BUNN®
Quality Since 1840

Infusion Series®
ITCB DV, ITCB Twin,
ITCB HV, ITCB HV Twin
Platinum Edition

INSTALLATION & OPERATING GUIDE

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

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BUNN-O-MATIC COMMERCIAL PRODUCT WARRANTY

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

1) Airpots, thermal carafes, decanters, GPR servers, iced tea/coffee dispensers, MCR/MCP/MCA single cup brewers, thermal servers and ThermoFresh® servers (mechanical and digital) 1 year parts and 1 year labor.
2) All other equipment - 2 years parts and 1 year labor plus added warranties as specified below:
a) Electronic circuit and/or control boards - parts and labor for 3 years.
b) Compressors on refrigeration equipment - 5 years parts and 1 year labor.
c) Grinding burrs on coffee grinding equipment to grind coffee to meet original factory screen sieve analysis – parts and labor for 4 years or 40,000 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, non periodic cleaning and descaling, equipment failures related to poor water quality, damage or casualty. In addition, the warranty does not apply to replacement of items subject to normal use including but not limited to operator replaceable parts such as seals and gaskets. 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.

INTRODUCTION

This equipment will brew coffee or tea into an awaiting Server. The brewer may have an auxiliary 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, dilution, etc. This allows the operator to program a certain "recipe" for each coffee or tea flavor to be brewed.

The Infusion Series Coffee and Tea Brewer is able to brew coffee/tea with recipe settings and has the following features: By-Pass(ITCB HV only), Dilution, Dilution Delay, Pre-Infusion, SmartWAVE and Pulse Brew, BrewWISE, and LCD for digital readout and programming along with the Smart Funnel and Server Detect options for coffee. Other features are Energy Savings mode, BUNNlink compatible, Smart Reader compatible, Freshness Timer and USB port for operators to save and load recipes or new software onto brewer.

CONTENTS

ITCB-DV ..... Dual Voltage Machine

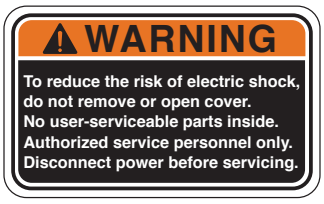
ITCB HV ..... High Volume

NORTH AMERICAN REQUIREMENTS

- This appliance must be installed in locations where it can be overseen by trained personnel.
- For proper operation, this appliance must be installed where the temperature is between 41°F to 95°F (5°C to 35°C).
- Appliance shall not be tilted more than 10° for safe operation.
- An electrician must provide electrical service as specified in conformance with all local and national codes.
- This appliance must not be cleaned by pressure washer.
- This appliance can be used by persons aged from 18 years and above if they have been given supervision or instruction concerning use of the appliance in a safe way and if they understand the hazards involved.
- Keep the appliance and its cord out of reach of children aged less than 18 years.
- Appliances can be used by persons 18 years and above with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Children under the age of 18 years should be supervised to ensure they do not play with the appliance.
- If the power cord is ever damaged, it must be replaced by the manufacturer or authorized service personnel with a special cord available from the manufacturer or its authorized service personnel in order to avoid a hazard.
- Machine must not be immersed for cleaning.
- Cleaning and user maintenance shall not be made by children unless they are older than 18 years and supervised.
- This appliance is intended for commercial use in applications such as:
  - staff kitchen areas in shops, offices and other working environments;
  - by clients in hotel and motel lobbies and other similar types of environments;
- Access to the service areas permitted by Authorized Service personnel only.

Operator NOTICES

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



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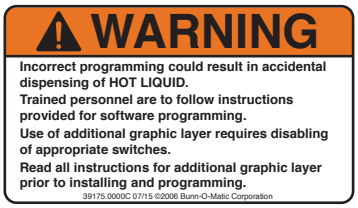

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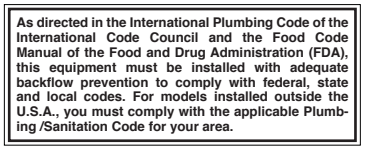

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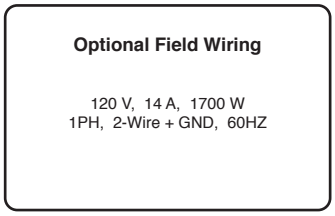

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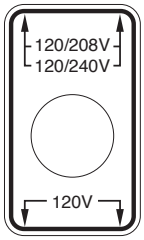

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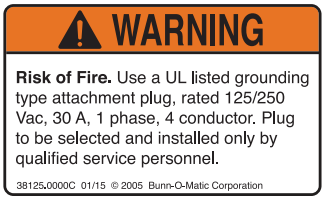

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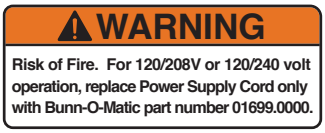

