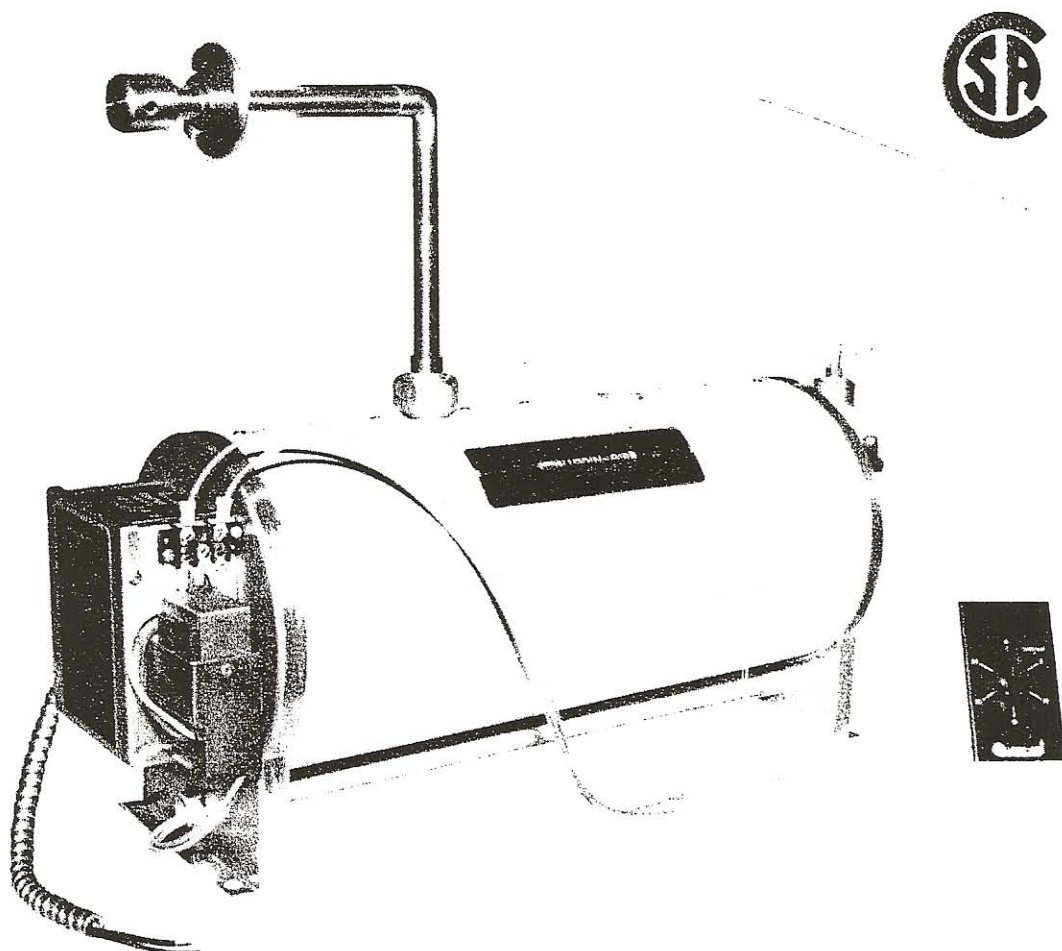




Electric Steam Bath Boilers



INSTALLATION INSTRUCTIONS

PLEASE LEAVE THESE INSTRUCTIONS WITH THE OWNER

1. General

Model SFL and SFL-2E are C.S.A. approved for use in Canada. The installation must conform with local Plumbing and Electrical codes. Only qualified, licensed or trained personnel should install the appliance.

1.1 Rating Plate

The rating plate is attached to the unit's junction box.

