the test several times to confirm a consistent volume of dispensed water. If not consistent, check the valve, tubing and spray-head for lime buildup.
	3. Bypass valve	If bypass is being used on the inconsistent brewing recipe, test the bypass valve. Refer to test outputs on page 48. Turn the valve on for 30 seconds and collect the water collected from the funnel. Repeat the test several times to confirm a consistent volume of dispensed water. If not consistent, check the valve, tubing and fittings for lime buildup.
	4. Lime buildup	Inspect for lime buildup that could block the tank, tank fittings, tubing, valves and sprayhead.
	5. Brew volume adjustment	Adjust the brew volume, calibrate sprayhead and bypass as required to achieve the desired volume for each brew cycle.

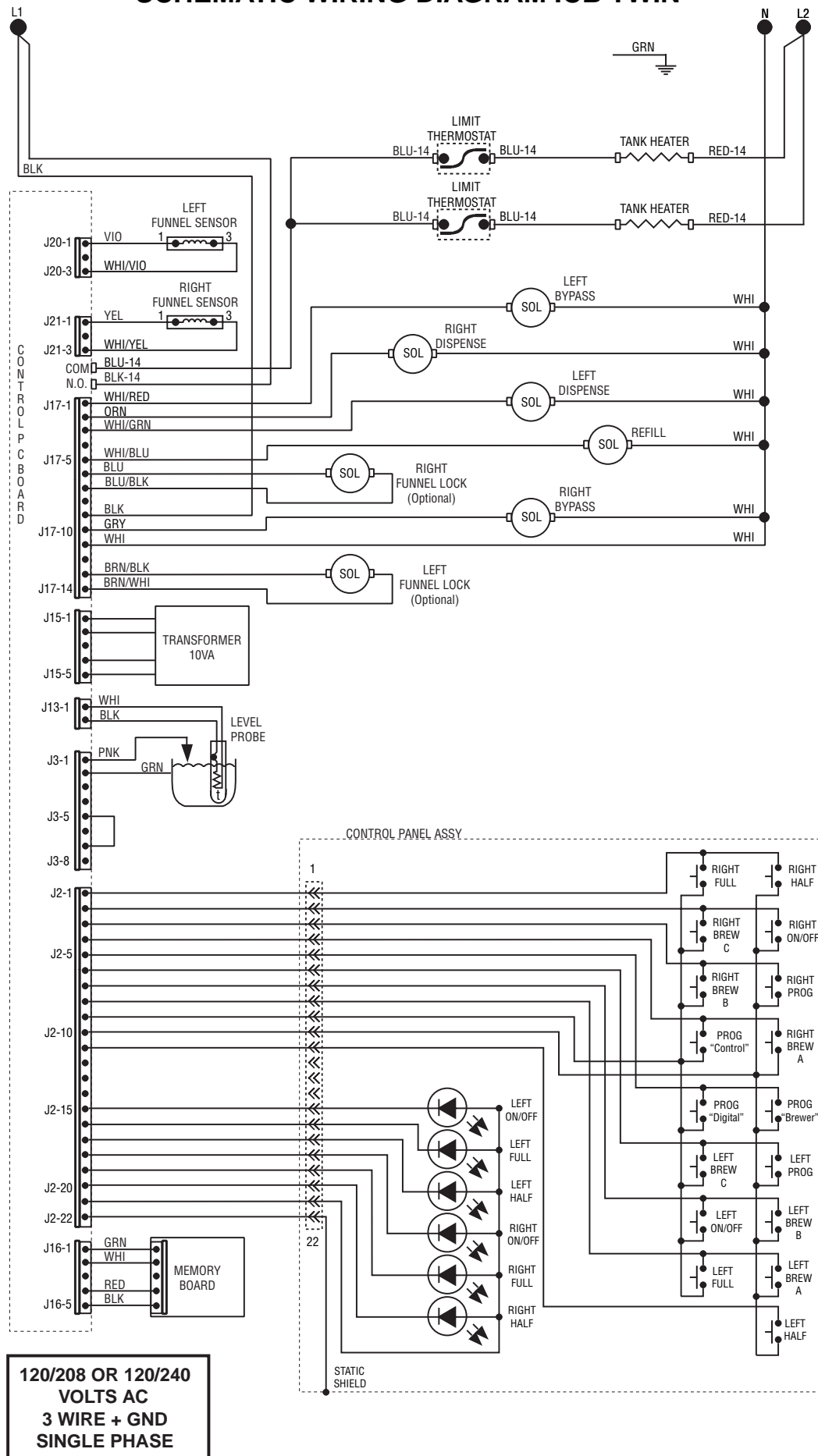
TROUBLESHOOTING (cont.)

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
Dripping from sprayhead.	1. Brew valve	Repair or replace leaky valve
Water overflows filter.	1. Type of paper filter	BUNN paper filters should be used for proper extraction
	2. No sprayhead	Check sprayhead
Beverage overflows server.	1. Beverage left in server from previous brew	The brew cycle should be started only with an empty server under the funnel.
	2. Brew volume adjustment	Adjust the brew volume, calibrate sprayhead and bypass as required to achieve the desired volume for each brew cycle
Brewer is making unusual noises.	1. Solenoids	The mounting screws on the solenoids must be tight or they will vibrate during operation
	2. Plumbing lines	Plumbing lines should not be resting on the countertop.
	3. Water supply	The brewer must be connected to a cold water line. Water pressure to the brewer must not be higher than 90 psi (620 kPa). Install a regulator if necessary to lower the working pressure to approximately 50 psi (345 kPa).
	4. Tank heaters	Remove and clean lime off tank heaters.

TROUBLESHOOTING (cont.)

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
Weak beverage.	1. Type of paper filter	BUNN paper filters should be used for proper extraction
	2. Coffee	For coffee, a sufficient quantity of fresh drip or regular grind should be used for proper extraction.
	3. Sprayhead	Bunn-O-Matic sprayhead should be used to properly wet the bed of ground coffee in the funnel
	4. Funnel Loading	The BUNN paper filter should be centered in the funnel and the bed of grounds leveled by gently shaking.
	5. Water temperature	Empty the server, remove its cover, and place the server beneath the sprayhead. Place empty funnel over the server entrance (not in the funnel rails). Press brew. Check the water temperature immediately below the sprayhead with a thermometer. The reading should not be less than 195°F (90°C).
	6. Incorrect recipe	Consider adjusting brew volumes, bypass percentage and pulse brew routines. Contact Bunn-O-Matic for suggestions.

SCHEMATIC WIRING DIAGRAM ICB TWIN



**120/208 OR 120/240
VOLTS AC
3 WIRE + GND
SINGLE PHASE**