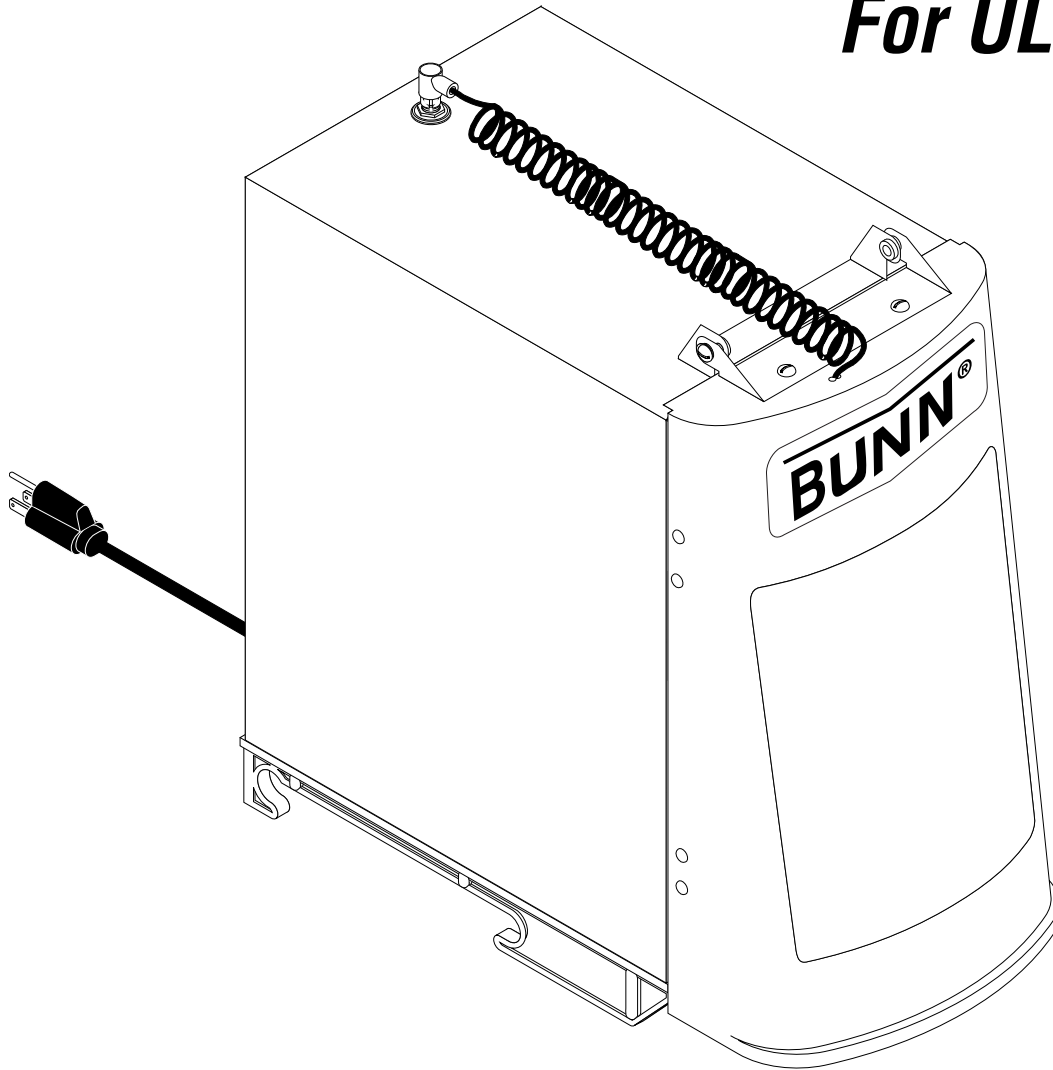


BUNN®

POWDER AUTO FILL For ULTRA-2



INSTALLATION & OPERATING GUIDE

BUNN-O-MATIC CORPORATION

POST OFFICE BOX 3227

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



BUNN-O-MATIC COMMERCIAL PRODUCT WARRANTY

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

- 1) Airpots, thermal carafes, decanters, GPR servers, iced tea/coffee dispensers, MCP/MCA pod 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 user 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.

