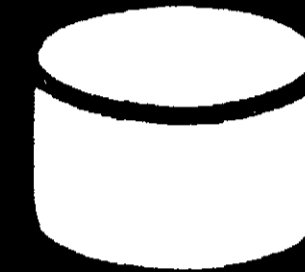


New. Sparkling water automatically.

 **lin**

PULSAR



ACCEPTED
1258-894
April 19, 1974
UNDER THE FEDERAL INSECTICIDE
FUNGICIDE AND RODENTICIDE ACT
FOR ECONOMIC POISON REGISTRATION
ED UNDER NO. 1258-894 SUBJECT
TO ATTACHED COMMENTS.

Dry Chlorine Pellets
for use with Pulsar Swimming Pool Feeder



NET WT. 9 LBS.

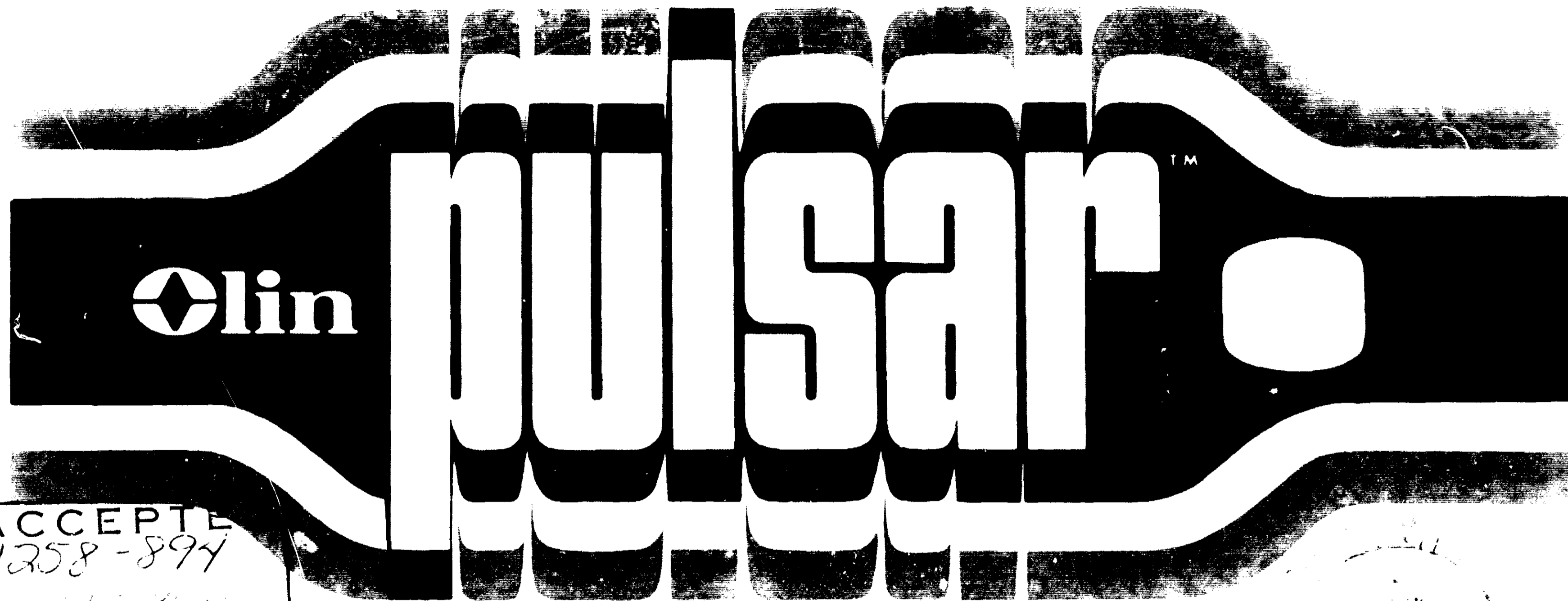
*AVAILABLE CHLORINE 70%
ACTIVE INGREDIENT:
Calcium Hypochlorite 70%
INERT INGREDIENTS 30%

**KEEP OUT OF REACH OF CHILDREN
FATAL OR HARMFUL IF SWALLOWED**

See First Aid statement and other precautionary statements on the
back panel. Mix only with water. May cause fire if contaminated.

EPA Reg. No. 1258 894 AA 50607

New. Sparkling water automatically.



ACCEPTED
1258-894
Pesticide
EPA Reg. No. 1258-894-AA-50607
SUBJECT
ATTACHED COMMENTS

Dry Chlorine Pellets

12 11 1974
Pesticides Registration
Division EPA

NET WT. 9 LBS.

*AVAILABLE CHLORINE 70%
ACTIVE INGREDIENT:
Calcium Hypochlorite* 70%
INERT INGREDIENTS: 30%

KEEP OUT OF REACH OF CHILDREN
FATAL OR HARMFUL IF SWALLOWED
See First Aid statement and other precautionary statements on the
back panel. Mix only with water. May cause fire if contaminated.

EPA Reg. No. 1258-894-AA-50607

DIRECTIONS FOR USE:

Easy to use Olin Pulsar Pellets, dry chlorine containing 70% available chlorine, are designed for use only with the Olin Pulsar Pool Feeder. Used according to the instructions provided with the feeder, the Olin Pulsar Feeder System provides a steady supply of available chlorine while the pool's filter pump is in operation controlling the growth of algae and effectively killing many bacteria which may be the cause of infections. Seven pellets (approx.) equal one ounce.

- 1** Before use, read Installation Instructions and Operating Manual for your Olin Pulsar Pool Feeder.
- 2** Start the filter pump and check chlorine residual with a reliable test kit.
- 3** Fill pellet container with Olin Pulsar Pellets. Adjust the inflow control knob so that the indicator ball is at the top mark on the indicator tube. Initially set the chlorine control dial to five (5).
- 4** After 24 hours, check the chlorine residual. If between 0.6 and 1.0 ppm, leave the chlorine control dial setting as is; if above 1.0 ppm, decrease the feed rate by setting the chlorine control dial to a lower number; if below 0.6 ppm, increase the feed rate by setting the control dial to a higher number. The pool should not be used until the 0.6 to 1.0 ppm chlorine residual is established.
- 5** Continue to monitor chlorine residual and to adjust the chlorine control dial setting until the residual remains between 0.6 and 1.0 ppm. Allow sufficient time (e.g. one day) after changing the chlorine control dial setting for the chlorine residual reading to readjust.
- 6** Always maintain ph between 7.2 and 7.6.
- 7** For pools conditioned with cyanuric acid at concentrations up to 50 ppm, always maintain the chlorine residual at 1.0 to 1.5 ppm as determined by a test kit.