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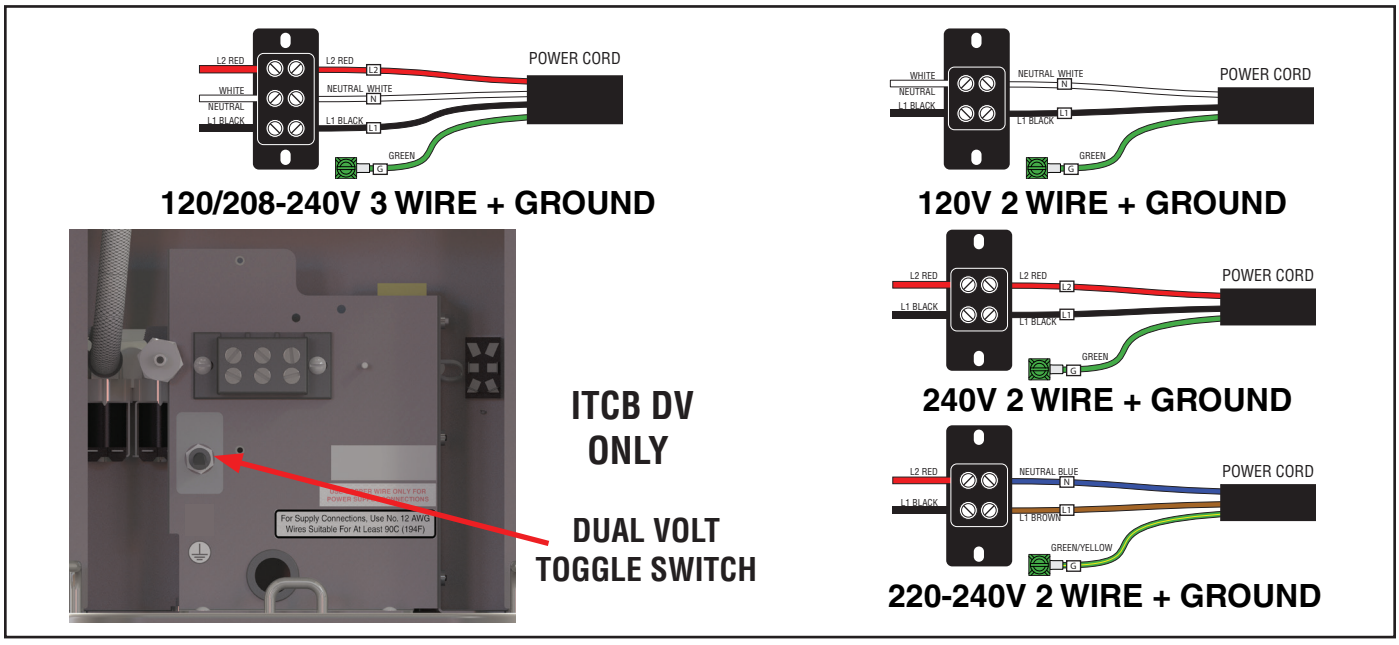
ELECTRICAL REQUIREMENTS ITCB-DV

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

"Optional Field Wiring ratings are located on the machine near the dataplate."

WARNING - The brewer must be disconnected from the power source until specified.

WARNING - The power cord must be UL Listed, Flexible Cord Type SO, SJO, SJTO, HSJO or SJOW, Rated 90° C, and the attachment plug cap must be UL Listed, in order to avoid a hazard. The Power Supply Cord must be at least 3 feet long and maximum 6 feet long (measured from Strain Relief to end of the Attachment Plug Cap).



ELECTRICAL HOOK-UP (All Models)

CAUTION – Improper electrical installation will damage electronic components. Damage caused by incorrect electrical connections is not covered by warranty.

1. An electrician must provide electrical service.
2. Determine the available on-site electrical service.
3. (Steps 3 & 9 apply to DV models only) Select the desired unit voltage based on the available on-site electrical service.
4. Using a voltmeter, check the voltage and color coding of each conductor at the electrical source.
5. Remove the back panel to gain access to the terminal block.
6. Feed the power cord through the strain relief and connect it to the terminal block(s).
7. Connect the power cord to the terminal block (see illustrations above for correct wiring).
8. Before proceeding, verify adequate voltage is present at the field wiring terminal block using a voltmeter.
9. Set the dual voltage switch to the appropriate position and replace the access panel.
10. 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

These brewers must be connected to a cold water system with operating pressure between 20 and 90 psi (0.138 and 0.620 mPa) 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 (0.620 mPa) to reduce it to 50 psi (0.345 mPa). The water inlet fitting is .75-11.5 NH (HOSE THREAD). For convenience an elbow adaptor is provided to convert to a 1/4˝ flare fitting (3/8˝ flare on twins & HV units). Bunn-O-Matic does not recommend the use of a reverse-osmosis or deionized water supply to this equipment. **REQUIRED: 1.25 gpm (4.73 lpm) flow rate from water supply line.**

NOTE - Bunn-O-Matic recommends 3⁄8" copper tubing for all installations from the 1⁄2" water supply line. A tight coil of 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.

As directed in the International Plumbing Code of the International Code Council and the Food Code Manual of the Food and Drug Administration (FDA), this equipment must be installed with adequate backflow prevention to comply with federal, state and local codes. 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. **STANDARD MODELS:** Securely attach adaptor elbow assembly to the .75-11.5 NH (HOSE THREAD) fitting at the rear of the brewer.