2. Unit Location

- 2.1 Install unit in a dry accessible location while avoiding excessive steam discharge pipe length (less than 20').
- 2.2 Be sure unit is level.
- 2.3 Do not install unit closer than 1" to combustible materials or in a confined space less than 4 cubic feet.
- 2.4 Clothing or other flammable material should not be placed on or near the appliance.
- 2.5 Elevating the unit will facilitate use of the units drain system.

3. Installation

3.1 Supply Water

- 3.1.1 All plumbing must conform to local codes or in the absence of local codes, with the current Canadian Plumbing Code.
- 3.1.2 Use non-ferrous fill line components only (1/4" O.D. compression).
- 3.1.3 A supply water shut off valve and strainer is highly recommended.
- 3.1.4 Use cold unsoftened supply water unless drain system is used (manual or automatic).
- 3.1.5 If drain system is used cold soft water is suitable for units rated 1-5 kilowatts and hot or cold soft water is suitable for units rated 6-10 kilowatts.
- 3.1.6 Units with an internal float assembly have a pressure regulator preset at 25 psig. to field adjust, turn regulator clockwise one full turn after safety pressure switch contacts close (15 psig).
- 3.1.7 Units rated 6-10 kilowatts, or units with external float assemblies require a pressure regulator when supply water pressure exceeds 65 psig. This regulator must be preset to 50 psig.

- 3.1.8 Minimum supply water pressure for units with internal float assemblies is 20 psig and 30 psig for units with external float assemblies.
- 3.1.9 Flush new supply lines of any debris before connecting to appliance.

3.2 Drain Pipe

- 3.2.1 The appliance is equipped with gravity drain (manual or automatic).
- 3.2.2 The unit may be elevated and drained into an existing drain or pale.
- 3.2.3 **Caution** if unit has just operated, drain water will be **Extremely Hot**. Allow 1 - 2 hours for unit to cool when draining manually.
- 3.2.4 If piping to an existing drain, a union should be included for removal and reinstallation.
- 3.2.5 If automatic flush system is used with digital controller a 1 hour delay should be programmed.
- 3.2.6 Whenever possible motorized drain valve should be installed in vertical drain pipe.

4. Steam Discharge Pipe and Steam Nozzle Installation

4.1 Steam Discharge Pipe

- 4.1.1 For units rated 1-5 kilowatts, unit discharge size is 1/2" copper and 3/4" copper for units rated 6-10 kilowatts.
- 4.1.2 Avoid excessive steam discharge pipe length (less than 20').
- 4.1.3 Piping runs greater than 10' or exposed to accidental contact, should be insulated.
- 4.1.4 Do not install shut off valve in discharge pipe.
- 4.1.5 Do not route pipe to create a trap.
- 4.1.6 For units rated 1-5 kilowatts, use 1/2" pipe for vertical and 3/4" pipe for horizontal lines and grade back to unit.
- 4.1.7 For units rated 6-10 kilowatts use 3/4" for lines to room, then tee off to two lines to outlet locations and grade back to unit where practical.
- 4.1.8 For dual outlet installations discharge pipe must be of similar length or pipe must be properly sized to balance steam discharge.
- 4.1.9 Rough in discharge pipe to drop ear or winged back 90 with 1/2" nipple protruding into steam room.

4.2 Steam Nozzle(s)

- 4.2.1 The number of nozzles to be installed is determined by unit rating and owner preference.
- 4.2.2 Generally, 1 nozzle is required for units rated 1-5 kilowatts, and 2 nozzles are required for units rated 6-10 kilowatts.
- 4.2.3 The nozzle(s) should be located 12" - 14" off of the finished floor.

- 4.2.4 Due to the high operating temperature of nozzle(s) and immediate area, consideration must be given to nozzle location with respect to bench location.
- 4.2.5 Do not install nozzle(s) under bench or concealed from sight.
- 4.2.6 For larger steam rooms nozzles should be spaced to provide even steam distribution.
- 4.2.7 Once wall finish has been installed, determine correct 1/2" nipple length. Using brass or other non-ferrous material nipple(s) install nozzle(s) with at least one outlet pointing downward for condensate drainage from steam piping.

