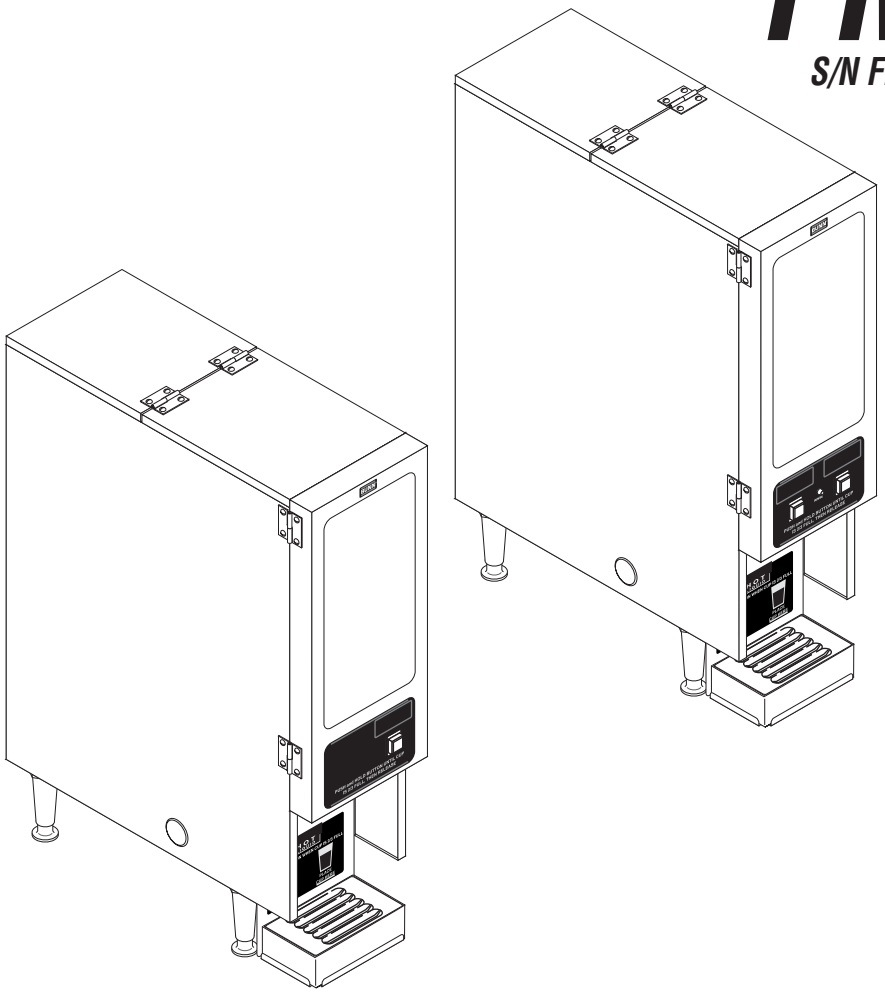
BUNN®

# FMD-1

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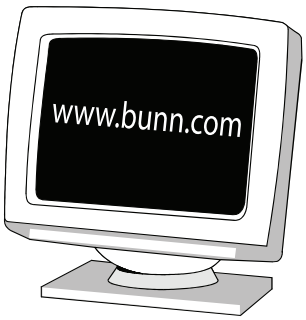
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# INSTALLATION & OPERATING GUIDE


## BUNN-O-MATIC CORPORATION

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


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

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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, 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.

