### **BLOOMFIELD**

#### **BLOOMFIELD INDUSTRIES**

2 ERIK CIRCLE, P. O. Box 280 Verdi, NV 89439 Customer Service (775) 345-0444 Ext.502 fax: (775) 345-0569 www.wellsbloomfield.com

#### **OWNERS MANUAL** For

# Koffee-King

#### **MODULAR BREWING SYSTEMS**

#### **MODELS**

<b>POUR OVER</b>	<b>AUTOMATIC</b>	<b>AUTOMATIC</b>
UNITS	UNITS	UNITS
		WITH FAUCET
8542	8541	8540
8543	8573	8572
8571		8574

#### Includes:

Installation **Use & Care Servicing Instructions** 



Model 8573 Brewers with optional 8900-Series Glass Decanters

p/n 75804 Rev. (-) M611 011802 cps

#### **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

- Resetting of safety thermostats, circuit breakers, overload protectors, or fuse replacements unless warranted conditions are the cause.
- All problems due to operation at voltages other than specified on equipment nameplates; conversion to correct voltage must be the customer's responsibility.
- All problems due to electrical connections not made in accordance with electrical code requirements and wiring diagrams supplied with the equipment.
- 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.
- 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.

- 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.
- All labor shall be performed during normal working hours.
   Overtime premium shall be charged to the customer.
- All genuine Bloomfield replacement parts are warranted for ninety (90) days from date of purchase on nonwarranted equipment. Any use of non-genuine Bloomfield parts completely voids any warranty.
- Installation, labor and job check-out are not considered warrantv.
- 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:

- 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.
- FILE CLAIM FOR DAMAGE IMMEDIATELY: Regardless of the extent of the damage.

 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.

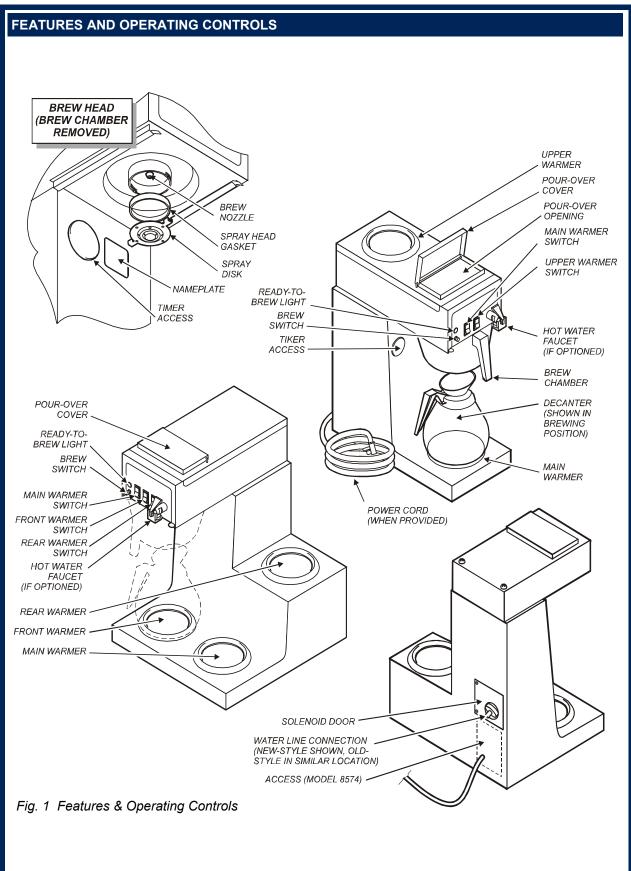
Bloomfield Industries cannot assume liability for damage or loss incurred in transit. We will, however, at your request, supply you with the necessary documents to support your claim.

TABLE OF CONTENTS		
WARRANTY STATEMENT SPECIFICATIONS FEATURES & OPERATING CONTROLS PRECAUTIONS & GENERAL INFORMATION AGENCY APPROVAL INFORMATION INSTALLATION INSTRUCTIONS OPERATION BREWING COFFEE CLEANING INSTRUCTIONS TROUBLESHOOTING SUGGESTIONS SERVICING INSTRUCTIONS Deliming Instructions EXPLODED VIEWS & PARTS LISTS WIRING DIAGRAMS	xi 1 2 3 3 4 6 8 9 10 11 16 18 22	Thank You for purchasing this Bloomfield Industries appliance.  Proper installation, professional operation and consistent maintenance of this appliance will ensure that it gives you the very best performance and a long, economical service life.  This manual contains the information needed to properly install this appliance, and to use, care for and maintain or repair the appliance in a manner which will ensure its optimum performance.

			SPECIFIC	ATIONS			
MODEL	TYPE	WARMERS	FAUCET	VOLTS	AMPS	WATTS	POWER CORD
8540	In-Line, Automatic, Plumbed-In	2	YES	120VAC 1ø	14.1A	1700W 1400W <b>*</b>	NEMA 5-15P
8541	In-Line, Automatic, Plumbed-In	2	NO	120VAC 1ø	14.1A	1700W 1400W <b>*</b>	NEMA 5-15P
8542	In-Line, Pour-Over	1	NO	120VAC 1ø	13.3A	1600W 1300W <b></b>	NEMA 5-15P
8543	In-Lin, Pour-Over	2	NO	120VAC 1ø	14.1A	1700W 1400W <b></b>	NEMA 5-15P
8571	3-Station, Pour-Over	3	NO	120VAC 1ø	15.0A	1800W 1500W <b></b>	NEMA 5-15P
8572	3-Station, Automatic, Plumbed-In	3	YES	120VAC 1ø	15.0A	1800W 1500W <b></b>	NEMA 5-15P
8573	3-Station, Automatic, Plumbed-In	3	NO	120VAC 1ø	15.0A	1800W 1500W <b></b>	NEMA 5-15P
8574	3-Station, Automatic, Plumbed-In	3	YES	115/230VAC 1ø	17.0A	3700W	not provided

#### \* Canadian brewers are 1500W maximum.

**NOTE:** Beginning in late 2001, a new solenoid was introduced into this family of brewers. Early units were fitted with a metal solenoid, which may be rebuilt if required. Later units are fitted with a sealed nylon solenoid which is replaced as a unit. In this manual, units built prior to the changeover are designated as "old-style". Units built after the changeover are designated as "new-style".



