

Jacuzzi®

JAC90i IN-LINE /JAC90 OFF-LINE (CHLORINE/BROMINE)

JAC50i IN-LINE /JAC50 OFF-LINE (CHLORINE/BROMINE)

PROFESSIONAL GRADE CHLORINATOR



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Certified to
NSF/ANSI Standard 50

*The Std 50 Certification does not apply to JAC90 use

*The Std 50 Certification does not apply to bromine use



IMPORTANT SAFETY INSTRUCTIONS

SAFETY FIRST

Safety is essential in the use and maintenance of Jacuzzi Chlorinator. This owner's manual and any markings on the chlorinator provide information for avoiding hazards and unsafe practices related to the use of this chlorinator.

Read and follow all instructions and markings in this owner's manual and on the chlorinator. **FAILURE TO OBSERVE THIS SAFETY INFORMATION COULD RESULT IN SERIOUS INJURY OR DEATH.**

SAFETY ALERT SYMBOLS

These symbols are used to call attention to hazards or unsafe practices related that could result in injury or property damage. The three safety words defined below indicate the severity of the hazard. The message after the signal word provides information for preventing or avoiding the hazard.

DANGER

Immediate hazards, that if not avoided **WILL** result in serious injury or death.

WARNING

Hazards, that if not avoided **MAY** result in serious injury or death.

CAUTION

Hazards, or unsafe practices that, if not avoided **MAY** result in serious injury or death.

The **NOTICE** label indicates special instructions that are important but not related to hazards.

WARNING

To reduce risk of injury, do not permit children to use or climb on this chlorinator. Closely supervise children at all times. Components such as the filtration system, pumps and heaters must be positioned to prevent children from using them as a means of access to the pool.

WARNING - Personal Safety Hazards

- Wear eye and skin protection while maintaining or servicing this chlorinator.
- Do not use chlorinator while tired or under the influence of drugs, alcohol, or medication.

 **WARNING** - Never install the chlorinator into copper plumbing. Since most pool plumbing is not airtight, and a mixture of air and chlorine is highly corrosive to metals, it is important to protect these items from corrosion in the **OFF** period when no circulation is taking place (there is no chance for chlorine corrosion when the circulating system is in operation).

Of course, corrosion or erosion of metal components can still occur independently of any chlorinator installation for the following reasons:

- Water velocity too high.
- Water pH less than 7.2.
- Total alkalinity less than 100 PPM.

If your pool or spa has any of the following equipment, special plumbing procedures must be followed for safe operation:

- Brass or bronze gate, rotary or backwash valves.
- The preceding valves constructed of PVC or other plastic material with metallic shafts.
- Filters, heaters, heat exchanges or other items with metallic tanks, shafts, coils or tubes.
- **NOT FOR USE IN COPPER PLUMBING.**

 **WARNING** - If your pool is equipped with a permanent built in pool-cleaning system, damage could occur to that system if materials are not compatible with low pH Trichloro chlorinators. Check with manufacturer for compatibility.

DANGER

Mixing chemicals or using fast dissolving chemicals may result in explosion and/or fire. To avoid death, serious injury or major property damage:

- Use **CLEAN** 3 inch diameter Trichloro-s-triazinetriene chlorine OR Bromine tablets - slow dissolving type. Never use dirty tablets.
- Never use fast dissolving Trichloro-s-triazinetriene chlorine or Bromine tablets.
- Under no circumstances **MIX** Trichloro or Bromine with Calcium Hypochlorite, with other forms of concentrated chlorine or other chemicals.
- Use of chemicals other than those listed by manufacturer may be hazardous.
- Keep inside of the chlorinator clean of dirt and debris at all times.
- Never use oils or grease to lubricate O-ring. Oil in contact with Trichloro or Bromine may result in **FIRE**. Lubricate O-ring with Silicone O-ring Lubricant **ONLY**, available at your dealers.
- If shock treatments or Algaecides containing chemicals other than sanitizers tablets in chlorinator must be used, turn off chlorinator OR remove tablets until the shock or Algae treatment is complete and all granules have dissolved. Failure to do so may result in granules mixing in chlorinator causing **FIRE AND/OR EXPLOSION**. The shock or algae treatment dissolved in water is safe with tablets.
- If you are not the original owner of this chlorinator, not sure which chemicals were used, or if dirt and/or debris are inside chlorinator, be **SAFE** and flush thoroughly with fresh water.
- Never isolate chlorinator with valves or other devices.

WARNING

Do not inhale fumes from the chlorinator or chemical container.