**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.

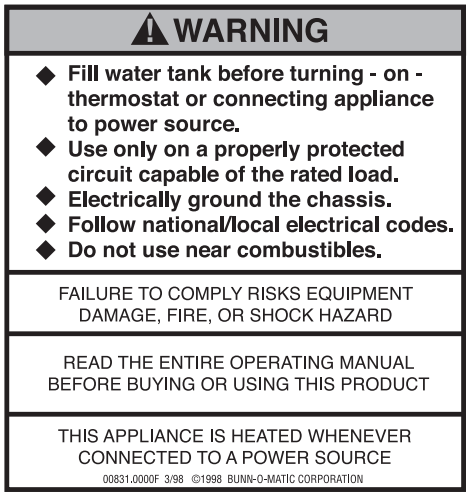
392, A Partner You Can Count On, AutoPOD, AXIOM, BrewLOGIC, BrewMETER, Brew Better Not Bitter, BrewWISE, BrewWIZARD, BUNN Espress, BUNN Family Gourmet, BUNN Gourmet, BUNN Pour-O-Matic, BUNN, BUNN with the stylized red line, BUNNlink, Bunn-OMatic, Bunn-O-Matic, BUNNserve, BUNNSERVE with the stylized wrench design, Cool Froth, DBC, Dr. Brew stylized Dr. design, Dual, Easy Pour, EasyClear, EasyGard, FlavorGard, Gourmet Ice, Gourmet Juice, High Intensity, iMIX, Infusion Series, Intellisteam, My Café, Phase Brew, PowerLogic, Quality Beverage Equipment Worldwide, Respect Earth, Respect Earth with the stylized leaf and coffee cherry design, Safety-Fresh, savemycoffee.com, Scale-Pro, Silver Series, Single, Smart Funnel, Smart Hopper, SmartWAVE, Soft Heat, SplashGard, The Mark of Quality in Beverage Equipment Worldwide, ThermoFresh, Titan, trifecta, Velocity Brew, Air Brew, Air Infusion, Beverage Bar Creator, Beverage Profit Calculator, Brew better, not bitter., BUNNSource, Coffee At Its Best, Cyclonic Heating System, Daypart, Digital Brewer Control, Element, Nothing Brews Like a BUNN, Pouring Profits, Signature Series, Tea At Its Best, The Horizontal Red Line, Ultra are either trademarks or registered trademarks of Bunn-O-Matic Corporation. The commercial trifecta® brewer housing configuration is a trademark of Bunn-O-Matic Corporation.

## INTRODUCTION

This equipment dispenses hot beverages or soups on demand from powered product. It is for indoor use only on a sturdy counter or shelf.

## USER NOTICES

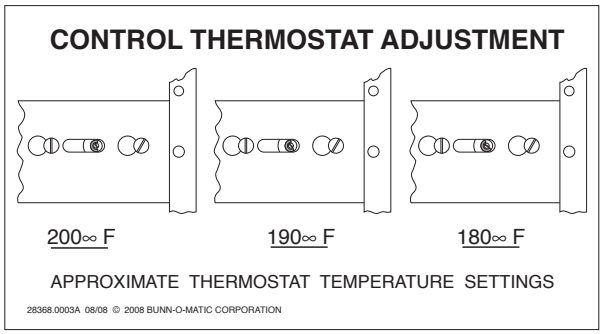
Carefully read and follow all notices on the equipment and in this manual. They were written for your protection. All notices are to be kept in good condition. Replace any unreadable or damaged labels.



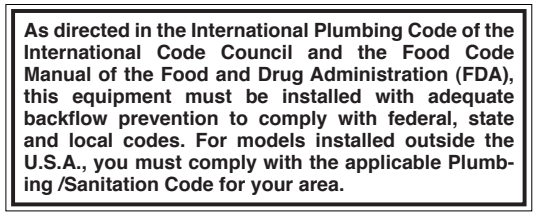

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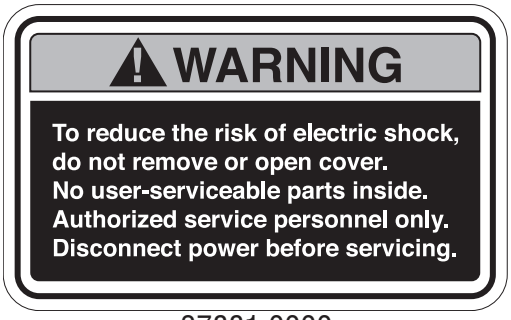