   TWIN MODELS: Securely attach the tube assembly (supplied in parts box) to water supply line. Securely attach the elbow assemblie to the .75-11.5 NH (HOSE THREAD) fittings at the rear of the brewer. Connect the tube assembly to the elbows.
3. Flush the water line and Securely attach it to the adaptor elbow.
4. Turn on the water supply.

Tank Drain

1. Loosen screws that secure the front access panel. Remove the panel.
2. Tighten the white shutoff clamp on the long hose between the tank and inlet solenoid.
2. Disconnect the hose clamp and hose from the inlet solenoid.
3. Place the end of the drain hose in a container that has a minimum capacity of [3.5 gallons / 13.25 L Singles] [6.0 gallons / 22.7 L-Twins].
4. Release the white clamp to drain water from the tank.
5. When tank is empty, replace the hose onto the inlet solenoid, and tighten the clamp.
6. Replace the front panel and tighten the screws.

INITIAL SET-UP

1. Insert an empty brew funnel into the funnel rails for the brew station(s).
2. Place an empty server(s) under the brew funnel(s).
3. Connect the brewer to the power source. Turn on the main power switch.
4. Water will flow into the tank and stop when the tank is filled to its capacity.
5. Wait approximately twenty-five minutes for the water in the tank to heat to the proper temperature. Some water may drip from the funnels during this time; this is due to expansion and should not occur thereafter.
6. Once the tank is full of water and heated to proper temperature, 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 programming 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.

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

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

COFFEE BREWING

There may be certain situations in which the brew cycle will not begin when BREW is selected:

a. BREW TEMPERATURE TOO LOW - wait until heated, or cancel BREW LOCKOUT option.
b. CHECK FUNNEL - remove funnel, empty previously brewed grounds and replace with fresh.

BREWING COFFEE 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. Select the desired recipe by selecting the button above the batch selections. If there are more than 6 recipes stored in the brewer, use the scroll arrow to navigate to the desired recipe.
7. Select the desired batch size for the recipe.
8. Select the START BREW button. For twin models, ensure to select the brew button for the side of the brewer that is loaded with freshly ground coffee.
9. The display will read BREWING and show the time remaining in the brew cycle. Select the STOP button to discontinue the brewing if necessary.
10. Carefully remove the brew funnel and discard the grounds and filter only after visible dripping stops.

COFFEE BREWING (Cont.)

There may be certain situations in which the brew cycle will not begin when BREW is selected:

a. BREW TEMPERATURE TOO LOW - wait until heated, or cancel BREW LOCKOUT option.
b. CHECK FUNNEL - remove funnel, empty previously brewed grounds and replace with fresh.

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

1. Select the desired batch size on the grinder.
2. Insert a BUNN filter into the gourmet 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:

GRINDER	BREWER
Small	Small Batch
Medium	Medium Batch
Large	Full Batch

   ***BATCH SIZE NOT ENABLED -** If the batch size recorded in the Smart Funnel is not enabled for the recipe stored in the brewer, you will need to enter into the RECIPES option in programming and verify the correct batch size is enabled for the coffee name. Refer to the "MODIFYING RECIPES" section for information on how to enable or disable batch sizes.

   ***PLEASE VERIFY PARAMETERS -** When inserting a Smart Funnel onto the funnel rails, the brewer will automatically add the coffee name if it doesn't exist in programming. In this event, the display will prompt the operator to verify that the recipe parameters are correct before starting a brew. Refer to the MODIFYING RECIPES section for information on how to review and set recipes.

5. Place an empty server under the funnel.
6. Select the START BREW button.
7. The display will read BREWING and show the time remaining in the brew cycle. Select the STOP button to discontinue the brewing if necessary.
8. Carefully remove the brew funnel and discard the grounds and filter only after visible dripping stops.

TEA BREWING

1. Begin each brew cycle with a clean empty brew funnel and server. (Ensure the server lid doesn't interfere with the flow of dilution water coming from the dilution nozzle.)
2. Insert a BUNN filter into the funnel.
3. Pour the packet of loose fresh tea leaves into the filter. Approximately three to five ounces is recommended for three gallons of beverage.
4. Level the bed of tea leaves by gently shaking.
5. Slide the funnel into the funnel rails until it stops. On dual dilution models, rotate the funnel handle left or right to align the funnel discharge over the reservoir.
6. Select the desired recipe by selecting the button above the batch selections. If there are more than 6 recipes stored in the brewer, use the scroll arrow to navigate to the desired recipe.
7. Select the desired batch size for the recipe.

TEA BREWING (Cont.)

8. Select the START BREW button. For twin models, ensure to select the brew button for the side of the brewer that is loaded with freshly ground coffee.
   a. BREW TEMPERATURE TOO LOW - wait until heated, or cancel BREW LOCKOUT option.
   b. CHECK FUNNEL - remove funnel, empty previously brewed grounds and replace with fresh.
9. The display will read BREWING and show the time remaining in the brew cycle. Select the STOP button to discontinue the brewing if necessary.
10. Carefully remove the brew funnel and discard the grounds and filter only after visible dripping stops.