#### PRECAUTIONS AND GENERAL INFORMATION



WARNING: Electric Shock Hazard

WARNING 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. 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.

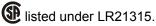


#### CAUTION: **Burn Hazard**

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

#### AGENCY APPROVAL INFORMATION

These brewer are (UL) listed under UL file E9253, and



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







#### **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 25 feet and 3/8" for more than 25 feet from a 1/2" water supply line.

REFER TO EXPLODED VIEWS PAGES 18 thru 22 FOR COMPONENT NAMES/NUMBERS

Unpack the unit. Inspect all components for completeness and condition. Ensure that all packing materials have been removed from the unit.

Verify that the Spray Head Gasket (#33) and Spray Disk (#34) are properly installed.

#### **LEVELING THE UNIT**

Verify that an adjustable leg is installed at each corner of the brewer.

Set Brewer in its operating location. 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.

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

Brewer should be connected to a **POTABLE WATER**, **COLD WATER** line. Flush water line before connecting to Brewer.

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.

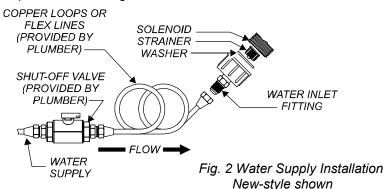
The brewer must be installed on a water line with average pressure between 20 PSI and 90 PSI. If your water pressure exceeds 90 PSI at anytime, a pressure regulator must be installed in the water supply line to limit the pressure to not more than 90 PSI in order to avoid damage to lines and solenoid.

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.

The provided water line strainer must be installed in the supply line, between the shutoff valve and inlet fitting. Note FLOW arrow marking on strainer body.

#### **INSTALLATION INSTRUCTIONS (continued)**

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. See Figure 2 below.



In some areas, local codes require a backflow preventer (check valve) to be installed on the inlet water line. If a backflow 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.

**IMPORTANT:** Before connecting to electricity, make sure automatic brewers are connected to the water supply.

**All models (except 8574)** are equipped with a cord and plug. They require a 115 - 125 volt 20 amp circuit (50/60 Hz, 2 wire plus ground, with NEMA 5-15R or 5-20R Receptacle).

**IMPORTANT:** The ground prong of the plug is part of a system designed to protect you from electrical shock in the event of internal damage. Never cut off the ground prong nor twist a blade to fit an existing receptacle. Contact a licensed electrician to install the proper circuit and receptacle.

**Model 8574** must be wired by an electrician, and requires a 115/230V 20A circuit (50/60 Hz, 2 hot legs / 1 neutral leg, plus ground). Remove rear panel to gain access to terminal block. Green terminal must be connected to a suitable building ground. Circuit must be capable of 3800 Watts. See figure 3 at right.

**IMPORTANT:** Wiring must be installed in approved solid or flexible conduit, and must be secured to the brewer with a strain relief (to be provided by the installer).

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



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 connect brewer to electrical power until the tank is filled with water. Pour water into the pour-over opening until water flows from the brew head.

#### **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.

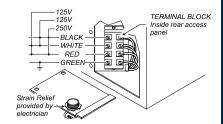


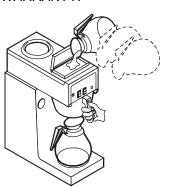
Fig. 3 115/240 Volt Terminal Block

#### **OPERATION** TANK VENT BASIN TURF HOT WATER FAUCET FAUCET SHUT-OFF VAI VF TIMER BREW FAUCET WATER -HEATING WATER TANK BREW CHAMBER NEW-STYLE COLD WATER HOT WATER INLET FITTING OLD-STYLE SOLENOID

Fig. 4 Brewer Operation Diagram

#### **IMPORTANT:**

Tank must be full of water before connecting brewer to electrical power. Heating elements will be damaged if allowed to operate without being fully submerged in water. Damage caused by operating the brewer without water in the tank is NOT COVERED BY WARRANTY.



#### A. START-UP

For initial start-up, or if the brewer has not been used for an extended period of time:

- Be sure spray disk and brew gasket are properly installed in the brew head.
- ♦ Be sure the water supply is properly connected and the water supply valve is turned *ON*.
- ♦ Be sure the WATER TANK IS FILLED

w/FLOW CONTROL

BEFORE plugging the brewer into a receptacle, or otherwise connecting brewer to electrical power THE WATER TANK MUST BE FILLED. Place an empty decanter under the brew head. Lift the pour-over cover then pour warm tap water into the pour-over opening until water flows from the brew head. When water stops dripping from the brew head, empty the container.

Once the tank is full of water, connect the brewer to electrical power. The heating elements will begin heating the water in the tank. When the water has reached the proper temperature, the "HEAT" light will go out.

#### **OPERATION** (continued)

#### **WATER HEATER**

Water temperature is sensed by a thermobulb inserted into the water tank. This temperature signal is fed to the thermostat, which controls line power to the heating element.

The setpoint temperature is adjustable at the thermostat.

The element is protected from overtemperature by a hi-limit thermostat.

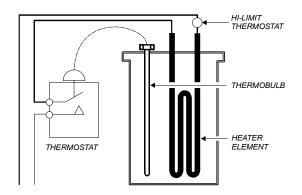


Fig. 5 Heat Control Diagram

#### **WATER FLOW**

#### **POUR-OVER FEATURE**

Pouring any amount of cold water into the pour-over opening and into the basin pan forces an identical amount of hot water out of the tank and through the spray head into the brew chamber.

#### **AUTOMATIC OPERATION**

Pressing BREW button energizes the solenoid valve, allowing water from an external water supply to flow into the basin pan and then into the hot water tank. This forces an identical amount of hot water out of the tank and through the spray head into the brew chamber

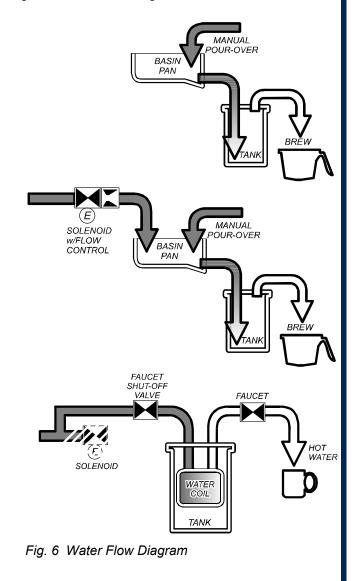
The solenoid uses a flow control device so that flow is consistent between 20 p.s.i. and 90 p.s.i.