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

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

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

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INTRODUCTION

This equipment supplies a liquid mix to the hoppers on the ULTRA-2 dispenser. It is for indoor use only on a sturdy counter or shelf.

INITIAL SET-UP

1. Loosen auger motor cover screws.
2. Remove rear plastic plug from trim strip between hopper drip trays.
3. Install support rod into hole in trim strip.
4. Place PAF platform assembly on top of motor covers.
5. Tighten support rod from top of platform.
6. Retighten motor cover screws.
7. Plug RCA cord into ULTRA base unit.
8. Install hopper seal and press firmly into place on the flange of the cooling drum.
9. Align the auger shaft with the flat fin of the auger. Push the augers as far as they will go and rotate them so the flat fin is facing up.
10. Place level probes in notch in rim of hoppers and install hoppers.
10. Install PAF units onto hoppers and platform.
11. Plug PAF power cord into rear of platform.
12. Plug PAF platform power cord into proper electrical outlet.
13. Attach a flexible water line to the .25" flare fitting on the back panel of the Powder Auto-Fill.

NOTE: A water strainer assembly (BUNN-O-MATIC #23820.1000) should be installed in line prior to the flexible water line.

NOTE - Water pipe connections and fixtures directly connected to a potable water supply shall be sized, installed and maintained in accordance with federal, state and local codes.

USER NOTICES

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

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.

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00824.0002

WARNING

DO NOT OVERLOAD CIRCUIT.
ALWAYS ELECTRICALLY GROUND
THE CHASSIS OR ADAPTOR PLUG.
DO NOT DEFORM PLUG OR CORD.
FOLLOW NATIONAL AND LOCAL
ELECTRICAL CODES.
KEEP COMBUSTIBLES AWAY.

FAILURE TO COMPLY RISKS EQUIPMENT
DAMAGE, FIRE OR SHOCK HAZARD.

READ THE ENTIRE
OPERATING MANUAL BEFORE
USING THIS PRODUCT

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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.

37881.0000

WARNING

Push back until fully latched
before removing or manually
filling chilled product hopper.

34561.0000

OPERATING INSTRUCTIONS

1. On the Ultra touch pad, make the following settings:
 - a) POWER- "ON"
 - b) DAY/NIGHT- "DAY"
 2. Pull the Powder Auto-Fill fully forward on its support rails and open the door.
 3. Fill the Powder Auto-Fill product hopper as follows:
 - a) Pull the slide gate closed on the Powder Auto-Fill product hopper elbow and remove the hopper from the Powder Auto-Fill.
 - b) Remove the lid from the product hopper and fill the hopper with a powdered granita mix.
 - c) Install the product hopper into the Powder Auto-Fill. Insure hopper is fully seated behind retainer plates.
 - d) Push the slide gate on the hopper ejector elbow to the open position.
 4. Place the ON/OFF switch at the Powder Auto-Fill whipper panel to "ON".
 5. After allowing 5 seconds for the Powder Auto-Fill to initialize, observe the door lamp. The door lamp should not be lit. If the door lamp is lit, consult the fault list located on the decal placed on the back of the door. Clear the fault before proceeding.
- NOTE:** If the Powder Auto-Fill is being used for the first time with the selected granita mix, perform an adjustment as described in **ADJUSTMENTS**.
6. Close the Powder Auto-Fill door and observe the following:
 - a) The door lamp lights steadily.
 - b) The Powder Auto-Fill begins dispensing liquid granita product.
 7. The Powder Auto-Fill will continue to fill the ULTRA product hopper until the liquid level in the ULTRA hopper reaches the product level probe or for 5 minutes, which ever occurs first.
 8. If the Powder Auto-Fill fails to fill the ULTRA hopper in 5 minutes, the following will occur:
 - a) The Powder Auto-Fill will stop dispensing product.
 - b) The door lamp will flash 4 times about every 2 seconds.
 9. After checking the ULTRA and Powder Auto-Fill set-up, the 5 minute refill fault may be cleared by simply opening and closing the Powder Auto-Fill door.
 10. Once the product level in the ULTRA covers the auger, make the following switch settings at the ULTRA control panel:
 - a) AUGER - "1".
 - b) ICE/OFF/CHILL - "ICE" or "CHILL" as appropriate for the granita product.
 11. From this point onward, the Powder Auto-Fill will continue to automatically refill the ULTRA hopper, maintaining the ULTRA product at an approximate 2 gallon level.
 12. When the Powder Auto-Fill powder level falls low, the door lamp will cycle ON and OFF, but will continue to dispense product for a preset period. When this period expires, the Powder Auto-Fill will continue to cycle the door lamp ON and OFF and will stop dispensing product.
 13. To clear the low product fault, simply refill the powder as follows:
 - a) Open the Powder Auto-Fill door.
 - b) Close the hopper slide gate.
 - c) Remove the product hopper.
 - d) Refill the product hopper with powdered granita mix.
 - e) Replace the hopper.
 - f) Push the slide gate on the hopper ejector elbow to the OPEN position.
 - g) Close the Powder Auto-Fill door.