CLEANING

Daily

1. The intuitive Care and Cleaning instructions are stored and accessible in the Programming software menu. Start from Home screen, then touch the BUNN logo for 2 seconds to enter the Service Access screen.
2. Select the Care and Cleaning icon to prompt the Care and Cleaning buttons.
3. Select the "Clean Screen" button to deactivate the screen for :15 seconds to permit cleaning.
4. Use a soft, clean, cloth to wipe the screen free of any contaminants during the :15 second timer countdown. When finished, either choose the (<) to go back to the Care and Cleaning screen or touch the BUNN logo to exit back to the Home Screen.
5. Prepare a warm soapy solution with nonabrasive, liquid detergent (140˚ F). Then use a clean, damp cloth wetted in the solution to wipe down all surfaces on the BUNN equipment. Do **NOT** clean this equipment with a water jet device.

Weekly

1. First, remove the funnel or Smart Funnel® and set it aside.
2. Now, unscrew the Peak Extraction™ sprayhead counter-clockwise from the brewer, and set it aside.

   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. Insert the sprayhead cleaning tool into the sprayhead and by-pass outlet fitting. Rotate several times to remove any mineral deposits from the fitting.
4. Prepare a warm soapy solution with nonabrasive, liquid detergent (140˚ F). Then use a clean, damp cloth wetted in the solution to wipe down the sprayhead panel.
5. Now disassemble the Peak Extraction sprayhead by removing the black seal.
6. Submerge and wash all the individual sprayhead parts in the solution. Ensure all sprayhead holes are fully open and clear of any product residue or mineral deposit build-up.
7. After washing the sprayhead parts, thoroughly rinse the parts with clean water.
8. Reassemble the sprayhead and screw it back onto the threaded outlet fitting. The sprayhead only needs to be hand tightened.

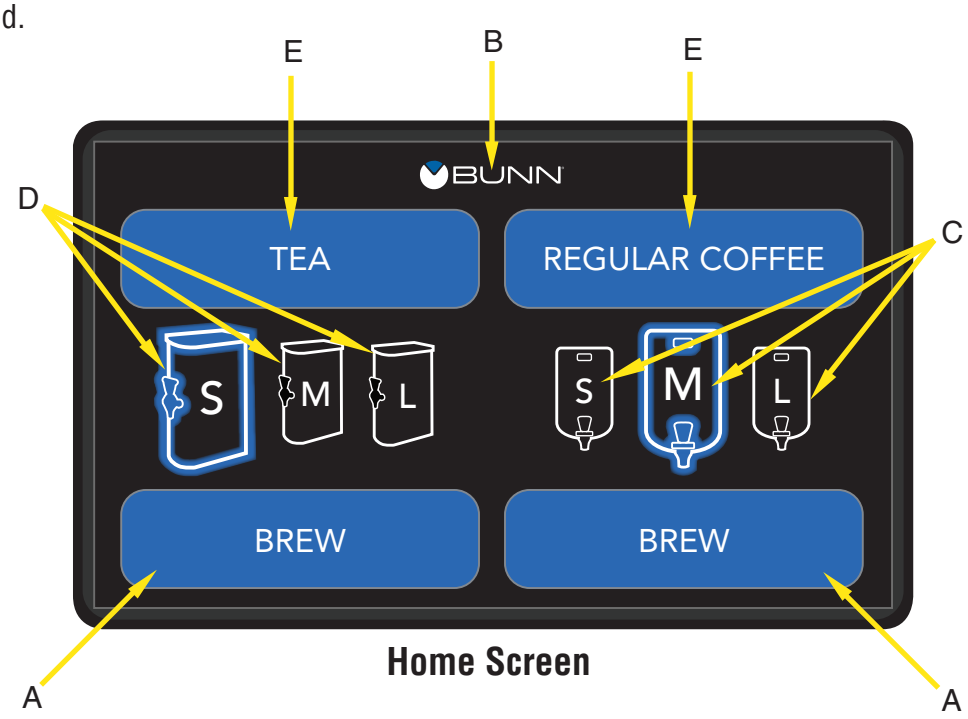
Machine may need to be re-calibrated due to lime build-up. If machine is cleaned and build-up removed, machine must be re-calibrated to achieve desired volumes. Refer to programming manual for calibration routine to verify sprayhead, by-pass and dilution flow rates matches programmed flow rate.

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, pulse brew, pre-infusion, smartWAVE, drip time and fresh time. The operator can customize the brewing process to their specifications, allowing for the precise brewing of various flavors of coffee.

OPERATING CONTROLS

To access the programming mode, and to scroll through the different function screens, onscreen programming buttons are used.



Home Screen

A. BREW Left/Right

When the main screen is visible, select the BREW button to begin a brew cycle on the selected side.

B. PROGRAMMING

Touch the BUNN logo for 2 seconds to enter the programming.

C. BATCH SELECTOR SWITCHES (Coffee Batch Icons)

Selecting the icon corresponding to Small, Medium, and Large batch selects the amount of product to be brewed on the selected side. The highlighting of the icon indicates the selected batch to brew. Coffee Batch Icons will only appear if a coffee recipe is selected from the Recipe Library.

D. BATCH SELECTOR SWITCHES (Tea Batch Icons)

Selecting the icon corresponding to Small, Medium, and Large batch selects the amount of product to be brewed on the selected side. The highlighting of the icon indicates the selected batch to brew. Tea Batch Icons will only appear if a tea recipe is selected from the Recipe Library.

