OWNER'S MANUAL OPERATING INSTRUCTIONS MAINTENANCE INSTRUCTIONS and PARTS LIST



# **INTEGRITY**<sup>™</sup> SERIES

# Model 8702 Coffee Brewing System with Model 8703 Satellites



# TWIN SATELLITE BREWING SYSTEM

BLOOMFIELD INDUSTRIES 2 ERIK CIRCLE, P.O. BOX 280 VERDI, NEVADA 89439 FAX (800) 356-5142

**71239** 8702-M

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The INTEGRITY BREWERS have been designed with adjustment flexibility to cover a wide spectrum of customer needs. Adjustments on the running thermostat and inlet timer are simple adjustments easily accomplished by the purchaser, but NOT COVERED UNDER ANY WARRANTY SERVICE AGGREEMENT

Brewers must be installed in accordance with installation instructions in the owner's manual for the warranty to be valid.

WARNING:

DO NOT PLUG IN OR ENERGIZE THIS UNIT UNTIL INSTALLATION INSTRUCTIONS ARE READ AND FOLLOWED.

# INTRODUCTION

MODEL 8702 SATELLITE COFFEE BREWER WITH HOT WATER FAUCET, manufactured by Bloomfield Industries, is designed to brew a satellite of coffee at the press of a switch and to hold 1 1/4 gallons of hot beverage at the correct temperature for serving.

- Satellites are electrically heated—may be "plugged into" the brewer to keep coffee at the correct temperature for serving.
- Satellites may be moved and plugged into any standard wall receptacle so fresh brewed coffee may be kept hot and dispensed locally.
- Operates on 30 Amps, 5800 Watts, 115/230 or 120/208 Volts, 50/60 hz., single phase three (3) wire service.
- Requires a water flow rate of one (1) gallon per minute at a minimum pressure of 20 PSI.
- Brews 212 oz. of coffee in approximately 7 minutes.
- Is all Stainless Steel Construction.
- "Energy Saver" Tank Heater on/off switch conserves energy.
- Hot Water Faucet on the front of the brewer provides hot water for hot beverages at anytime without affecting the coffee brew volume.
- "Ready to Brew" light to indicate proper water temperature to insure uniform quality of brewed coffee.
- Exclusive "Water Spray Disc" with 12 holes. Water drips slowly and gently over the coffee grounds, causing a floating action and complete saturation of all the coffee grounds.
- Factory pre-set thermostat so brewer is ready for operation on installation.
- 4-minute Solid State Timer.
- Low watt, density 5500 Watt heating element for longer life, more efficient operation.
- Teflon color coded wiring, keyed to color tabs at connection points.

### WARRANTY

For a period of one (1) year from date of installation, all defective parts on Bloomfield equipment will be replaced free of charge, providing parts did not become defective through accident, neglect, improper installation, mishandling or damage in transit. The service necessary to replace these defective parts will also be free of charge, provided this service is performed by an authorized BLOOMFIELD service station, wherever authorized service is available.

BREWER WARRANTY IS VOID IF:

Other than genuine Bloomfield replacement parts are used.

Brewer is plugged into voltage other than specified on serial plate.

Tank heating element is energized before water tank is filled.

Recommended Bloomfield set-up and servicing procedures are not followed.

### SAFETY

Knowledge of proper procedures is essential to the safe operation of electrically energized equipment. In accordance with generally accepted product safety labeling guidelines for potential hazards, the following four signal words are used throughout this manual.

**DANGER** - Danger is used to indicate the presence of a hazard which **will** cause **severe** personal injury, death, or substantial property damage in the event the statement is ignored.

**WARNING** - Warning is used to indicate the presence of a hazard which **can** cause **severe** personal injury, death, or substantial property damage in the event the statement is ignored.

**CAUTION** - Caution is used to indicate the presence of a hazard which **will or can** cause **minor** personal injury or property damage in the event the statement is ignored.

**NOTE** — Note is used to notify personnel of installation, operation or maintenance information which is important, but not hazard related.

# **PRE-INSTALLATION INSTRUCTIONS**

FOR MODEL 8702 TWIN SATELLITE

### **BREWING SYSTEM**

#### WARNING:

DO NOT PLUG IN OR ENERGIZE THIS UNIT UNTIL INSTALLATION INSTRUCTIONS ARE READ AND UNDERSTOOD.

#### CHECK THE ELECTRIC SOURCE THAT WILL FEED THE UNIT.

1. Check the female power receptacle and the circuit breakers.

A. The power receptacle must be a 30 AMP, **Single Phase**, NEMA #L14-30 receptacle wired for 115/230 or 120/208 Volt to match the power requirements shown below.

B. Circuit Breakers in the control cabinet must be of 30 AMP rating.

Source Receptacle



### NOW THE UNIT MAY BE SET IN PLACE.

1. Be Sure Tank Heater Switch is "Off."

2. Follow Plumber's Instructions.

3. Follow Electrician's Instructions.

#### YOU ARE NOW READY TO FILL THE TANK WITH WATER.

1. Follow initial operation instructions.

### CONNECTING WATER SUPPLY LINE TO UNIT

#### WARNING:

DO NOT PLUG IN OR ENERGIZE THIS UNIT UNTIL INSTALLATION INSTRUCTIONS ARE READ AND UNDERSTOOD.

#### CAUTION: IF UNIT HAS BEEN CONNECTED TO THE POWER SOURCE, UN PLUG IT OR TURN OFF POWER AT SOURCE.

Power to Brewer must be OFF before proceeding with plumbing installation.

- 1. Flush water line before connecting to Brewer. Brewer should be connected to COLD WATER line.
- 2. For less than 25' water run, use 1/4" line. For more than 25' use 3/8" line.
- 3. A water shut-off valve must be installed on the incoming water line in a convenient location, close to the unit.
- 4. Water pressure should be at least 20 PSI and flow at one gallon per minute.

**NOTE:** Unit must be installed on a water line with pressure between 20 PSI and 90 PSI. If water pressure varies greatly or does not fall into this range, a pressure regulator should be installed.

**NOTE:** Line connections to machine must conform to local codes.

- 5. Connect the incoming water line coupler assembly to the 1/4" male end of the water strainer. Observe arrow direction for water flow.
- 6. To delay build up of lime deposits in water tank, we recommend the use of a Water Conditioner such as Everpure QC7-MH.



The National Sanitation Foundation requests a provision be made in the incoming water line for flexibility. This is necessary to allow tilting or moving the machine for proper cleaning underneath, etc. A tightly coiled length of copper tubing located on either side of the water strainer would help comply with this request.

# **ELECTRICAL INSTALLATION**

Electrical requirements: 115/230 (120/208) Volts A.C. 50/60 hertz, 4 wire with ground, single phase, 30 amp wiring required.

Warranty is void if Brewer is connected to any voltage other than specified above.

- WARNING: Brewer must be properly grounded to prevent possible shock hazard. DO NOT assume a plumbing line will provide such a ground.
- 1. Energy Saver Tank Heater Switch on front of Brewer must remain in OFF position until plumbing is connected and Brewer is initially filled with water. The switch must NOT be turned on until after Step 6 is completed in the initial operation instruction, See Page 7.