Length of time the solenoid is open is controlled by the timer.

#### **HOT WATER FAUCET**

The faucet water coil is submerged in the hot water tank and draws heat from the brew water. Water going to the water coil is not controlled by the solenoid valve.

The faucet is at supply water pressure any time the faucet shut-off valve is *OPEN*.



#### BREWING COFFEE



### CAUTION: Burn Hazard

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



#### CAUTION: Burn Hazard

To avoid splashing or overflowing hot liquids, ALWAYS place an empty decanter under the brew chamber 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 grounds with care. Failure to comply can cause serious burns.

NOTE: Water for the hot water faucet is heated in a coil inside of the water tank. Use of the faucet will not affect the volume of water delivered for a brew. However, overuse of the faucet during a brew may lower the temperature of the brew water.

#### **B. PREPARATION**

Place one (1) genuine Bloomfield paper filter in the brew chamber. Add a pre-measured amount of fresh coffee grounds.

Gently shake the brew chamber to level the bed of grounds. Slide the brew chamber into place under the brew head.

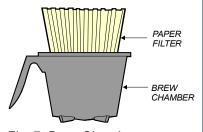


Fig. 7 Brew Chamber

#### C. POUR-OVER OPERATION

**NOTE:** Any Integrity<sup>™</sup> brewer can be used in the pour-over mode.

BE sure "READY TO BREW" light is lit.

Place the appropriate *EMPTY* decanter in place under the brew chamber.

Fill a decanter with tap water. Lift the pour-over cover and pour the entire contents of the decanter into the pour-over opening, which will fill the basin.

Water from the basin will displace a like amount of heated water from the tank. The hot water will be forced into the brew head where it will spray over the bed of grounds. Freshly brewed coffee will begin to fill the container under the brew chamber. When the flow and all dripping stops, the coffee is ready to serve.

Discard the contents of the brew chamber. Rinse the brew chamber in a sink. When the "HEAT" light goes out, the brewer is ready for another brew cycle.

#### C. AUTOMATIC OPERATION

BE sure "READY TO BREW" light is lit.

Place an *EMPTY* decanter in place under the brew chamber.

Press the "BREW" switch. The solenoid will open for an amount of time determined by the timer setting, admitting a measured quantity of water into the basin.

Water from the basin will displace a like amount of heated water from the tank. The hot water will be forced into the brew head where it will spray over the bed of grounds. Freshly brewed coffee will begin to fill the decanter under the brew chamber. At the end of the brew cycle, plus an amount of time set to allow all water to drip out of the brew chamber, two beeps will sound. When the flow and all dripping stops, the coffee is ready to serve.

Discard the contents of the brew chamber and rinse it in a sink. When the "READY TO BREW" light comes on, the brewer is ready for another brew cycle.

#### **CLEANING INSTRUCTIONS**

**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 and empty decanters.
- 3. Remove and empty brew chamber.
- 4. Remove the spray disk from the brew head (See figure 8): 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.
- 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. For stainless steel brew chambers, be sure the wire rack is properly reinstalled.
- 8. Wipe 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 dishwasher or sink.

Procedure is complete



#### 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.

#### **IMPORTANT:**

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

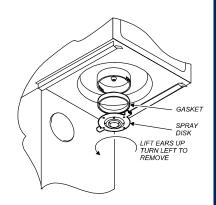


Fig. 8 Cleaning

POSSIBLE CAUSE  Brewer unplugged or circuit breaker tripped  Thermostat set too low  Hi-Limit thermostat tripped  Damaged internal component or wiring	SUGGESTED REMEDY  Check power supply cord Check / reset circuit breaker  Set for desired temperature  Allow to cool Reset hi-limit (8786, 8788)  Examine wiring & connectors,
Thermostat set too low Hi-Limit thermostat tripped  Damaged internal component or	Check / reset circuit breaker  Set for desired temperature  Allow to cool Reset hi-limit (8786, 8788)  Examine wiring & connectors,
Hi-Limit thermostat tripped  Damaged internal component or	Allow to cool Reset hi-limit (8786, 8788)  Examine wiring & connectors,
Damaged internal component or	Reset hi-limit (8786, 8788)  Examine wiring & connectors,
	thermostat and heating element Repair/replace as needed
Pourover - no water or too little water added at startup	Be sure to add sufficient water
Not enough water poured in	Increase water amount
Too much coffee grounds	Adjust amount of grounds
Timer out of adjustment	Adjust timer
Too many filter papers or wrong filter paper	Use one (1) genuine Bloomfield filter per brew
Brew chamber dispense hole plugged	Thoroughly clean brew chamber
Too much coffee or too fine a grind	Adjust coffee amount and grind
Spray gasket improperly installed	Check/reinstall gasket on INSIDE of brew head
Spray disk plugged	Clean spray disk
Water supply OFF	Turn water supply ON
Water line strainer plugged	Clean strainer (see pg. 14)
Water filter (if used) plugged	Replace filter element
Bad BREW switch	Replace switch
Damaged internal component or wiring	Examine wiring & connectors, brew switch and solenoid Repair/replace as needed
Faucet valve turned OFF	Turn faucet valve ON
Faucet plugged	Disassemble faucet, clean
Water not hot enough	Adjust water temp 195-205°F
Keep brewer, airpots and servers filter in water supply, and replace Use a quality coffee with a consis amount of coffee per brew.	
	Pourover - no water or too little water added at startup  Not enough water poured in  Too much coffee grounds  Timer out of adjustment  Too many filter papers or wrong filter paper  Brew chamber dispense hole plugged  Too much coffee or too fine a grind  Spray gasket improperly installed  Spray disk plugged  Water supply OFF  Water line strainer plugged  Water filter (if used) plugged  Bad BREW switch  Damaged internal component or wiring  Faucet valve turned OFF  Faucet plugged  Water not hot enough  Keep brewer, airpots and servers filter in water supply, and replace Use a quality coffee with a consist

#### **SERVICING INSTRUCTIONS**

#### **ACCESS PANELS**

Each warmer plate has a center stud which screws into a bracket. Remove warmer plates by turning counter-clockwise.