Approximate Pulsar Pellet feed rate per 12 hours of filter operation.

CONTROL DIAL SETTING	0	2	4	6	8	10
OUNCES OF PULSAR PELLETS	0	1	6	16	30	60

NOTE: If algae develops, fill container with pellets, set indicator ball to top mark and chlorine control dial to ten (10). Continue to run filter until algae condition is controlled, or until the chlorine residual is 5.0 ppm. Before entering pool, check chlorine residual, and if above 2.0 ppm allow pool to stand (set chlorine control dial to zero) until residual drops to 2.0 ppm. Then monitor chlorine residual until chlorine levels are as indicated in instruction 4 through 7.

This product is toxic to fish. Keep out of lakes, streams, or ponds. Do not contaminate water by cleaning of equipment, or disposal of wastes. Apply this product only as specified on the label.

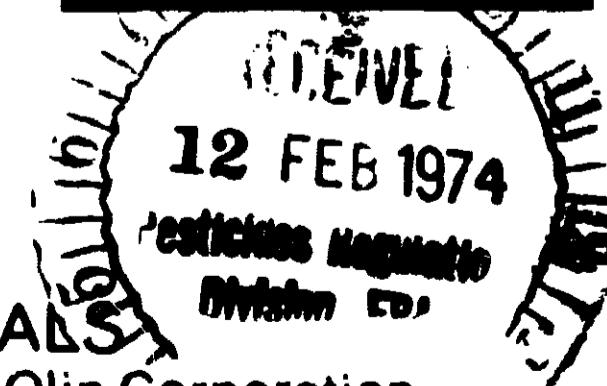
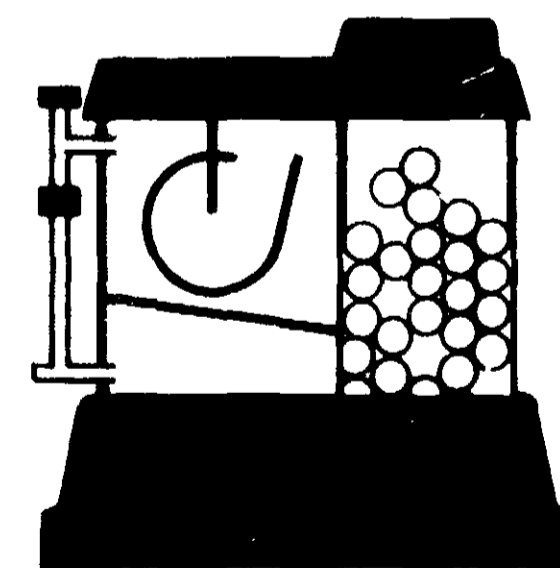
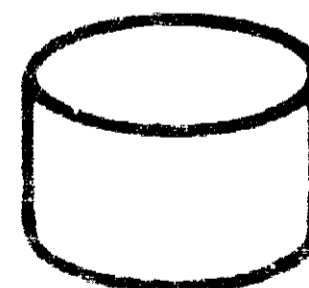
DANGER! FATAL OR HARMFUL IF SWALLOWED. MAY PRODUCE SEVERE CHEMICAL BURNS. DO NOT ALLOW CONTACT WITH EYES, SKIN, MUCOUS MEMBRANES OR CLOTHING. STRONG OXIDIZER, CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE: Keep from contact with clothing and other combustible materials. Do not store near combustible materials. Remove and wash contaminated clothing promptly. While Pulsar Pellets themselves are not a combustible material, they must not be mixed or contaminated with any foreign material such as household products, soap products, paint products, garbage, solvents, acids, pool chemicals, vinegar, beverages, oil, pine oil, dirty rags, etc. Contamination or mixing with these types of chemicals and products may result in fire and the fire can be of great intensity. Prevent any burning material such as a lighted cigarette from falling into product. Drench fires with water. Flush spilled product with water. Dispose of spilled product by flushing with large amounts of water. Keep in cool, dry place in original container. Always replace cap. Wash empty container thoroughly with water and discard. Do not reuse empty container.

First Aid:

EXTERNAL—Flood skin or eyes with plenty of water for 15 minutes. If irritation to skin persists, get medical attention. For eyes—call physician immediately.

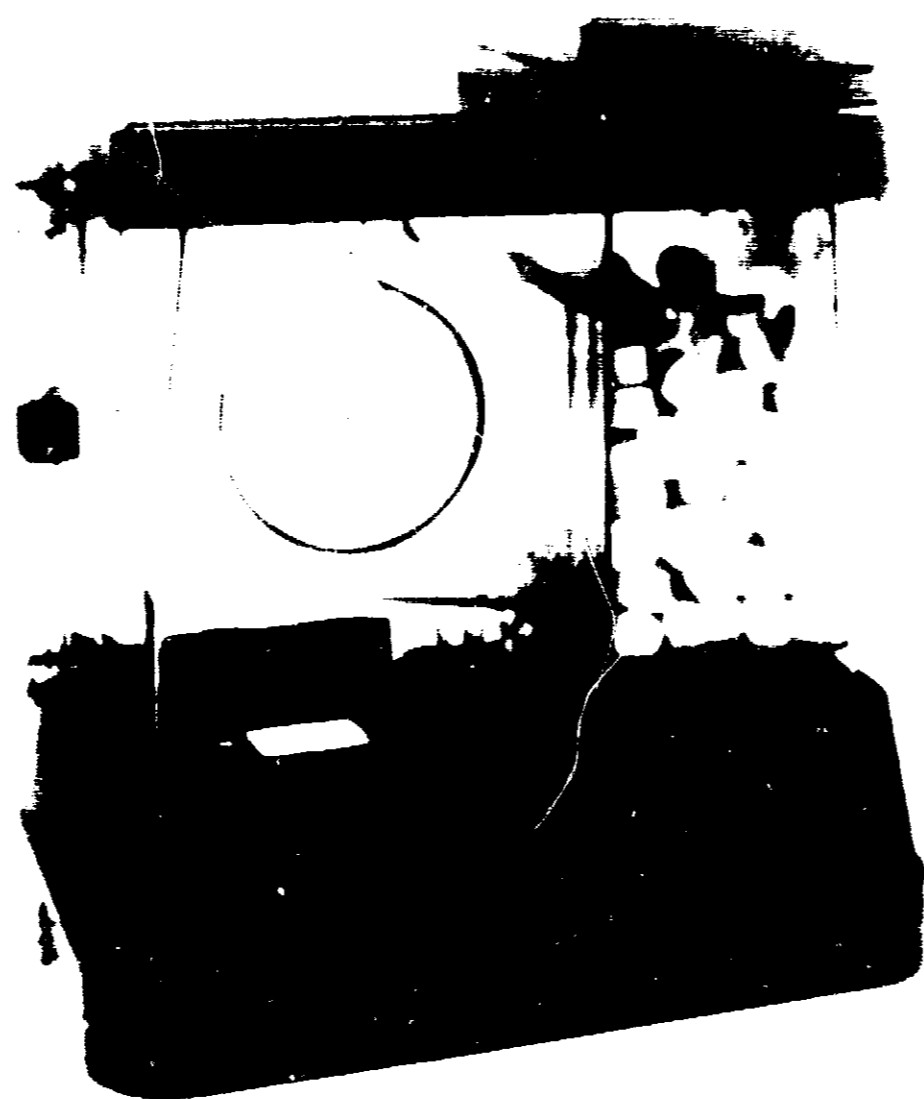
INTERNAL—Drink milk, gelation solution or whites. Follow with milk of magnesia, or vegetable oil. Call physician immediately.