- Electrical service line cord and NEMA Plug and receptacle, or equivalent, must be furnished by installer. Use copper wire only of #10AWG wire size.
- 3. Plug power cord to power source.
- After connecting service as specified, test the voltages on the field wired side with a volt meter. Do not turn on tank heater switch.
- 5. If plumbing connection has been made, the Brewer is now ready for "Initial Operation Instructions." If plumbing is to be done later, be sure power is "OFF" and Brewer is not plugged into outlet.

Green - Earth Ground



NOTE: Line connection to machine must conform to local codes. See Diagram above.

### **INITIAL OPERATION INSTRUCTIONS**

Electrician's and Plumber's Instructions should be followed carefully before proceeding with Initial Operating Instructions.

Be sure all electrical and plumbing connections are tight.

- 1. Open water inlet valve.
- 2. Make sure Energy Saver Switch is in OFF position.
- 3. Connect electricity.
- 4. Place empty Satellite in brewing position.
- 5. Place empty Brew Funnel into brew rails and turn left or right so that handle is over receiving Satellite.
  - NOTE: Handle must be turned all the way to left or right so Micro Switch is engaged.
- 6. Press "Brew" Switch. Repeat a second time, allowing five (5) minutes between cycles. Water will begin to flow through brew funnel into Satellite during third cycle.
- 7. Turn Energy Saver Switch to ON. On initial warm up, some water may flow into the brew funnel due to expansion of cold water in the Tank.
- 8. Allow 20 minutes for initial water heat up. Time will vary with incoming water temperature.
- 9. When correct brewing temperature is reached, READY LIGHT will come on. Make sure Satellite is empty. Press Brew Switch and run a cycle of hot water only. At the end of

this cycle, Brewer will be ready for checking timer adjustment.

- 10. Check a cycle of water ONLY to determine water volume delivery. Approximately one (1) inch down from the top of the Sight Glass Assembly, on the shield, there are two (2) lines stamped in the metal. The water should rise in the Sight Glass, to a level between those lines to be considered as a full delivery volume.
- 11. The Solid State Timer is pre-set at the factory to run 146 seconds and allow 224 ounces of water to flow into the Basin Pan. Timer adjustment is located behind the 2 inch Plug Button in the Front Panel in the upper left area. To adjust, remove snap in plug and turn dial clockwise to increase timer cycle and water volume, or counter-clockwise to decrease timer cycle and water volume.
- 12. Replace snap-in plug.
- 13. The Thermostat is pre-set at the factory for 195°-205°. The Thermostat Adjustment is located behind the Plug Button in the upper left section of the Front Panel. To adjust, turn knob clockwise to increase temperature, or counter-clockwise to decrease temperature level of the water in the tank.
- 14. Replace plug button.
- 15. Brewer is ready for use.
- 16 If water supplied to brewer is softened or brewed coffee is too strong, see Adjustment Tools and By-Pass Adjustment.

### **BREWING OF COFFEE**

- NOTE: To be sure water brewing temperature is correct do not start a brewing cycle until READY LITE is ON.
- 1. Slide brew chamber from the brew rails and check to be sure wire rack (brew basket) is in place in the brew chamber. Proper timing and brewed coffee flow, through the brew chamber, cannot occur without it.
- 2. Place one BLOOMFIELD filter paper into brew chamber and add a pre-measured package (standard package is 8.0 ounces of grounds) of URN GRIND coffee. Shake brew chamber to level the filter paper and coffee bed.

- 3. Make sure satellite is empty before starting a brewing cycle. Place empty Satellite in brewing position and plug Satellite Cord into receptacle inside of unit. Turn ON Satellite Heater Switch.
- 4. Slide brew chamber into brew rails and turn to LEFT or RIGHT so micro-switch is engaged by actuator tab on front of brew chamber.
- 5. Press BREW SWITCH this action activates the timer and water solenoid to automatically complete a brew.
- 6. When the brew is finished and coffee flow has stopped remove the brew chamber and discard the used coffee grounds and filter paper.

### PARTS IDENTIFICATION LIST MODEL NO. 8702

REF. NO.	PART NO.	DESCRIPTION	QTY.	FUNCTION
1	8543-52	#8 x 3/8 phillips head "B" screw.	2	Fastens top cover.
2	8706-46	Top cover.	1	Covers basin body.
3	8706-5	Outlet tube, to faucet.	1	Water faucet line.
4	8706-4	Formed inlet tube ass'y.	1	Water faucet line.
5	8551-30	1/4" male flare x 1/8"FPT. connector.	1	Connects water faucet line.
6	8514-26	Needle valve.	1	Adjust water flow to faucet.
7	8706-3	Inlet tube ass'y.	1	Water faucet line.
8	8706-97	T fitting.	1	Connects water & cushion lines.
9	8706-24	Straight tube.	1	Main water line connection.
10	8706-1	Snubber tube assembly.	1	Water line cushion.
11	8706-23	Snubber inlet tube.	1	Connects water.
12	SA-9052	Strainer.	1	Filters incoming water.
13	8702-17	Outlet, snap-in.	2	Provides power to satellites.
14	8543-52	#8 x 3/8 phillips "B" screw.	4	Accepts cover plate.
15	8706-41	Cover plate, water tank body.	1	Access door.
16	8706-13	Thermostat.	1	Controls water temperature.
17	9700-377	Terminal block contact.	4	Protects wires.
18	7200-6X	#8-32 x 5/16" lg. screw.	2	Attaches terminal block.
19	8700-378	Terminal block end.	1	Protects wires.
20	8710-10	#7/16-20 x 1/8" brass hex nut.	2	Secures water line.
21	8706-156	Back cover sub-ass'y-	1	Access to electrics.
22	8942 <del>-9</del> 2	#8-32 keps hex nut.	24	Fastens relay & fuse holder to body. Fastens basin
23	8700-517	Relay, 120 v.	1	Transmit power.
24	18-126	#1/4-20 hex nut.	2	Fastens relay bracket & fastens locator bar.
25	8706-166	Relay mounting bracket.	1	Accepts relay.
26	8705-37	#8-32 x 5/8" lg. screw.	2	Accepts relay.
27	8706-22	Locator bar.	1	Positions satellites.
28	8706-64	#1/4-20 x 1" lg. screw.	2	Fastens locator bar.
29	7200-6X	#8-32x5/16" lg. screw.	4	Fastens basin body.
30	3543-23	Tinnerman nut.	2	To accept top cover screw.
31	8941-20	Adaptor fitting.	2	Connects water line for brewing.
32	8881-8	Washer.	2	Accepts gasket.
33	8043-30	Gasket.	3	Prevents leakage.
34	8873-12	Male elbow 1/4" pipe x 1/4" male flare.	1	Connects water brewing line.
35	8706-57	Basin pan sub-ass'y.	1	Holds water for brewing.
36	8706-65	#6-32 x 7/8" lg. screw.	4	Holds micro switch.
37	8706-19	Switch, micro.	2	Insures brew funnel placement.