E. RECIPE LIBRARY

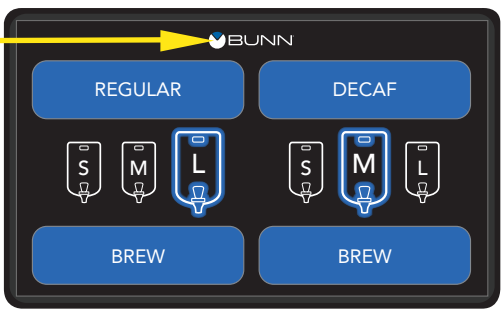
Select the button to choose between any of the saved recipes stored in programming.

IMPORTANT PROGRAMMING NOTES
- READ CAREFULLY -

Always remember to place a container and funnel under the sprayhead when operating the brewer during the set-up of **CALIBRATE FLOW,** and testing the brew and bypass valves in **SERVICE TOOLS/TEST OUTPUTS.**

HOW TO ACCESS PROGRAMMING

To enter programming mode, the home screen must be present on the display. Touch the BUNN logo at the top of the display for 2 seconds. The SERVICE ACCESS screen will appear on the display.



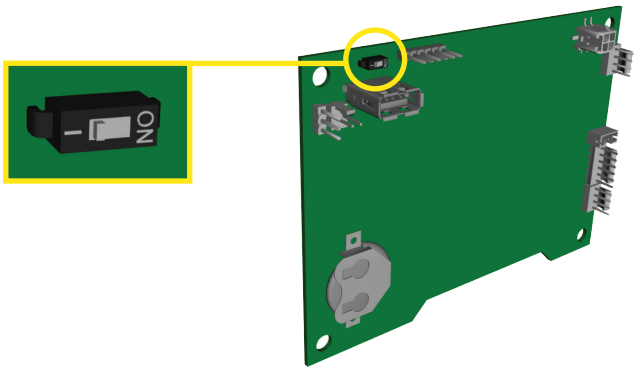
HOW TO EXIT PROGRAMMING

To exit the programming mode at any time, select the BUNN logo at the top of the display. The display will return to the home screen.

If there is no interaction with the touchscreen within a 5-minute period while in programming mode, the display will automatically return to the home screen.

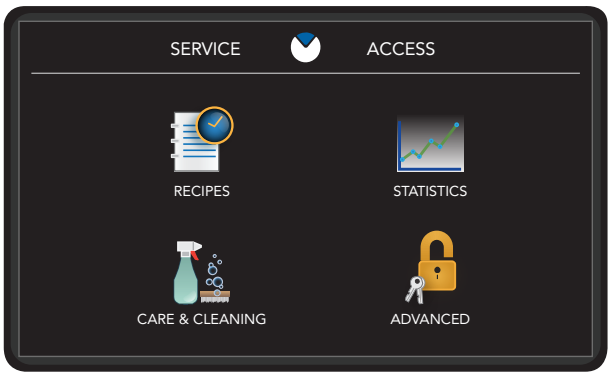
PROGRAMMING LOCKOUT

This switch is located on the graphics board located under the top panel of the brewer. The switch can be set to prevent access to the advanced programming settings of the brewer. Once all the correct brew settings are programmed, the operator can set the switch to the "ON" position to prohibit anyone from viewing and changing settings. The brewer must be powered down when setting the switch.



SERVICE ACCESS

To access this menu, touch the BUNN logo for 2 seconds with the home screen present. This is the first screen that will appear on the display when accessing programming mode. If Programming Lockout is enabled, the advanced icon will not appear until the feature is disabled. Select any icon to access the sub-menus.



PROGRAMMING (cont.)

SERVICE ACCESS OPTIONS

EVENT HISTORY - Select this icon to view current cycles, lifetime cycles, and the length/number of times certain components are activated.

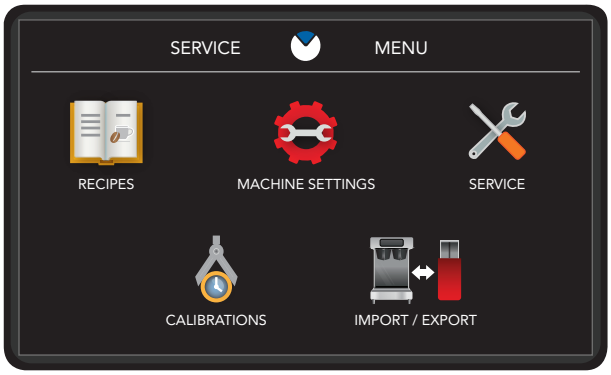
STATISTICS - Select this icon to view the amount of brew cycles per batch size. Twin models will show separate numbers for left and right brew cycles. The second sub-screen within Statistics will show model, display version and I/O version number.

CARE & CLEANING - Select this icon to view cleaning instructions. The instructional content featured will have a picture with a short description of the action that should take place.

ADVANCED - Selecting this icon will display a password entry screen. By default, the password can be bypassed by selecting ENTER. By default, entering **7738** on this screen will allow permission for setting a password. Setting a password will prevent entry into the Service Menu.

SERVICE MENU

To access this menu, select the ADVANCED icon while viewing the SERVICE ACCESS screen on the display. If Programming Lockout is enabled, this menu cannot be accessed until the feature is disabled. Select any icon to access the sub-menus.