WARNING

Chlorinator may be under pressure, use caution removing cover.

WARNING

Never operate or test the circulation system at more than 50 PSI.

DIRECTIONS FOR USE

Before using your chlorinator, your pool/spa water should be properly balanced and conditioned and should have a chlorine residual of approximately 1.0 to 1.5 ppm. Follow dealer and chemical manufacturer's directions and instructions.

Check chlorine residual daily and adjust the dial valve for more or less chlorine. The chlorine demand for pools and spas varies based on usage, temperature, sunlight, etc. Initially, you'll have to experiment to determine the proper amount of chlorine and the correct valve setting required for your pool and filter time cycle. Follow chemical manufacturer's instructions for proper chlorine level.

WARNING: Elevated chemical concentrations or hazardous gas hazard.

The introduction of potentially hazardous gas or elevated chemical concentrations into the pool or spa during backwash and periods of no flow in the recirculation system can cause serious personal injury, or death. To avoid:

- Set dosage indicator to zero before stopping flow through the chlorinator.
- Minimize backwash time.
- Do not shut down pump for extended periods.
- Do not allow bathers into pool or spa area until full flow of system has been reestablished.

NSF-50 requires that a flow indication device should be installed with all flow through chemical chlorinators. This flow meter, or flow indicator should be installed upstream of chlorinator. Purchase and install following the instruction provided with the flow indicating device.

NSF qualification testing was conducted utilizing Leslie's Jumbo Tabs 3" Chlorinated 99% active Trichloro-s-triazinetrione Chlorine Tablets, with 90% available chlorine.

INSTALLATIONS

NOTICE: MAKE SURE ALL PUMPS AND TIMER SWITCHES ARE IN THE OFF POSITION.

JAC90i IN-LINE

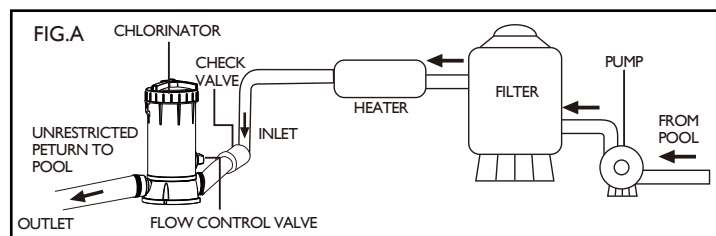
WHERE TO INSTALL YOUR CHLORINATOR

1. Always install the chlorinator after the heater. If there is no heater, install after the filter.

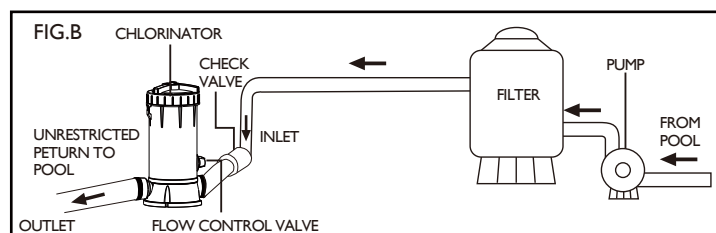
CAUTION: Damage to the heater or filter may result if concentrated chlorine is allowed to flow through them.

An in-line positive seal corrosion resistant check valve should be installed to reduce backflow of chlorine gas when the system is shut off. If the chlorinator is located below water level, you may want to install a check valve to prevent water backflow when operating/servicing the unit.

2. Chlorinator is furnished with 1-1/2" female threads. Only use pipe sealants formulated and approved for use with ABS plastic connections. Do not over tighten pipe fitting. Proper fitting makeup is hand tight plus 1 to 1-1/2 turns maximum.



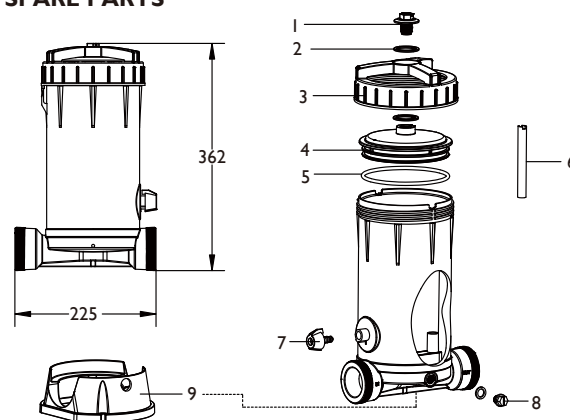
Typical Installation with heater.



Typical Installation without heater

NOTICE: After starting up system, re-check all connections for leaks. Re-tighten as required.

