



BLOOMFIELD INDUSTRIES
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Verdi, NV 89439 U.S.A.
Customer Service (775) 345-0444 Ext.502
fax (775) 345-0569
www.wellsbloomfield.com



*Model 2216
shown with
optional
decanters*

OWNERS MANUAL
LX
DECANTER
BREWER

MODELS
2212
2216
2216EX
2272
2274EX

Includes
INSTALLATION
OPERATION
USE & CARE
SERVICE

WARRANTY STATEMENT

All electrical equipment manufactured by BLOOMFIELD INDUSTRIES is warranted against defects in materials and workmanship for a period of one year from the date of original installation or eighteen (18) months from the date of shipment from our factory, whichever comes first, and is for the benefit of the original purchaser, except that:

- a. airpots carry a 30 day parts warranty only.
- b. dispensers; i.e., tea and coffee carry a 90 days parts warranty only, excludes decanters.

THE FOREGOING OBLIGATION IS EXPRESSLY GIVEN IN LIEU OF ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXCLUDED.

BLOOMFIELD INDUSTRIES DIVISION / SPECIALTY EQUIPMENT MANUFACTURING CORPORATION SHALL NOT BE LIABLE FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES FROM ANY CAUSE WHATSOEVER.

This warranty is void if it is determined that upon inspection by an Authorized Service Agency that the equipment has been modified, misused, misapplied, improperly installed, or damaged in transit or by fire, flood or act of God.

It also does not apply if the serial nameplate has been removed or unauthorized service personnel perform service. The prices charged by Bloomfield Industries for its products are based upon the limitations in this warranty. Seller's obligation under this warranty is limited to the repair of defects without charge by a Bloomfield Industries Authorized Service Agency or one of its sub-agencies. This service will be provided on customer's premises for non-portable models. Portable models (a device with a cord and plug) must be taken or shipped to the closest Authorized Service Agency, transportation charges prepaid, for services.

In addition to restrictions contained in this warranty, specific limitations are shown below (Additional Warranty Exclusions). Bloomfield Industries Authorized Service Agencies are located in principal cities.

This warranty is valid in the United States and void elsewhere. Please consult your classified telephone directory or your food service equipment dealer; or, for information and other details concerning warranty, write to:

**Service Parts Department
Bloomfield Industries
P.O. Box 280
Verdi, NV 89439**

Phone: (775) 345-0444 Fax: (775) 345-0569

SERVICE POLICY AND PROCEDURE GUIDE ADDITIONAL WARRANTY EXCLUSIONS

1. Resetting of safety thermostats, circuit breakers, overload protectors, or fuse replacements unless warranted conditions are the cause.
2. All problems due to operation at voltages other than specified on equipment nameplates; conversion to correct voltage must be the customer's responsibility.
3. All problems due to electrical connections not made in accordance with electrical code requirements and wiring diagrams supplied with the equipment.
4. Replacement of items subject to normal wear, to include such items as knobs and light bulbs. Normal maintenance functions including adjustment of thermostats, microswitches, and replacement of fuses and indicating lights are not covered under warranty.
5. All problems due to inadequate water supply, such as fluctuating, or high or low water pressure.
6. All problems due to mineral/calcium deposits, or contamination from chlorides/chlorines. De-liming is considered a preventative maintenance function and is not covered by warranty.
7. Full use, care and maintenance instructions are supplied with each machine. Those miscellaneous adjustments noted are customer responsibility. Proper attention will prolong the life of the machine.
8. Travel mileage is limited to sixty (60) miles from an authorized Service Agency or one of its sub-agencies.
9. All labor shall be performed during normal working hours. Overtime premium shall be charged to the customer.
10. All genuine Bloomfield replacement parts are warranted for ninety (90) days from date of purchase on non-warranted equipment. **Any use of non-genuine Bloomfield parts completely voids any warranty.**
11. Installation, labor and job check-out are not considered warranty.
12. Charges incurred by delays, waiting time or operating restrictions that hinder the service technicians ability to perform services are not covered by warranty. This includes institutional and correctional facilities.

SHIPPING DAMAGE CLAIMS PROCEDURE

NOTE: For your protection, please note that equipment in this shipment was carefully inspected and packaged by skilled personnel before leaving the factory.

Upon acceptance of this shipment, the transportation company assumes full responsibility for its safe delivery.

IF SHIPMENT ARRIVES DAMAGED:

1. **VISIBLE LOSS OR DAMAGE:** Be certain that any visible loss or damage is noted on the freight bill or express receipt, and that the note of loss or damage is signed by the delivery person.
2. **FILE CLAIM FOR DAMAGE IMMEDIATELY:** Regardless of the extent of the damage.

3. **CONCEALED LOSS OR DAMAGE:** if damage is unnoticed until the merchandise is unpacked, notify the transportation company or carrier immediately, and file "CONCEALED DAMAGE" claim with them. This must be done within fifteen (15) days from the date the delivery was made to you. Be sure to retain the container for inspection.



Bloomfield Industries cannot assume liability for damage or loss incurred in transit. We will, however, at your request, supply you with the necessary documents to support your claim.

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SPECIFICATIONS

ELECTRICAL SPECIFICATIONS*

MODEL	WATTS	VOLTS 1 ϕ	Hz	CIRCUIT REQUIRED	WIRE
2212	1800 	120	50/60	15 AMP (NEMA 5-15R)	2 + ground
2216	3500	120/240	50/60	HARD WIRE TO CIRCUIT BREAKER	3 + ground
2272	1800 	120	50/60	15 AMP (NEMA 5-15R)	2 + ground
2216EX	3500	240	50/60	HARD WIRE TO CIRCUIT BREAKER	2 + ground
2274EX	3500	240	50/60	HARD WIRE TO CIRCUIT BREAKER	2 + ground

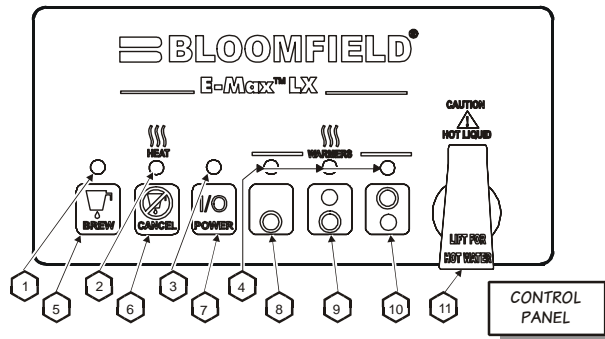
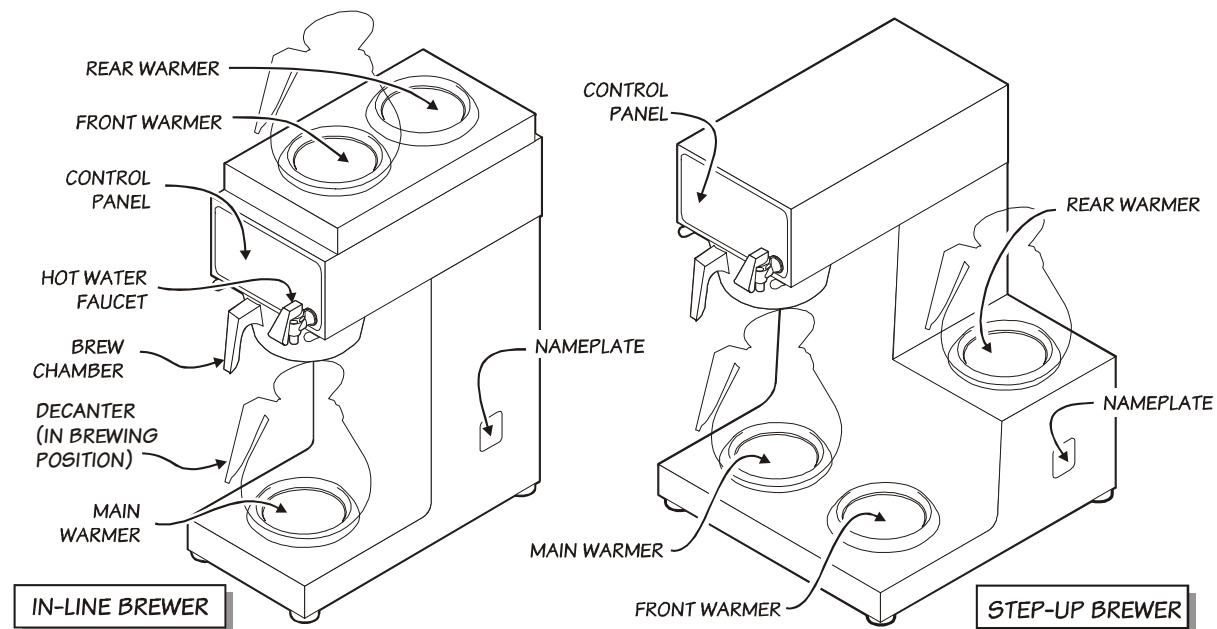
 Canada 1500 watts

DIMENSIONS*

MODEL	CONFIGURATION	HEIGHT	WIDTH	OVER ALL DEPTH
2212	3 Warmer In-Line	19 5/8" (498 mm)	9 1/4" (235 mm)	22 5/8" (575 mm)
2216	3 Warmer In-Line	17 5/8" (498 mm)	9 1/4" (235 mm)	22 5/8" (575 mm)
2272	3 Warmer Step-Up	19 5/8" (498 mm)	16 1/4" (235 mm)	22 5/8" (575 mm)
2216EX	3 Warmer In-Line	17 5/8" (498 mm)	9 1/4" (235 mm)	22 5/8" (575 mm)
2274EX	3 Warmer Step-Up	19 5/8" (498 mm)	16 1/4" (235 mm)	22 5/8" (575 mm)

* for complete information regarding specifications and dimensions, please consult the GLD (General Layout Data) for the appliance (2212 & 2216 GLD p/n 75038, 2272 GLD p/n 75046).

FEATURES & OPERATING CONTROLS



- | | | |
|-----|-------------------|---|
| 1. | Brew Indicator | Glows during brew cycle, flashes in "Brew Wait" |
| 2. | Heat Indicator | Glows when heating elements are energized |
| 3. | Power Indicator | Glows when power is on |
| 4. | Warmer Indicators | Glow when individual warmers are turned on |
| 5. | Brew Key | Press to initiate brew cycle |
| 6. | Cancel Key | Press to terminate brew cycle |
| 7. | Power Key | Press to turn brewer on or off |
| 8. | Main Warmer Key | Press to turn main warmer on or off |
| 9. | Front Warmer Key | Note: Turns on automatically when brew is started
Press to turn front warmer on or off |
| 10. | Rear Warmer Key | Press to turn rear warmer on or off |
| 11. | Hot Water Faucet | Dispense up to 2 cups of hot water at a time for tea, etc. |

PRECAUTIONS AND GENERAL INFORMATION



WARNING: Electric Shock Hazard

All servicing requiring access to non-insulated components must be performed by qualified service personnel. Do not open any access panels which require the use of tools. Failure to heed this warning can result in electrical shock.



