#320 CHLORINE/BROMINE FEEDER

### Features:
- No special venting required.
- No equipment damage.
- Feeds sanitizer directly to pool or spa.
- All parts replaceable.
- To prevent overflow during chlorination, use completely close the control valve and the built in check valve will prevent chemical from being fed into pool or spa.

### Your Lifegard® Feeder is the Most Efficient and Trouble-Free Automatic Feeder You Can Buy, But It Can Also Be Dangerous to You and Your Equipment. Please Follow Instructions Exactly and heed all cautions. Your Safety and the Protection of Your Equipment is Our First Concern.

It is important to read all information before proceeding with the installation. The information will guide you in installing your feeder properly and to avoid problems due to improper installation. If your pool or spa has copper plumbing... STOP!!

Never install the feeder into copper plumbing as pipe damage will occur. (See Equipment Safety CAUTION sheet enclosed). NOPE: If heaters are used, a Fireman’s Switch or equivalent must be installed to prevent possible damage and improper operation of Check Valve and other equipment subject to heat damage.

**Installation Instructions Model #320**

Note: Make sure all pumps and timer switches are in the OFF position.

**Where to Install Your Feeder**

The #320 feeder is designed for permanent installation in the return line of your new pool or spa and must always be installed after the heater, pool cleaner, valves, etc. If your pool does not have a heater, then it must be installed after the filter or any other piece of equipment.

**Damage to the heater and other equipment could result if highly chlorinated water flows through it.**

If your pool is equipped with a solar system, it may be necessary to install a Hi Flow Kit. This kit can be installed if your feeder is not getting adequate flow and/or pressure through the system. Refer to information on sheet enclosed. Your feeder may be installed in existing PVC plumbing but will require a union and/or other fittings. The feeder comes complete for installation with 2” or 1½” PVC plumbing. Choose a site in the return line where feeder 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 installation instructions before next step.

**Basic Plumbing Installation Instructions**

2” or 1½” PVC pipe: If feeder is being installed on a pool, spa or pool/spa combination, correct plumbing procedures must be followed to insure proper flow through feeder. If pool or spa is plumbed with 2” PVC pipe, be certain the pump, filter and heater have all 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” reducer bushings must be installed directly into the inlet side of the feeder using the 2” x 1½” reducer bushings supplied. This will build pressure directly into the feeder insuring proper operation. Continue with 2” PVC pipe on the outlet side of the feeder.

**Pool/Spa Combination:** If plumbing and equipment is a full 2” the feeder 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 feeder using the 2” x 1½” reducer bushing supplied. Continue with 2” PVC pipe on the outlet side of the feeder. This will compensate for that portion of water being diverted to the spa.

**90° Elbows:** Plumbing with a 90° elbow directly into the inlet side of the feeder may cause turbulence inside the elbow. This will prevent water from being scooped into the feeder. A minimum of a 6” length of PVC pipe should be installed between the 90° elbow and the inlet side of the feeder.

2” PVC: Simply glue feeder to the return line using PVC Solvent Cement. Be sure arrows on feeder point in the direction of water flow returning to the pool or spa. 1½” PVC: Remove (2) 2” x 1½” slip reducer bushings packed inside the feeder and glue into 2” slip tee on bottom of feeder. Complete installation by gluing into 1½” return line making sure the arrows on feeder 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. Installation in now complete.

**Operating Instructions**

Before start up of feeder, your pool should be properly conditioned and the residual should be 1.0 to 1.5 ppm. Water in a newly-filled pool should be properly conditioned to insure maximum effectiveness of the feeder. Consult your local dealer for water conditioning information for your area.

1. Remove cap of feeder and fill with proper size tablets.
2. Make sure O-ring is clean, lubricated with Lifegard Silicone and is in place, replace cap. Hand tighten only.
3. Turn on pump and timer switches for a minimum of 6 to 8 hours.
4. Adjust control valve according to your pool/spa size. Use a test kit to determine the chemical residual. It is recommended that the chemical residual be checked daily for the first 5 days. Remember... hot days, higher water temperature or increased pool/spa activity will cause your pool/spa to use more sanitizer. When possible, increase the feed rate by 1/2 to 2/3 the amount of the feeder. To correct, turn off feeder OR remove tablets until the shock or algae treatment is complete and all granulas have dissolved. Failure to do so may result in granulas mixing in feeder causing FIRE AND/or EXPLOSION. The shock or algae treatment dissolved in water is safe with tablets.
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 (F)
2. Insert adapter (T) into check valve opening.
3. Cut supplied ½" black tube (Q) to 6" length and push tube into adapter opening.

Optional Spa Chamber:
For use on spas and hot tubs only. Use 1" diameter tabs. Insert into feeder slotted end down.
Available from your dealer.

**IMPORTANT OPTION. SEE CORROSION CAUTION SHEET.**

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

**NSF**
listed for public or residential use in Swimming Pools, Spas or Hot Tubs using Trichlor or Bromine and when used with a flow indicating device such as Rainbow Lifegard Model R172276.