REF. NO.	PART NO.	DESCRIPTION	QTY.	FUNCTION
38A	8875-68	Fuse holder	1	Holds fuse.
38B	8875-C9	Fuse—15 Amp.	1	Electric line protection.
39	8861-16	#6-32 Keps hex nut.	4	To accept a screw.
40	8704-5	Basin sub-assembly.	1	Houses components.
41	8706-186	Pilot tight assembly.	1	Shows water is ready for brewing.
42	8551-100C	Hex lock nut.	1	To accept faucet.
43	8551-100B	7/16" External tooth lock washer.	1	To accept faucet.
44	8551-100A	Washer.	1	To accept faucet.
45	8706-169	Faucet assembly.	1	Dispenses hot water.
45A	8706-169A	Faucet spout ass'y.	1	Connects to faucet.
46	8706-28	Switch, brew.	2	Starts brew cycle.
47	8707-34	Switch, 120 v.	1	Energizes tank heater.
48	8706-17	Timer, includes knob, faceplate & screws.	1	Controls coffee timing.
49	3-100	#6-32 x 1/4" lg. screw.	2	Holds thermostat.
50	8706-96	Thermostat knob.	1	Adjust thermostat.
51	8706-21	Water inlet tube.	1	Water line for brewing.
52	8706-76	Plug button 1-1/8".	1	Access to thermostat adjustment.
53	8706-75	Plug button 2".	1	Access to timer adjustment.
54	8700-591	Leg.	4	Elevates unit.
55	8541-48a	Elbow.	1	Water line for brewing.
56	8551-35	"T" coil inlet fitting.	1	Transfers water.
57	8706-102	Reducer, adapter.	1	Path of water.
58	8541-120	Solenoid valve 120 v.	1	Turns water on & off, flow control.
58A	8541.122	Screw, 10-32 x 1/2" Pn. Hd.	2	Secures solenoid valve.
59	8706-9	Wire rack, brew chamber.	1	Holds filter paper.
60A	8706-107	Brew funnel, cup only.	1	Holds coffee grounds, and directs brew to satellite tank.
60S	8706-60	Brew funnel complete with wire rack & handle.	1	Promotes brewing.
61	8707.3	Screw.	1	Fastens handle to brew funnel.
62	8707-2	Handle, brew funnel.	1	Lifting and turning brew funnel.
63	8706-54	Front cover sub-assembly.	1	Covers internal components.
64	18-302	#8-32 hex cap nut.	2	Accepts hold strap.
65	8043-47	#10-32 x 1 " lg. screw.	1	Seals tank cover.
66	8043-5	Hold down strap.	1	Holds tank cover on.
67	8512-41	Seal washer.	3	Seals thermostat, water coil.
68	8043-28	1/2-20 hex nut.	2	Fastens heating element.
69	8514-68	Tank cover sub-assembly.	1	Seals tank.
70	8043-12	Tank cover gasket.	1	Seals cover to hot water tank.
71	8706-8	Hot water coil assembly.	1	Transports water.
72	8535-2	Heating element 5500 w., 230 v.	1	Heats water.
73	8706-20	Vent tube.	1	Air Vent.
74	8706-6	Inlet elbow.	1	Water tine from tank to pan.

REF. NO.	PART NO.	DESCRIPTION	QTY.	FUNCTION
75	8043-83	Hi-limit thermostat.	1	Prevents over heating.
76	8043-11	Outlet elbow.	1	Water line from tank to sprayer disc.
77	8706-25	"T" by-pass flow tube.	1	Path of water.
78	8706-188	Tubing connector.	1	Path of water.
79	8942-33	Gasket.	2	Seals water coil.
80	8551-53	7/16" I. D. x 3/4" O. D.	2	Seals water coil.
81	8706-111	Nylon screw (by-pass).	1	Adjust water flow.
82	8706-26	By-pass valve body.	1	Path of by-pass water.
83	8043-13	Spray elbow.	1	Water outlet to sprayer disc.
84	8543-42	Spray head gasket.	1	Seals sprayer disc.
85	8543-44	Sprayer disc.	1	Control spray pattern into coffee.
86	8543-74	#4-40 hex nut.	1	Accepts screw.
87	8543-73	#4-40 x 1-1/2" lg. screw.	1	Fastens water tube-
88	8706-68	Water inlet tube.	1	Deposits cold water at bottom of hot water tank.
89	8706-49	Water tank assembly.	1	Holds water.
90	6541-39	#1/4-20 x 3/4" lg. screw.	2	Fastens front cover panel to body.
91	8543-69	Heyco bushing.	3	Protects wires.

8704-2 8704-3 8705-44 8706-205

ACCESSORY AND ITEMS NOT SHOWN

Label, for 65 Watt Outlet Label, Front Label, Front Right Side Label, Front Left Side Faucet Shield By-Pass Set Kit Filter Papers-Box of 500.

### REF. #58 COLD WATER ENTRANCE SOLENOID VALVE PART NO. 8541-120

(Consists of Valve and Flow Control)

8702-18

8706-110

8704-1

	SOLENOID	VALVE REPLACEMENT PARTS (For Blue Coil Valve)					SOLENOID VA	LVE REPLACEMENT PARTS r Black <sup>*</sup> Coil Valve)
	(No ł	(it Parts Sold Separately)					(No Kit	Parts Sold Separately)
(1)	8541-120C	Coil Assembly – 120V.	$\langle \diamond \rangle$	$\langle \mathbf{D} \rangle$	2	(1)	8541-120CS	Coil Assembly - 120V.
(2)	8541-120K	Solenoid Repair Kit	$\sim$		\$	(2)	8541-120JS	Solenoid Repair Kit
		Vacuum Pac consists of: (2A) Spring (2B) Plunger (2C) Seal Ring			(I)			Vacuum Pac consists of: (2A) Spring (2B) Plunger (2C) Seal Ring (2D) Service Wrench
(3)	8541-120F	(3A) Flow Control		Ş		(3)	8541-120KS	Solenoid Overhaul Kit
(4) (5)	8541-120WS 8810-103	(2D) Service Wrench Solenoid Valve Only (Minus 2D & 3A)	R		2A 2B 2C			Vacuum Pac consists of: (2A) Spring (2B) Plunger (2C) Seal Ring (2D) Service Wrench (3A) Flow Control
			(CD)			(4)	8541-120F	(3A) Flow Control
				8	<b>3</b> A	(5)	8541-120WS	(2D) Service Wrench
						(6)	8810-103	Solenoid Valve Only (Minus 2D & 3A)

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# EXPLODED VIEW MODEL NO. 8702