WARNING: Injury Hazard

All installation procedures must be performed by qualified personnel with full knowledge of all applicable electrical and plumbing codes. Failure could result in property damage and personal injury.



WARNING Electric Shock Hazard

Brewer must be properly grounded to prevent possible shock hazard. DO NOT assume a plumbing line will provide such a ground. Electrical shock will cause death or serious Injury.



WARNING: Burn Hazard

This appliance dispenses very hot liquid. Serious bodily injury from scalding can occur from contact with dispensed liquids.

This appliance is intended for commercial use only.

This appliance is intended for use to brew beverage products for human consumption. No other use is recommended or authorized by the manufacturer or its agents.

This appliance is intended for use in commercial establishments, where all operators are familiar with the appliance use, limitations and associated hazards. Operating instructions and warnings must be read and understood by all operators and users.

Except as noted, this piece of equipment is made in the USA and has American sizes on hardware. Please note: Metric hardware is used to mount the inlet (Fill) solenoid. All metric conversions are approximate and can vary in size.

The following trouble shooting, component views and parts lists are included for general reference, and are intended for use by qualified service personnel.

This manual should be considered a permanent part of this appliance. The manual must remain with the appliance if it is sold or moved to another location.



CAUTION: Equipment Electrical Damage

DO NOT plug in or energize this appliance until all Installation Instructions are read and followed. Damage to the Brewer will occur if these instructions are not followed.



CAUTION: Burn Hazard

To avoid splashing or overflowing hot liquids, ALWAYS use an empty decanter before starting the brew cycle. Failure to comply can cause serious burns.



CAUTION: Burn Hazard

After a brew cycle, brew basket contents are HOT. Remove the brew basket and dispose of used grounds with care. Failure to comply can cause serious burns.



CAUTION: Burn Hazard

Exposed surfaces of the appliance, brew basket and decanter may be HOT to the touch, and can cause serious burns.

INSTALLATION INSTRUCTIONS

READ THIS CAREFULLY BEFORE STARTING THE INSTALLATION

IMPORTANT:

To enable the installer to make a quality installation and to minimize installation time, the following suggestions and tests should be done before the actual unit installation is started:



CAUTION: Equipment Electrical Damage

DO NOT plug in or energize this appliance until all Installation Instructions are read and followed. Damage to the Brewer will occur if these instructions are not followed.



CAUTION: Unstable Equipment Hazard

It is very important for safety and for proper operation that the brewer is level and stable when standing in its final operating position. Provided adjustable, non-skid legs must be installed at each corner of the unit. Failure to do so will result in movement of the brewer which can cause personal injury and/or damage to brewer.

NOTE: Water supply inlet line must meet certain minimum criteria to insure successful operation of the brewer. Bloomfield recommends 1/4" copper tubing for installation of less than 12 feet and 3/8" for more than 12 feet from a 1/2" water supply line.

REFER TO EXPLODED VIEWS PAGES 16 thru 19 FOR COMPONENT NAMES/NUMBERS

1. Unpack the unit. Inspect all components for completeness and condition. Ensure that all packing materials have been removed from the unit.
2. (See page 13.) Remove the Top Warmer Unit (#106) or Top Cover (#102) and inspect the internal components. Verify that all wiring and hoses are connected and are properly seated. Verify that the Tank Cover Assembly (#9) and Tank Cover Gasket (#6) are securely installed. Reinstall top.
3. (See page 13.) Verify that the Spray Head (#24) and Spray Head Gasket (#23) are properly installed.

LEVELING THE UNIT

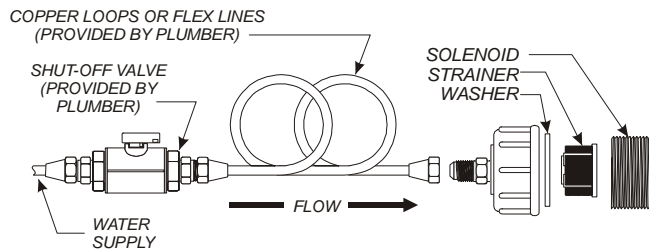
1. Verify that an adjustable leg is installed at each corner of the brewer.
2. Set Brewer in its operating location.
3. Level the Brewer. A spirit level should be placed on the top of the unit, at the edge, as a guide when making level adjustments.
4. Level the unit from left to right and front to back by turning the adjustable feet. Be sure all four feet touch the counter to prevent tipping.

PLUMBER'S INSTALLATION INSTRUCTIONS

1. Brewer should be connected to a **POTABLE WATER, COLD WATER** line. Flush water line before connecting to Brewer.
2. DO NOT use a saddle valve with a self-piercing tap for the water line connection. Such a tap can become restricted by waterline debris. For systems that must use a saddle tap, shut off the main water supply and drill a 3/16" (minimum) tap for the saddle connection, in order to insure an ample water supply. Remember to flush the line prior to installing the saddle.
3. The brewer must be installed on a water line with average pressure between 20 PSI and 90 PSI. If your water pressure exceeds 90 PSI at anytime, a pressure regulator must be installed in the water supply line to limit the pressure to not more than 90 PSI in order to avoid damage to filters, lines and solenoid.

INSTALLATION INSTRUCTIONS (continued)

- A water shut-off valve should be installed on the incoming water line in a convenient location (Use a low restriction type valve, such as a 1/4-turn ball valve, to avoid loss of water flow thru the valve).
- NSF requires that the brewer be able to be moved for cleaning underneath. A flex line or loops of copper tubing will satisfy this requirement.



- In some areas, local codes require a backflow preventer (check valve) to be installed on the inlet water line. If a back flow preventer is used, you must install a **water hammer arrester** in the incoming line, between the backflow preventer and the brewer inlet, as far away from the brewer as space will allow. This will relieve the excessive back pressures that can cause faucet leaks and solenoid malfunctions.

ELECTRICIAN'S INSTALLATION INSTRUCTIONS

REFER TO ELECTRICAL SPECIFICATIONS - Page 1

Check the nameplate to determine correct electrical service required for the Brewer to be installed.

NOTE: Models 2212 & 2272 require a 115 - 125 V 15A circuit (50/60 Hz, 2 wire plus earth ground, with NEMA 5-15R or 5-20R Receptacle)

Model 2216 requires a 120/240V 20A circuit (50/60 Hz, 2 hot legs / 1 neutral leg, plus earth ground). Circuit must be capable of 3500 Watts.

NOTE: This equipment must be installed to comply with applicable federal, state and local codes and ordinances.

WARNING ELECTRIC SHOCK HAZARD:

Brewer must be properly grounded to prevent possible shock hazard. **DO NOT** assume a plumbing line will provide such a ground. Electrical shock will cause death or serious injury.


IMPORTANT: Do not attempt to override the automatic tank fill feature which requires that the tank must be full of water to start operations. Any attempt to override this feature will void the warranty.

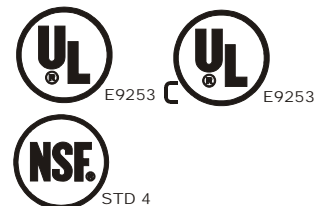
IMPORTANT: Before connecting to electricity, make sure the E-Max™ LX has been properly connected to the water supply.

IMPORTANT: Supply power must match nameplate for voltage and phase. Connecting to the wrong voltage will damage the brewer or result in decreased performance. Such damage is not covered by warranty.

AGENCY APPROVAL INFORMATION

This brewer is  and  listed under UL file E9253.

This brewer meets  Standard 4 only when installed, operated and maintained in accordance with the enclosed instructions.



OPERATING INSTRUCTIONS

To over-ride the Brew Wait mode, press and hold the BREW key for 3 seconds when the brewer is in Brew Wait mode (i.e. when brew light is flashing). The brew will proceed immediately regardless of water temperature. This feature should only be used when testing water volume, otherwise the brew will proceed with the water below the precise brew temperature.

Note: the following safety features have been incorporated to prevent multiple unattended brews:

The brew key is in-operative during a brew cycle. This minimizes the possibility of double brewing.

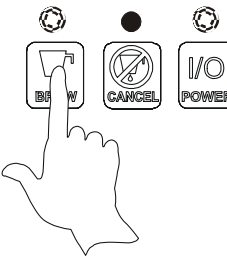
When the "Brew" light is on or flashing, repeated pressing of the BREW switch will be ignored, (there will be a beep each time it is pressed). A Brew will only be activated when the "Brew" light is off.

- 1. Energizing the Brewer:** When electricity has been connected to the unit, there will be a momentary flash of the power light. Turn the brewer on by pressing the POWER key.



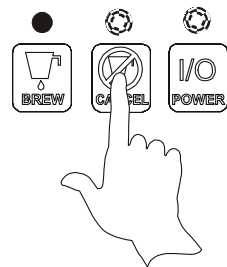
The brewer will start to fill the tank. With the proper water supply the tank should be filled in about 2½ minutes. Once filled, the heating element will come on until the proper tank temperature has been reached, (which will take about 20 minutes on 120-Volt models or about 12 minutes on 120/240 Volt models).

- 2. Brewing (Precise Temperature for Brewing™ — PTB™):** In the regular operating mode, the E-Max™ LX maintains the tank temperature within +/- 1°F of the brew temperature. Normally this will mean that a brew will be started as soon as the BREW key is pressed. However, there may be a slight delay if the BREW key is pressed immediately after a brew has been completed (notably on 120-volt models). If the tank temperature is below the brew temperature, the brew will be delayed, going into the "Brew Wait" mode, with the brew light flashing. As soon as the correct temperature is reached the brew will commence with the brew light on continuously during the brew. When the brew begins the main warming station will be turned on automatically (if it is not already on). During the brew cycle, if the BREW key is pressed, it will be ignored. Only when the brew is complete can another brew be started.



temperature is reached the brew will commence with the brew light on continuously during the brew. When the brew begins the main warming station will be turned on automatically (if it is not already on). During the brew cycle, if the BREW key is pressed, it will be ignored. Only when the brew is complete can another brew be started.

- 3. Brew Cancel:** To cancel a brew in progress, press the CANCEL



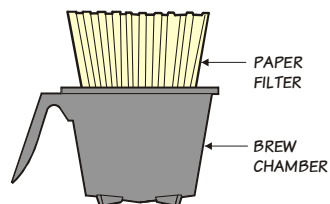
KEY: two beeps will sound and the "Brew" light will go out. Water flowing to the brew chamber will be stopped immediately, but if there is already water in the brew chamber, it will take a few moments before this drips through as coffee.