ACTUAL
SIZE
PELLET



Olin CHEMICALS
Consumer Products • Olin Corporation
120 Long Ridge Road, Stamford, Conn. 06904

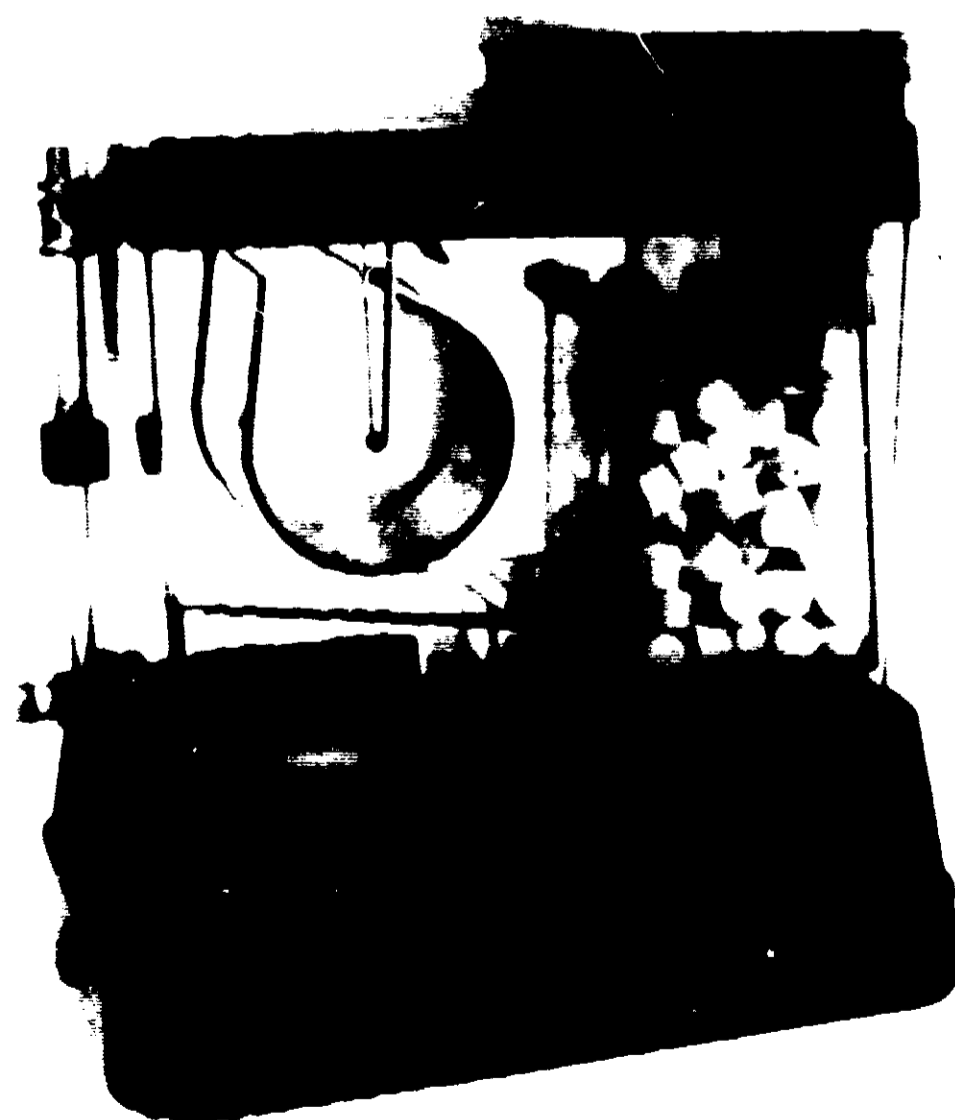
puisat **POOL FEEDER SYSTEM OPERATING MANUAL**