# **REPLACEMENT PARTS LIST**

### MODEL NO. 8703 SATELLITE



### **REPLACEMENT PARTS LIST**

MODEL NO. 8703 SATELLITE

REF. NO.	PART NO.	DESCRIPTION
1.	8705-18	Cap Sub-Assembly
2.	8705-21	Satellite Cover Only
3.	8705-4	Handle - Rod
4.	D20002-3	Screw, 10-32
5.	8942-92	Hex Nut, 8-32, Keps
6.	8705-37	Screw, 8-32 x 5/8
7.	8705-6	Locating Block
8.	8705-7	Locating Block Seal
9.	8705-1	Spacer, Tank Cover Retainer
10.	8705-5	Retainer Spring
11.	8703-11	Cord and Cap Assembly
12.	35-110	Cord Grip — Strain Relief
13.	8596-43	On/Off Lighted Switch
14.	8703-8	Satellite Body S/A
15.	8703-3	Heat Sink Plate
16.	8703-25	Heating Element, 60 Watt
17.	8703-26	Retainer
18.	8705-60	Spacer Tube
19.	8703-27	Access Dool
20.	0700-40	
21.	8706-64	Screw, 1/4-20 X 1
22.	8705-40	Drip Tray Cover
23.	9705 22	Satallita Tank Assambly
24. 25	8705-26	Seel Drain Fitting
26	8705-33	0 Ring — Tank Ton Seal
27.	18-126	Hex Nut - 1/4-20
28.	8705-11	Faucet and Sightglass Assembly

#### ACCESSORY AND ITEMS NOT SHOWN

8705-44	Faucet Shield
8706-110	Box of 500 Filter Papers
8706-205	By-Pass Set Kit

# **REPLACEMENT PARTS LIST**

### FOR FAUCET ASSEMBLY ONLY - PART NO. 8705-11 REFERENCE NO. 28 ABOVE

REF. NO.	PART NO.	DESCRIPTION
1.	8600-17	Shield Cap
2.	8700-25J	Upper Washer for Sight Glass 1/8" Standard
	8700-25K	Upper Washer for Sight Glass 1/16' Special
3.	8600-20	Shield - 10" x 3/4" O D Aluminum
4.	8705-11C	Sight Glass - 10 x 5/8 O. D Polysulpnone
5.	8705-11B	Lower Sight Glass Washer - w/ 1/16" Hole
	8700-25H	Lower Sight Glass Washer - w/5/16" Hole
6.	8705-11G	Shield Base
7.	8705-11D	Shank Assembly w/Wing Nut
8.	8705-11F	Faucet only w/o Shank & Sight Glass
9.	8705-11L	Upper Assembly — Black Bonnet
10.	8700-25L	Seat Cup
11.	8705-11K	Washer for Clean Out Cap
12.	8705-11J	Clean Out Cap with Washer

## HOT WATER FAUCET REPLACEMENT PARTS LIST



REF. NO.	PARTN	Ю.	DESCRIPTION
1.	8551-275	5	Repair Kit (sold as Kit only)
A.			Handle (Color - Red)
B.			Valve—Stem
C.			Valve Disc
D.	Kit		"0" Ring - #6, #7 & #8
E.	Contains	5	Tee Nut
F.	J	L	Spring
G.			Guide
H.			Bushing
			Insulation Card (Not Shown)
A.	8706.16	398	Faucet Handle, Red
2.	8551.27	'5B	Stream Straightener
			(Not Shown)
3.	8551.10	AOA	Washer Rubber
4.	8551.10	0B	7/16 External Tooth Lock
			Washer
5.	8551.10	00	Hex Lock Nut
SEALS AVAIL	ABLE		
6.	8551-200	0B	"0" Ring Stem Seal 5/16" O. D
7.	8551-200	DA	"0" Ring Seal 1/4" O. D.
8.	8551-200	00	"0" Ring Spout Seal 3/8" O. D.
C.	8551.27	'5A	Valve Disc
TOOL AVAILA	BLE		
9.	8551.20	0E	Adaptor Tool - Service
			Wrench
10.	8706-169	9A	Flexible Spout

# WATER FLOW DIAGRAM

#### PART

#### Sequence of Operations: WATER FLOW FOR BREWING OPERATION (Both Brewing Sections)

- 1. Pushing brew Start Switch energizes the Timer. The Timer then energizes the Solenoid Valve, allowing water to flow into the Basin Pan and then into the Hot Water Tank. The length of time the Solenoid Valve is energized is controlled by the Timer setting.
- 2. The water entering the **Hot** Water**Tank** from the Basin **Pan**, flows to **the** bottom of the **Tank** through the Water Inlet **Tube**.
- 3. The addition of water into the bottom of the Hot Water Tank causes the hot water at the top of the Tank to flow out through the Outlet Elbow of the Tank Cover, to the Spray Head.



### PART II

Sequence of Operations: WATER FLOW FOR FAUCET OPERATION (Faucet Section Oniv)

- The incoming cold water supply connects to a "T" Inlet Fitting on the Unit. Water flows from the "T" Inlet Fitting through the Inlet Tube, Needle Valve and Formed Inlet Tube into the input connection of the Water Coil.
- 2. The Water Coil is submerged in the Hot Water Tank and draws heat from the surrounding hot water. Water flowing into the Water Coil is then heated and flows out through the Formed Outlet Tube to the Faucet. (The water flowing through the Water Coil, w hich feeds the Faucet is **not** controlled by the Solenoid Valve. This portion of the system is always under pressure and is controlled by the Faucet. Opening the Faucet allows the water to flow through the Water Coil system.)
- 3. The Needle Valve, in the system, controls the volume of flow from the Faucet and is adjusted to allow a gentle stream of water to be dispensed through the Faucet, without splashing into the cup. (The Faucet is intended as a cup to cup hot w ater supply.)

**NOTE:** Drawing hot water from the Faucet, during a Brewing Cycle **DOES NOT** affect the volume of the finished brew.

# EQUIPMENT SET-UP AND CLOSE PROCEDURES

### **Daily Start Up Procedure**

- 1. Turn tank heater switch ON.
- 2. Wait for "Ready to Brew" light to come on. (Approximately 10 minutes.)
- 3. Brewer is now ready for use.

### **Daily Close Down Procedures**

- 3. Rinse brew funnel and satellites thoroughly.
- 4. Wash spray disc in sanitizer solution; rinse thoroughly, and replace.
- 5. Use a damp cloth and clean the entire brew head area to remove any accumulated coffee residue.

1. Turn tank heater switch OFF.

2. Pour out any left over coffee in satellites and clean inside of satellites and brew funnel with a solution of Sanitizer.

Do Not Immerse Satellite in Water.

NOTE: DO NOT USE ABRASIVE CLEANERS THAT MAY DAMAGE THE EXTERIOR FINISH OF THE BREWER.

# TROUBLESHOOTING

It is very important when servicing equipment to:

- 1. Define the basic Problem.
- 2. Isolate the Probable Cause.
- 3. Take Corrective Action, regarding those items hampering proper operation of the equipment.

It is usually relatively easy to define the basic problem, but sometimes very difficult to pinpoint the precise cause.

A Trouble-shooting Guide is provided in this Manual to suggest probable causes and corrective actions for each. Obviously, if the cause is not isolated and corrected, proper operation of the equipment cannot be restored. Should the problem remain after exhausting the troubleshooting steps suggested, refer to the Order/Service Information section of this Manual.

**Warning:** Inspection, testing and repair of electrical equipment should be performed only by qualified service personnel. The brewer should be unplugged when servicing, except when electrical tests are required.