ADJUSTMENTS

When using the Powder Auto-Fill with a new powdered granita mix, follow the procedure outlined below to adjust the Powder Auto-Fill to produce the correct recipe.

1. Determine the mix ratio of powdered granita mix. Convert the recipe so that it is expressed in terms of weight units [grams (g), dry ounces (oz), or pounds (lbs)] of powdered granita mix to fluid ounces (fl. oz.) of water [1 gallon (gal) = 128 fl.oz.; 1 liter (l) = 33.8 fl.oz.].
2. The delivery rate of the water ingredient is factory preset to 1 fl.oz. per second. Therefore, it is only necessary to adjust the delivery rate of the powdered granita mix. Adjustment is accomplished as follows:
 - a) Place the Powder Auto-Fill on top of a fully assembled ULTRA taking care to align the Powder Auto-Fill guide rails over the rollers on the platform guide rails.
 - b) Connect the Powder Auto-Fill power cord to the outlet located on the ULTRA auger motor cover.
 - c) Attach a flexible water line to the .25" flare fitting on the back panel of the Powder Auto-Fill.
 - d) On the ULTRA touch pad, make the following settings:
 - i) POWER- "ON"
 - ii) DAY/NIGHT- "DAY"
 - e) Pull the Powder Auto-Fill fully forward on its support rails
 - f) Fill the Powder Auto-Fill product hopper as follows:
 - i) Pull the slide gate closed on the Powder Auto-Fill product hopper elbow and remove the product hopper from the Powder Auto-Fill.
 - ii) Remove the lid from the product hopper and fill the hopper with a powdered granita mix.
 - iii) Install the product hopper into the Powder Auto-Fill.
 - g) Place the ON/OFF switch at the Powder Auto-Fill whipper panel to "ON".
 - h) After allowing 5 seconds for the Powder Auto-Fill to initialize, observe the door lamp on the whipper panel. The door lamp should not be lit. If the door lamp is lit, consult the fault list and clear the fault before proceeding.
 - i) Remove the hole plug on the whipper panel. Using a screwdriver, set potentiometer to approximately mid range.
 - j) Remove the mixing chamber from the Powder Auto-Fill and place a small container, such as a cup, under the product hopper ejector elbow.
 - k) Push the slide gate on the product hopper ejector elbow to the OPEN position.
 - l) Momentarily set the TEST/SERVICE switch on the whipper panel to the TEST position.
 - m) The hopper motor will run and dispense powdered granita mix for 10 seconds.
 - n) After the Powder Auto-Fill has finished the 10 second throw test, weigh the dispensed product.
 - o) Determine the dispense rate of the powdered product (weight units per second) by dividing the measured weight by 10.
 - p) Compare the measured dispense rate with the mix ratio in step 1.
 - q) Adjust the MIN/MAX control clockwise to increase the dispense rate or counterclockwise to decrease the dispense rate of the powdered granita mix.
 - r) Repeat steps l through q as necessary until proper mix ratio is achieved.
 - s) Replace the mixing chamber removed in step j. Replace hole plug.
3. Once the mix ratio has been adjusted, the Powder Auto-Fill can be run with the door open to allow the user to catch dispensed product for brix testing as follows:
 - a) Hold a container under the dispense tip of the Powder Auto-Fill.
 - b) Hold the TEST/SERVICE switch on the whipper panel to the SERVICE position.
 - c) When the container is filled to the desired level, release the TEST/SERVICE switch.
 - d) Measure the brix using the appropriate measuring device.
 - e) Remove the hole plug. Using a screwdriver, adjust the potentiometer clockwise to increase the brix or counterclockwise to decrease the brix of the product. Replace the hole plug.