- 4. Normal Operation (Non Brewing):** When the unit is not brewing, the E-Max™ LX maintains the water temperature at the Precise Temperature for Brewing™ (PTB™). The heating element will cycle on and off automatically to maintain this temperature.

- 5. After Hours Mode:** If no brew is detected for a pre-selected length of time, the brewer will enter the After Hours mode. Temperature will be allowed to drop to save energy. Pressing the BREW KEY returns the brewer to normal operation.

USER'S GUIDE

1. Remove the **brew chamber** from under the spray head. Place one (1) genuine Bloomfield paper filter into the brew chamber. Add your choice of pre-measured ground coffee. Shake the brew chamber gently to level the coffee. Slide the brew chamber back into place.



2. Place an empty **decanter** under the brew chamber.
3. To begin the brew cycle, press BREW key. Hot water will start spraying over the coffee, and brewed coffee will start filling the decanter. When the coffee stops flowing from the brew chamber, the fresh coffee is ready to serve.



NOTE: Brewing will not begin until the Precise Temperature for Brewing™ has been reached. (See page 6)

4. After all dripping has stopped, remove the brew chamber from the brewer. Discard the used paper filter and product.



5. The brewer is now be ready to begin another brewing cycle.



WARNING:
Burn Hazard.
This appliance dispenses very hot liquid. Serious bodily injury from scalding can occur from contact with dispensed liquids.



CAUTION:
Burn Hazard

To avoid splashing or overflowing hot liquids, ALWAYS use an empty decanter before starting the brew cycle. Failure to comply can cause serious burns.



CAUTION:
Burn Hazard

After a brew cycle, brew chamber contents are HOT. Remove the brew chamber and dispose of used filter and grounds with care. Failure to comply can cause serious burns.



CAUTION:
Burn Hazard

Exposed surfaces of the appliance, as well as brew chamber and decanter may be HOT to the touch, and can cause serious burns.

CLEANING INSTRUCTIONS



CAUTION: Burn Hazard

Brewing and serving temperatures of coffee are extremely hot. Hot coffee will cause serious skin burns.

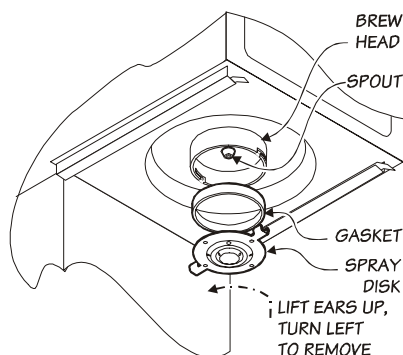


CAUTION: Electric Shock Hazard

Do not submerge or immerse brewer in water. Do not pour or splash water into or over air vents, control panel or warmer plates.

IMPORTANT:

DO NOT use steel wool, sharp objects, or caustic, abrasive or chlorinated cleansers to clean the brewer or decanters.



PROCEDURE: Clean Coffee Brewer

PRECAUTIONS: Disconnect brewer from electric power. Allow brewer to cool.

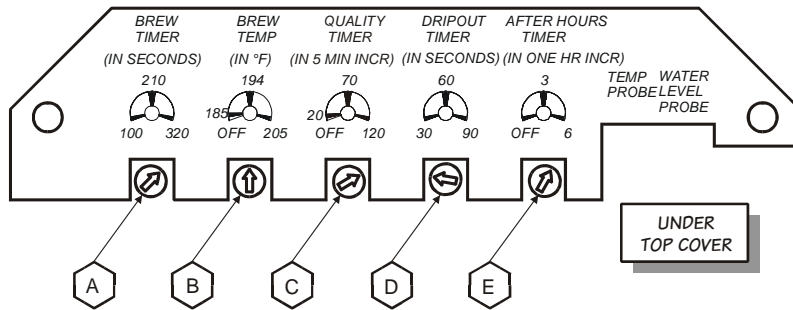
FREQUENCY: Daily

TOOLS: Mild Detergent, Clean Soft Cloth or Sponge Bristle Brush

1. Disconnect brewer from electric power. Allow brewer to cool before cleaning.
2. Remove decanters.
3. Remove and empty brew chamber.
4. Remove the spray disk from the brew head: Press up on the spray disk ears, then turn the disk to the left to unlatch. Remove the gasket from inside the brew head.
5. Wipe inside of brew head and area around the brew head with a soft clean cloth or sponge moistened with clean water.
6. Wash the spray disk in a sink using warm water and a mild detergent. A bristle brush may be used to clear clogged spray holes. Rinse the spray disk with clean water and allow to air dry.
7. Wash the brew chamber in a sink using warm water and a mild detergent. A bristle brush may be used to clean the inside. Rinse with clean water and allow to air dry.
8. Wipe all warmer plates and the exterior of the brewer with a soft clean cloth or sponge moistened with clean water.
10. Reinstall the gasket **INSIDE** the brew head, then reinstall the spray disk.
11. Reinstall the brew chamber.
12. Decanters may be washed in a sink or dishwasher. Be sure decanters are well rinsed and dry before use.

Procedure is complete

SERVICING — OPERATIONAL ADJUSTMENTS



- A. Adjust Brew Time
- B. Adjust Brew Temperature
- C. Adjust Quality Timer
- D. Adjust Dripout Timer
- E. Adjust After Hours Timer



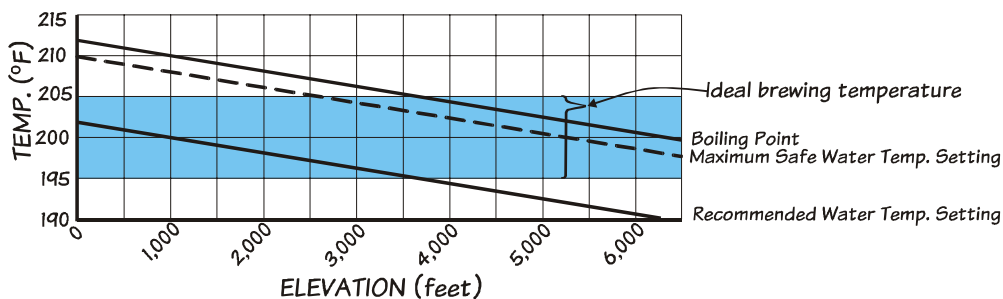
CAUTION: Electric Shock Hazard

Unplug or disconnect the brewer from electric power before removing the top cover

IMPORTANT: Adjustments must be performed by qualified service personnel ONLY.

1. **Access the Controls:** All adjustments on the E-Max™ LX may be accessed by removing the top cover or top warmer station from the brewer. The adjustments are directly behind the front panel.
2. **Adjust Brew Time:** The time the brew solenoid is open maybe adjusted by turning the shaft of the left-most control (A). Turning the shaft clockwise increases the time. Ten degrees of rotation is approximately equal to seven seconds change. Adjust until a complete brew is achieved without overflowing the decanter.
3. **Adjust Brew Temperature:** Ideal brewing temperature is 195°F to 205°F. Realistically, the maximum brew temperature is the local boiling temperature minus 10°F. To adjust the temperature, turn the shaft of the second control (B). Turning the shaft clockwise increases temperature. Fifteen degrees of rotation is approximately equal to 1-1/4°F.

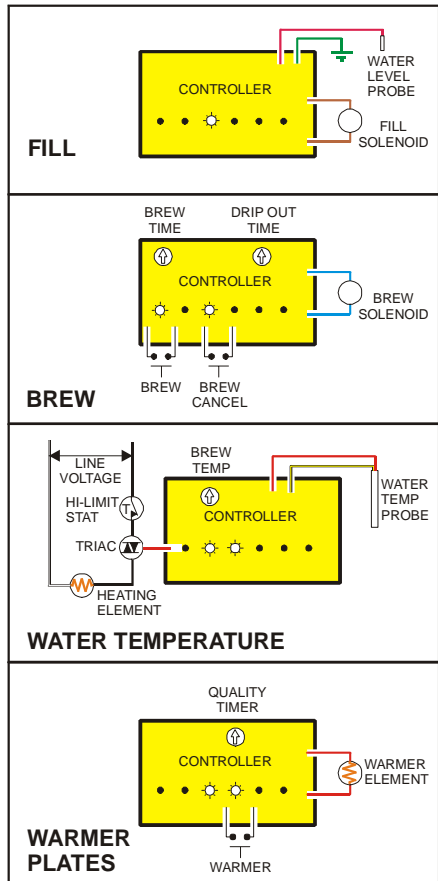
4. **Adjust Quality Timer:** When a brew is completed, the timer begins counting down. At the end of the set time, the warmer indicators will blink continuously until reset (push to turn off, push again to turn back on). The length of time may be adjusted by turning the shaft of the third control (C). Turning the shaft clockwise increases the time. Turning the shaft fully counter-clockwise turns the Quality Time function off. Adjustment is in five minute increments.
5. **Adjust Dripout Timer:** This feature disables the brew switch for an amount of time after the brew solenoid closes to allow all water to finish dripping through the grounds. The length of time may be adjusted by turning the shaft of the fourth control (D). Turning the shaft clockwise increases the time. Ten degrees of rotation is approximately equal to 2-1/2 seconds.
6. **Adjust After Hours Timer:** This feature places the brewer into an energy-saver mode if no brew has been initiated for a length of time. Time may be adjusted by turning the shaft of the fifth control (E). Turning the shaft clockwise increases the time. Turning the shaft fully counter-clockwise turns the After Hours function off. Adjustment is in one hours increments.