**Danger:** Use extreme care during electric circuit tests. Live circuits will be exposed.

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# **TROUBLE SHOOTING GUIDE**

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
A. No water from the Spray Disc. (Brew Switch is activated.)	A. 1. No Water	Push brew funnel totally to the left or right to activate the micro-switch. Be sure water shut-off valves are open. Check continuity of micro- switch, if switch does not make and break contact, replace micro- switch. See micro-switch replacement, non-scheduled maintenance.
	A. 2. No Power	Check line fuse or circuit breaker. If OFF, turn ON, or replace fuse. Make certain unit is alone on its own electrical lines. If fuses or circuit breaker continue to "open," call Qualified Serviceman.
	A. 3. Loose Wire or Connection	Remove unit top cover and Body Column Front Cover. Check all wires and connections, be certain none are loose or disconnected. Repair loose connections, and/or wires and reattach.
	A. 4. Screen Filter and QC7 -MH	Screen filter or QC7 -MH may be plugged—clean screen filter or replace QC7-MH.
	A. 5. Start Switch	Check switch continuity. If switch does not make and break contact, replace Start Switch. See Start Switch replacement — non-scheduled maintenance.
	A. 6. Timer	When start button is pressed, the timer should activate. The timer should continue to operate until the cycle is completed. If it does not, replace the timer.
	A. 7. Solenoid Valve	Check Solenoid Valve for continuity at the terminals of the Solenoid Valve Coil. If no continuity, replace either the Solenoid Coil or the Complete Solenoid Valve.
	A. 8. Water Supply Tubing (from Solenoid to Basin.)	Check for twist or "kink" in water supply tubing, blocking water flow into basin pan.
B. Too much water or too little water, satellite short or	B. 1. QC7 Filter is clogged.	Replace QC7 cartridge.
overflows.	B. 2. Timer needs adjustment.	Turn Timer Adjustment clockwise to increase the water or counterclockwise to reduce the water. Check timer cycle several times with a stopwatch. If times are irregular replace the timer.
	B. 3. Flow Restrictor in output end of Water Solenoid Valve (dirty, missing, damaged or inoperative)	Clean or replace flow restricter or replace the Water Solenoid Valve. Particles in the water solenoid valve may partially clog the orifice of the flow restrictor. Clean or replace the flow Restrictor or the complete solenoid.

too little water,	Water Pressure	sure between 20 PSI and 85 PSI for con
satellite short or	Variations	free operation.
overflows.		
(Continued)	(Water pressure rises	Wide swinging water pressures lead to e
	above 85 PSI or falls	A pressure regulator may be needed to
	below 20 PSI)	running pressures.
	,	A water source that falls below 20 PSI m
		short pots or erratic volume delivery.
C. Water keeps run	C. 1.	Check and clean inside of the water sole
ning into Fill Basin.	Water Solenoid Valve	and plunger.
(Will not shut off	(Plunger stuck open)	
with Power Plug		Check inside surface of water solenoid p
pulled.)		scored, chipped or damaged, replace the
1 /		noid valve.
(Shuts off when	C. 1A.	Check with switch continuity, replace if d
Power Plug is	Start Switch	
pulled.)		
. ,	C. 2A.	Timer is defective, will not cycle to "OFF
	Timer	Replace timer.
D. Water fails to heat	D., 1	Check if power cord is plugged into wall
and brewer does	No Power to Unit	1 1 00
not work.		Check line fuse or circuit breaker- if off,
		replace.
(Water from the		If circuit continues to be open, call a Qu
faucet is cold.)		man.
,		Defective cord or plug-repair or replace
		Loose wires—remove front and top pane
		for loose connections, screws or terminal
		screws, repair or replace terminals.
E. Water fails to heat,	Unit has power, the	
but brewer does	failure is due to:	
operate.	E.1.	Switch in off position—turn on.
	Heater Switch	Defective switch, replace switch.
(Water from the		
faucet is cold.)	E.2.	Check for loose wire or connection. Repa
	Tank Heater	reconnect.
		Check for proper voltage at Tank Heater
		If voltage is present, element is defective
		1

PROBABLE CAUSE

B. 4.

PROBLEM

B. Too much water or

E.4.

E. 3.

Thermostat

(READY Light ON is a guide.)

High Limit Safety Control

CORRECTIVE ACTION All Automatic Brewers require a constant water pres ----- ---nsistent, trouble-

erratic delivery. stabilize high nay result in enoid valve,

oort, if it is e water sole lefective.

F" condition. outlet.

turn it on or alified Service

e. els and check

ls. Tighten

air or

Terminals. ve, replace ele ment. Check for a loose wire or connection. Repair and/or

reconnect.

Disconnect wires and check for continuity on both ter minals of the High Limit Safety Control.

If continuity is present, the control is functioning prop erly, if not, replace Hi limit.

Check for loose wire or connection feeding into Therstat.

If READY light is ON turn the thermostat adjusting shaft clockwise to the full ON position. If READY light goes out, water should begin to heatadjust to proper water temperature.

If READY light stays ON, replace the Thermostat.

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
F. READY light fails to glow when water reaches brew temperature.	F. 1. READY light is defective.	If thermostat cycles on and off and READY light does not glow, replace READY light.
G. Water heats, but is not hot enough.	G.1. Thermostat adjustment.	If water from the water outlet tube (with spray disc re- moved) is less than 195°F., and thermostat cycles the Tank Heater OFF, adjust the Thermostat to a higher setting. 1/4 turn equate approximately 18°F (10°C) temperature change. To increase the tank temperature, turn the adjustment shaft in a clockwise direction.
	G.2. Thermostat defective.	If adjusting Thermostat to a higher setting does not correct the problem, the thermostat is defective, replace it.
	G. 3. High Limit Safety Control (READY light does not come on.)	High Limit Safety Control is defective. Replace it.
H. Water heats, but longer than 12 minutes. (Slow recover)	H. 1. High Lime Deposits	Delime unit.
	H. 2. Low voltage at source.	Check voltage. 11 should be within 110% of unit rating plate, if a tow voltage condition exits, an electrician should be consulted. A low voltage condition. can and does cause frequent service calls, as well as extending water heating time.
	H-3. Low voltage at Tank Heater.	Voltage Rating and Power Source must be the same. Cneck wiring diagram and name plate.
I. Water temperature too hot. ALSO CALLED: • STEAMING • BOILING • HEAT NEVER SHUTS OFF	1. 1. Thermostat	Thermostat out of calibration or defective. Adjust or replace. it.
J. Dry coffee remaining in the brew funnel after a brew has been completed.	J. I. Spray Disc missing	The Spray Disc must be in place to break up the water stream.
	J-2. Filter Paper	Use
	J. 3. Improper loading of the Brew funnel.	Filter should be centered in the brew funnel and the coffee bed should toe! level.
K. Coffee Grounds do not get wet — water stays in the basin.	K. 1. No syphon action.	Check elbow connection from basin to tank, it may be twisted and not open to water flow.
Coffee Grounds do not get wet — water leaks out of the bottom of the unit.	K. 2. Leak in Water Path from basin to final outlet.	Check for correct fit and at: A. Elbow from basin to tank cover. B. Tank Cover Gasket. C. Output eitelbowand tube assembly.