**FROM THE WATER
SCIENTISTS AT  Olin**

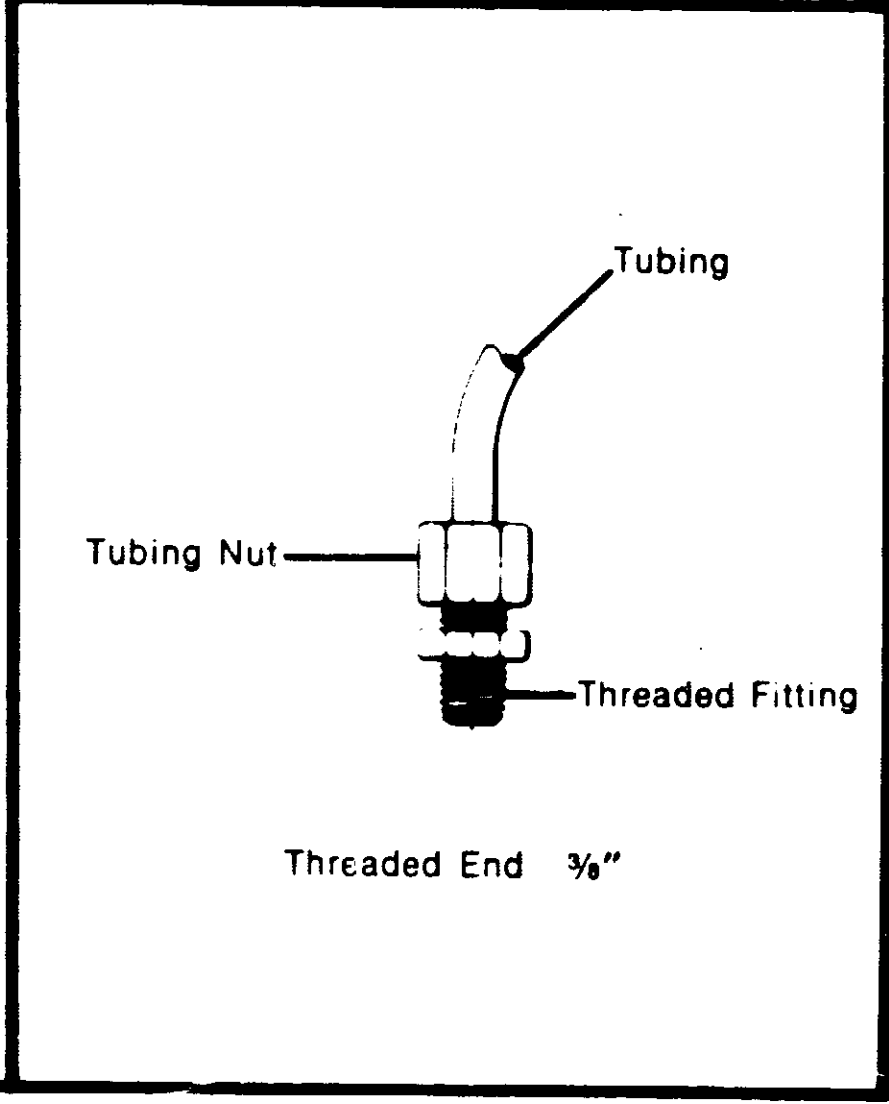
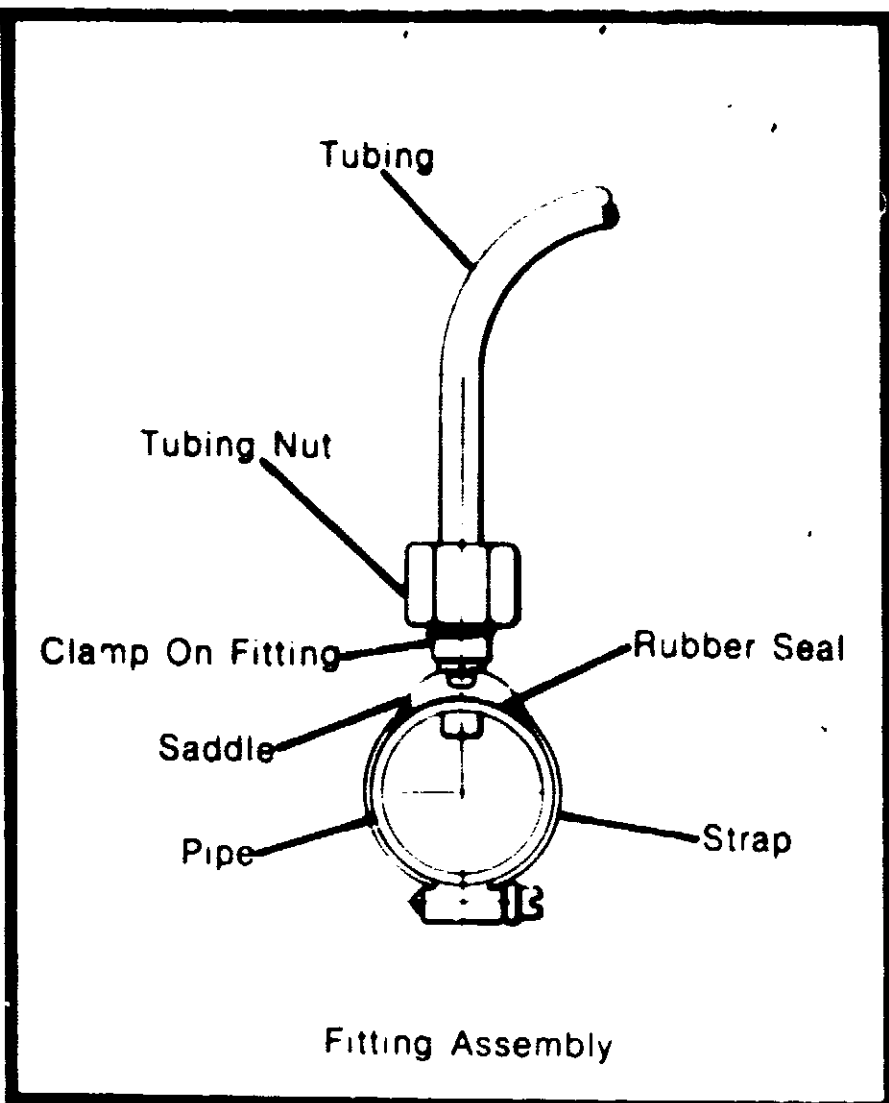
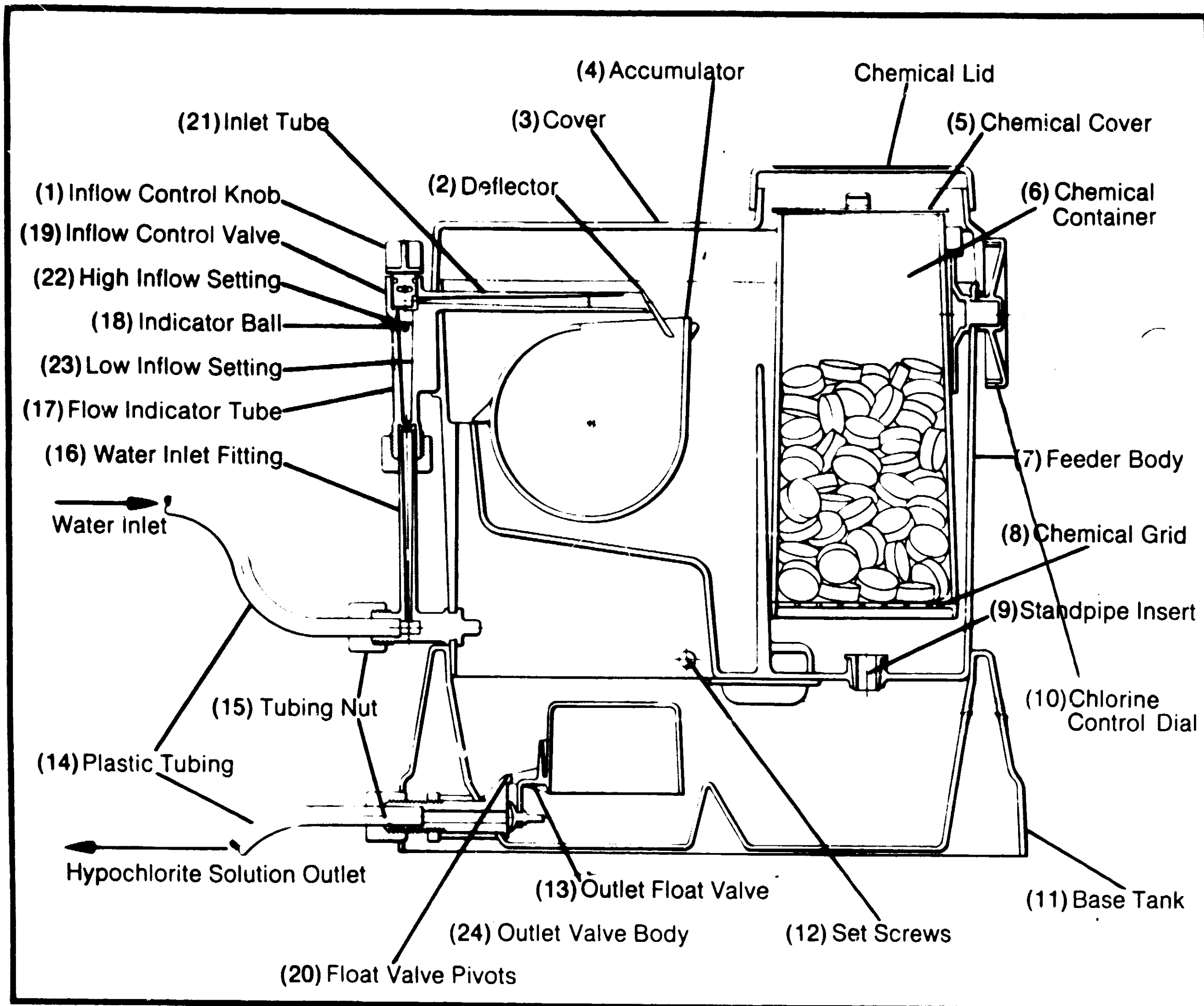
pulsar POOL FEEDER SYSTEM OPERATING MANUAL