SPARE PARTS



Item	Qty.	Description
1	1	Cover retaining screw
2	2	Slip washer
3	1	Outer Cover
4	1	Inner Cover
5	1	O-ring
6	1	Straight tube
7	1	Dial control valve
8	1	Drain plug w/gasket
9	1	Base

CAUTION

Do not install chlorinator into copper plumbing. Pipe damage could occur. Never install chlorinator before heater. Heater damage could occur.

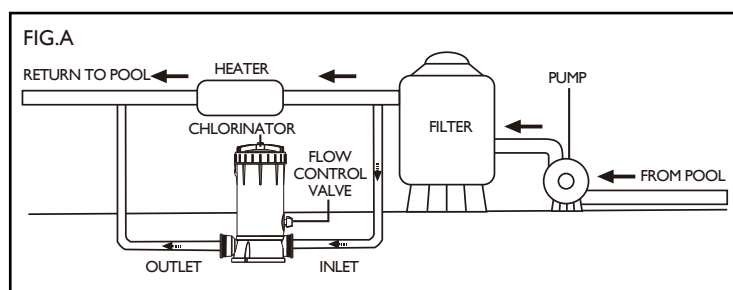
You may substitute bromine tablets or sticks for trichlor in these chlorinators. **DO NOT MIX.**

CALCIUM HYPOCHLORITE IS NOT TO BE USED IN ANY FORM.

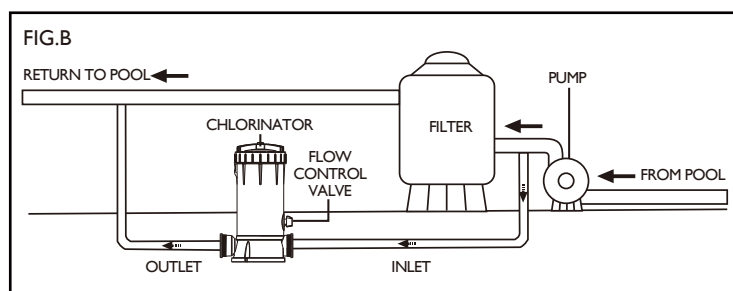
JAC90 OFF-LINE

WHERE TO INSTALL YOUR CHLORINATOR

1. The inlet connection should be made in the piping after the pump . Mark location on pipe.
2. The outlet connection should be made in the piping after the heater. If no heater is being used, connection should be made after the filter. Mark location on pipe.
3. Based on the locations from steps 1 and steps 2, cut tubing to required lengths. Be sure ends are cut evenly and cleanly.
4. Wrap Teflon tape on larger male thread of Check Valve and thread it hand tight plus 1/2 turn into outlet port of chlorinator. **DO NOT OVER TIGHTEN.**



Typical Installation with heater.



Typical Installation without heater

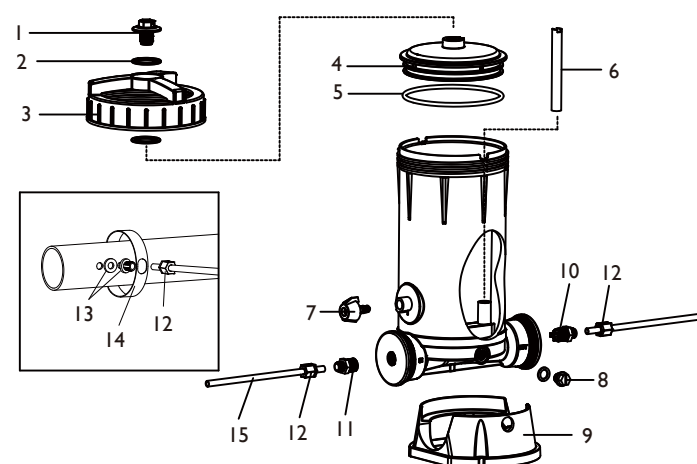
NOTICE: The Check Valve has a ball that “clicks” when you shake it.

5. Wrap Teflon tape on larger male thread of the Inlet Adapter and thread it hand tight plus 1/2 turn into the inlet port of chlorinator. **DO NOT OVER TIGHTEN.**
6. To connect inlet tubing to chlorinator, place Compression Nut over inlet tubing and slide nut up about 2". Insert the tubing all the way into the Inlet Adapter socket and, holding tubing in place, tighten nut firmly by hand. **DO NOT OVER TIGHTEN.**
7. Connect outlet tubing to the Check Valve in the same manner as in step 6 above.