SERVICING INSTRUCTIONS — ELECTRICAL

OPERATION

SEE PAGE 11 FOR COMPONENT NAMES / NUMBERS

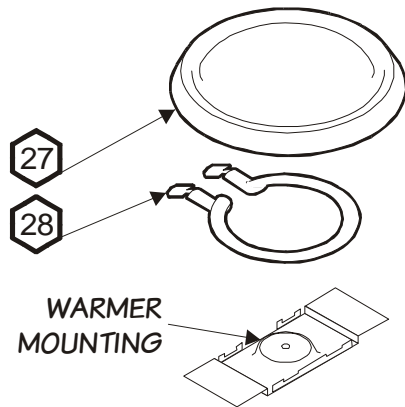


1. Pressing the POWER key energizes the unit. The POWER LED will glow whenever the unit is ON.
2. Automatic fill is accomplished via a FILL SOLENOID (32) and a WATER LEVEL PROBE (7). The probe senses ground through the water in the tank. When the water level falls below the probe and ground is no longer sensed, the CONTROLLER (20) energizes the fill solenoid until the water level again reaches the water level probe.
3. Pressing the BREW key begins the brew cycle. Pressing the CANCEL key at any time during the brew cycle terminates the brew. The BREW SOLENOID (18) is energized by the CONTROLLER (20) for a time determined by the setting of the BREW TIME CONTROL. A second brew can be started only after the brew time plus the time set on the DRIP OUT TIMER has elapsed.
4. Brew water temperature is controlled via a water temperature sensor and a HEATING ELEMENT (15) controlled by a TRIAC (17) electronic switch. The element is energized according to the sensed water temperature and the desired temperature setting of the BREW TEMP control. An over-temperature condition will trip the HI-LIMIT THERMOSTAT (4), de-energizing the heating element.
5. Individual WARMER PLATES (27) are heated by WARMER ELEMENTS (28), which are controlled by the WARMER keys. Pressing a warmer key will turn ON or OFF the corresponding warmer and LED.

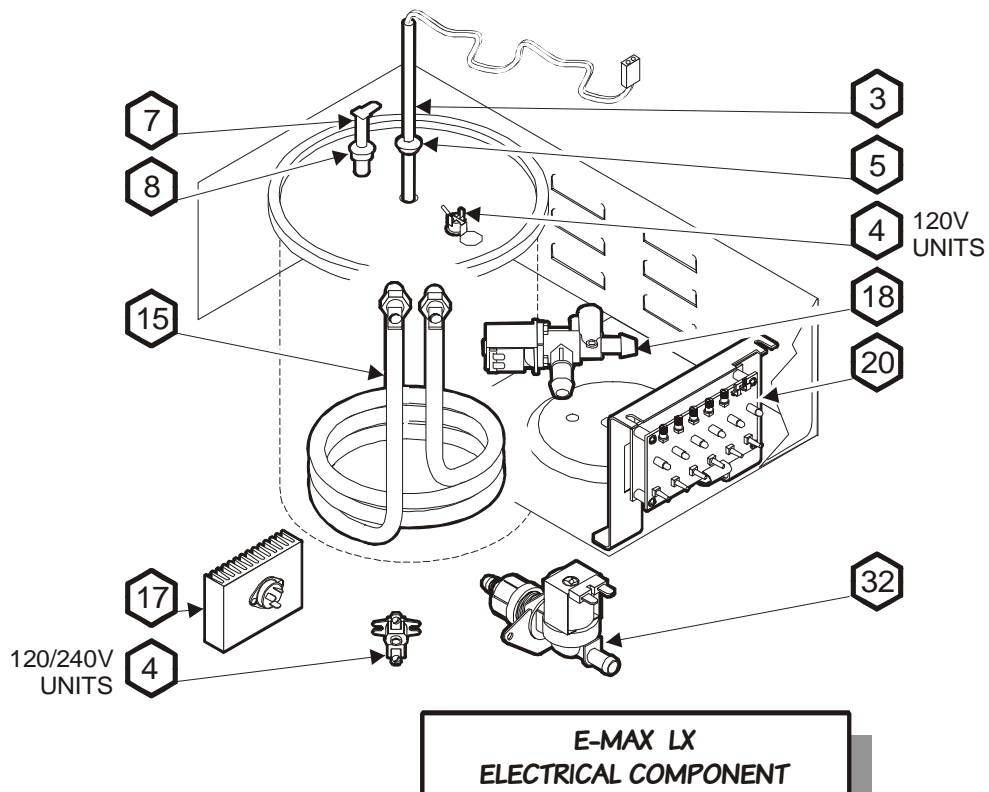
Because coffee loses its freshness after sitting on a warmer, a quality time function is included. The WARMER LEDS will begin to flash some time after the last brew cycle, based on the setting of the QUALITY TIMER. **Note:** QUALITY TIMER does not turn off the warmer elements.

6. The unit will revert to the energy-saver mode some time after the last brew, based on setting of the AFTER HOURS TIMER.

SERVICING INSTRUCTIONS — ELECTRICAL



- 3 PROBE, TEMPERATURE (THERMISTOR)
- 4 THERMOSTAT, HI-LIMIT
- 5 GROMMET
- 7 PROBE, WATER LEVEL
- 8 SLEEVE, WATER LEVEL PROBE
- 15 ELEMENT, WATER HEATING
- 17 ASSEMBLY, TRIAC & HEAT SINK
- 18 BREW SOLENOID
- 20 CONTROLLER
- 27 COVER PLATE, WARMER
- 28 ELEMENT, WARMER
- 32 FILL SOLENOID



**E-MAX LX
ELECTRICAL COMPONENT**

SERVICING INSTRUCTIONS — PLUMBING

OPERATION

SEE PAGE 13 FOR COMPONENT NAMES/NUMBERS

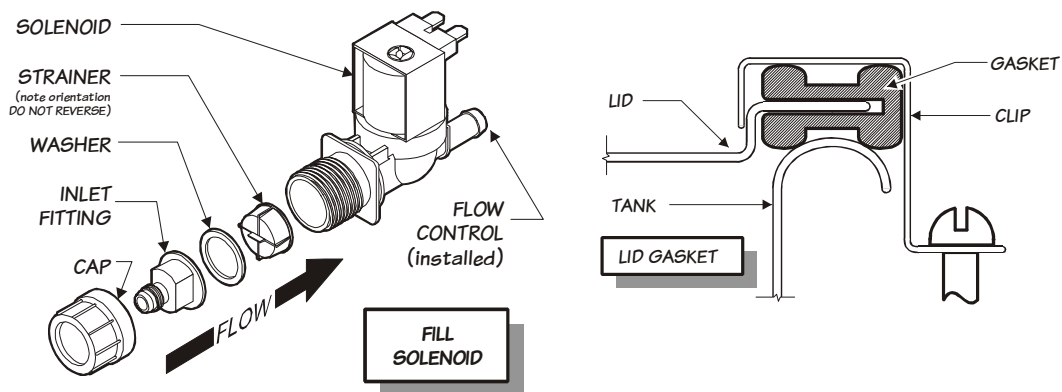
1. Water enters at the inlet fitting of the fill solenoid (32). The solenoid admits water via a command from the controller.

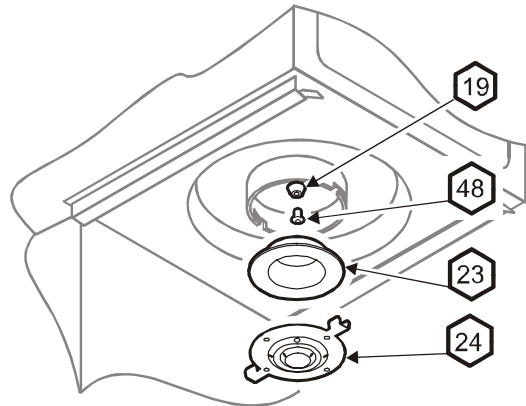
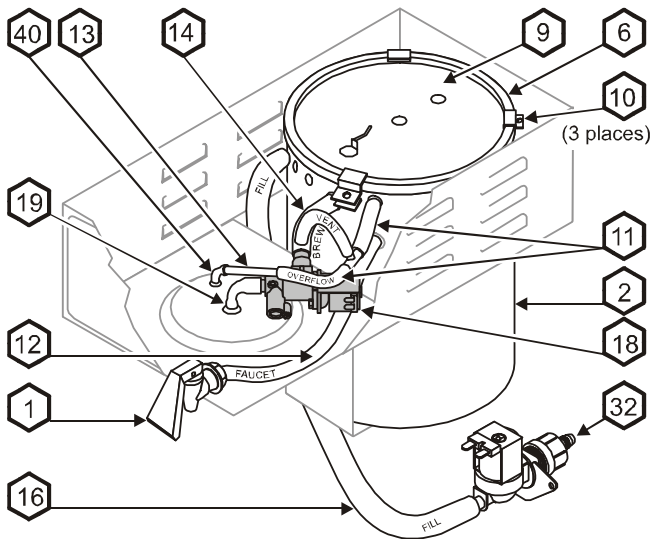
NOTE: The solenoid has an internal strainer. To clean the strainer: Shut off water supply. Unscrew the plastic cap protruding from the rear of the brewer. Remove the cap, inlet fitting and washer. With pliers, grasp the bar of the strainer and pull straight out. Wash any debris from the strainer. Note orientation - DO NOT reverse strainer. Reassemble and reinstall. Turn water supply back on.

2. Water enters the tank (2) thru the fill tube (16). Water is heated in the tank by the heating element (15).
3. The tank lid (9) is sealed around the edge with a gasket (6), and is secured by 3 clips (10).
4. Heated water is dispensed to the brew head through the brew tube (14), brew solenoid (18), and spout of the brew fitting (19). The brew solenoid is energized during the brew cycle by the controller.

NOTE: The flow rate of the brew solenoid is factory set. DO NOT adjust.

5. Hot water is sprayed over the coffee grounds by the spray disc (24), which is sealed to the brew head by a gasket (23).
6. The tank is vented through the vent fitting (40) and vent tubes (12 & 13).
7. Water for the hot water faucet (22) is supplied from the tank through the faucet supply tube (11).





**E-MAX™
PLUMBING COMPONENTS**

ITEM	DESCRIPTION	PART NO.	USED ON
1	FAUCET, HOT WATER	8783-1	ALL
2	ASSEMBLY, WATER TANK (120V) ASSEMBLY, WATER TANK (240V)	83500 83753	2212, 2272 2216
6	GASKET, TANK LID	83499	ALL
9	TANK LID	83504	ALL
10	RETAINING CLIP, TANK LID	83506	ALL
11	HOSE, OVERFLOW (2 pc SILICONE 4.5" LONG)	86014	ALL
12	HOSE, FAUCET SUPPLY (SILICONE, 10" LONG)	83538	ALL
13	TUBE, VENT (METAL, 2.3" LONG)	83384	ALL
14	TUBE, BREW SUPPLY VENTED ASSEMBLY	86013	ALL
16	TUBE, FILL (SILICONE,	83540	ALL
18	SOLENOID, BREW (DUMP)	83388	ALL
19	ELBOW, BREW	83152	ALL
23	GASKET, SPRAY HEAD	82215	ALL
24	SPRAY DISK	82727	ALL
32	SOLENOID, FILL	83612	ALL
40	ELBOW, VENT	8043-11	ALL
48	INSERT, SPRAY HEAD	83571	ALL

SERVICING INSTRUCTIONS — DE-LIMING HEATER TANK



CAUTION - CHEMICAL BURN HAZARD

De-liming chemicals are caustic. Wear appropriate protective gloves and goggles during this procedure. Never siphon de-liming chemicals or solutions by mouth.