ACCEPTED
April 19, 1974
158-500



RECEIVED
12 FEB 1974
Pollution Regulation
Division, EPA

FROM THE WATER SCIENTISTS AT 



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A. FEATURES

Olin's new Pulsar Pool Feeder System is the result of years of accumulated experience, research, and testing. It is a totally new and completely different swimming pool chlorinator — one that will keep your pool water beautiful with reliable service. This flow-through type feeder provides maximum algae control and highly effective bacterial action.

Listed below are some of the outstanding features of this revolutionary new swimming pool chlorinator:

- **Automatic**
- **Operates with Filter System**
- **Eliminates need for Daily Chlorination by Hand**
- **Reliable**
- **Three Year Warranty**
- **Rugged Construction**
- **Visible Cyclic Action**
- **Precise Chlorination Control**
- **Readily Adjustable Feed Rate**
- **Uses Specially Formulated Chemical Pellet**

The Pulsar Pool Feeder incorporates the following operating advantages not available in other pool feeder systems:

- **Reduces Need for Superchlorination:** Every feeder cycle superchlorinates a portion of the water going through the filter system.

- **Chlorine Feed Rate Easily Adjusted:** Just a turn of the calibrated control dial precisely controls the chlorine feed rate.

- **Extremely Wide Chlorine Feed Rate Range:** Capable of feeding anywhere from 0 to 5 pounds of Pulsar Pellets per day.

- **System will operate with minimum pressure and suction in the filter system.**

- **Visual Indication of:**
 - water inflow rate
 - filter system pressure variations
 - check valve function
 - Pulsar Pellet supply
 - outflow operation

- **Operation Unaffected By Pressure Changes:** The water inflow/outflow balance is maintained automatically as pressure and vacuum change in the filter system.

- **Maximum Pump and Filter Protection:** The hypochlorite solution is mildly alkaline, so it is far less corrosive to the filter system components than acidic chlorine products.

- **No Development of Supersaturated Chlorine Solution During Periods When Pump Is Off:** Since Pulsar Pellets do not come in contact with the water in the feeder when the pump is off, the concentration of the chlorine solution fed into the filter system on start-up will be normal.

- **Can be Used to Shock Treat Pool:** If the need arises the feeder is cap-

able of supplying sufficient chlorine to shock treat practically any residential pool.

- **Can Be Installed Indoors or Within Other Enclosures:** Feeder does not give off toxic or noxious gases that would preclude installation in enclosures.

- **Economical to operate:** Chemical cost is much lower per pound than expensive cartridges. In addition, chemical usage is reduced over hand feeding, resulting in extra savings.

Your Pulsar Pool Feeder was designed to use Olin's Pulsar Pellets, the dry chlorine pellets specially formulated for economical, effective operation of the Pulsar Feeder. Accept no substitutes.

B. START-UP

1. Reconnect, as necessary, inlet and return lines.

2. Check to be sure:

- accumulator is in body slots and free to rotate.
- pellet container is removed and clean.
- there are no leaks.