Solenoid door is held by two screws and a retaining lip.

Front Panel (In-Line Models) and Top / Rear Panel (3-Station Models):

- a. Remove warmer plate by turning counter-clockwise until it unscrews.
- b. Remove screws from two retaining clips under warmer plate.
- c. Lift off panel.

#### Front Panel (3-Station Models):

- a. Remove warmer plates by turning counter-clockwise until they unscrew.
- b. Remove screws from two retaining clips under each warmer plate.
- c. Remove three screws from bottom-side of front lip.
- d. Pull bottom of panel forward until it clears.

#### Top Panel (All Models):

- a. Remove two screws from rear of top panel.
- b. Lift rear of panel, remove to rear.



Opening access panels or removing warmer plates on this brew may expose uninsulated electrical components. Disconnect brewer from electrical power before removing any panel or warmer plate.

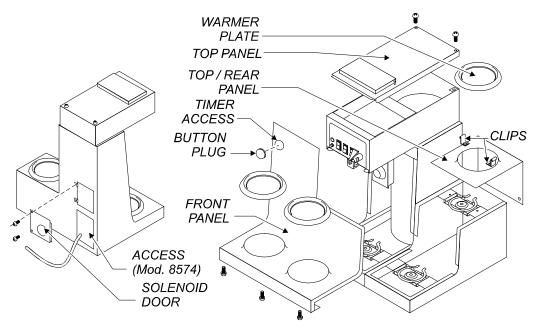


Fig. 9 Access Panels



#### CAUTION Electric Shock Hazard

These procedures involve exposed electrical circuits. These procedures are to be performed by qualified technical personnel only.

#### **TEMPERATURE ADJUSTMENT**

Unplug power cord or turn circuit breaker OFF. Remove top panel.

Pull vent tube out of tank lid and insert a thermometer of known accuracy in vent hole. Reconnect brewer to electrical power.

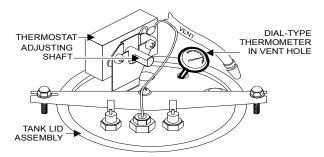


Fig. 10 Checking and Adjusting Brew Temperature

#### NOTE:

Optimum brewing temperature range is 195°F to 205°F (90°C to 96°C).

#### **IMPORTANT:**

A mechanical thermostat will maintain temperature within ±10°F. To prevent boiling water in the brewer, thermostat should be adjusted to a maximum temperature equal to the local boiling temperature minus 10°F.

Place an empty decanter under brew chamber. Energize brewer and pour one decanter (64 oz.) of cold water into pour-over opening. When READY TO BREW light comes on, read temperature displayed on thermometer.

Adjust thermostat by turning shaft; clockwise increases temperature. 1/8 turn = approximately 10°F.

Refer to Table 1 below for proper brewing temperature based on altitude.

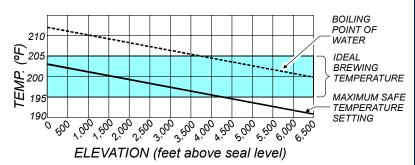


Table 1 Boiling Temperature by Altitude

Upon completion, remove thermometer and reinstall vent tube.

#### **TIMER ADJUSTMENT**

The amount of water dispensed automatically during a brew cycle is controlled by the timer.

Place empty decanter under brew chamber. Press BREW button. Brewer should dispense one decanter of water. To adjust amount:

Remove brew chamber and button plug. Adjust knob on timer; clockwise increases time. Run several cycles to check amount of water delivered. Replace button plug.

**IMPORTANT:** Water pressure must be between 20 p.s.i and 90 p.s.i. flowing pressure. If water pressure exceeds this value, or if water pressure varies greatly, a pressure regulator must be installed in the water supply line.

#### **REMOVE TANK LID ASSEMBLY**

Unplug brewer or turn circuit breaker *OFF*. Turn *OFF* water supply. Remove top panel. Pull vent tube and inlet elbow out of basin pan.

Pull water inlet tube out of basin pan. Remove basin pan.

On models with faucet, disconnect inlet pipe at faucet shut-off valve and outlet pipe at faucet.

Disconnect all wiring from thermostat, hi-limit, and heating element.

Loosen center screw on tank hold-down bracket. Remove hold-down bracket by sliding short slotted end off of locking stud and lifting it off. Remove cover assembly by lifting it straight up.

Reassemble in reverse order.

**IMPORTANT:** Before setting assembly into tank, make sure tank lid gasket is properly seated on flange of lid. DO NOT OVER-TIGHTEN.

#### **REPLACE THERMOSTAT**

Unplug brewer or turn circuit breaker *OFF*. Turn *OFF* water supply. Remove top panel.

Disconnect all wiring from thermostat only. Loosen and free jam nut from pass-thru fitting securing temperature sensing bulb. Remove two screws holding thermostat to bracket.

Lift out thermostat, sensing bulb and thermostat gasket.

Reassemble in reverse order.

#### REPLACE HEATING ELEMENT

Remove tank lid assembly per above.

Remove two hex nuts holding element to cover. Pull element from mounting holes.

Reassemble in reverse order.

IMPORTANT: When mounting thermostat, be sure a new seal washer is placed below the fitting on the capillary line. Push sensing bulb thru tank lid until fitting seats. Tighten capillary lock nut only enough to ensure no water

enough to ensure no water leakage. Excessive tightening is not necessary.

**IMPORTANT:** When replacing heating element, also replace seal gaskets.

#### REPLACE SOLENOID

Symptom: Automatic brewer will not flow water; or, automatic brewer drips continuously from brew head.

Unplug power cord or turn circuit breaker *OFF*. Turn *OFF* and disconnect water supply from brewer inlet fitting.

#### A. (OLD-STYLE)

Remove hex nut holding inlet fitting into back of brewer. Remove two screws holding access door in place. Remove access door. Remove front panel.