NOTE: A water strainer assembly (BUNN-O-MATIC #23820.1000) should be installed in line prior to the flexible water line.

CLEANING

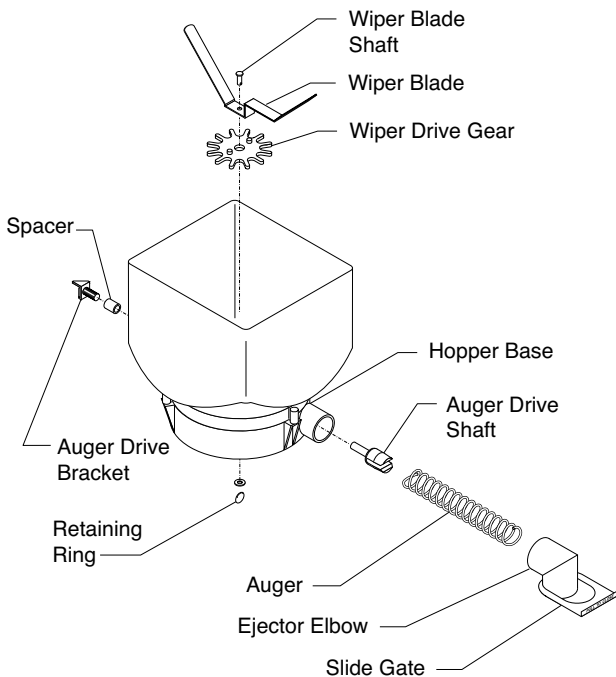
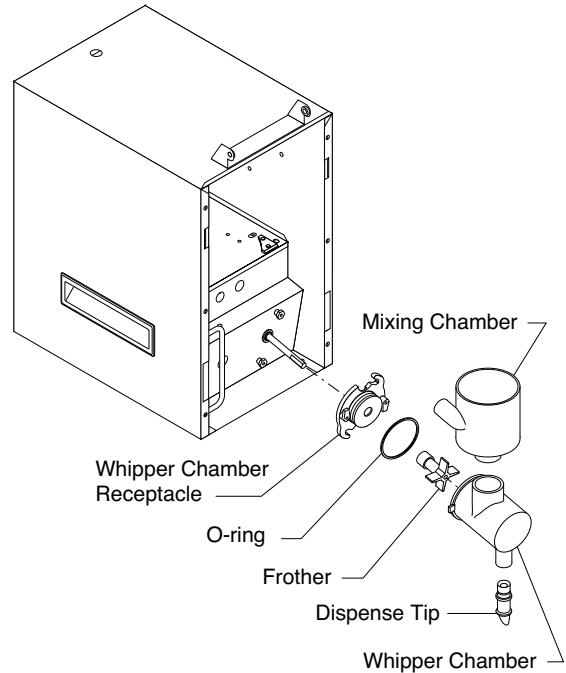
RECOMMENDED DAILY CLEANING AND MAINTENANCE TIPS

This should be done in conjunction with the recommended weekly cleaning of your ULTRA-2 machine.