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
L. Weak Coffee	L. 1. Too much water.	Verify water level on sight glass. Adjust timer if necessary.
	L. 2. Water temperature too low.	Adjust thermostat to a higher setting.
	L. 3. Improper loading of brew funnel.	Filter paper must be centered in brew funnel. Coffee bed must be level when starting a brew cycle.
	L. 4. Not enough coffee in brew funnel.	Verify package weight.
M. Strong Coffee	M. 1. Not enough water.	Verify water level on sight glass. Adjust timer if necessary.
	M. 2. Too much coffee in brew funnel.	Verify package weight.
	M. 3. Two (2) Filter Papers or improper filter paper used.	Use only one (1) recommended Filter Paper. Improper Filter Paper can restrict water flow.
	M. 4. Coffee being drawn during a brew cycle.	At beginning of a brew cycle coffee is very strong, you must wait until cycle is completed before drawing to serve.
	M. S. By-Pass Valve improperly set or unit connected to softened water source.	Insufficient water being by-passed or unit is brewing with softened water—see adjustment section of manual.
N. Brew Time exceeds 8 minutes for full satellite.	N. 1. Water Supply has been softened.	Brewer was shipped with soft water valve set of 25%. If soft water conditions exist valve must be opened slightly. See Non-Scheduled Maintenance.
	N. 2. Use of two (2) Filter Papers or improper Paper Filters.	Use only one (1) recommended Filter Paper. Two (2) Paper Filters or the use of foreign papers can cause brew chamber run-over.

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
0. No Water from water faucet.	0. 1. Incoming water source shut-off.	Check and turn ON the water source valves.
	0. 2. "T" Valve (Between Water Solenoid and water tank.)	The "T" Valve must be open to permit water flow from the faucet. It may be partially closed to control the force of the water stream from the faucet.
P. Faucet keeps dripping.	P. 1. Foreign matter inside the valve, holding the valve seat from closing completely.	Shut off water, disassemble and clean the faucet seat. If faucet still leaks or drips, install a complete repair kit (part #8551-275). If faucet continues to drip, the seat has been damaged, replace the faucet assembly.
Q. Overflowing Satellite.	Q. 1. Receiving Satellite not empty when a brew cycle is started.	Always start with an empty receiving Satellite when a brew is started.
R. Satellite does not keep coffee hot.	R. 1. Not plugged into power source.	Plug Power Cord into electric source.
	R. 2. Switch not turned on.	Turn on Satellite Power Switch.
	R. 3. Switch defective.	Check switch, if it does not make and break continuity change switch.
	R. 4. Loose or disconnected wire.	Reconnect loose wire or replace loose connector.
	R. 5. Heating element electriœlly "open."	Check heating element for continuity. If "open" replace element.

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
S. Satellite Faucet keeps dripping. (Dripping and/or bitter taste.)	S. 1. Seat cup clogged with residue.	The faucet seat cup should be removed and freed of all coffee oils and residue. It must seat properly on the faucet opening. The seat cup should be kept clean to prevent build-up of oils that may turn rancid and result in bitter taste to the coffee.
T. Water drips from basin head unit.	T. 1. Unit not level.	Level the unit. For proper unit operation, it is very important that the unit be level when it is standing in its proper operating position. A spirit level should be placed on the top plate 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 that support the unit.

### SERVICE INSTRUCTIONS MODEL 8702 SATELLITE COFFEE BREWER NON. SCHEDULED MAINTENANCE

Under normal conditions and with proper use and care, very little non-scheduled maintenance will be required for this coffee brewer. How ever, this section provides procedures for removal and replacement of various major components used in the brewer in the event that servicing becomes necessary. Before replacing any component, refer to the Trouble-shooting Section for assistance in determining the cause of any problem and to verify that removal is required.

### **Recommended Tools**

- 1-Flat Head 1/4" Blade Screwdriver
- 1—Phillips Head Screwdriver
- 1 —9" Adjustable Wrench
- 1 6" Adjustable Wrench
- 1—Thermometer/Digital Pyrometer
- 1 —Voltmeter
- 1 —Continuity Tester

### **Component Access**

All components are accessible by the removal of two (2) panels. The top panel provides access to the Tank Lid Assembly which includes the Heating Element and Water Coil; Tank Body, Switches, Ready to Brew Light, Faucet and Needle Valve (#6).

The front panel provides access to the Solid State Timer and the Solenoid Valve.

The screen filter/strainer (#12), is located in the rear, outside the brewer.



### **DETAILED ILLUSTRATIONS**



**CAUTION:** Always disconnect brewer electric sources before servicing.

To remove front panel for service, remove two (2) screws located under front of brewer.

To remove top plate for service, remove two (2) screws and lift up.

#### **Thermostat Replacement**

**WARNING:** Turn off Tank Heater Switch and unplug the brewer before removal of any panel or replacement of any component.

- 1. Remove front panel and top cover.
- 2. Loosen the two (2) screws (#49) fastening the thermostat body to the bracket.
- 3. Remove wires to thermostat (#16).
- 4. Remove the thermostat bulb by loosening hold down nut and pull up firmly.
- 5. Lift thermostat and probe from brewer.
- 6. Install new thermostat in reverse order, steps 2-5.

- 7. Place empty brew funnel into the funnel rails and place an empty satellite in position.
- 8. Plug in brewer.
- 9. Press Brew Switch. If Tank is full of water, the water will flow from the spray disc through the funnel and into the satellite. If the tank is not full it may be necessary to repeat this operation one more time to fill the Tank with water.
- 10. Turn on Tank Heater Switch.
- 11. Check temperature calibration.
- 12. When thermostat is calibrated, unplug brewer and replace top cover panel and front panel.

(16)

(49)

#### **Heating Element Replacement**



**WARNING:** Turn off the water and the Tank Heater Switch and unplug brewer before removal of any panel or replacement of any com ponent.

- 1. Remove the two (2) screws in the rear comers of the top panel. Slide panel back and up to remove.
- Remove Thermostat (#16) Seal Nut, located on tank cover and gently lift out the thermostat sensing tube and bulb from the fitting. Disconnect Outlet Tube (#77) from Outlet Elbow (#76). Remove Inlet Elbow (#74) and Vent Tube (#73) from Water Basin Pan (#35). Lift basin pan from brewer. Unscrew Hold Down Strap (#66) and slide free. Disconnect Water Lines (#3 and #4) at flare fittings on tank lid.

- 3. Disconnect wires from all fittings on Tank Lid (#69).
- 4. Lift out Tank Lid with all components attached.
- 5. Remove two (2) hex nuts securing Heating Element to Tank Lid and remove Element.
- 6. Install new Heating Element to Tank Lid.
- 7. Return Tank Lid Assembly to tank and reconnect, reversing steps 1 4.
- 8. Place empty brew funnel into the funnel rails and set an empty satellite in place.
- 9. Plug in brewer and turn on water.
- 10. Press Brew Switch. If Tank is full of water, the water will flow from the spray disc through the funnel and into the satellite. If the tank is not full it may be necessary to repeat this operation one more time to fill the Tank with water.
- 11. When the water flow from the funnel stops, unplug brewer and replace top cover.
- 12. Turn on Tank Heater Switch.



#### **Timer Replacement**

**WARNING:** Turn off Tank H eater Switch and unplug the brewer before removal of any panel or replacement of any component.