NOTICE: The Saddle fitting w/gasket and Clamps are designed to fit the O.D. of 1-1/2" or 2" pipe.

8. Drill a 3/8" hole at location identified in Step 1 of JAC90 Off-Line Installation section. Clean all burrs, shavings etc. Fit Saddle fitting w/gasket into oval shaped hole in clamp and insert fitting into the 3/8" hole. Secure clamp around Saddle fitting w/gasket and pipe and tighten securely to achieve a good seal. **DO NOT OVER TIGHTEN.**
 9. Drill a 3/8" hole at location identified in Step 2 of JAC90 Off-Line Installation section. Install Saddle fitting w/gasket as in Step 8 above.
 10. Connect inlet and outlet tubing to the Saddle fitting w/gasket with Compression Nuts as in Step 6 above. **DO NOT OVER TIGHTEN.**
- NOTICE:** After starting up system, re-check all connections for leaks. Re-tighten as required.

SPARE PARTS



Item	Qty.	Description
1	1	Cover retaining screw
2	2	Slip washer
3	1	Outer Cover
4	1	Inner Cover
5	1	O-ring
6	1	Straight tube
7	1	Dial control valve
8	1	Drain plug w/gasket
9	1	Base
10	1	Check valve
11	1	Inlet adapter
12	4	Compression nut
13	2	Saddle fitting w/gasket
14	2	Clamp
15	1	Tubing

CAUTION

Do not install chlorinator into copper plumbing. Pipe damage could occur.
Never install chlorinator before heater. Heater damage could occur.

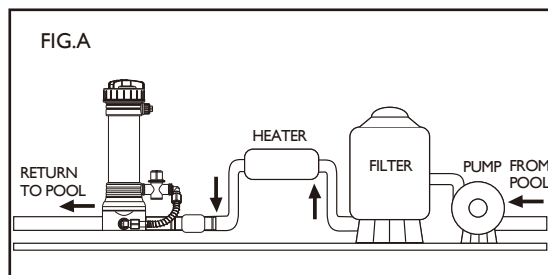
You may substitute bromine tablets or sticks for trichlor in these chlorinators.
DO NOT MIX.

CALCIUM HYPOCHLORITE IS NOT TO BE USED IN ANY FORM.

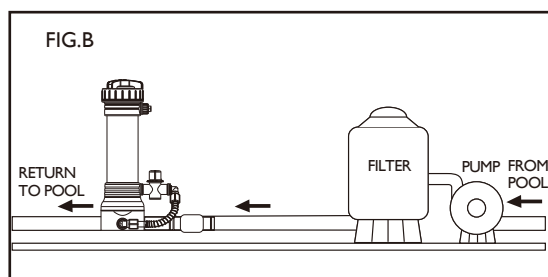
JAC50i IN-LINE

WHERE TO INSTALL YOUR CHLORINATOR

Always install the chlorinator after the heater, pool cleaner, valves, etc. If there is no heater, install after the filter.



Typical Installation with heater.



Typical Installation without heater

DAMAGE TO THE HEATER AND OTHER EQUIPMENT COULD RESULT IF HIGHLY CHLORINATED WATER FLOWS THROUGH IT.

Your chlorinator may be installed in existing PVC plumbing but will require a union and/or other fittings. The chlorinator comes complete for installation with 2" or 1½" PVC plumbing. Choose a site in the return line where chlorinator can be installed in a vertical position. Always install as far from any metal equipment as practical since fumes, etc. can corrode them. If corrosion resistant check valve is required refer to installation instructions before next step.

BASIC PLUMBING INSTALLATION INSTRUCTIONS

1. **2" OR 1½" PVC PIPE:** If chlorinator is being installed on a pool, spa or pool/spa combination, correct plumbing procedures must be followed to ensure proper flow through chlorinator. If pool or spa is plumbed with 2" PVC pipe, be certain the pump, filter and heater all have 2" inlet and outlet fittings. If any part of the equipment has less than 2" fittings or pipe, then a minimum of 6" x 1½" PVC pipe must be installed directly into the inlet side of the chlorinator using the 2" x 1½" reducer bushings supplied.

This will build pressure directly into the chlorinator, ensuring proper operation. Continue with 2" PVC pipe on the outlet side of the chlorinator.