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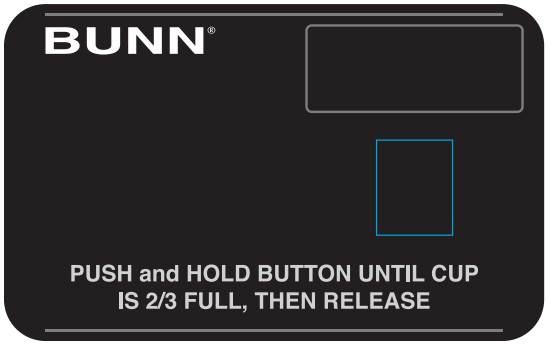

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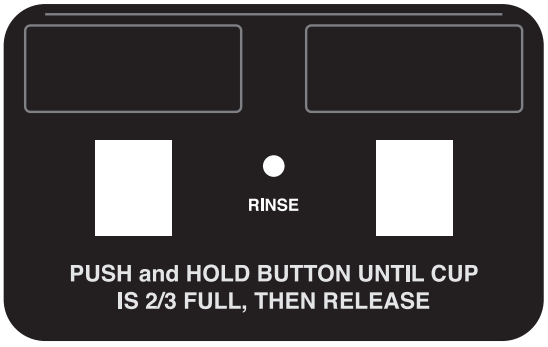

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FMD-2 28328.0005




28964.0000




28964.0001

## INITIAL SET-UP

1. Locate the drip tray assembly beneath the dispenser nested in the packing material.
2. Remove the drip tray and the drip tray cover and set them aside.
3. Remove the water strainer assembly from the drip tray and set it aside.
4. Remove the four legs from the packaging material, apply non-skid pads to the bottom of the legs and securely install the legs in the dispenser base.

## CE REQUIREMENTS

- This appliance must be installed in locations where it can be overseen by trained personnel.
- For proper operation, this appliance must be installed where the temperature is between 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 water jet.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given instructions concerning use of this appliance by a person responsible for its safety.
- Children 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.

## ELECTRICAL REQUIREMENTS

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

The 120 volt version of this dispenser has an attached cordset and requires 2-wire, grounded service rated 120 volts ac, 15 amp, single phase, 60 Hz. The mating connector must be a NEMA 5-15R.

The 120/208 and the 120/240 versions of this dispenser has an attched cordset. The mating connector must be a NEMA 14-20R.

The 220-240 volt version of this dispenser has an attached cordset.

**Refer to the dispenser's dataplate and local/national electrical codes for exact voltage requirement.**

## ELECTRICAL HOOK-UP

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

1. An electrician must provide electrical service as specified.
2. Using a voltmeter, check the voltage and color coding of each conductor at the electrical source.
3. Open the front door of the dispenser and place the heater switch in the "OFF" (upper position).
4. Connect the dispenser to the power source.
5. If plumbing is to be hooked-up later be sure the dispenser is disconnected from the power source. If plumbing has been hooked-up, the dispenser is ready for Initial Fill & Heat.

## PLUMBING REQUIREMENTS

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

**NOTE** - Bunn-O-Matic recommends ¼" copper tubing for installations of less than 25 feet and ⅜" for more than 25 feet from the ½" water supply line. At least 18 inches of an FDA approved flexible beverage tubing, such as reinforced braided polyethylene or silicone, before the brewer will facilitate movement to clean the countertop. Bunn-O-Matic does not recommend the use of a saddle valve to install the brewer. The size and shape of the hole made in the supply line by this type of device may restrict water flow.

**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 (Early Models)

1. Securely attach the short piece of tubing on the water strainer assembly to the inlet fitting on the bottom of the dispenser.
2. Flush the water line and securely attach it to the flare fitting on the water strainer assembly.
3. Turn-on the water supply.

## PLUMBING HOOK-UP (Late Models)

1. Flush the water line and securely attach it to the elbow fitting on the bottom of the dispenser.
2. Turn-on the water supply.

**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.

## PRESET TANK TEMPERATURE

Tank temperatures have been preset at the factory to 180°F (82°C). Bunn recommends that to provide the best quality beverage, the installer adjust the tank temperature to the powder product manufacturer's recommended temperature for the hot powder product being used.