3. Remove chemical cover(5), and chemical container(6) from feeder.

4. Open valves between filter system and pool.

5. Turn on pump (prime if necessary). Check chlorine residual in pool with a reliable test kit.

6. Fill chemical container with Olin Pulsar Pellets. Use only Pulsar Pellets in the Olin Pulsar Pool Feeder. Open inflow control valve(19) by turning inflow control knob(1) counter-clockwise. Water should begin to flow from inlet tube (21) into accumulator.

7. The chlorine feed rate is controlled by a combination of two feeder settings:

a. Chlorine Control Dial(10): determines the amount of water per cycle that contacts the feeder chemical.

b. Indicator Ball Setting: the indicator ball(18) shows the rate of water inflow into the feeder and therefore, the number of times (cycles) per hour the accumulator will fill and empty.

The correct setting of these two controllers for *your* pool is the combination that maintains a chlorine residual in your pool of between 0.6 and 1.0 parts per million. For pools conditioned with cyanuric acid at concentrations up to 50 ppm, always maintain the chlorine residual at 1.0 to 1.5 ppm as determined by a test kit. The chlorine requirement and, thus the setting necessary to maintain that residual, are based on *your* pool

conditions (e.g. size, bathing load, temperature, amount of sunlight, etc.).

8. Adjust the inflow control knob so that the indicator ball is at the top mark on the indicator tube. Initially set the chlorine control dial to five (5) or reset to appropriate setting based on past experience.

After 24 hours, check the chlorine residual. If between 0.6 and 1.0 ppm, leave the chlorine control dial setting as is; if above 1.0 ppm, decrease the feed rate by setting the chlorine control dial to a lower number; if below 0.6 ppm, increase the feed rate by setting the control dial to a higher number. The pool should not be used until the 0.6 to 1.0 ppm chlorine residual is established.

9. Continue to monitor chlorine residual and to adjust the chlorine control dial setting until the residual remains between 0.6 and 1.0 ppm. Allow sufficient time (e.g. one day) after changing the chlorine control dial setting for the chlorine residual reading to readjust. In general, it is best to check the chlorine residual at the same time each day (e.g. early evening).

10. Always maintain ph between 7.2 and 7.6.

11. Remember, for pools conditioned with cyanuric acid at concentrations up to 50 ppm, always

maintain the chlorine residual at 1.0 to 1.5 ppm as determined by a test kit.

12. Check all fittings for leaks. Tighten where necessary.

13. If your pools' daily chlorine requirements are very low, it may be desirable to re-adjust the indicator ball so that it is at the hash mark near the middle of the indicator tube. This adjustment should be made with the hair and lint trap clean. It will effectively reduce the water inflow, and therefore, the number of cycles per hour and the amount of chlorine feed at each control dial setting.

14. If algae has developed (for example when you open the pool in the spring) you may wish to super-chlorinate the pool. This can be done by filling the pellet container with Pulsar Pellets, setting the indicator ball to the top mark and the chlorine control dial to ten (10). Continue to run the filter until the algae condition is controlled or until the chlorine residual is 5.0 ppm. Before entering the pool, check the chlorine residual, and if above 2.0 ppm, allow the pool to stand (set chlorine control dial to zero) until the chlorine residual drops to 2.0 ppm. Then monitor chlorine residual until chlorine levels are as indicated in instructions 8 through 11.

Important: Use only Olin Pulsar Pellets. Fire, explosion or generation of

toxic gas, contamination or other

C. S

The following instructions should be followed for opening the feeder.

1. Cover the pool with a net or tarp. Remove all chemical from the pool. Wash the pool thoroughly from skin.

2. Clean the pool when the water is clear.

3. Turn the feeder in the correct direction (15). Drain the pool.

Note: P... when tub...

4. Rotate the tank to complete the cycle.

5. Remove the tank by turning the handle.

6. Clean the water. Wash the tank removed.

7. Clean the tank.

8. Repeat the process.

toxic gases could result from contamination with other pool products or other foreign materials.

C. SHUT-DOWN

The following steps should be followed for shutting down and winterizing the feeder:

1. Completely dissolve or otherwise remove unused chemicals from chemical container. Rinse container thoroughly with water. Keep away from skin and clothing.

2. Close the inflow control knob when the accumulator empties.

3. Turn off pump. Disconnect feeder inlet and feeder return connection by unscrewing tubing nuts (15). Drain tubing.

Note: Pump cannot be operated when tubing is disconnected.

4. Rotate accumulator and empty completely.

5. Remove feeder body from base tank by unscrewing set screws (12).

6. Clean body by flushing with water. Wipe dry. Be sure all water is removed from accumulator.

7. Clean and dry base tank.

8. Replace body on base and

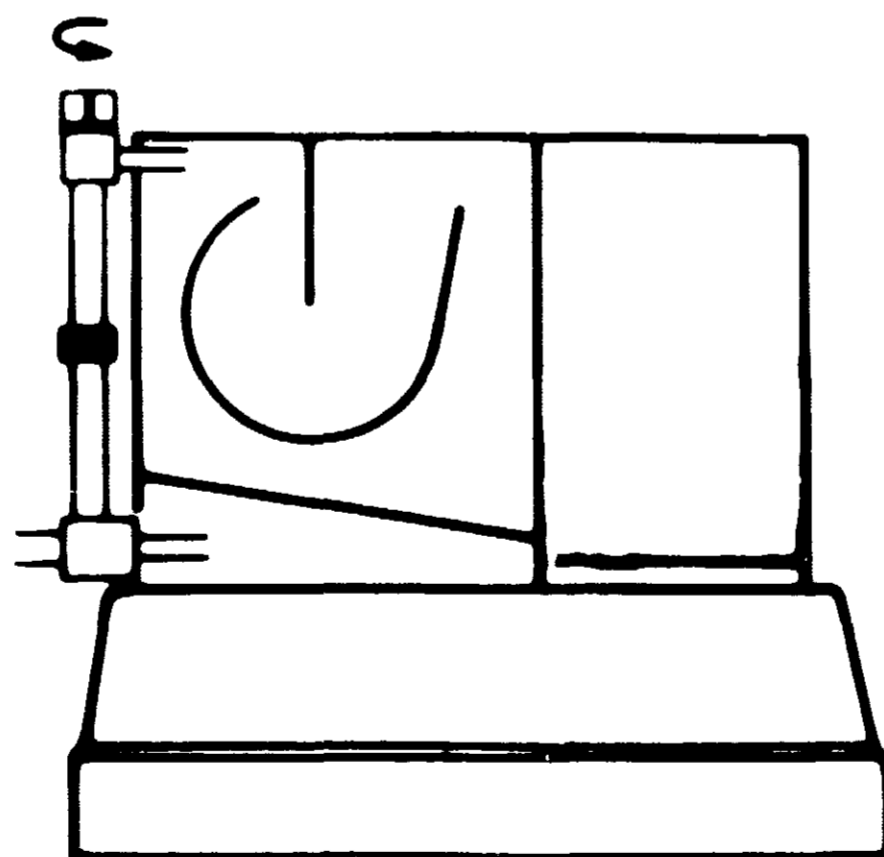
tighten set screws (don't over-tighten).