This operation must only be performed by qualified and experienced service personnel.

IMPORTANT: DO NOT spill, splash or pour water or de-liming solution into or over any internal component other than the inside of the water tank.

IMPORTANT: DO NOT allow any internal components to come into contact with the de-liming solution. Take care to keep all internal components dry.

NOTE: Repeat steps 4 thru 7 as required to remove all scale and lime build-up.

NOTE: Normally, silicone hoses do not need to be de-limed. Should de-liming hoses become necessary, Bloomfield Industries recommends replacing the hoses.

1. Disconnect brewer from the electrical supply. Turn off the water supply and disconnect water supply from the brewer inlet fitting.
2. Remove the top panel or top warmer section to gain access to internal components.
3. Disconnect water level sensor and water temperature sensor from the controller. On 120V units, slip hi-limit thermostat from under its holder clip. Disassemble the three lid clips and lift the lid off of the water tank. Store lid assembly in a safe location.
4. Mix de-liming solution according to the manufacturer's directions. Add the de-liming solution to the water tank. Set lid assembly back on tank. Allow to sit for 30 minutes, or as directed by the manufacturer.
5. At end of soaking period, remove lid assembly from tank. Thoroughly rinse interior components of lid assembly with clear water. Wipe temperature sensor and water level sensor with a clean, soft cloth. Store lid assembly in a safe location.
6. Using a stiff bristle brush, scrub the coils of the heating element and the interior surfaces of the water tank.
7. Siphon the used solution and loose lime/scale into an appropriate container. Dispose of the used solution as required by local ordinances.
8. Fill the water tank with clean tap water. Rinse thoroughly, then siphon the rinse water into an appropriate container for disposal. Again, take care to keep all internal components dry.
9. Reassemble the tank lid to the water tank. Make sure the gasket is properly attached to the lid before assembling the lid clips. Re-connect the water level and temperature probes, then reinstall the hi-limit thermostat (if removed). Verify that all internal components are dry, then reinstall the top panel.
10. Reconnect brewer to water and electrical. Run and discard at least three full decanters from the faucet. Install the brew chamber without filter paper or grounds, then run and discard at least three full decanters as normal brew.
11. Brewer is ready to use.




SERVICING INSTRUCTIONS — DIAGNOSTICS & TROUBLESHOOTING

If the E-Max™ LX goes into an error mode as outlined below, it will probably be necessary to reset the brewer in order to test individual components. Note the reset procedure below:

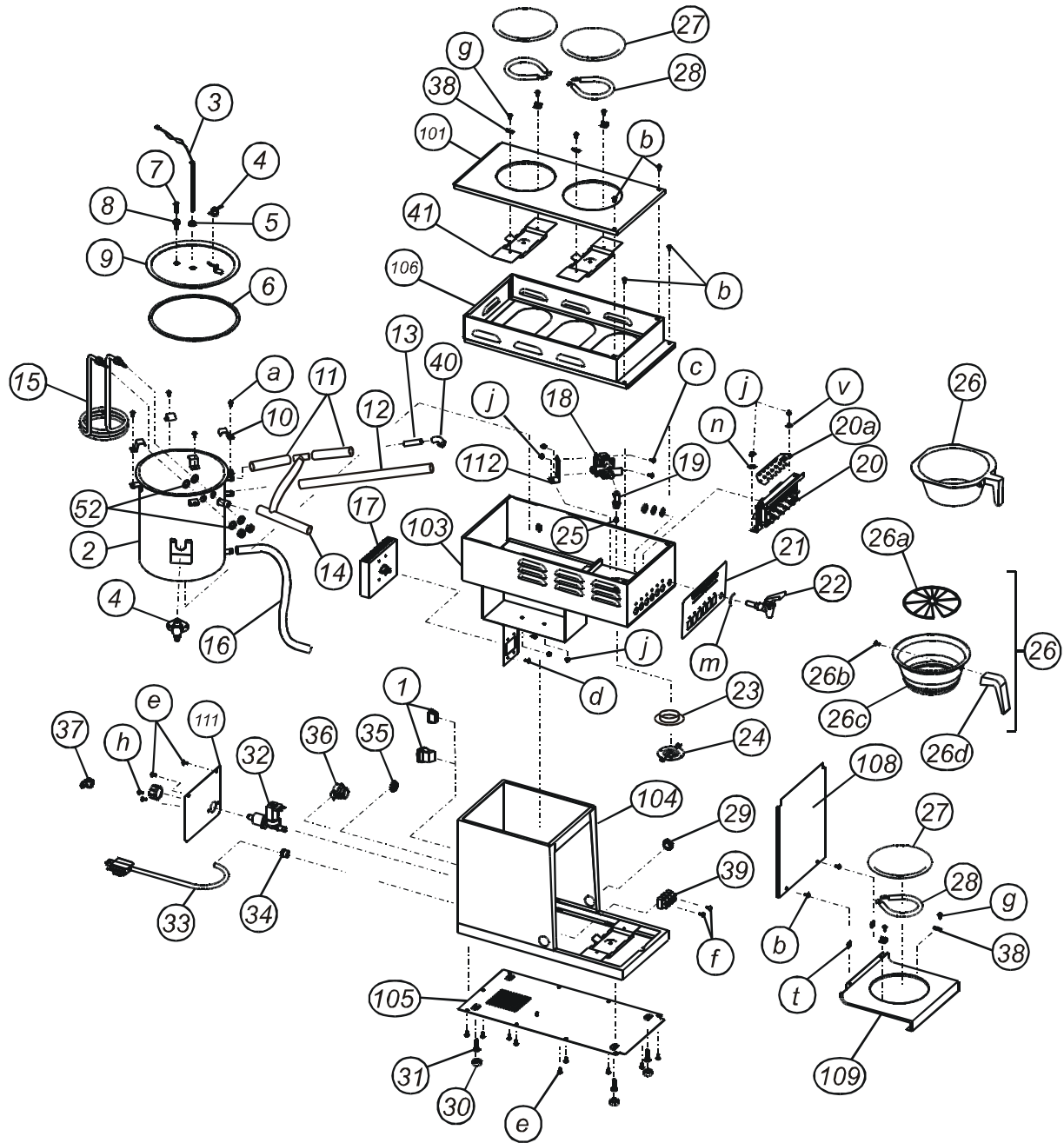
- * FOR “LOW WATER” OR “OVERHEAT” ERRORS: PRESS & HOLD CANCEL FOR 3 SECONDS, OR RE-ENERGIZE THE BREWER (i.e. unplug for a few seconds, the plug in again.)
- * FROM “VALVE FAULT” ERROR: THE BREWER MUST BE RE-ENERGIZED Using the CANCEL button will not reset the brewer from “Valve Fault”.

IMPORTANT: The following troubleshooting suggestions are for operator reference only.

All servicing and/or repairs must be performed by qualified service personnel.

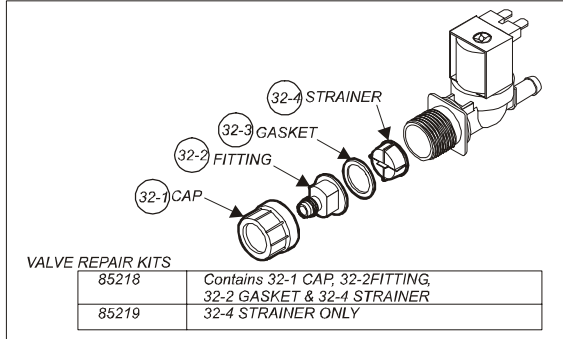
FLASHING LIGHTS	ERROR	POSSIBLE PROBLEM & CORRECTIVE ACTION
 <p>BREW light and POWER light flashing</p>	<p>LOW WATER TEMP (Not an error)</p> <hr/> <p>LOW WATER LEVEL: Inlet valve has been on and no water sensed:</p> <ol style="list-style-type: none"> a. During regular operation for 60 sec., or b. during startup for 4-1/2 min. 	<p>1. Water has not reached Precise Temperature for Brewing™. WAIT UNTIL WATER TEMPERATURE HAS RECOVERED.</p> <hr/> <ol style="list-style-type: none"> 1. Sleeve on level sensing probe gasket is too long or sensor not pushed down fully. Sensor should protrude beyond sleeve 1/4". REMOVE TANK LID, CUT SLEEVE TO PROPER LENGTH. MAKE SURE SENSOR IS FULLY PUSHED DOWN. 2. Level sensor may be pulled out of tank. REINSTALL SENSOR. 3. Wiring to sensor may be disconnected or faulty. REPAIR WIRING 4. Level sensor may be encrusted with scale or lime build-up. CLEAN SENSOR (use chemical de-liming. Scraping or sanding will damage the sensor. 5. Water supply may be shut off, or is incapable of filling the tank in the allotted time. RESTORE WATER SUPPLY.
 <p>BREW light and CANCEL light flashing</p>	<p>VALVE FAULT: Detection of a problem with the wiring to the valve or of the valve switching system.</p>	<ol style="list-style-type: none"> 1. Wiring to either inlet or dump valve not properly connected. CHECK WIRING / CONNECTORS. 2. Controller has two switches for each valve, one or both has been detected as failing on. REPLACE CONTROL BOARD.
 <p>BREW light, CANCEL light and POWER light flashing</p>	<p>OVERHEAT: Water temperature has exceeded 210°F</p>	<ol style="list-style-type: none"> 1. Brew temperature may be too close to max. temp. Brew temperature should be no higher than 205°F. LOWER BREW TEMPERATURE SETTING. 2. Triac may have failed on, and water continues to heat even after controller has tried to turn heating element off. CHECK TRIAC, REPLACE IF REQUIRED. 3. Probe may be defective. TEST ACTUAL TEMPERATURE TO VERIFY. REPLACE PROBE OR REPAIR WIRING AS REQUIRED.