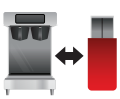
SERVICE MENU OPTIONS

RECIPES - Select this icon to disable, enable, add or modifying recipes.

MACHINE SETTINGS - Select this icon to adjust global settings on the brewer.

SERVICE - Select this icon to access high level diagnostic functions and service information.

CALIBRATIONS - Select this icon to perform necessary adjustments to ensure accurate brewing.



IMPORT/EXPORT - Select this icon to import/export screen graphics or recipes.

HOW TO CALIBRATE SPRAYHEAD FLOW RATE

This function allows the operator to test and enter the actual flow rate of water coming out of the sprayhead(s). The procedure includes a 1-minute dispense of hot water to determine the actual flow rate. Ensure that the brewer is heated to brewing temperature before performing a sprayhead calibration.

1. Place a container, accurately graduated with a minimum capacity of 60 ounces, under the funnel.
2. Touch the BUNN logo for 2 seconds to enter SERVICE ACCESS.
3. Select the ADVANCED icon.
4. At the PASSWORD ENTRY screen, select ENTER. (If a password is required, enter the code at this screen).
5. At the SERVICE MENU screen, select the CALIBRATION icon.
6. For Single ITCB models, there is only 1 sprayhead to calibrate. For Twin ITCB models, there is a left and a right sprayhead to calibrate. Ensure the container is under the correct sprayhead for calibration.
7. Select the START button to begin a 1-minute dispense of hot water from the sprayhead.
8. The display will show the time remaining for dispense along with the option to stop the dispense if necessary. The 60-second timer on the display will count down to zero.
9. When the counter reaches zero, measure the amount of water in the container and select the white text area on the screen to enter the value to match the amount in the container.
10. Select SAVE. The display should now show the actual flow rate of the sprayhead.
11. Repeat steps 1-7 to calibrate the other side. (Twin ITCB models only)

HOW TO CALIBRATE BYPASS FLOW RATE (ITCB HV Only)

This function allows the operator to test and enter the actual flow rate of water coming out of the bypass. The procedure includes a 1-minute dispense of hot water to determine the actual flow rate. Ensure that the brewer is heated to brewing temperature before performing a bypass calibration.

1. Place a container, accurately graduated with a minimum capacity of 60 ounces, under the funnel.
2. Touch the BUNN logo for 2 seconds to enter SERVICE ACCESS.
3. Select the ADVANCED icon.
4. At the PASSWORD ENTRY screen, select ENTER (If a password is required, enter the code at this screen).
5. At the SERVICE MENU screen, select the CALIBRATION icon.
6. For Single ITCB HV models, there is only 1 bypass to calibrate. For Twin ITCB models, there is a left and a right bypass to calibrate. Ensure the container is under the correct brew station for calibration.
7. Select the START button to begin a 1-minute dispense of hot water from the bypass.
8. The display will show the time remaining for dispense along with the option to stop the dispense if necessary. The 60-second timer on the display will count down to zero.
9. When the counter reaches zero, measure the amount of water in the container and select the white text area on the screen to enter the value to match the amount in the container.

HOW TO CALIBRATE DILUTION FLOW RATE

This function allows the operator to test and enter the actual flow rate of water coming out of the dilution nozzle. The procedure includes a 1-minute dispense of water to determine the actual flow rate.

1. Place a container, accurately graduated with a min. capacity of 128 ounces, under the dilution nozzle.
2. Touch the BUNN logo for 2 seconds to enter SERVICE ACCESS.
3. Select the ADVANCED icon.
4. At the PASSWORD ENTRY screen, select ENTER. (If a password is required, enter the code at this screen).
5. At the SERVICE MENU screen, select the CALIBRATION icon.
6. Select the DILUTION icon to begin calibrating.

7. Select the START button to begin a 1-minute dispense of water from the dilution nozzle.
8. The display will show the time remaining for dispense along with the option to stop the dispense if necessary. The 60-second timer on the display will count down to zero.
9. When the counter reaches zero, the display will change to allow the measured amount of water in the container to be entered and saved in programming. Measure the amount of water in the container and select the white text area on the screen to enter the value to match the amount in the container.
10. Select SAVE. The display should now show the actual flow rate of the dilution.

VIEWING ASSET, SERIAL & SERVICE NUMBER

1. Touch the BUNN logo for 2 seconds to enter the SERVICE ACCESS screen.
2. Select the ADVANCED icon.
3. At the PASSWORD ENTRY screen, select ENTER.
4. At the SERVICE MENU screen, select the SERVICE icon.
5. Select SERVICE NUMBERS to view the asset, serial and service numbers.
   NOTE: The asset number will display if it has been setup in programming, otherwise it will not appear.

RENAMING A RECIPE

There are 5 pages containing 6 recipe names (30 total). By default, recipe names are preset from the factory. The operator has the choice of renaming any recipe.