9. Clean, dry, and replace chemical container and covers, and store for winter.

D. MAINTENANCE

1. Filter Backwashing

Always close the feeder inflow control knob before backwashing or other Filter Cleaning Operations to keep debris out of the feeder system. Reopen inflow control knob and reset indicator ball to correct setting (high or low), only after normal filter operation has been resumed for a few minutes.

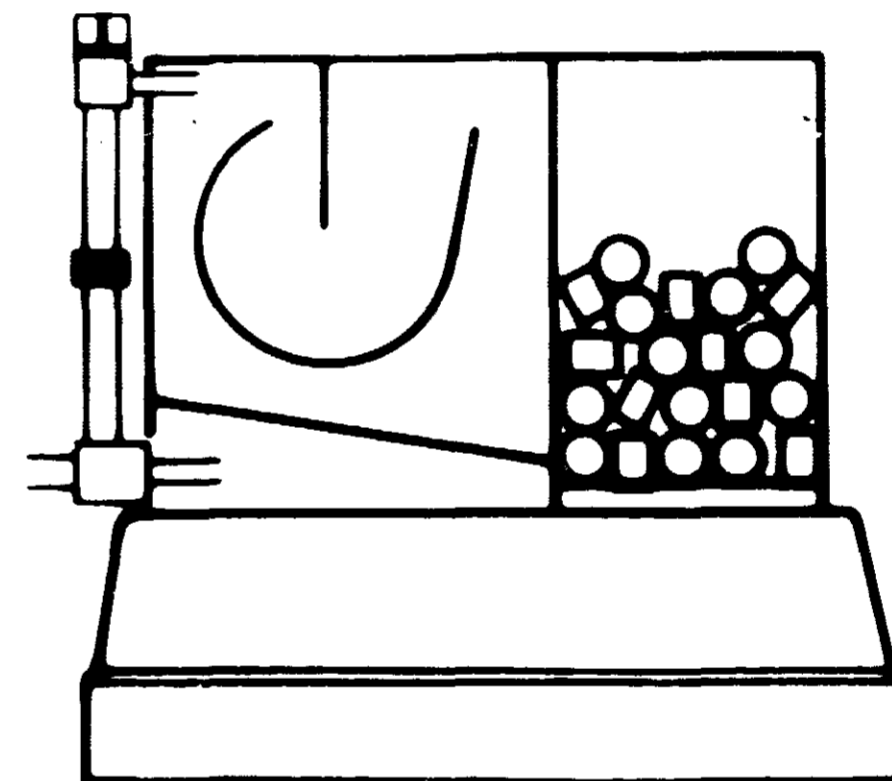


Note: A slight drop in indicator ball height can be expected as your filter

becomes plugged with debris towards the end of your filter cycle (i.e. as you approach the time when you backwash your filter).

2. Pellet Container Loading

It is recommended that no more than one month's supply of Pulsar Pellets be placed in the chemical container when refilling. This may be less than half of the container capacity for small pools.



3. Cleaning Cycle

The unit should be cleaned on a regular basis. At least once a month is recommended, though for many pools a more lengthy cycle may be possible. The proper operation of the feeder is dependent on timely removal of solids before they build up to a level that affects operation.

- Let pellets completely dissolve out of container prior to cleaning or otherwise remove them.
- Remove covers and chemical container.
- Clean container grid and container by immersion and agitation in a bucket of water. Avoid contact with skin and clothing.
- Heavy accumulations may require the addition of a few ounces of muriatic acid to the water before container immersion. If acid is used, thoroughly rinse container with clear water and dry before reinserting container in feeder.
- Clean out the dissolving chamber by using an absorbent cloth or paper towel.
- The base tank should also be rinsed out if the accumulation is heavy.

4. Acid Cleaning Procedure

If mechanical cleaning of the pool feeder is impractical or not thorough enough, an acid cleaning process may be required.

Before proceeding, remove or completely dissolve Pulsar Pellets from Chemical Container.

Danger: Contact of Pulsar Pellets by muriatic acid will cause generation of toxic chlorine gas and may cause fire.

1. Set feeder control to 10.

2. Remove pellet container.
3. Close Inflow Control Valve.
4. Place foam sealing wafer, flat side down, over top of standpipe hole in bottom of pellet dissolving chamber.
5. Replace empty container (Caution: Be sure there are NO pellets in container).
6. Open Inflow Control Valve for one accumulator dump, then close valve again.
7. Slowly add about 1/2 cup (4-5 ounces) of Muriatic Acid to water in Chemical Container.
8. Replace chemical cover and lid and allow feeder to stand 2-3 minutes (or until visible cleaning action stops).
9. Lift Chemical Container so that foam sealing wafer floats free from standpipe hole and allows cleaning solution to drain into Base Tank.
10. Again allow feeder to stand for 2 to 3 minutes.
11. Open Inflow Control Valve.
12. After at least two Accumulator dumps, remove Chemical Container, rinse thoroughly with clear water and dry.
13. Remove foam sealing wafer, rinse and store for future use.