## INITIAL FILL & HEAT

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

1. Turn-on the water supply and connect the dispenser to the power source.
2. Water will automatically flow into the tank to the proper level and then shut-off. This will take less than five minutes.
3. When the tank is full of water, open the front door and place the heater switch in the "ON" (lower) position. A tank full of cold water will take approximately forty minutes for the water to heat on 120 volt versions or twenty minutes for 120/208 volt versions, 120/240 volt versions and 220-240 volt versions.

During this waiting period, complete these dispenser set-up steps:

a. Place the drip tray in front of the dispenser. Set the drip tray cover in place.
b. Place a set of keyholes in the cup locator plate over the screws beneath the hopper access door and push down gently.
c. Fill the hopper with the dry product to be dispensed.

## LIQUID LEVEL CONTROL

The system automatically maintains the hot water tank's level by energizing the refill solenoid when the water level drops below the liquid level probe. If the system for the FMD-2 only has not successfully refilled in 7 1/2 minutes, a refill error occurs.

When a refill error occurs, the refill solenoid is de-energized and the rinse L.E.D. will flash about once every 5 seconds.

Once the cause of the refill error has been investigated (see the troubleshooting guide in the Operating and Service Manual) and cured, the system can be reset by disconnecting (for at least 5 seconds) and then reconnecting the power to the machine.

## RINSE TIMER (FMD-2 ONLY)

The dispenser is shipped from the factory with the rinse timer disabled. To enable the rinse timer, remove power from the dispenser, remove the lower access panel, and remove the jumper from J1 of the control board. Replace the lower access panel, and return power to the dispenser.

When enabled, the rinse timer automatically keeps track of the time since the dispenser was last run through a rinse sequence. If the dispenser detects that a rinse sequence has not been run for 8 hours, the rinse L.E.D. will flash continually. If, after an additional 4 hours (12 hours total), a rinse sequence has still not been run, the rinse L.E.D. will light continuously, and the hopper drives will be disabled until a rinse sequence has been run.

## RUNNING A RINSE SEQUENCE

1. Place the rinse/run switch in the rinse position.
2. Sequentially, or simultaneously, at each of the two positions (FMD-2 only) dispense for at least 10 seconds.
3. After the rinse L.E.D. has extinguished, the rinse timer is reset (FMD-2 only).
4. Return the rinse/run switch to the run position.

## DISPENSER USE

1. Simply place a cup on the drip tray beneath the dispensing tip.
2. Press the button to froth and dispense the beverage.
3. Release the button when the cup is approximately $^{2}/_{3}$ full and allow the mixing chamber to drain.

**NOTE** - The mixing chamber must drain at the end of each dispense.

## COLD BEVERAGE SET-UP (OPTIONAL FMD-2 ONLY)

Cold beverages may be dispensed from the left dispense position as follows:

1. Disconnect the dispenser from the power source.
2. Remove the lower front access panel.
3. Locate the Hot/Cold jumper connection near the whipper panel in the main wiring harness.
4. Remove the Hot jumper connection (red jumper plug) from the main wiring harness and connect the Cold jumper connection (blue jumper plug) to the main harness.
5. Replace the lower front access panel and reconnect the dispenser to the power source.

## PREVENTIVE MAINTENANCE

Bunn-O-Matic® Corporation recommends that preventive maintenance be performed at regular intervals. Maintenance should be performed by a qualified service technician. For Technical Service, contact Bunn-O-Matic® Corporation at 1-800-286-6070.

**NOTE: Replacement parts or service caused by failure to perform required maintenance is not covered by warranty.**

| Cycle (months) | Item | Part Number |
|---|---|---|
| 6 | Mixing Chamber Kit | 32906.0000 |
| 6 | Whipper Motor Seal Kit | 29128.0000 |
| 3 or as needed | Whipper Shaft Seal Kit | 26356.1000 |

## CLEANING

The use of a damp cloth rinsed in any mild, non-abrasive, liquid detergent is recommended for cleaning all surfaces on Bunn-O-Matic equipment. Do **NOT** clean this equipment with a water jet device.