- 1. Remove two (2) Front Panel Mounting Screws.
- 2. Remove Front Panel.
- 3. Remove all wires connected to Timer (#48
- 4. Unscrew Timer from the Mounting Bracket.

- 5. Remove Timer from the brewer.
- 6. Fasten new timer to the Mounting Bracket.
- 7. Reinstall wires to Brew Solenoid Valve and Wiring Harness (follow color codes).
- 8. Reinstall Front Panel, reversing steps 1-2.
- 9. Plug in Brewer and turn on Heater Switch.

### 10. Check and adjust water volume. Solenoid Valve/Flow Restrictor Replacement

**WARNING:** Turn off the Tank Heater Switch and unplug Brewer before removal of any panel or replacement of any component.

- 1. Shut off water supply to the Brewer.
- 2. Remove two (2) Front Panel Mounting Screws.
- 3. Remove Front Panel.
- 4. Remove the wires to the Solenoid Valve (#58).
- 5. Remove the Hex Nut at the outside rear inlet port.
- 6. Remove flare fitting from the tee inlet.
- 7. Remove Solenoid from brewer.
  - To replace Flow Restrictor:
  - 1. Use two (2) wrenches, remove Outlet Fittings from outlet side of Solenoid Valve. Restrictor is located inside the 5/8" fitting. Replace the complete Restrictor Fitting Assembly.
  - 2. Replace Restrictor into Outlet Elbow, use pipe thread tape around threads to prevent leaks.
  - 3. Replace the Assembly into the Solenoid after wrapping the threads with pipe tape. Do not use liquid or paste pipe seals, as they tend to creep into the Solenoid and will result in improper operation.
- Install new Solenoid, reversing order of Steps 1-6.
- 9. Plug in Brewer and turn on Tank heater Switch.



Hi-Limit Safety Control Replacement WARNING: Turn off Tank Heater Switch and unplug the brewer before removal of any panel or replacement of any component.

- 1. Remove tw  $o\left(2\right)$  screws and top cover.
- 2. Remove the wires from the Hi-Limit Safety Control (#75).
- 3. Lift the Retaining Spring to remove the Hi-Limit Safety Control.
- 4. Replace the new Hi-Limit Safety Control by sliding it into place under the Retaining Spring.
- 5. Reinstall the two wires to the Hi-Limit Safety Control.
- 6. Make sure that Hi-Limit Safety Control is securely mounted and that all electrical connections are tight.
- 7. Plug in Brewer and turn on Tank Heater Switch.



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### Switches and "Ready to Brew" Light

**WARNING:** Turn off the Tank Heater Switch and unplug brewer before removal of any panel or replacement of any component.

Whenever switch replacement becomes neces sary, proceed as follows:

- 1. Remove two screws from top cover.
- 2. Lift off cover.
- 3. Lift Water Basin to reveal switches and lights.
- 4. The switches (#47, #46) and the "Ready to Brew" Light (#41) are removable through the front of the Brewer. Compress the spring clip located on the inside of the Brewer and push forward.
- 5. Remove wires from the old switch and connect them to the new switch or light. Follow color code on wire to color code on switch or light.
- 6. Re-insert switches and replace top reversing steps 1-4.
- 7. Plug Brewer into electric outlet.



### **Micro-Switch Replacement**

**WARNING:** Turn off the Tank Heater Switch and unplug brewer before removal of panel or replacement of any component.

Whenever Micro-Switch replacement becomes necessary, proceed as follows:

- 1. Remove two screws from top cover.
- 2. Lift off cover.
- 3. Lift Water Basin to reveal Micro-Switches (#37).

- 4. Remove wires from defective switch.
- 5. Remove screws holding switch in place.
- 6. Replace Micro-Switch reversing Steps 1-5.
- 7. Plug Brewer into electric outlet and turn on Tank Heater Switch.



### **HEATED SATELLITE Service and**

### Part Replacement

**WARNING:** Prior to doing any service work on a heated Satellite be sure the Satellite is completely empty of fluid and to disconnect the Satellite Power Cord from the power source receptacle.

- 1. Turn the Satellite to a position where the bottom access plate can be removed. See exploded view of the Satellite.
  - A. Turn each of the four (4) feet (#20) counterclockwise until loose and set them aside.
  - B. Remove the large slotted head screw (#21) located in the center of the bottom access plate (#19) and remove the access plate.
- 2. The heating element (#16) and the power cord (#11) may be tested and/or replaced through this access opening without disassembling the unit any further.
- The On/Off power switch (#13) also can be tested for make and break of continuity, when the switch is activated to each postion. If it does not make and break the circuit, replace it.
  - A. The switch may be removed through the front of the cabinet by depressing the plastic clips on the switch from inside the cabinet and pushing the switch out the front.

- B. Remove the wires from the original switch and place them in the same position on the replacement switch.
- C. Depress the plastic mounting clips on the switch and push the switch wires through and into position in the cabinet hole.
- 4. The Satellite Reservoir Tank (#24) may be removed or replaced, in the following order.
  - A. Remove the faucet assembly (#28) from the Satellite.
  - B. Remove the bottom access plate (#19) see step #1 above.
  - C. Disconnect wire connections at the heater element (#16) terminals.
  - D. Lift the reservoir tank (#24) out of the top of the Satellite Body.
  - E. Reassemble in reverse order—steps 4D through 4A.

NOTE: The faucet assembly periodically MUST be disassembled and thoroughly cleaned of coffee oil and residues. If this is not done com -plaints of strong, bitter coffee may result.

To properly clean the faucet use a solution of urn cleaner and a brush.

- 1. Remove sight tube cap (#1) and lift out the polysulphone sight tube. Use care not to lose the lower sight tube washer (#5) if it comes out with the tube.
- 2. Remove the lower sight washer (#5).
- 3. Unscrew the faucet bonnet assembly (#19) and lift it from the faucet body.
- 4. Remove the seat cup (#10) from the faucet bonnet assembly (#9).
- 5. Remove the clean out cap (#12).
- 6. Clean all parts with an urn cleaner solution including the inside of the satellite reservoir tank and rinse thoroughly.
- 7. Reassemble in reverse order—steps 5 through 1.

NOTE: The outside stainless steel surface of the Satellite can be cleaned with urn solution on a sponge, rinsed clean and wiped dry to maintain its original stainless beauty.

Do not use abrasive cleaners to polish the outer Satellite surfaces as they may scratch and mar the surface.

### To Delime Brewer:

**WARNING:** Turn off the Tank Heater Switch and unplug brewer before removal of any panel or replacement of any component.