1. Touch the BUNN logo for 2 seconds to enter SERVICE ACCESS.
2. Select the ADVANCED icon.
3. At the PASSWORD ENTRY screen, select ENTER (If a password is required, enter the code at this screen).
4. In the SERVICE MENU screen, select the RECIPE icon.
5. The RECIPE EDIT screen will appear on the display. If necessary, use the scroll arrow at the top of the screen to navigate to the desired recipe name to edit. Select the recipe name.
   NOTE: Blue-filled buttons represent recipes with enabled batch sizes; these recipes will appear in the recipe selection list from the home screen. Grey-filled buttons represent recipes with all batch sizes disabled; these recipe names will not appear in the recipe selection list from the home screen until a batch size is enabled.
6. Select the white rectangle that contains the current name for the recipe.
7. Use the touchscreen to enter a new recipe name. Select ENTER when finished.
8. Select SAVE to store the new recipe name in programming.

ENABLING/DISABLING BATCH SIZES

The operator has the option to setup a recipe to include up to 3 batch sizes. Disabling all batch sizes for any given recipe will remove it from the recipe selection list at the home screen.

1. Touch the BUNN logo for 2 seconds to enter SERVICE ACCESS.
2. Select the ADVANCED icon.
3. At the PASSWORD ENTRY screen, select ENTER (If a password is required, enter the code at this screen).
4. In the SERVICE MENU screen, select the RECIPE icon.
5. The RECIPE EDIT screen will appear on the display. If necessary, use the scroll arrow at the top of the screen to navigate to the desired recipe name to edit. Select the recipe name.
6. Select the desired batch sizes to be offered with the recipe by selecting the white checkbox next to each batch size icon. Enabling the batch size without editing the batch recipe settings will automatically set recipe parameters to default settings (volume, bypass, pre-infusion, etc).
7. Select SAVE to keep the changes made to the recipe.

MODIFYING RECIPES

By default, recipe settings are preset from the factory. The operator has the choice of enabling, disabling and modifying any recipe setting.

HOW TO ACCESS RECIPE SETTINGS

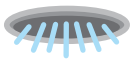
1. Touch the BUNN logo for 2 seconds to enter SERVICE ACCESS.
2. Select the ADVANCED icon.
3. At the PASSWORD ENTRY screen, select ENTER (If a password is required, enter the code at this screen).
4. In the SERVICE MENU screen, select the RECIPE icon.
5. The RECIPE EDIT screen will appear on the display. If necessary, use the scroll arrow at the top of the screen to navigate to the desired recipe name to edit. Select the recipe name.
6. Enable the batch size you wish to modify by selecting the white checkbox. If the batch size is already enabled as indicated by the green checkmark, proceed to the next step.
7. Select the batch icon next to the size you wish to modify (small, medium and large).
8. The screen that will appear has a menu of icons that represent settings you can enable, disable or modify.

VOLUME - This icon allows for volume adjustments. Each batch size, small, medium, and large will have adjustable brew volume ranges to choose from. Pressing SAVE after the number has been entered will confirm the change and exit back out to the recipe parameter screen.

BYPASS (ITCB HV Only)- This icon adjusts the bypass as a percentage of the total brew volume. This means the set percentage will bypass the coffee grounds through the funnel to the server. If bypass is used in a recipe, it will only turn on after 30 seconds of sprayhead time. The operator will press SAVE to confirm their entry, which will exit them back to the recipe parameter screen.

DILUTION - Dilution is used in tea brewing to dilute the concentrate of tea brewed in the funnel. The user will set the amount desired in ounces or ml. The user can adjust the volume by touching the text field and prompting the numeric keypad or use the plus or minus butttons to increment or decrement the volume. Save confirms the change and exits the user back to the recipe parameters screen. The arrow will just take user back to the recipe parameter screen.

DILUTION DELAY - This feature allows the user to set a time when the dilution water should turn on after a brew cycle has been initiated. The user can adjust the time by touching the text field and prompting the numeric keypad or use the plus or minus butttons to increment or decrement the time. Save confirms the change and exits the user back to the recipe parameters screen. The arrow will just take user back to the recipe parameter screen.



PRE-INFUSE - Pre-Infusion is defined as two parts; the first initial wetting of the coffee grounds and the first initial "OFF" period before the rest of the brew cycle begins. The operator will have the ability to brew with just pre-infusion only, if they prefer to do so. The operator must enable the feature by selecting the checkbox. To set an "ON" time, the operator can select the text field. This will prompt the numeric keypad to enter the desired time. To confirm a change, the operator must press the SAVE button. The batch size icon in the upper right hand corner of the screen will allow the operator to cycle between batch sizes. If the operator switches to a different batch size, those parameters must be updated in the fields. Disabling the feature will gray out the white text fields. The operator will not be able to adjust this setting unless the feature is enabled.

PULSE BREW - Pre-infusion and bypass settings will be taken into account if set already. The operator will use the text fields to enter times. When entering the sprayhead on time, the ounces or milliliters (depends on units set on the machine) being dispersed for that amount of time will display. The quantity of water dispersed will be larger the longer the time is on. If the time is decreased, the volume should lower as well. The volume displayed will be gathered from an average of both the left and right sprayhead calibration settings. When setting the pause time, the operator is choosing how long to turn the sprayhead off; this is not an accumulated time. This time is the length that the sprayhead will turn off during the pulse routine then turn back on. Both on and off times will have limits the operator is able to set depending on the parameters of the recipe. When configuring the routine, the total brew time will change to be shorter or longer depending on the routine settings. Longer pause times extend total brew time in most cases. The Auto calculate button will automatically set a routine based on the parameters for the recipe. Save will confirm and save the settings for that recipes batch size. The batch size icon will cycle through the other enabled sizes to allow the operator to set the pulse brew for a different size batch from this screen.