EXPLODED VIEW — IN-LINE MODELS



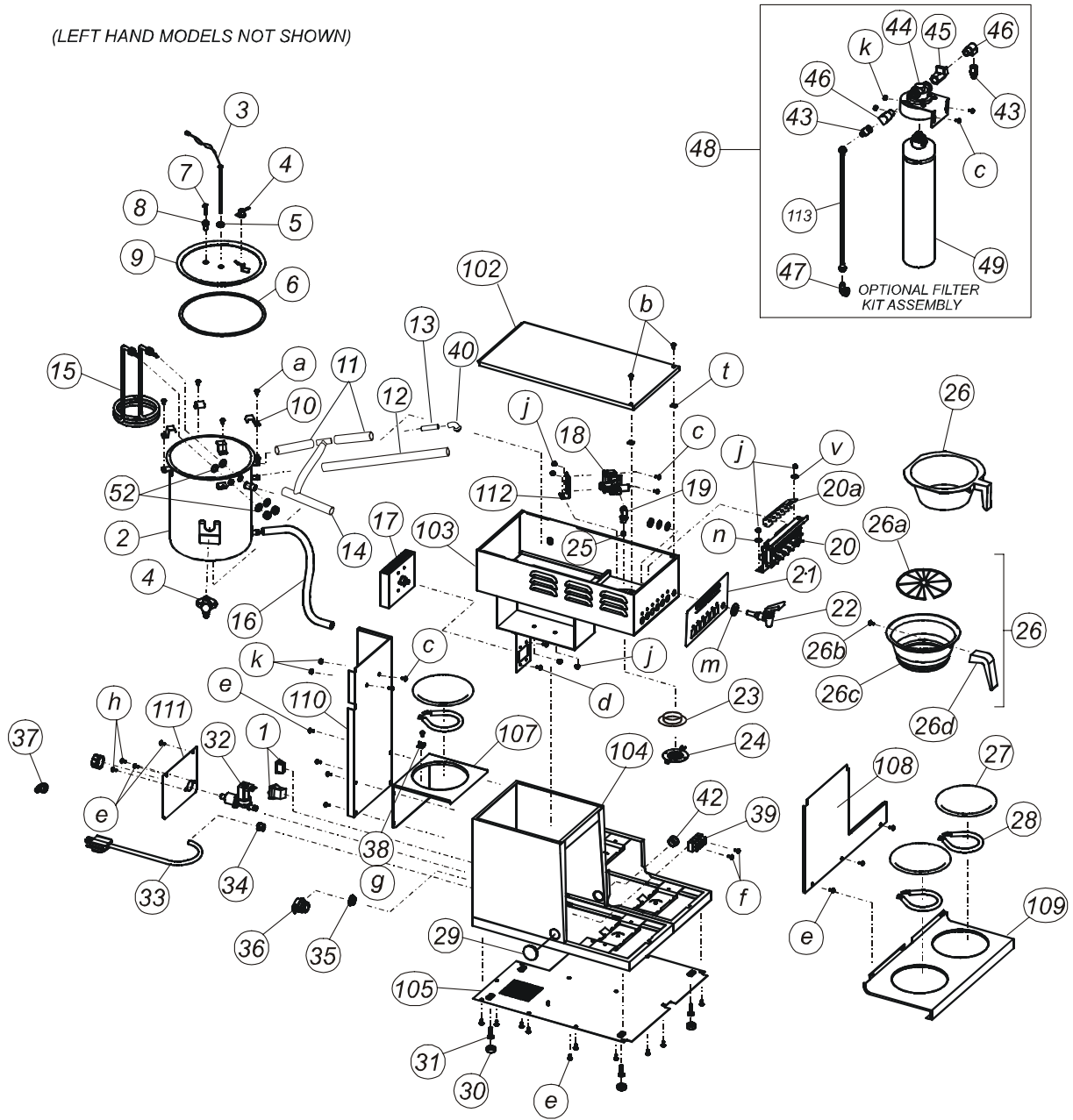
PARTS LIST — IN-LINE MODELS

ITEM	PART #	DESCRIPTION	QTY.	ITEM	PART #	DESCRIPTION	QTY.
1	83763	SWITCH PLUG (120V)	1	36	9012-38	STRAIN RELIEF, LIQUID TIGHT (EXPORTS)	1
	82936	SWITCH ROCKER ON-OFF (240V)	1		66385	FTG CONDUIT, STR, 3/4 (208/240V)	1
2	84219	TANK ASSY 8 QT (4 CLIPS)	1	37	83745	7/16-20 FEMALE X 7/16-20 MALE	1
3	83480	THERMISTOR 5 ½	1	38	8543-80	MOUNTING CLIP	6
4	83949	THERMO HI-LIMIT CERAMIC(120V)	1	40	8552-18	TERMINAL BLOCK (240V)	1
	84713	THERMO HI-LIMIT 25A, 400V	1		8043-11	ELBOW ,VENT	1
5	82115	GROMMET .510 O.D. X .250 I.D.	1	41	8707-49	BRACKET, WARMER 120V	2
6	83499	GASKET TANK COVER	1		8553-8	BRACKET, WARMER 240V	2
7	83521	PROBE ASSY WATER LEVEL	1	52	83147	WASHER, GYLON 1/2ID 3/4OD	6
8	83532	SLEEVE WATER LEVEL PROBE	1	101		COVER, DUAL WARMER	1
9	83504	COVER ASSY TANK	1	103		WELDMENT UPPER HOUSING	1
10	83506	RETAINING CLIP TANK LID	4	104		WLDMNT LWR HOUSING/BASE(120V)	1
11	86014	TUBE SILICONE 4.5"	2	105		PLATE BOTTOM	1
12	83538	TUBE SILICONE 10"	1	108		UPPER HOUSING COVER ASSY	1
13	83384	TUBE, VENT METAL, 2.3 LG	1	111		PANEL UPPER FRONT	1
14	86013	BREW SUPPLY VENTED ASSY	1	112		PANEL LOWER FRONT	1
15	83518	ELEMENT HEATING 1500W (120V)	1			ACCESS PANEL LOWER HOUSING	1
	83747	ELEMENT HEATING 1200W (120V)	1			BRACKET WATER OUTLET VALVE	1
	83748	ELEMENT HEATING 3200W (240V)	1				
16	83729	TUBE SILICONE 15" LG (fill)	1	a	7506-39	SCREW, PAN, SS 8-32 X ½	4
17	83475	HEAT SINK & TRIAC ASSY	1	b		SCREW PHL SS 8X3/8	6
	83388	VALVE WATER OUTLET ADJUSTABLE	1	c	D20002-3	SCREW PAN PHL SS 10-32 X 5/16	2
18	84619	VALVE WATER OUTLET 220/240VAC	1	d		SCREW #8 X 1/4, PAN, NI DRILL POINT	2
	83152	ELBOW, SPRAYER	1	e	7200-6X	SCREW 8-32 X 5/16	15
20	84120	BOARD SET, CONTROL	1	f	616-5	SCREW SLT ZI PLT 6-32 X 3/4	2
	84720	BOARD SET, CONTROL 240V	1	g	7506-30	SCREW #8-32, THD CUTTING	6
20a	84147	COVER DIAL PLATE	1	h		SCREW, PAN 4mm X 6mm, SS	2
21	84123	OVERLAY DECAL KEYPAD	1	j		NUT KEP 8-32 SS	11
22	8783-1	FAUCET HOT WATER	1	m	82681	WASHER FLAT 15/32 X 1 1/8 OD	1
23	82215	GASKET SPRAY HEAD 1.5 ID	1	n	83870	WASHER FLAT 5/16 X 3/4 OD	2
24	82727	DISC SPRAY HEAD EMBOSSED	1	t	8543-23	NUT, TINNERMAN	6
25	83571	INSERT, SPRAY HEAD	1	u	83793	WASHER, FLAT 1.50 DIA.	2
				v		WASHER, FLAT #8 SS	2
26	8942-6B	CHAMBER BREW PLASTIC	1				
	8707-6	BREW CHAMBER, SS	1				
26a	8707-4	RACK WIRE BREW CHAMBER	1				
26b	8707-3	SCREW #10-32 X 5/16	1				
26c	8707-5	BREW CHAMBER	1				
26d	8707-2	HANDLE BREW CHAMBER	1				
27	8700-16	PLATE COVER WARMER	3				
28	8572-18	ELEM WARMER 120V 100W	3				
	8533-32	ELEM WARMER 100W, 240V	3				
29	8705-36	PLUG, BUTTON 7/8	2				
30	8033-56	CAP LEVELER	4				
31	8033-55	LEG LEVELER PLATED	4				
32	83612	ASSY WATER INLET	1				
	84777	ASSY WATER INLET 220/240V					
	85218	KIT - INLET FITTINGS + STRAINER					
	85219	KIT - INLET STRAINER					
33	6407-15	CORD ASSY 8572 (120V)	1				
34	35-210	STRAIN RELIEF STR HEYCO(120V)	1				
35	63046	PLUG, HOLE 1 IN (120V)	1				



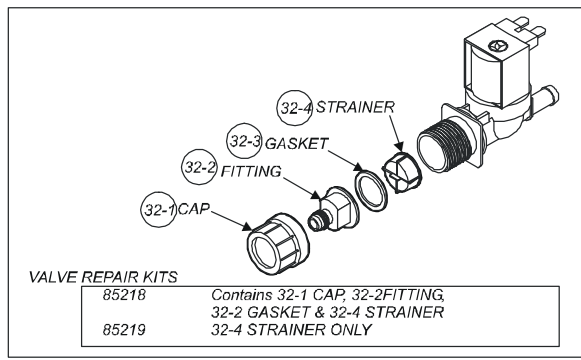
EXPLODED VIEW — STEP-UP MODELS

(LEFT HAND MODELS NOT SHOWN)