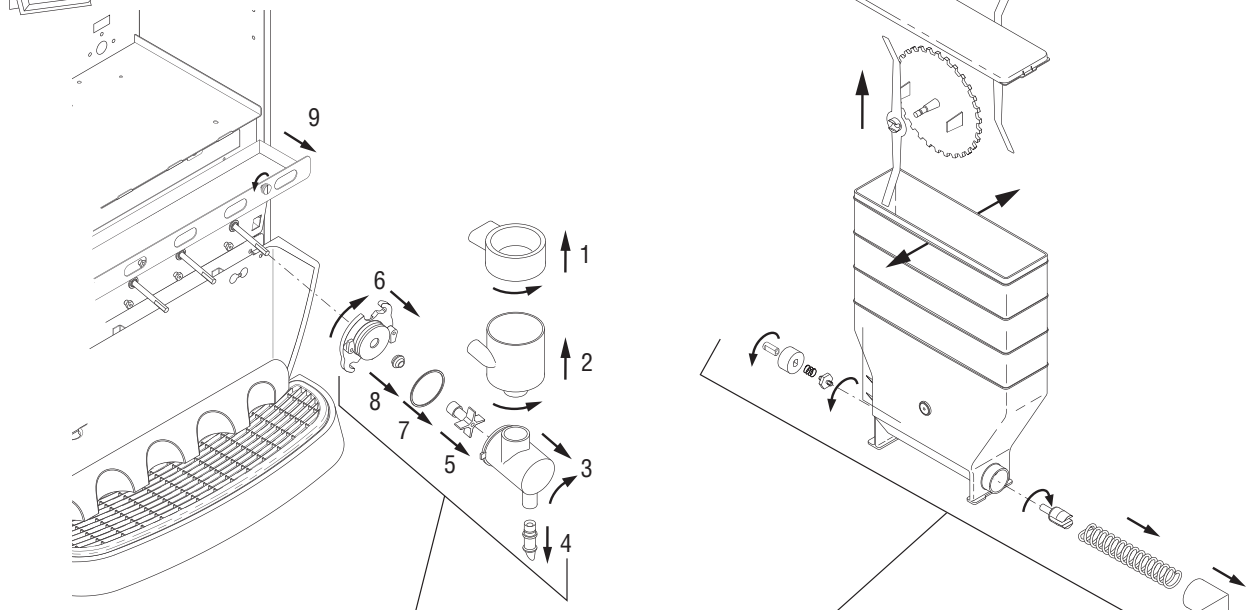
**1 x 24h**

# BUNN®

1. Rinse out Whipper Chambers by placing RINSE/RUN switch in the "RINSE" position and activating DISPENSE switches.
2. Turn elbow up, remove Hoppers, refill with product and replace hoppers into dispenser.
3. Empty Drip Tray and wash in a solution of dish detergent.

1. Para limpiar las camaras de mezcla, coloque el interruptor en la posicón ENJUAGUE/MARCHA ("RINSE/RUN") y pulse el boton para espumar y distribuir la bebida ("DISPENSE").
2. Gire el codo hacia arriba, remueva las tolvas, llene las tolvas con producto y coloque las tolvas nuevamente en la maquina.
3. Vacie la bandeja de goteo y limpiela con un detergente liquido suave no abrasivo.

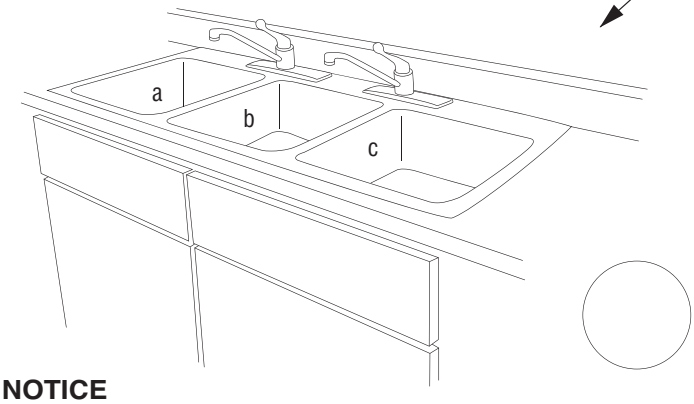
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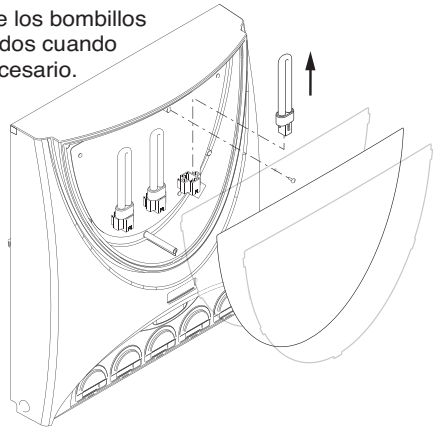