2. **POOL/SPA COMBINATION:** If plumbing and equipment is a full 2" and the chlorinator is being installed on the pool return line after the diverter valve, with a portion of the water diverted to the spa, install a minimum section of 6" x 1½" PVC pipe directly into the inlet side of the chlorinator using the 2" x 1½" reducer bushing supplied. Continue with 2" PVC pipe on the outlet side of the chlorinator. This will compensate for that portion of water being diverted to the spa.
3. **90° ELBOWS:** Plumbing a 90° elbow directly into the inlet side of the chlorinator may cause turbulence inside the elbow. This will prevent water from being scooped into the chlorinator. A minimum of a 6" length of PVC pipe should be installed between the 90° elbow and the inlet side of the chlorinator.
4. **2" PVC:** Simply glue chlorinator to the return line using PVC SOLVENT CEMENT. Be sure arrows on chlorinator point in the direction of water flow returning to the pool or spa.
5. **1½" PVC:** Remove (2) 2" x 1½" slip reducer bushings packed inside the chlorinator and glue into 2" slip tee on bottom of chlorinator. Complete installation by gluing into 1½" return line making sure the arrows on chlorinator point in the direction of water flow returning to the pool or spa. **USE ONLY** PVC Solvent Cement. Follow directions on solvent cement label. Allow to dry.

SPECIAL FEATURES AND INSTRUCTIONS

If while using 3" diameter tablets the chlorinator does not provide enough chlorine residual, switch to 1" tablets. The smaller tablet will erode faster producing more chlorine residual. If this does not correct the situation, the chlorinator has been fitted with an optional opening at the top of the chlorinator (which is plugged). To accommodate attachment of the valve and tubing assembly for top entry of water into the chlorinator, an additional length of tubing has been included. The following procedure should only be used if the suggested change has not solved the situation. Top entry in normal situations can cause over chlorination.

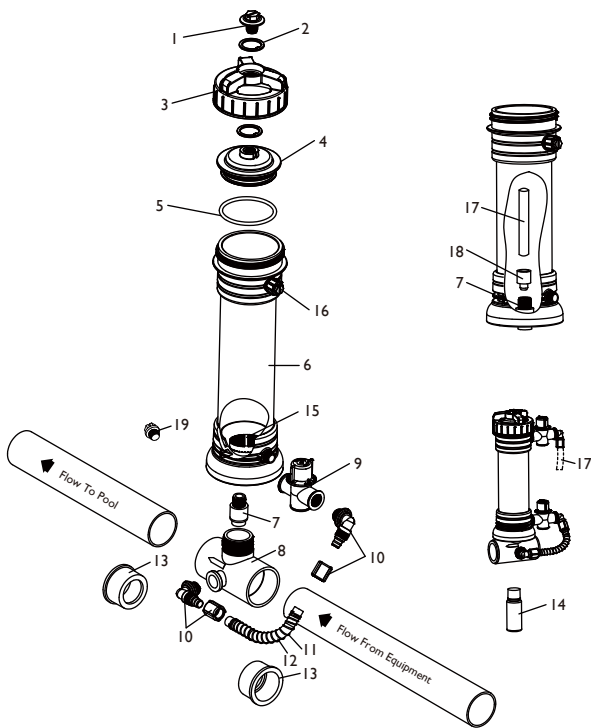
1. Turn off pump and timer switches.
2. Remove tubing by unscrewing compression nut at each end of tubing.
3. Remove plug at top of chlorinator directly above control valve.
4. Remove control valve. There is no need to remove the elbow fitting.
5. Thread valve into the top opening. **DO NOT** over tighten, damage to threads or valve could occur.
6. Slide compression nut over long section of tube. Slide tube over tapered part of elbow fitting and tighten. Hand tighten only. Repeat for other end of tubing.
7. Set control valve to #1. Turn on pump and timers. Check residual daily to determine proper setting. Small gradual changes are imperative for control.

BELOW WATER LEVEL RECHARGING INSTRUCTIONS

Chlorinator should be installed above water level whenever practical. If installed below water level, a drain plug must be removed to empty the high chlorinated water inside to prevent spillage and dangerous splash back of high chlorinated water during recharging.

- 1. Shut off pump and timer switches.
- 2. Shut off control valve.
- 3. Place a clean container under drain and remove drain plug.
- 4. Exercise extreme caution when opening or servicing chlorinator. Do not inhale fumes. Wear protective gear. Remove cover. Water will now drain from chlorinator. Empty container back into pool or spa.
- 5. Replace drain plug with gasket. Fill with proper size tablets or sticks.
- 6. Making sure O-ring is clean, lubricated with Silicone and in place, replace cover.
- 7. Turn on pump and timer switches.
- 8. Reset control valve to original setting. Inspect inlet and outlet line each time chlorinator is recharged. Replace lines yearly if necessary.