5. Electrical Wiring Installation

5.1 Installation of Main Power

- 5.1.1 All electrical installation must conform to local codes or in the absence of local codes, with the current Canadian Electrical Code C.S.A. C22.1 or the national electrical code ANSI/NFPA 70 latest edition.
- 5.1.2 The panel breaker and main wire must be properly sized for appliance load, check unit rating plate which is attached to the unit's junction box, and see chart below to determine voltage and load.
- 5.1.3 Install main power as per wiring diagram attached inside the junction box cover.

Capacity Table Series SFL						
Input KW	Model No.			Amps 1 Ph - 60 Cy.		
	115 Volt	208 Volt	230 Volt	115V	208V	230V
1.5	SFL-1X5M1			13.0		
2.0	SFL-2M1	SFL-2M8	SFL-2M2	17.4	9.6	8.7
3.0		SFL-3M8	SFL-3M2		14.4	13.0
4.0		SFL-4M8	SFL-4M2		19.2	17.4
5.0		SFL-5M8	SFL-5M2		24.0	21.7
Double Circuited Series						
6.0		SFL-2E-3M8	SFL-2E-3M2		28.8	26.0
7.0		SFL-2E-3/4M8	SFL-2E-3/4M2		33.6	30.4
8.0		SFL-2E-4M8	SFL-2E-4M2		38.4	34.8
9.0		SFL-2E-4/5M8	SFL-2E-4/5M2		43.2	39.1
10.0		SFL-2E-5M8	SFL-2E-5M2		48.0	43.4

5.2 Control Wiring (Mechanical Controls)

- 5.2.1 All controls for the appliance operate on 24 VAC supplied by remote or built-in transformer.

- 5.2.2 The 30 minute timer will fit a 3" deep electrical box either single or gang, and must be located a minimum of 1 meter from the steam room door.
- 5.2.3 When thermostat is included in control system, locate controller (surface mount) close to the unit or concealed in a vanity to prevent tampering with device.
- 5.2.4 Extreme care must be taken not to kink or rupture the capillary tube or sensor.
- 5.2.5 Install sensor and shroud 24" - 36" off of finished floor and away from steam outlet(s).
- 5.2.6 Wire controls as per wiring diagram attached inside the junction box cover.
- 5.2.7 Never operate unit when empty.**

6. Operating Procedures

- 6.1 The owners personal habits, timetable and experience with steam baths will determine to a large extent, the operation of the system.
- 6.2 Turn control on and close steam room door.
- 6.3 After a predetermined warm up time has elapsed, reset control to desired length of bath (10-30 minutes) and enter steam room.
- 6.4 If the installation has a thermostat, it will maintain a comfortable temperature inside. If there is no thermostat operate the shower periodically to control the temperature.
- 6.5 To extend length of bath timer may be reset, or pushing the remote switch will start another timed steam cycle.
- 6.6 Pushing the switch again or the on/off button will discontinue the steam cycle in progress.
- 6.7 Proceed with shower; hot for relaxed retirement and cold for further exhilarated activity.
- 6.8 After bathing leave steam room door slightly ajar to allow steam to escape and room to dry.