Auto Pulse Brew - An auto pulse brew is a set routine of 7 pulses that has been calculated by parameters the operator has set. The operator must specify the batch volume, percentage of bypass, pre-infusion time, and drip time. The pulse off time is calculated off a 60 second additional Brew time for the 6 off pulses between the 7 on pulses. Off time = 10 sec / pulse = 60 sec / 6 pulses

Manual Pulse Brew - If a operator would like to adjust the brewing time which they have been given in Auto pulse, they can change or make adjustments to the remaining on/off times. Doing this can extend or shorten the brew time originally calculated for the Auto Pulse brew thus the operator is now going to control what on and off times the brewer will use to make a pulse routine.

SMARTWAVE® - This is a brewing feature that alters the trajectory of water coming out of the sprayhead in order to enhance uniformity of extraction. This is accomplished by activating the air pump during the sprayhead on times only. When the sprayhead valve is on, the air pump will activate and blow a pulse of air which will widen the pattern of water that hits the bed of coffee. The operator will be able to set the SmartWAVE from 1-14. The plus/minus buttons will increment and decrement by 1. Each number represents the air pump turning on twice during that brew cycle. 1 (2) - 14 (28). There will always be a blowout period of 5 seconds at the end of the brew. This will evacuate water in the sprayhead to help avoid lime build up.

DRIP TIME - Drip time is the time allotted to allow for any excess coffee to drip from the funnel after a brew has been completed. The operator will be able to add up to 5 minutes worth of time. If no time is added the brew will complete and funnel locks will raise.

FRESHNESS - This time is used to help control beverage quality. An alert will pop-up full screen and state that the recipe has expired. Once acknowledged, the operator can brew as normal.

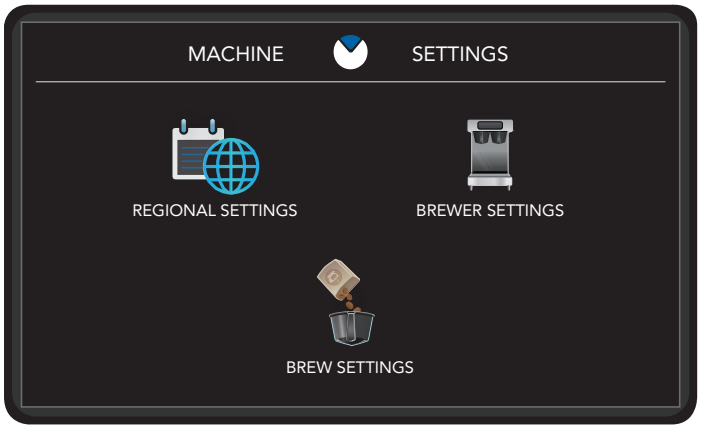
REVIEW - Selecting this icon will give the operator another method of setting a recipe. This method uses a table layout that shows the parameters and the values that are set. Selecting the white area will take the operator directly to the edit page for that parameter. The operator can change the value, SAVE, and exit back to the recipe review screen.

MACHINE SETTINGS

Selecting Brew Settings will take the user directly to the Set Temperature screen. This screen allows the setting of the temperature that the tank attempts to heat to and maintain, and at what threshold the system allows brewing to occur (if brew lockout is on). The tank set temp is the set point that the heater tries to control to, and the ready temperature is how much below the set temp that the system allows brews to occur, depending on whether or not the brew lockout (also known as temperature lockout) feature is active.

HOW TO ACCESS BREW SETTINGS

1. Touch the BUNN logo for 2 seconds to enter SERVICE ACCESS.
2. Select the ADVANCED icon.
3. At the PASSWORD ENTRY screen, select ENTER (If a password is required, enter the code at this screen).
4. In the SERVICE MENU screen, select the MACHINE SETTINGS icon.
5. The MACHINE SETTINGS screen will appear on the display. There will be a menu of icons that represent settings you can enable, disable or modify.



REGIONAL SETTINGS - Regional settings will allow the user to change the language, time & date, units, and password for the brewer. Selecting each button will navigate the user to that respective category. The BUNN programming button will navigate the user to the main home screen.

PROGRAMMING (cont.)

BREWER SETTINGS - Machine settings lets the operator make changes to the energy saver, funnel detect, and screen saver. The green check mark means the feature is enabled. Pressing the button again will disable that feature and the check mark will go away to leave just an empty white box. Once enabled if the feature has settings that must be set, the user will be taken directly to the set up screens.

BREW SETTINGS - Users can press the temp set temperature number to go to a keypad entry screen to change the value. The ready temperature will work similarly, but can only be accessed if brew lockout is enabled. If brew lockout is disabled, then the ready temperature is greyed out and the button will become inactive. Selecting the brew lockout checkbox will alternate states between enabled and disabled. If the ready temperature is active, it allows a value to be entered in a range of 2 to 20 degrees below the tank set temperature.