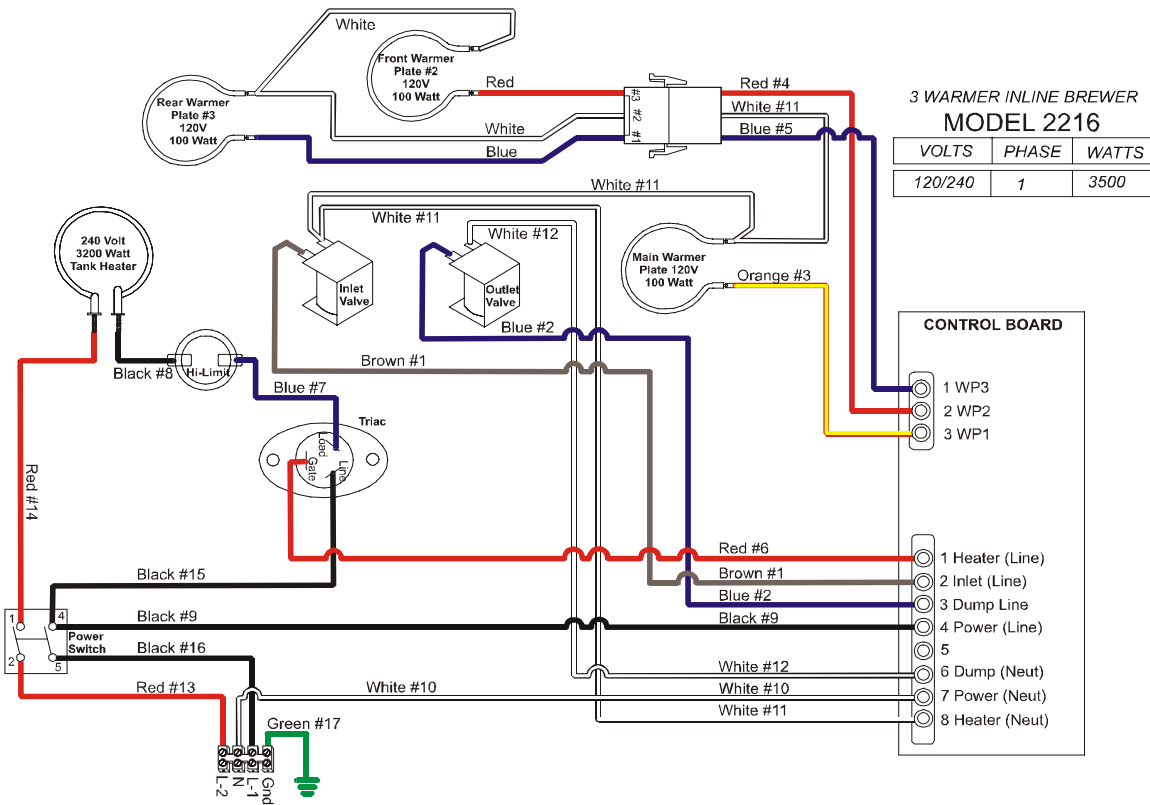
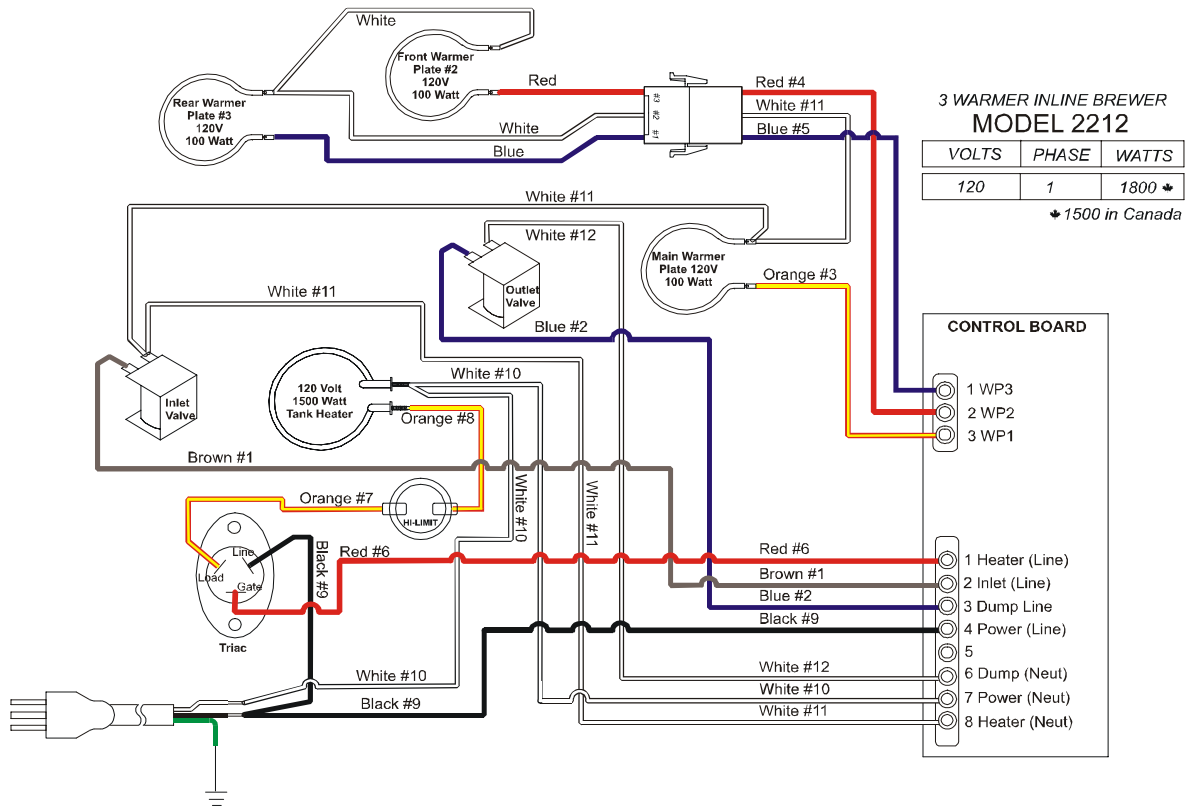


PARTS LIST — STEP-UP MODELS

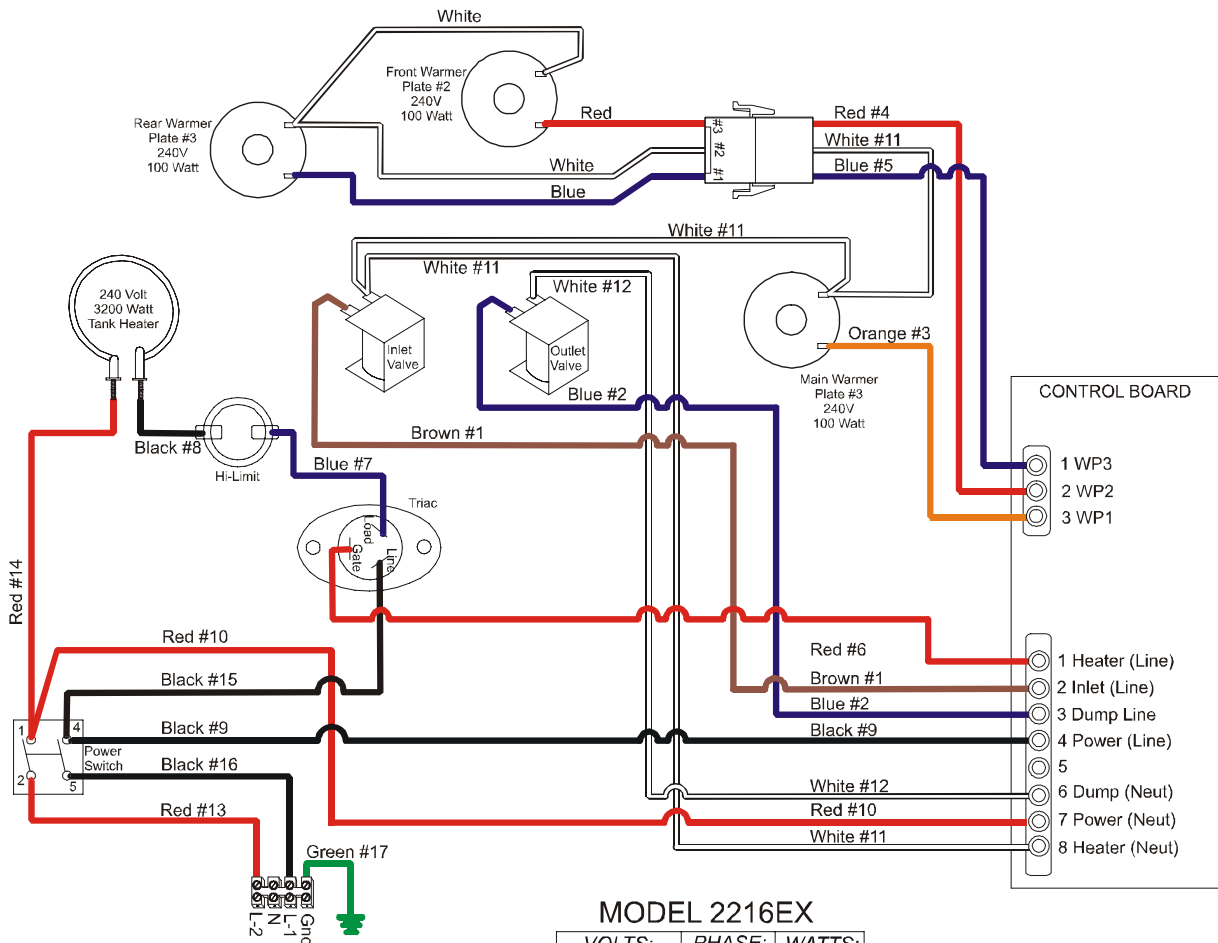
ITEM	PART #	DESCRIPTION	QTY.	ITEM	PART #	DESCRIPTION	QTY.
1	83763	SWITCH PLUG (120V)	1	37	83745	7/16-20 FEMALE X 7/16-20 MALE	1
	82936	SWITCH ROCKER ON-OFF (240V)	1	38	8543-80	MOUNTING CLIP	6
2	84219	TANK ASSY 8 QT (4 CLIPS)	1	39	8552-18	TERMINAL BLOCK (240V)	1
3	83480	THERMISTOR 5½	1	40	8043-11	ELBOW, VENT	1
4	83949	THERMO HI-LIMIT CERAMIC(120V)	1	42	51040	GROMMET INSULATION 7/8 OD	1
	84713	THERMO HI-LIMIT 25A, 400V	1	43	83526	FITTING MALE 1/4 X 3/8	2
5	82115	GROMMET .510 O.D. X .250 I.D.	1	44	83525	FILTER HEAD WATER	1
6	83499	GASKET TANK COVER	1	45	83523	VALVE BALL	1
7	83521	PROBE ASSY WATER LEVEL	1	46	8516-102	ELBOW 3/8M X 3/8F ST	2
8	83532	SLEEVE WATER LEVEL PROBE	1	47	83745	7/16-20 FEMALE X 7/16-20 MALE	1
9	83504	COVER ASSY TANK	1	48	83619	KIT WATER FILTER ASSY	1
10	83506	RETAINING CLIP TANK LID	4		83936	KIT WATER FILTER ASSY LEFT	1
11	86014	TUBE SILICONE 4.5" LG	2	49	82196	FILTER CARTRIDGE BH	1
12	83538	TUBE SILICONE 10" LG (hot water faucet)	1	52	83147	WASHER, GYLON 1/2ID 3/4OD	4
13	83384	TUBE, VENT METAL, 2.3 LG	1	102		COVER UPPER HOUSING	1
14	86013	BREW SUPPLY VENTED ASSY	1	103		WELDMENT UPPER HOUSING	1
15	83518	ELEMENT HEATING 1500W (120V)	1	104		WLDMNT LWR HOUSING/BASE(120V)	1
	83747	ELEMENT HEATING 1200W (120V)	1	105		PLATE BOTTOM	1
	83748	ELEMENT HEATING 3200W (240V)	1	107		COVER TOP STEP-UP	1
16	83729	TUBE SILICONE 15" LG (fill)	1	108		PANEL UPPER FRONT	1
17	83475	HEAT SINK & TRIAC ASSY	1	109		PANEL LOWER FRONT	1
18	83388	VALVE WATER OUTLET ADJUSTABLE	1	110		ENCLOSURE WATER FILTER	1
	84619	VALVE WATER OUTLET 220/240VAC	1	111		ACCESS PANEL LOWER HOUSING	1
19	83152	ELBOW, SPRAYER	1	112		BRACKET WATER OUTLET VALVE	1
20	84120	BOARD SET, CONTROL	1	a	7506-39	SCREW, PAN, SS 8-32 X ½	4
	84720	BOARD SET, CONTROL 240V	1				
20a	84147	COVER DIAL PLATE	1	b		SCREW PHL SS 8X3/8	6
21	84123	OVERLAY DECAL KEYPAD	1	c	D 20002-3	SCREW PAN PHL SS 10-32 X 5/16	2
22	8783-1	FAUCET HOT WATER	1	d		SCREW #8 X 1/4, PAN, NI DRILL POINT	2
23	82215	GASKET SPRAY HEAD 1.5 ID	1	e	7200-6X	SCREW 8-32 X 5/16	15
24	82727	DISC SPRAY HEAD EMBOSSED	1	f	616-5	SCREW SLT ZI PLT 6-32 X 3/4	2
25	83571	INSERT, SPRAY HEAD	1	g	7506-30	SCREW #8-32, THD CUTTING	6
26	8942-6B	CHAMBER BREW PLASTIC	1	h		SCREW, PAN 4mm X 6mm, SS	2
	8707-6	BREW CHAMBER, SS	1	j	8942-92	NUT KEP 8-32 SS	11
26a	8707-4	RACK WIRE BREW CHAMBER	1	k	60680	NUT KEP 10-32 SS	10
26b	8707-3	SCREW #10-32 X 5/16	1	m	82681	WASHER FLAT 15/32 X 1 1/8 OD	1
26c	8707-5	BREW CHAMBER	1	n		WASHER FLAT 5/16 X 3/4 OD	2
26d	8707-2	HANDLE BREW CHAMBER	1	t	8543-23	NUT, TINNEMAN	6
27	8700-16	PLATE COVER WARMER	3	u	83793	WASHER, FLAT 1.50 DIA.	2
28	8572-18	ELEM WARMER 120V 100W	3	v		WASHER, FLAT, #8 SS	2
	8533-32	ELEM WARMER 100W, 240V	3				
29	8705-36	PLUG, BUTTON 7/8	2				
30	8033-56	CAP LEVELER	4				
31	8033-55	LEG LEVELER PLATED	4				
	83612	ASSY WATER INLET	1				
32	84777	ASSY WATER INLET 220/240V					
	85218	KIT - INLET FITTINGS + STRAINER					
	85219	KIT - INLET STRAINER					
33	6407-15	CORD ASSY 8572 (120V)	1				
34	35-210	STRAIN RELIEF STR HEYCO (120V)	1				
35	63046	PLUG, HOLE 1 IN (120V)	1				
36	66385	FTG CONDUIT, STR, 3/4 (208/240V)	1				
	9012-38	STRAIN RELIEF, LIQUID TIGHT (EXPORTS)	1				