On faucet models, remove flare connection from "tee" inlet fitting.

Push solenoid forward slightly and lift to release it from bracket.

Disconnect wiring and remove rubber tubing from solenoid.

Remove fittings from old solenoid and transfer to new solenoid. If necessary, replace flow control at this time.

#### B. (NEW-STYLE)

Unscrew water inlet fitting from solenoid.

Remove two screws holding access door in place. Remove two screws holding solenoid to door.

Remove brew water tube from solenoid. On faucet models, remove faucet water tube from bypass side of solenoid by pressing the white ring portion of the tube fitting tightly against the metal portion while pulling the tube off of the solenoid.

Disconnect wiring from solenoid.

Transfer solenoid bracket to new solenoid.

Reassemble in reverse order.

#### CLEAN SOLENOID SCREEN (NEW-STYLE)

Symptom: Automatic brewer will not flow water.

Unplug power cord or turn circuit breaker *OFF*. Turn *OFF* and disconnect water supply from brewer inlet fitting.

Unscrew water inlet fitting from solenoid.

Using needle-nose pliers, withdraw strainer screen from solenoid. Clean screen under faucet. A stiff bristle brush may be used if necessary.

Reinsert screen in solenoid. Be careful to maintain correct orientation. (The *OPEN END* of the screen goes in *FIRST*.)

Reassemble in reverse order.

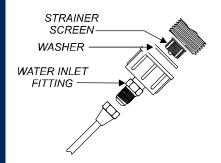


Fig. 11 Clean Strainer Screen

#### **REPLACE TIMER ASSEMBLY**

Unplug power cord or turn circuit breaker OFF.

Remove front panel. Remove knob and three screws holding timer to bracket. Disconnect wiring to timer.

Reassemble in reverse order.

Adjust timer as described on page 13

#### REPLACE HOT WATER FAUCET COIL

Symptom: Brewer drips continuously from brew head, except when faucet valve is turned OFF.

Remove tank lid assembly per above.

Remove two hex nuts hot water coil to cover. Pull coil from mounting holes.

Reassemble in reverse order.

#### REPAIR HOT WATER FAUCET

Remove top panel and turn faucet valve OFF.

Unscrew aerator cap from faucet and remove handle retaining clip. Do not let faucet body turn.

Pull bonnet assembly from faucet body.

Examine the interior of the faucet body and the surface of the seat cup. Clean out any debris in the faucet body, using a stiff bristle brush if necessary.

Examine the aerator. Clean any debris from the screen or flow straightener, using a stiff bristle brush if necessary.

Reassemble in reverse order.

#### REPLACE BREW READY LIGHT or BREW BUTTON

Unplug power cord or turn circuit breaker OFF.

Using Switch Removal Tool (p/n 83209) or a thin screwdriver, pry light or switch from mounting hole. Disconnect leads.

Reassemble in reverse order.

**IMPORTANT:** When replacing water faucet coil, also replace seal gaskets.

**NOTE:** Any abrasion or roughness on the flat end of the seat cup will require replacing the seat cup:

Work the seat cup out of the bonnet and off of the end of the stem.

Install a new seat cup, making sure the knob on the stem is fully inserted into the pocket of the seat cup, and the skirt of the seat cup is fully inserted into the bonnet.



#### CAUTION -CHEMICAL BURN HAZARD

Deliming chemicals are caustic. Wear appropriate protective gloves and goggles during this procedure.

Never siphon deliming chemicals or solutions by

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

**IMPORTANT:** DO NOT spill, splash or pour water or deliming 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 deliming solution. Take care to keep all internal components dry.

**NOTE:** Repeat steps 4 thru 5 as required to remove all scale and lime build-up.

**PROCEDURE: Delime the Water Tank** 

PRECAUTIONS: Disconnect brewer from electric power.

Allow brewer to cool.

FREQUENCY: As required (Brewer slow to heat)

TOOLS: Deliming Solution

Protective Gloves, Goggles & Apron Mild Detergent, Clean Soft Cloth or Sponge

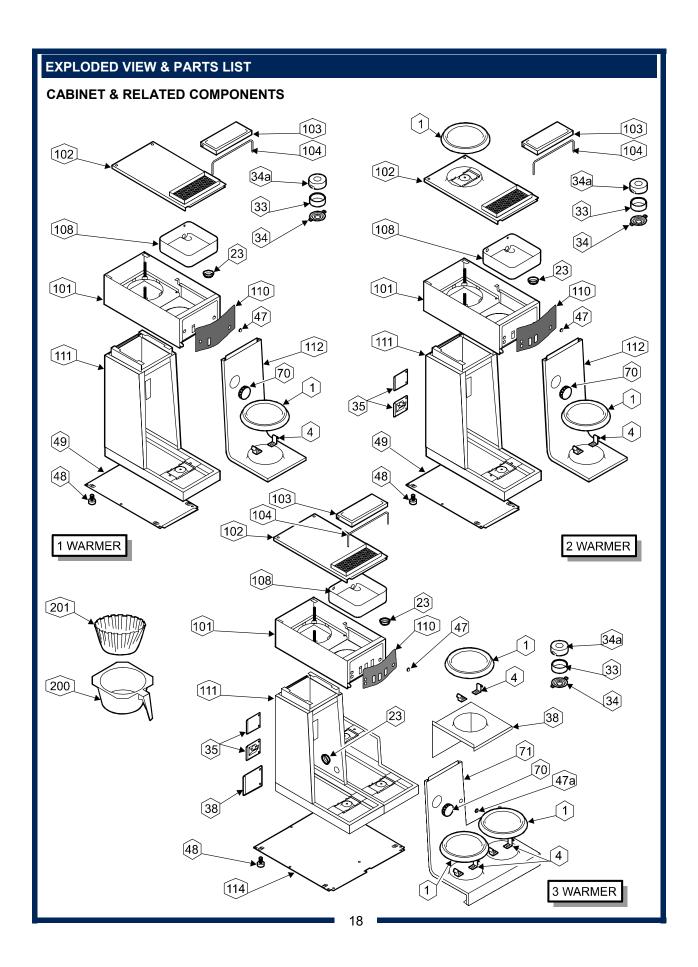
Bristle Brush, Bottle Brush

Large Sink (or other appropriate work area)

- Disconnect brewer from the electrical supply. Turn off the water shut-off valve and disconnect the water supply line from the brewer inlet fitting.
- 2. Remove the tank lid assembly as described on page 13.
- 3. Remove the water tank from the brewer body by lifting straight up. Empty all water from the tank. Set the tank back into the brewer.
- 4. Mix 2 quarts of deliming solution according to the manufacturer's directions. Carefully pour the deliming solution into the water tank. Lower the lid assembly back onto the 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 internal components of lid assembly with clear water. Using a stiff bristle brush, scrub the heating element (and faucet water coil on automatic brewers) to remove lime and calcium build-up. Rinse with clean water. Store lid assembly in a safe location.
- 6. Remove the tank from the brewer and empty. Using a stiff bristle brush, scrub the interior of the water tank to remove lime and calcium build-up. Rinse with clean water.