7. Maintenance

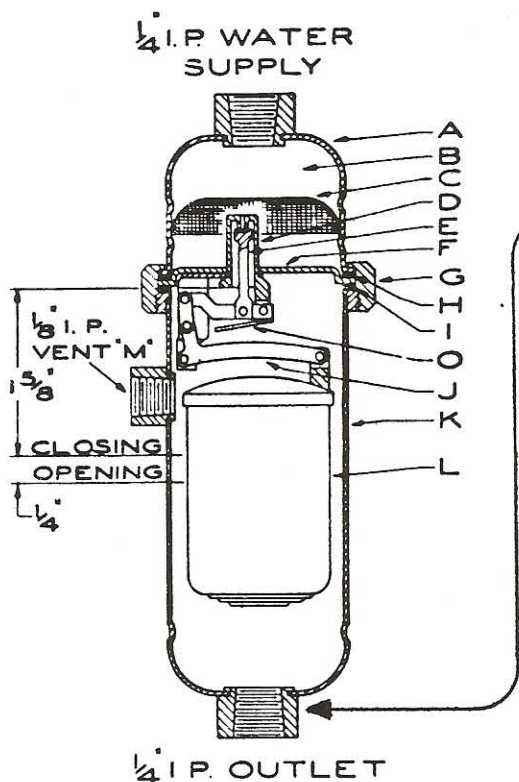
7.1 For Owner

- 7.1.1 Because the appliance consists of a sealed stainless steel canister, there is little service the owner can do, other than draining the unit periodically.
- 7.1.2 **Caution** if unit has just operated, drain water will be **Extremely Hot**. Allow 1-2 hours for unit to cool when draining unit manually.
- 7.1.3 To reduce scale build up, drain unit frequently (every 10-20 uses) and allow 10 minutes for refilling before turning power back on. **Never Operate Unit When Empty**.
- 7.1.4 The amount of usage and the quality of the supply water will determine the draining frequency, and if this should be done manually or automatically.
- 7.1.5 If the appliance is equipped with the external float assembly, this component can be field serviced by following the enclosed instruction sheet.
- 7.1.6 If you require any attention to your appliance, contact your supplier quoting the model number. It is also helpful if the appliance serial number is also quoted. This information will be found on the appliance rating plate which is attached to the units junction box.

7.2 For Service Engineer

- 7.2.1 Because the appliance consists of a sealed stainless steel canister, the appliance should be returned to the factory for replacement parts and service.
- 7.2.2 To aid in the removal of the appliance the unit is equipped with a supply water compression union and a steam discharge di-electric union.
- 7.2.3 When removing unit turn off supply water and drain unit.
- 7.2.4 Remove supply water line and steam pipe from unit.
- 7.2.5 Use a volt meter or test light to ensure main power has been switched off. **DO NOT** leave main power leads exposed to accidental contact.
- 7.2.6 Make note of control wire connections.
- 7.2.7 Re-installation is the reverse of removal.
- 7.2.8 Test unit function after re-installation.
- 7.2.9 **Never operate unit when empty**.

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No. 85 Water Boy Feeder

- A - Upper Brass Shell N.P.
- B - Large Scale Space
- C - Monel Filter Screen
- D - Nickel Silver Valve Body
- E - Valve Stem
- F - Removable Bonnet Assembly
- G - N.P. Brass Hexagon Nut
- H - Rubber Washer
- I - Asbestos Washer
- J - Brass Lever
- K - Lower Brass Shell N.P.
- L - Copper Float
- M - Equalizer Connection
- O - Inlet Water Baffle

THE STEPS REQUIRED TO SERVICE YOUR FLOAT VALVE ARE AS FOLLOWS:

1. Turn off water supply and drain unit.
2. Use 11/16" back-up wrench as indicated by arrow while loosening large nut "G" with a pipe wrench or large pliers.
3. Remove upper brass shell "A", 2-3 ounces of water will be contained in here.
4. The float mechanism "F" and both gaskets can now be removed.
5. If your unit does not feed water fast enough you will probably find the up and down travel of the float is stiff. You should also check the lower bowl and fill tube for scale or any obstructions. The float mechanism may be cleaned and descaled by soaking it in warm vinegar. If that does not free up the travel of the float, a new float and gasket set may be required, which we stock.
6. Install reconditioned/new float with alignment mark on bonnet pointing towards unit. Do not forget the gaskets. Again use 11/16" back-up wrench while tightening large nut "G".
7. Turn on water supply and check for leaks. Allow 10 minutes for refilling before operating steam generator.

If you have any other questions please call us @ (403)243-2923 or fax us @ (403)287-9005.

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