Removing and cleaning the whipper chamber

(once a day):

1. Open the cabinet door.
2. Pull the mixing chamber out of the whipper chamber.
3. Twist the whipper chamber clockwise and pull it off the whipper chamber receptacle.
4. Pull the frother off the motor shaft. Notice the flat keyway on the shaft and the matching keyway inside the frother. It is important that these two keyways are lined up when reassembling.
5. Twist the whipper chamber receptacle clockwise and pull it off the motor shaft.
6. Slip the O-ring off the whipper chamber receptacle.
7. Wash components in a mild solution of dish detergent using a bristle brush.
8. Rinse thoroughly and allow to dry before reinstalling in the machine.



Thorough cleaning of the hopper

(once a week):

1. Open the cabinet door.
2. Remove the hopper/base assembly from the cabinet, remove the cover and empty the contents.
3. Pull the ejector elbow off the hopper base; remove the slide gate from the ejector elbow.
4. Remove the wiper blade and drive gear by removing the retaining ring from the wiper blade shaft.
5. Remove the auger by pulling it out of the front hopper base.
6. Remove the auger drive shaft by unscrewing the drive bracket from the auger drive shaft.
7. Wash components in a mild solution of dish detergent using a bristle brush when needed.
8. Rinse and dry each item thoroughly before reassembling.

NOTICE

The cleaning instructions noted above are for nondairy sugar based food products. When dispensing any other food product, the cleaning cycle for the whipping chamber assembly and ejector elbow must be performed daily.

FAULT LIST

Door Lamp	Fault
ON	Normal operation - Powder Auto-Fill ready to dispense
Flashes ON/OFF at 50% duty cycle	Low product level in Powder Auto-Fill hopper
Two flashes about every 2 seconds	ULTRA/Powder Auto-Fill probe circuit open
Three flashes about every 2 seconds	Powder Auto-Fill hopper not in place
Four flashes about every 2 seconds	ULTRA refill exceeded 5 minutes
OFF	Door not closed

DELAYED AUTOFILL CIRCUIT BOARD ADJUSTMENT

1. Unplug PAF unit from power source.
2. Remove rear panel.
3. Set red dipswitch on main circuit board to "ON" position.
4. Adjust on and off time knobs to position desired for proper fill and delay times. (See table below).
5. Replace rear panel, reposition PAF unit onto machine and plug in power cord.
6. The PAF unit will fill the hopper until level probe is reached.

Dispense and Delay times:

ON TIME (Dispense Time)		OFF TIME (Delay Time)	
Switch Position	Seconds	Switch Position	Minutes
0	5	0	3
1	10	1	4
2	15	2	5
3	20	3	6
4	25	4	7
5	30	5	8
6	35	6	9
7	40	7	10
8	45	8	11
9	50	9	12

The "ON Time" adjustment will set the maximum amount of product that is filled each time the level drops below the probe. The dispense rate for the PAF is approximately 1.4 ounces per second (this will vary depending on the type of product and flow rate set up). So if this setting is at position #1 (10 seconds), the machine will dispense about 14 ounces of product. Position #1 is the suggested starting set point for this machine.

The "OFF Time" adjustment will set the delay time between refilling the hopper, so that the product in the hopper will not become too diluted (melted down). Position #2 (5 minutes) is the suggested starting set point for this machine.

Please note that the machine will do a complete fill to the level probe at any initial power up and also after the door has been opened and closed again. If the machine is already filled to the probe at these times then no filling will occur until product is drawn off.

WATER BYPASS OPTION

Installing a new 3-position On/Off switch will allow you to run the product in Ultra hopper low. The third position of the switch does this by grounding the level probe making the PAF think it is full.