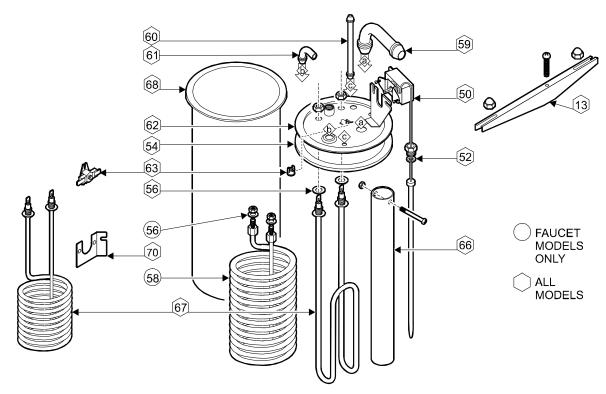
- 7. Set the tank back into the brewer. Reassemble the tank lid to the water tank. Make sure the gasket is properly in place, then reinstall the hold-down strap.
- 8. Reinstall wiring to heating element and thermostat. Reinstall the hi-limit thermostat (if removed). For brewers with hot water faucet, reassemble faucet piping. Verify that all internal components are dry, then reinstall the top panel.
- 10. Reconnect brewer to electrical supply and, for automatic brewers, reconnect water supply.
- Install the brew chamber without filter paper or grounds.
   Run at least three full brew cycles and discard all water generated.
- 12. Brewer is ready to use.

**NOTE:** Normally, silicone hoses do not need to be delimed. Should deliming hoses become necessary, Bloomfield recommends replacing the hoses.



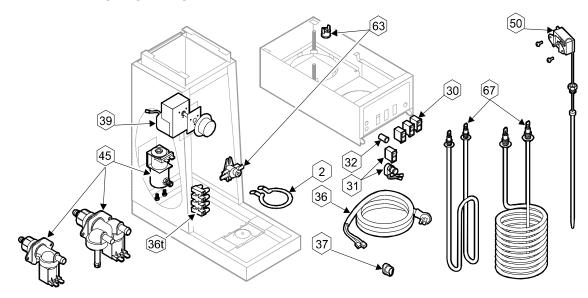
ITEM	PART NO.	DESCRIPTION	USED ON
1	8700-16	Warmer Cover Plate, Black	All
	8875-149	Warmer Cover Plate, Brown	All
4	8543-80	Clip, Panel Retaining	All
20	8543-23	Tinnerman Nut, #8 (not shown)	All
23	8543-69	Heyco Bushing	All
33	8543-42	Spray Head Gasket	All
34	82727	Spray Disk	All
34a	8543-45	Spray Head Retainer	All
35	8572-34	Door, Solenoid Access (Old-Style)	8540, 8541, 8572, 8573 & 8574
	85089	Door, Solenoid (New-Style)	8540, 8541, 8572, 8573 & 8574
38	8574-10	Cover, Electric	8574
47	8810-12	Button Plug (Non-faucet)	8541, 8542, 8543, 8571, & 8573
47a	8033-60	Button Plug (Hi-Limit)	8574
48	8033-55 8033-56	Leveler, Adjustable Leg	All All
	81732	Cap, Adjustable Leg Adjustable Leg Assembly	All
70	8706-75	Button Plug (Timer)	8540, 8541, 8572, 8573 & 8574
101	8572-13	Top Assembly	All
102	8512-56	Basin Cover Assy (w / Warmer)	8540, 8541, 8543
102	8542-6	Basin Cover Assy (no Warmer)	8542, 8571, 8572, 8573 & 8574
103	8543-46	Reservoir Cover	All
104	8543-49	Reservoir Cover Hinge Wire	All
108	8541-21	Basin Pan (Automatic)	8540, 8541, 8572, 8573 & 8574
	8543-29	Basin Pan (Pour-Over)	8542, 8543, 8571
110	8542-110	Basin Front Label	8542
	8543-160	Basin Front Label	8543
	8541-160	Basin Front Label	8540 & 8541
	8572-110	Basin Front Label	8572, 8573 & 8574
	8571-20	Basin Front Label	8571
111	8542-25	Bottom Assembly (In-Line Pour-Over)	8542 & 8543
	8540-25	Bottom Assembly (In-Line Automatic)	8540 & 8541
	8571-13	Bottom Assy (3-Station Pour-Over)	8571
	8572-33	Bottom Assy (3-Station Automatic)	8572 & 8573
112	8541-155	Bottom Assy (3-Station Automatic) Panel, Front	8574 8540 & 8541
112	8543-48	Panel. Front	8542 & 8543
	8571-3	Panel, Front	8571
	8572-10	Panel, Front	8572, 8573 & 8574
114	8718-61	Panel, Bottom Plate (In-line)	8540, 8541, 8542 & 8543
	8752-66	Panel, Bottom Plate (3-Station)	8571, 8572, 8573 & 8574
200	8942-6B	Brew Chamber, Black	All
	8942-6	Brew Chamber, Brown	All
	8707-6	Brew Chamber, Stainless	All
	8766-11	Brew Chamber, Portion Pack, Black	All
	8942-6PP	Brew Chamber, Portion Pack, Brown	All
201	POF	Filter Paper (case of 1000)	All