SPARE PARTS



Item	Qty.	Description
1	1	Cover retaining screw
2	2	Slip washer
3	1	Outer Cover
4	1	Inner Cover
5	1	O-ring
6	1	Body
7	1	Check valve
8	1	Divertor tee
9	1	Control valve
10	2	Elbow fitting w/nut
11	1	Tube support spring
12	1	Chlorine tube
13	2	2" x 1 1/2" Bushing
14	1	Silicone Lubricant
15	1	Screen
16	1	Plug
17	1	Tube
18	1	Nozzle
19	1	Drain plug w/gasket

*NOT used with 2" PVC, for 1 1/2" PVC only.

CAUTION

Do not install chlorinator into copper plumbing. Pipe damage could occur.
Never install chlorinator before heater. Heater damage could occur.
You may substitute bromine tablets or sticks for trichlor in these chlorinators.
DO NOT MIX.

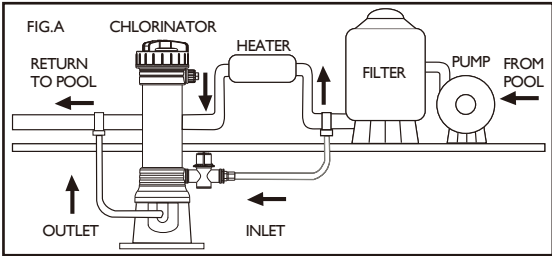
CALCIUM HYPOCHLORITE IS NOT TO BE USED IN ANY FORM.

- Bromine Standpipe Installation
- To increase erosion of small bromine tablets, install Bromine Standpipe as follows:
- 1. Remove screen from bottom of chamber exposing check valve (7).
 - 2. Insert nozzle (18) into check valve opening.
 - 3. Cut tube (17) to 6" length and push tube into adapter opening.

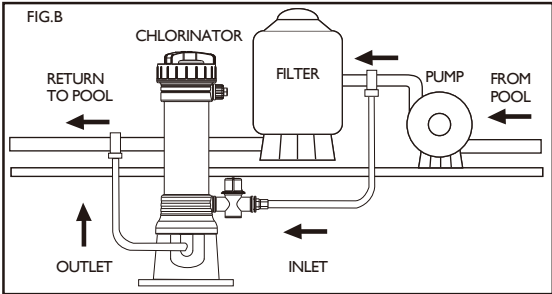
JAC50 OFF-LINE

WHERE TO INSTALL YOUR CHLORINATOR

The outlet line must be installed after the heater. If there is no heater, install after the filter. (See Fig. A & B)



Typical Installation with heater.



Typical Installation without heater

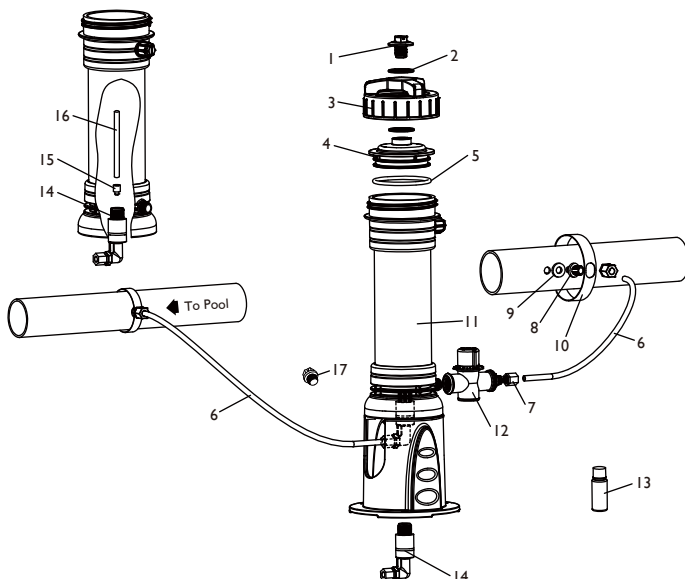
DAMAGE TO YOUR HEATER COULD RESULT IF HIGHLY CHLORINATED WATER FLOWS THROUGH IT.

If your pool has a heater, install the inlet line to the chlorinator between the filter and heater. If your pool does not have a heater, install the inlet line between the pump and the filter. Refer to Fig A & B for your particular condition.

Choose a site where chlorinator can be installed in a vertical position. Always install as far from any metal equipment as practical since fumes, etc. can corrode them. If optional corrosion resistant check valve is required, refer to JAC50 Off-Line Installations before next step.