a. Wash
b. Rinse
c. Sanitize
d. Dry

a. Lave
b. Enjuague
c. Desinfecte
d. Seque




Replace Light Bulbs as required.

Cambie los bombillos quemados cuando sea necesario.



**NOTICE**

The cleaning instructions noted above are for non-dairy 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.

**NOTA:**

Las instrucciones de limpieza descritas anteriormente excluyen productos lacteos azucarados. La limpieza de las camaras de mezcla y de los codos de salida de cada tolva deberá realizarse diariamente.

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## ADJUSTMENTS

The beverage solenoid is preset to dispense approximately one ounce per second. This amount can be adjusted:

1. Disconnect the dispenser from the power source.
2. Remove product hopper(s).
3. Remove the hole plug(s) in the auger motor mounting panel.
4. Rotate the control at the base of the solenoid clockwise to decrease or counterclockwise to increase the amount of water.
5. Reinstall plug(s) and hopper(s).

## HOPPER MOTOR SPEED ADJUSTMENT (FMD-1)

The hopper dispense rate is preset at the factory. With 8 tooth gear and auger wire the preset dispense rate is approximately 3 to 5 grams per second. With 12 tooth gear and auger wire the preset dispense rate is approximately 5 to 7 grams per second. The hopper dispense rate can be adjusted to a range of dispense rates from approximately 1.5 to 12 grams per second, as follows:

1. Set the tank heater switch to the off position.
2. Open the top front cover of the dispenser and remove the two screws securing the top cover.
3. Remove the top cover assembly and set it aside.
4. Locate the motor speed adjuster (leftmost) on the dispenser cabinet top cross member.
5. Using extreme care not to touch the live terminals of the tank heater, adjust the motor speed by rotating the motor speed adjuster to the desired point, ranging from minimum (full counterclockwise) to maximum (full clockwise.)
6. After the motor adjustment is complete, replace the top cover assembly, securing it with the two screws, and return the tank heater switch to the on position.

## HOPPER MOTOR SPEED PROGRAMING (FMD-2)

The hopper dispense rate is preset at the factory. With 22 tooth gear and auger wire the preset dispense rate is approximately 3 to 5 grams per second. With 32 tooth gear and auger wire the preset dispense rate is approximately 5 to 7 grams per second. The hopper dispense rate can be adjusted to a range of dispense rates from approximately 1.5 to 12 grams per second, as follows:

1. Place the rinse/run switch in the center (program) position.
2. Place the increase/decrease switch in the desired (increase or decrease) position.
3. Press and release the dispense switch for the chamber you wish to adjust. Each time the dispense switch is pressed, the rinse L.E.D. will flash, and the motor speed for that hopper will be increased/decreased by approximately 2 1/2%.
4. Return the rinse/run switch to the run position after hopper motor speed adjustments are complete.

## DRAINING THE HOT WATER TANK

**CAUTION** - The dispenser must be disconnected from the power source throughout these steps.

1. Disconnect the dispenser from the power source.
2. Open front door and place tank heater switch in the “OFF” (upper) position.
3. Shut-off and disconnect the incoming water supply.
4. Remove the top panel.
5. Gently remove one of the grommets from the tank lid.
6. Insert a tube to the bottom of the tank and syphon ALL of the water out.

**NOTE** - The dispenser must be refilled using the INITIAL FILL & HEAT steps before reconnecting to the power source.