**YOU MAY SUBSTITUTE BROMINE TABLETS OR STICKS FOR TRICHLOR IN THIS FEEDER.** DO NOT MIX.

**U.S. Patent No. 4210624 & 4293425**
Canadian Patent No. 1092731
HI FLO FEEDER KIT #R171099
FOR MODELS #320 & #322

DIRECTIONS
1. Turn off pump and timer switches.
2. Loosen compression nut and remove Feeder tube and 90° elbow from the diverter tee at base of Feeder.
3. Using teflon tape as thread sealant, wrap ½" MPT plug threads (1) with several turns of teflon tape only. Install plug in place of 90° elbow on diverter tee.
4. Disconnect other end of Feeder tube from control valve 90° elbow, by loosening compression nut. Use the compres-
sion nuts from old tube to attach new 6' section (2).
5. Push compression nut over tubing end, then push tubing onto tapered end of elbow. Tighten nut firmly by hand.
6. Connect other end of plumbing. IF POOL/SPA HAS A HEATER, INSTALL BETWEEN FILTER AND HEATER. IF YOUR POOL/SPA HAS A SOLAR SYSTEM, INSTALL BEFORE SOLAR SYSTEM INLET LINE. IF NO HEATER, INSTALL BETWEEN PUMP AND FILTER. Drill 9/16" hole in plumbing, remove burrs, and install saddle clamp assembly. (See illustration) Tighten clamp with screwdriver. Slide small stainless steel clamp #3 over tubing #2 and slide tubing over saddle tube fitting #4. Secure tubing to fitting by tightening camp with screwdriver. Make sure clamp is below rib at end of saddle tube fitting.
7. To install ½" CHECK VALVE, cut tube approximately 6" away from plumbing connection. Remove compression nuts from check valve. Slide nuts over both ends of tube. Insert check valve ends into both pieces of tubing and tighten compression nuts firmly by hand. Be sure arrow “FLOW” is pointing toward the Feeder.

HI FLO FEEDER KIT #R171099
PARTS BREAKDOWN DRAWING

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<th>Item</th>
<th>Quantity</th>
<th>Part No.</th>
<th>Description</th>
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<tr>
<td>1</td>
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<td>R172134</td>
<td>Plug, ½&quot; MPT</td>
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<tr>
<td>2</td>
<td>6&quot;</td>
<td>R172093</td>
<td>Tube, ½&quot; ID Chlorinator</td>
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<td>3</td>
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<td>R175013</td>
<td>Clamp, S.S. Tubing</td>
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<td>R171162</td>
<td>Fitting, Saddle Tube</td>
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<td>Clamp, Saddle</td>
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<tr>
<td>7</td>
<td>1</td>
<td>R172324</td>
<td>Valve, ½&quot; Tube check</td>
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</table>

NOTE:
When using this kit with a pool/spa combination (to prevent draining spa) shut off Feeder control valve when only the spa is in use.
EXTENSIONS

- Going on vacation?
- Need more chlorine?
- Filling Chlorinator/Brominator too frequently?

LIFEGARD CHLORINATOR EXTENSIONS SOLVE THE ABOVE PROBLEMS BY:
1. Increasing tablet capacity.
2. Larger chamber size allows more erosion of tablets. (See special instructions below)

The 10" extension doubles and the 20" extension triples (approximately) the capacity and time between refills. *AVAILABLE THROUGH LIFEGARD DEALERS ONLY.

NOTE: On free standing #300 series chlorinators, the base of the chlorinator should be secured to prevent the possibility of the chlorinator tipping over due to increased height.

INSTALLATION INSTRUCTIONS
1. Follow recharging instructions to the point of filling with tablets
2. Making sure O-Ring is clean, lubricated with Lifegard Silicone and in place, screw on extension tightly and secure with lock screw. (You may wish to wait until back in operation before tightening screw to insure against leaks).
3. Fill with tablets and continue with normal recharging procedure.

SPECIAL INSTRUCTIONS:
The large chamber size will result in more chlorine being dispensed at the same valve setting, therefore, once installed, several days monitoring will be necessary to readjust chlorinator output.

*Does not apply to large capacity #300-19 or #300-29.

Parts Breakdown Drawing

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<td>R172078</td>
<td>Lockscrew (bottom collar)</td>
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<td>2</td>
<td>1</td>
<td>R172009</td>
<td>O-Ring</td>
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</table>

#R172087 10" Chlorinator extension complete
#R172283 20" Chlorinator extension complete
# R172288 1½" & 2" SLIP SPRING CHECK VALVE

- Special corrosion resistant 1½" & 2" slip spring check valve can be used to check back flow of fluids, air, etc.
- Full free flow design
- Special Spring and Seal for corrosive applications.
- Enclosed spring insuring free operation.
- Very effective when used in conjunction with chlorinator to check back flow of chemicals to pool/spa equipment, preventing corrosion problems and damage.
- Can be mounted in any position.

**Typical check valve installation**

**NOTE:** If heaters are used, a Fireman's Switch or other safety device must be installed to prevent possible damage and improper operation of Check Valve and other equipment subject to heat damage.
EQUIPMENT SAFETY

CAUTION

PLEASE READ CAREFULLY

Since most pool's 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:

1. Water velocity too high.
2. Water pH less than 7.2.
3. 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:

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

Installation of the OPTIONAL Rainbow #R172288 positive seal, corrosion resistant check valve SHOWN ON REVERSE SIDE will prevent the backflow of corrosive liquids and gases that can damage equipment containing metallic components. Examples listed above.

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 Tri-Chloro feeders. Check with manufacturer for compatibility.