#### **HOT WATER TANK ASSEMBLY**



ITEM	PART NO.	DESCRIPTION	USED ON
13	8043-5	Hold Down Strap	All
50	8512-51	Thermostat	All
52	8512-41	Seal Washer	All
54	8043-12	Tank Cover Gasket	All
56	8043-30	Seal Gasket	All
58	8540-6	Hot Water Coil	8540, 8572, 8574
59	8043-8	Inlet Elbow	All
60	8043-15	Vent Tube	All
61	8043-11	Outlet Elbow	All
62	8512-45	Tank Cover (Plate Only, 6 holes)	8541, 8542, 8543, 8571, 8573
	8514-68	Tank Cover (Plate Only, 8-holes)	8540, 8572, 8574
63	8043-83	Hi-Limit Thermostat (120V)	All, except 8574
	8552-50	Hi-Limit Thermostat (240V)	8574
66	8043-24	Water inlet Tube	All
67	8043-14	Heating Element (120V, 1500W)	All, except 8574
	8716-1	Heating Element (240V, 3500W)	8574
68	8043-10	Tank Body	All
70	80625	Bracket, Hi-Limit	8574
	8543-300	Spare Cover Assembly (120V, 1500 W No Coil - all parts mounted to cover)	COMPLETE SPARE
	8541WF-300	Spare Cover Assembly (120V, 1500W With Coil - all parts mounted to cover)	TANK COVER ASSEMBLY

#### **ELECTRICAL COMPONENTS**



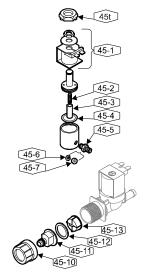
ITEM	PART NO.	DESCRIPTION	USED ON
2	8572-18	Warmer Element, 120V 100W	All
30	6710-23	Warmer ON/OFF Switch	All
31	8572-24	BREW Switch, push-button	8572, 8573, 8574
	8707-55	BREW SWITCH, momentary rocker	8540, 8541
32	8718-31	READY TO BREW Indicator Light	All
36	6407-15	Cord & Cap Assembly, NEMA 5-15P	All, except 8574
36t	8552-18	Terminal Block, 4P	8574
37	35-210	Strain Relief	All, except 8574
39	8718-1	Timer, 2 Minute w/dial & knob	8540, 8541, 8572, 8573, 8574
45	8541-120	Solenoid Valve (Old-Style)	8540, 8541, 8572, 8573, 8574
	83612	Solenoid Valve (new-style, single)	8541 & 8573
	84455	Solenoid Valve (new style w/bypass)	8540, 8572, 8574
50	8512-51	Thermostat	All
63	8043-83	Hi-Limit Thermostat	All, except 8574
	8552-50	Hi-Limit Thermostat, Manual Reset	8574
67	8043-14	Heating Element, 120V 1500W	All, except 8574
	8716-1	Heating Element, 240V 3500W	8574

#### SOLENOID REPAIR KITS (OLD-STYLE SOLENOID ONLY)

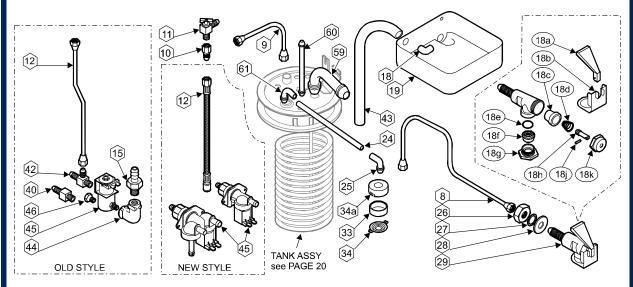
8541-120CS 8541-120K Coil Assembly (item 45-1) Solenoid Repair Kit (includes items 45-2 Spring, 45-3 Plunger & x45-4 Seal Ring) 8541-120JS Solenoid Repair Kit (includes items 45-2 Spring, 45-3 Plunger & 45-4 Seal Ring plus 45t Service Wrench)
Solenoid Repair Kit (includes items 45-2 Spring, 8541-120KS 45-3 Plunger, 45-4 Seal Ring & x45-5 Flow Control plus 45t Service Wrench)
Flow Control (item 45-5 includes
45-6 Retainer Ring 8541-120F & 45-7 Flow Control Washer) 8541-120R Flow Control Washer Retaining Ring (item 45-6) Flow Control Washer (item 45-7) Service Wrench (item 45t) 8541-120FW 8541-120-WS

#### SOLENOID REPAIR KITS (NEW-STYLE SOLENOID ONLY)

83612	Solenoid Complete, Single
84455	Solenoid, Complete, with Bypass
85218	Inlet Fitting Kit (items 45-10, 45-11, 45-12, 45-13)
85219	Inlet Strainer (item 45-13)