- 1. Shut off water to brewer.
- 2. Remove two (2) screws and top cover.
- 3. Remove Water Basin.
- 4. Remove all wires to Tank Lid.
- 5. Remove all water connections to Tank Lid.
- 6. Remove hold down strap and lift out Tank Cover which has heating element, inlet tube and hot water faucet coil attached.
- 7. Remove approximately 1 gallon (1/4) of water from tank and replace with Deliming Agent such as "Lime Away."
- 8. Replace Tank Lid Assembly and parts and let stand for one hour. (It is not necessary to fasten in place.)
- 9. Remove Tank Lid Assembly and syphon all liquid from tank.
- 10. Reassemble entire unit and connect all plumbing and electrical connections.
- 11. Plug in Brewer and turn on water.
- NOTE: Heater Switch must be OFF.
- 12. Place empty Satellite in brewing position.
- 13. Place empty Brew Funnel in brewing position over empty Satellite.
- 14. Press "Brew" Switch. Repeat a second time, allowing five (5) minutes between cycles. Water will begin to flow through brew fu nnel into Satellite during third cycle.
- 15. Turn Energy Saver Switch to ON. On initial warm up, some water may flow into the brew funnel due to expansion of cold water in the Tank.
- 16. Allow 20 minutes for initial water heat up. Time will vary with incoming water temperature.
- 17. Run at least 4 cycles of water only before brewing coffee.

#### IMPORTANT ADJUSTMENT TOOLS

#### (Do Not Discard Them)

Supplied with this Model#8702 Coffee Brewing Unit are:

- 1. Part #8706-200, By-Pass Test Hose As sembly (used for checking the By-Pass Water volume).
- 2. Part #8706-202, Flow Set Gauges (used for setting the By-Pass Water Valve).

The unit leaves the factory with the By-Pass Valve set at the 25% by-pass volume which is the smaller of the flow set gauges, however, if the location has:

- A. Softened Water:
  - 1. supplied by their community water source or
  - 2. their own water softener, or
- B. The finished brew is too strong:
  - 1. the correct amount of coffee grounds is used, approximately 8 to 10 ounces and,
  - 2. the correct volume (224 ounces) of water flows into the satellite,

the by-pass valve must be re-adjusted or opened toward the larger gauge and size which is approximately a 50% by-pass water volume.

Re-adjustment of the by-pass valve prevents the coffee bed from rising above the filter paper and flooding into the finished brew. Re-adjustment also aids in setting the level of finished brew strength for local coffee drinking quality.

NOTE: THIS ADJUSTMENT MUST NEVER BE MADE UNLESS SOFT WATER CONDITION EXISTS OR AN ADJUSTMENT FOR COFFEE STRENGTHS IS TO BE MADE. To adjust soft water valve: Brewer was shipped with soft water valve set for 25%. If soft water conditions exist the soft water valve should be opened to 50%.

**WARNING:** Turn off the Tank Heater Switch and unplug Brewer before removal of any panel or replacement of any component.

- 1. Remove the two (2) screws holding the top panel. Slide panel back and up to remove.
- 2. Lift Water Basin Pan (#35) and move aside.
- 3. Remove soft water valve (#82) and turn screw counter-clockwise enough to accept large end of Flow Set Gauge.
- 4. Replace soft water valve in brewer.
- 5. Replace water basin and top cover.
- 6. Plug in Brewer and turn on Tank Heater Switch.

**NOTE:** Brewing time should be between 6 and 8 minutes. If brew time exceeds 8 minutes after opening valve to 50% open soft water valve 1/8 turn further and re-time brew cycle. If brew time still exceeds 8 minutes, contact Bloomfield Industries.

To measure By-Pass Water Volume, use the By-Pass Test Hose. Insert By-Pass Test Hose into By-Pass Valve Outlet (located behind Spray Head). Insert Brew Chamber, to catch Spray Head flow, and collect By-Pass Flow from hose in a one (1) gallon container. Press both the Brew Switch and manually press the Micro-Switch Actuator Pin, at the same time, to start a brew cycle. When brew cycle is finished, meas ure the By-Pass water volume. The percent of By-Pass is the volume of water in ounces from the hose, versus a volume of 224 ounces of water in a full brewing cycle.





## **ORDERING/SERVICE PROCEDURE**

### Service Information - To obtain service assistance in addition to that contained in this manual, call Bloomfield's toll free number (800) 621-8556.

Be prepared to give the Model and Serial Numbers of your brewer, as well as the problem and the trouble-shooting steps already taken, to the service technician when calling for assistance.

### How to Order-

Individual users and owners must order replacement parts thru their distributors or the local authorized service station.

**Terms:** Prices, terms, designs, materials, weights, specifications and dimensions for equipment or parts are subject to change without notice.



P.O. BOX 280 VERDI, NV 89439 FAX (800) 356-5142

### **REPLACEMENT PARTS LIST #8772-100** HEATED SATELLITE

Parts that differ because of change voltage requirements between Model #8703 covered in #8702 Owner's manual and Model #8772-100 unit are shown below.

SEE PAGE NO.	REF. NO.	PART NO.	DESCRIPTION	MODEL 8772—100 UNIT MUST USE PART NO.
13	13	8596-43	ON/OFF LIGHTED SWITCH	8563-100
NOT SHOV	VN		RECTIFIER	8772-102

NOTE ALL OTHER PARTS ARE COMMON IN USE.



# **REPLACEMENT PARTS LIST**

MODEL 8703 SATELLITE



### **REPLACEMENT PARTS LIST MODEL NO. 8703 SATELLITE**

REF. NO	PARTNO.	DESCRIPTION
1.	70805	Cap Sub Assembly
2.	76762	Satellite Cover Only
3.	70820	Handle, Rod
4.	70123	Screw. #8-32, Keps
5.	70378	Hex.Nut-32,Keps
6.	70813	Screw. #8-32 x 5/8
7.	70814	Locating Block
8.	70818	Locating Block Seal
9.	70781	Spacer, Tank Cover Retainer
10.	70823	Retainer Spring
11.	70293	Cord and Cap Assembly
12.	70215	Cord Grip, Strain Relief
13.	70138	On/Off Lighted Switch
14.	71278	Satellite Body Sub Assem bly
15.	71278	Heat Sink Plate
16.	71274	Heating Element. 60 Watt
17.	71220	Retainer
18.	70815	Spacer Tube
19.	71275	Access Door
20.	70819	Foot
21.	70817	Screw. 1/4-20 x 1 LG
22.	70821	Drip Tray Cover
23.	70822	Drip Tray Body
24.	70794	Satellite Tank Assembly
25.	70801	Seal Drain Fitting
26.	70812	0 Ring, Tank Top Seal
27.	70792	Faucet and Sight Glass Assembly

### ACCESSORY AND ITEMS NOT SHOWN

70824	Faucet Shield
70324	Box of 500 Filter Papers
70938	By-Pass Set Kit

### FOR FAUCET ASSEMBLY ONLY (PART NO. 8705-11)

1.	8600-17	Shield Cap
2.	8700-25J	Upper Washer 1/8" Standard
	8700-25K	Upper Washer 1/16" Special
3.	8600-2D	Shield 10" x 3/4" O. D. Aluminum
4.	8705-11C	Sight Glass 10x5/8 O.0. Polysulphone
5.	8705-11B	Lower Sight Glass Washe r 1/16" Hole
	8700-25H	Lower sight Glass Washer 5/16" Hole
6.	8705-11G	Shield Base
7.	8705- 11D	Shank Assembly w/ Wing Nut
8.	8705-11F	Faucet only w/o Shank & Sight Glass
9.	8705-11L	Upper Assembly, Black Bonnet
10.	8700-25L	Seat cup
11.	8705-11K	Washer for dean Out Cap
12.	8705-11J	Clean Out Cap with Washer