WIRING DIAGRAM — IN-LINE MODELS



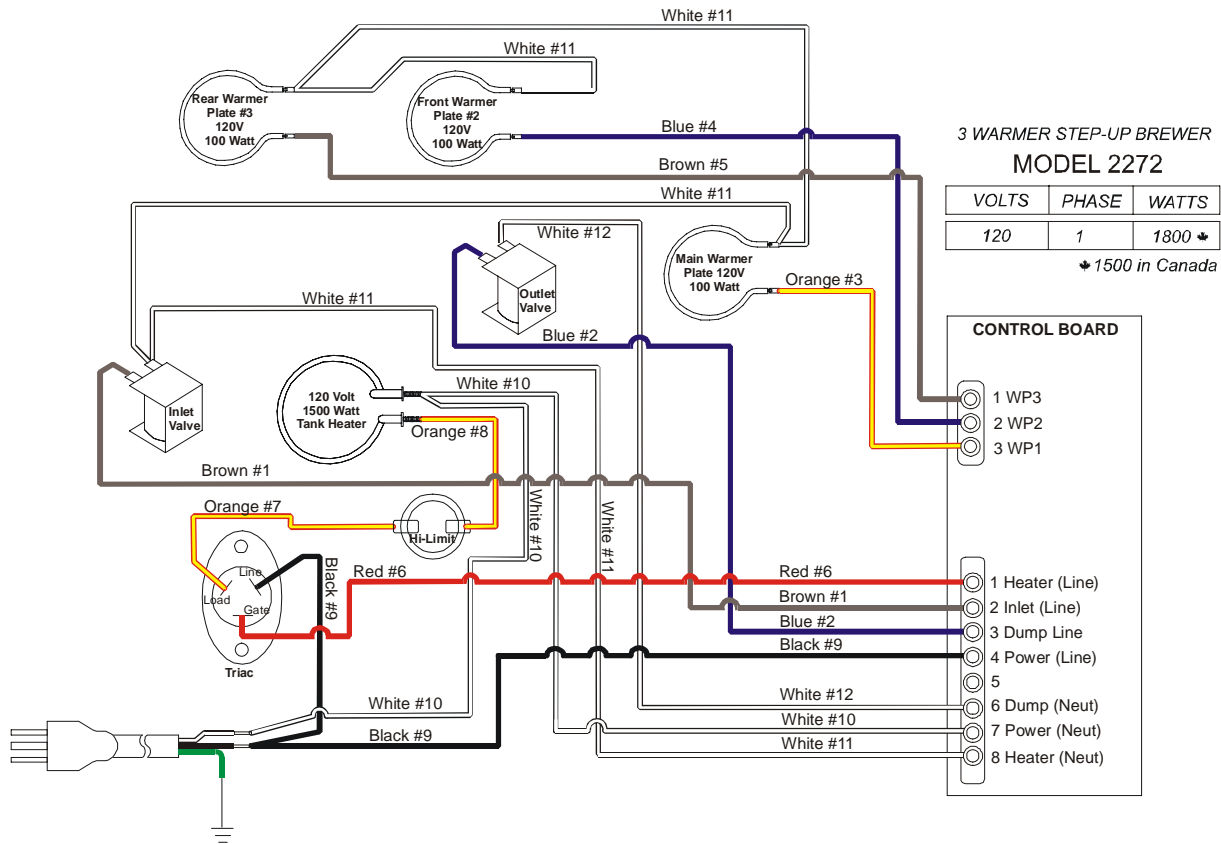
WIRING DIAGRAM — IN-LINE EXPORT MODEL



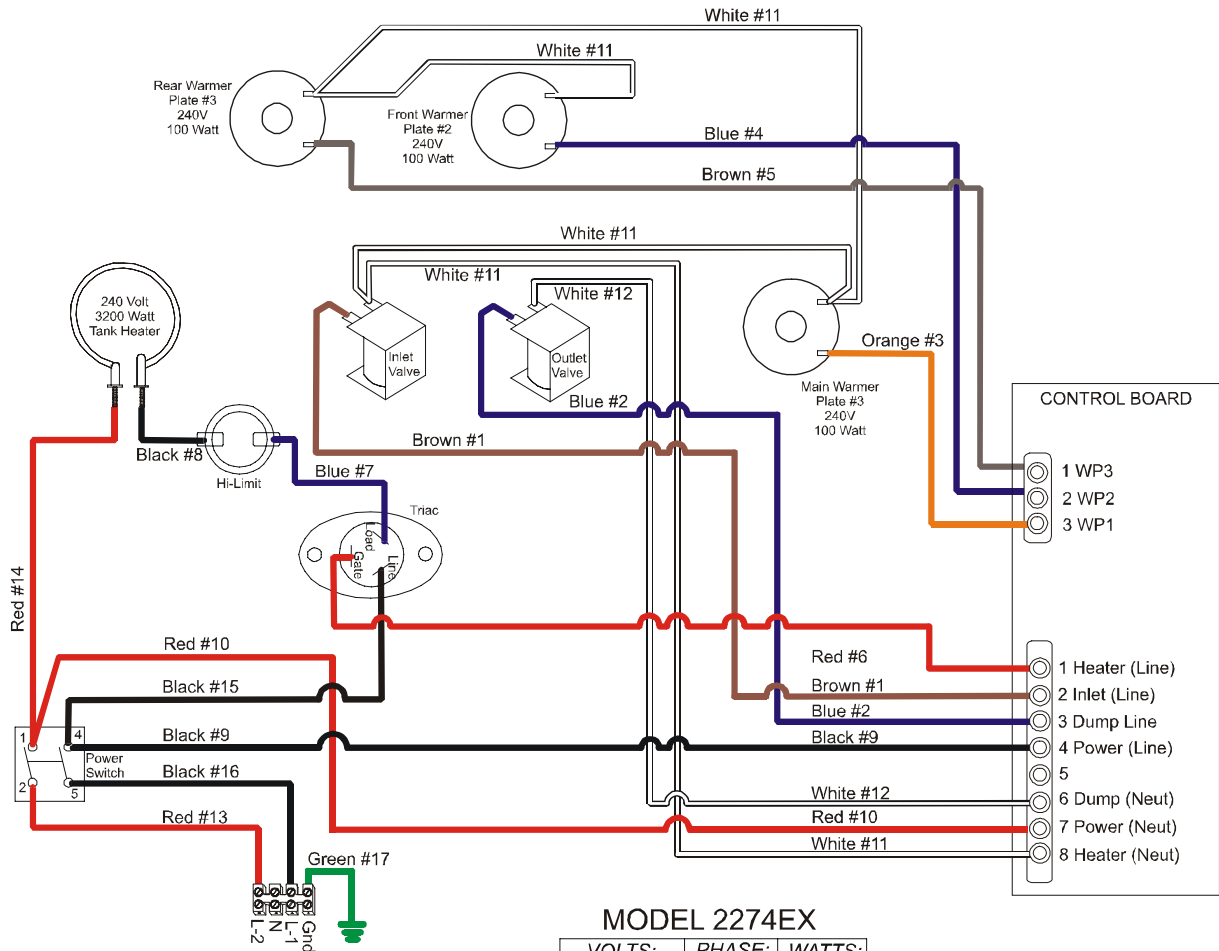
MODEL 2216EX

VOLTS:	PHASE:	WATTS:
240V	1	3500

WIRING DIAGRAM — STEP-UP MODEL



WIRING DIAGRAM — STEP-UP EXPORT MODEL



MODEL 2274EX

VOLTS:	PHASE:	WATTS:
240V	1	3500



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