1. Position chlorinator close to filter and cut tubing to desired lengths. Be careful to cut ends straight.
2. ATTACH INLET LINE TO CHLORINATOR: Push compression nut over tubing and then push tubing onto tapered end of control valve. Tighten nut firmly by hand.
3. ATTACH OUTLET LINE TO CHLORINATOR: Push compression nut over tubing end and then push tubing onto tapered end of elbow. Tighten nut firmly by hand.
4. INSTALL INLET LINE IN PLUMBING: (Line to side of chlorinator). Turn off pump and timer switches. Drill 3/8" hole in plumbing, remove burrs and install Clamp assembly. Attach inlet line by first pushing compression nut over tub end. Then push onto tapered end of Saddle fitting. Tighten nut firmly by hand.
5. INSTALL OUTLET LINE IN PLUMBINE: (Line from chlorinator) Drill 3/8" hole in plumbing (AFTER the heater. If no heater, drill after filter) and remove burrs. Install Clamp assembly. Attach outlet line by first pushing compression nut over tube end. Then push onto tapered end of Saddle fitting. Tighten nut firmly by hand. Installation is now complete.

SPARE PARTS



Item	Qty.	Description
1	1	Cover retaining screw
2	2	Slip washer
3	1	Outer Cover
4	1	Inner Cover
5	1	O-ring
6	1	Tubing
7	4	Compression nut
8	2	Saddle fitting
9	2	Gasket
10	2	Clamp
11	1	Body
12	1	Control Valve
13	1	Silicone Lubricant
14	1	Check valve and elbow fitting
15	1	Nozzle
16	1	Tube
17	1	Drain plug w/gasket

CAUTION

Do not install chlorinator into copper plumbing. Pipe damage could occur.

Never Install chlorinator before heater.

Heater damage could occur.

You may substitute bromine tablets or sticks for trichlor in these chlorinators.

DO NOT MIX.

CALCIUM HYPOCHLORITE IS NOT TO BE USED IN ANY FORM.

Bromine Standpipe Installation

To increase erosion of small bromine tablets, install Bromine Standpipe as follows:

1. Remove screen from bottom of chamber exposing check valve (14).
2. Insert nozzle (15) into check valve opening.
3. Cut tube(16) to 6" length and push tube into adapter opening.

REFILLING CHLORINATOR

1. Shut off all pumps and pump timers.
2. Turn chlorinator flow control valve to "OFF".
3. Verify chlorinator return line to pool is unrestricted.
4. Wait one minute to relieve system pressure before attempting to remove cover. This will allow water and fumes to drain from chlorinator.
5. If installed in a flooded system, shut off valves to isolate chlorinator.
6. Remove cover.
7. Refill chlorinator only with slow dissolving Trichloro-s-triazinetriene chlorine or Bromine tablets.
8. Secure cover to chlorinator. Make sure O-ring is clean, and in place. Lubricate with Silicone.
9. If installed in a flooded system, open valves to assure flow from pump to pool.
10. Turn flow control valve to desired setting and restart pump.

NOTICE: Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions.

SPECIFICATIONS, MAINTENANCE & WARRANTY

SPECIFICATIONS

JAC90i IN-LINE:

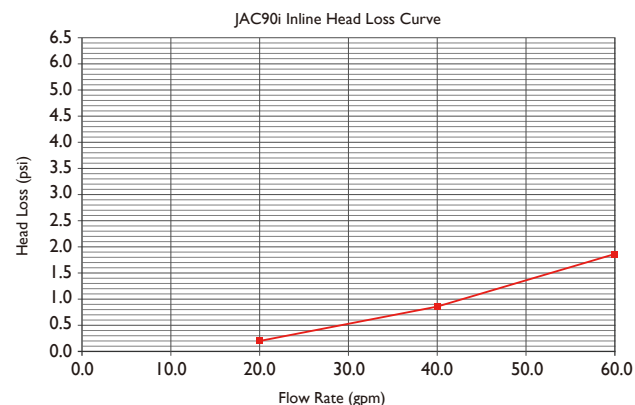
MAXIMUM PRESSURE 50 PSI

MINIMUM FLOW RATE 30 GPM

MAXIMUM HEAD LOSS 1.84 PSI @ 60 GPM

JAC90i In-Line (MAXIMUM OUTPUT RATE IN LB PER 24HR)

Model	Flow Rate	100% Setting			50% Setting	
		Pool	Spa	Bromine	Pool	Spa
JAC90i In-line	50 GPM	2.41	3.89		1.22	1.79



JAC90 OFF-LINE:

MAXIMUM PRESSURE 50 PSI

MINIMUM FLOW RATE 30 GPM

WHEN THE MAIN LINE FLOW IS 50 GPM, THE FLOW RATE THROUGH THE JAC90 OFF-LINE IS 0.9 GPM

JAC90 Off-Line (MAXIMUM OUTPUT RATE IN LB PER 24HR)

Model	Flow Rate	100% Setting			50% Setting	
		Pool	Spa	Bromine	Pool	Spa
JAC90 Off-line	50 GPM	1.41	3.84		1.19	1.21

JAC50i IN-LINE:

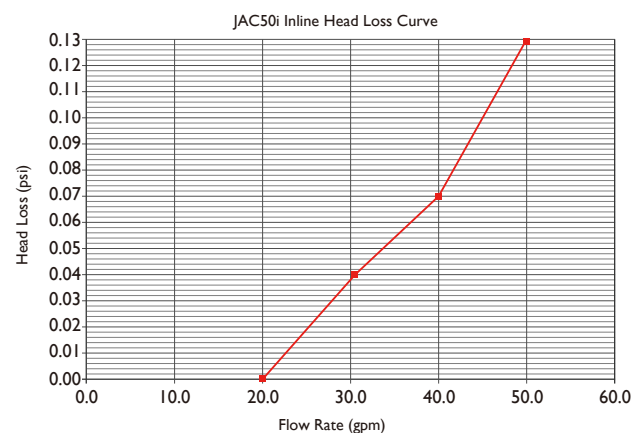
MAXIMUM PRESSURE 50 PSI

MAXIMUM HEAD LOSS 0.13 PSI

MINIMUM FLOW RATE 30 GPM

JAC50i In-Line (MAXIMUM OUTPUT RATE IN LB PER 24HR)

Model	Flow Rate	100% Setting			50% Setting		
		Pool	Spa	Bromine	Pool	Spa	Bromine
Bottom Feed	50 GPM	0.33	0.29	2.17	0.27	0.30	1.62
Top Feed	50 GPM	0.59	1.59	-	0.44	0.63	-



JAC50 OFF-LINE:

MAXIMUM PRESSURE 50 PSI

MINIMUM FLOW RATE 30 GPM

WHEN THE MAIN LINE FLOW IS 50 GPM, THE FLOW RATE THROUGH THE JAC50 OFF-LINE IS 0.7 GPM

JAC50 Off-Line (MAXIMUM OUTPUT RATE IN LB PER 24HR)

Model	Flow Rate	100% Setting			50% Setting		
		Pool	Spa	Bromine	Pool	Spa	Bromine
JAC50 Off-line	50 GPM	0.33	0.78	2.66	0.33	0.54	1.26

MAINTENANCE

TO CHANGE O-RING

1. Read and follow instructions in Steps 1 to 5 in Refilling Chlorinator section.
2. Unscrew and remove retainer screw. Inner cover may now be slipped free of the Outer cover.
3. Replace O-ring. Reassemble being sure Slip Washers are in place on stem of Inner Cover (inside), and under head of Retaining Screw.
4. Replace cover. If chlorinator needs to be refilled, read and follow instructions in Steps 6 to 8 in Refilling Chlorinator section.

TO REMOVE AND INSTALL FLOW CONTROL VALVE HANDLE

For JAC90 and JAC90i **ONLY**. Set pointer to **FULL**. Insert screwdriver in slot opposite pointer, lift up and rotate handle counterclockwise. Install the handle into the body, screw it fully seated and positioned in the OFF position.

WINTERIZING

Where freezing temperatures can be expected, drain all water and remove all chlorine from chlorinator (for JAC90i and JAC50i permanently installed unit remove drain plug). Carefully remove all tablets and pieces of tablets. Rinse out chlorinator thoroughly with water. Replace cover and drain plug.

VACUUMING

When vacuuming, close flow control valve to prevent bypass of sediment and possible clogging of control valve.

LUBRICATION

Lubricate O-ring with Silicone O-ring lubricant **ONLY**. Never use petroleum type lubricants on cover O-ring.

Limited Warranty Terms & Conditions

1 year warranty coverage, exclusions apply

Before using the automatic chlorinator, review the owner's manual completely. Failure to read the owner's manual completely could result in pool equipment damage. This warranty does not cover parts that are worn, scratched, faded as this is natural during normal operation in the pool. The warranty does not cover pools that are improperly maintained including water chemistry, pool surface construction and equipment failures. Misuse of the automatic chlorinator in any form is not covered including accidental misuse, acts of God, or modifications to the automatic chlorinator by anyone other than the manufacturer.