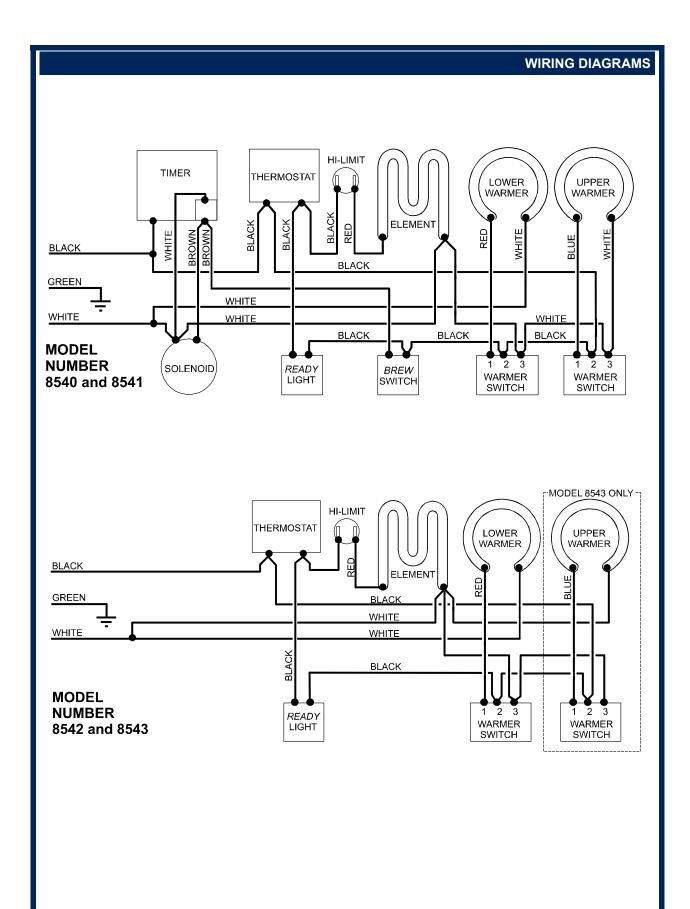
#### **INTERNAL PLUMBING COMPONENTS**

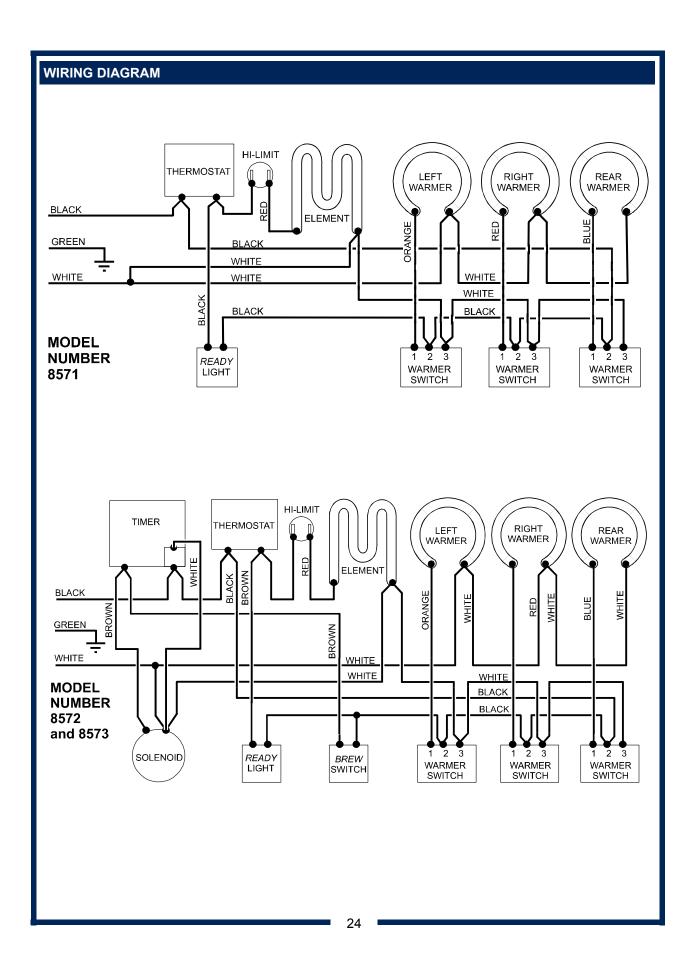


ITEM	PART NO.	DESCRIPTION	USED ON
8	8540-3	Faucet Outlet Tube Assembly	8540, 8572 & 8574
9	8540-4	Formed Inlet Tube Assembly	8540, 8572 & 8574
10	8551-30	1/4" Male Flare x 1/8" FPT	8540, 8572 & 8574
11	8514-26	Needle Valve (Faucet Shut-Off)	8540, 8572 & 8574
12	8572-20	Inlet Tube Assembly (old-style)	8540, 8572 & 8574
	84461	Braided Hose (new-style)	8540, 8572 & 8574
15	8941-20	Adapter Fitting (old-style)	8540, 8541, 8572, 8573 & 8574
18	8540-30	Elbow	8540, 8541, 8572, 8573 & 8574
19	8541-21	Basin Pan (Automatic)	8540, 8541, 8572, 8573 & 8574
	8543-29	Basin Pan (Pour-Over)	8542, 8543, 8571
25	8043-13	Sprayer Elbow	All
26	82680	Hex Lock Nut	8540, 8572 & 8574
27	8551-100B	7/16" Lock Washer	8540, 8572 & 8574
28	82681	Washer	8540, 8572 & 8574
29	82556	Faucet Assembly	8540, 8572 & 8574
33	8543-42	Spray Head Gasket	All
34	82727	Spray Disk	All
34a	8543-45	Spray Head Retainer	All
40	8541-93	Inlet Fitting, Straight (old-style)	8541 & 8573
42	8551-35	Coil Inlet "Tee" Fitting (old-style)	8540, 8572 & 8574
43	8541-46	Water Inlet Tube	8540, 8541, 8572, 8573 & 8574
44	8541-48A	Elbow 1/4" Male Flare x 1/4" FPT (old-style)	8540, 8541, 8572, 8573 & 8574
45	8541-120	Solenoid Valve (old-style)	8540, 8541, 8572, 8573 & 8574
	83612	Solenoid Valve, Single (new-style)	8541 & 8573
	84455	Solenoid Valve w/ Bypass (new-style)	8540, 8572 & 8574
46	8706-102	Adapter Fitting (old-style)	8540, 8541, 8572, 8573 & 8574
59	8043-8	Inlet Elbow	All
60	8043-15	Vent Tube	All
61I	8043-11	Outlet Elbow	All

#### **FAUCET REPAIR KITS**

82573	Handle (item 18a)
82575	Seat Cup (item 18c)
82576	Faucet Repair Kit (Includes 18a Handle, 18c Seat Cup, 18d Spring, 18h Stem, 18j Pin & 18k Bonnet
82682	Retainer Clip (item 18b)
84804 84870	Aerator Replacement Kit (Includes 18e O-Ring, 18f Aerator Disk & 18g Aerator Cap Aerator Repair Kit (Includes 18e O-Ring & 18f Aerator Disk)





### **WIRING DIAGRAM (continued)** HI-LIMIT TIMER THERMOSTAT RIGHT WARMER LEFT WARMER REAR WARMER ELEMENT BLACK ORANGE RED LINE BLACK WHITE NEUT | WHITE LINE GND WHITE BLACK 3 1 2 3 *READY* LIGHT **MODEL** SOLENOID *BREW* SWITCH WARMER SWITCH WARMER SWITCH WARMER SWITCH **NUMBER** 8574

SERVICE TRAINING - QUALITY SERVICE





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