14. Reset control settings, add Pulsar Pellets to cleaned and dried Chemical Container and begin normal operation.

E. TR

Proble

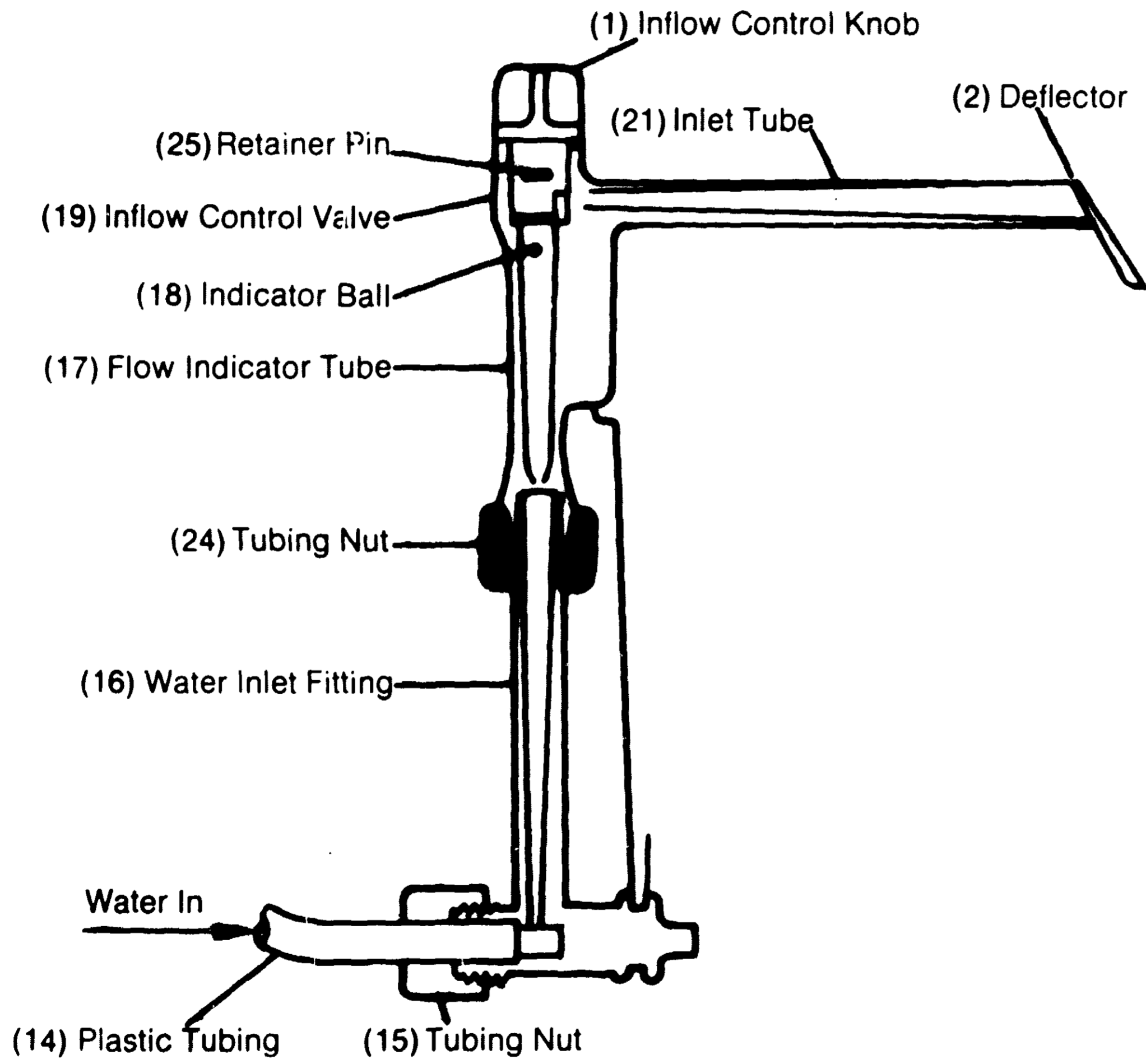
No water

E. TROUBLE SHOOTING

Problem	Causes	Solutions
No water inflow	Pump not primed	Prime pump. If repeatedly loose prime, locate air leak between pool and pump.
	Pump off	Turn on pump.
	Inflow control valve closed	Turn inflow control knob counter-clockwise to open control valve.
	Plastic tube connecting inlet fitting with line clogged.	Turn off pump and disconnect tube nut from feeder. Turn on pump. If flow is minimal turn off pump, disconnect tube from line and check for blockage.

E. TROUBLE SHOOTING

Problem	Causes	Solutions
No water inflow	Inlet Fitting plugged	<p>Indicator ball may just be stuck in bottom of flow indicator tube. Tap tube with fingernail to loosen ball—extreme cases disassemble and free ball.</p> <p>Clean tube by turning off pump and:</p> <ul style="list-style-type: none"> • unscrewing TUBING NUT (24) at the bottom of the FLOW INDICATOR TUBE (17). • remove the FEEDER BODY COVER and slide FLOW INDICATOR TUBE (17) upward. • push the RETAINER PIN (25) out of the tube body and remove the INFLOW CONTROL KNOB (1) and the stainless steel INDICATOR BALL (18) • A pipe cleaner may then be worked up and down through the throat at the bottom of the FLOW INDICATOR and used to wipe the internal surfaces of the body and external surfaces of the knob. • The VALVE/INDICATOR is then reassembled, making certain that the INDICATOR BALL (18) is reinserted in the tube and that the INFLOW CONTROL KNOB (1) is reinserted so that the projection on the underside of the knob is opposite the INLET TUBE (21).



Problem
Leakage
Leakage
Accuracy
Accuracy
No change

Problem**Causes****Solutions**

Leakage at tubing nut(s)	Nut(s) loose	Tighten
	Nut(s) cracked	Replace
Leakage at chlorine control valve	Valve loose	Turn off Inflow Control Dial (1). Remove pellets. Remove body from base by unscrewing set screws. Turn body on side and tighten control valve, hold down screw slightly. Re-assemble. Repeat if necessary. Don't over-tighten screw, may crack valve.
Accumulator won't dump	Not in slots in body	Remove covers, reposition accumulator in slots.
	Water not flowing into accumulator	Check to see if deflector is on inlet tube. If not, replace.
Accumulator will not return	Not in slots in body	Remove covers, reposition accumulator in slots.
	Water inflow is holding down	Reposition deflector on inlet tube or re-insert if fell out. Readjust flow rate.
No chlorine residual	Pellet container empty	Refill with Pulsar Pellets.
	Control dial setting too low	Increase setting to higher number.
	Water inflow too low	Set indicator ball to High setting.
	Chemical grid clogged	Clean grid per maintenance instructions.

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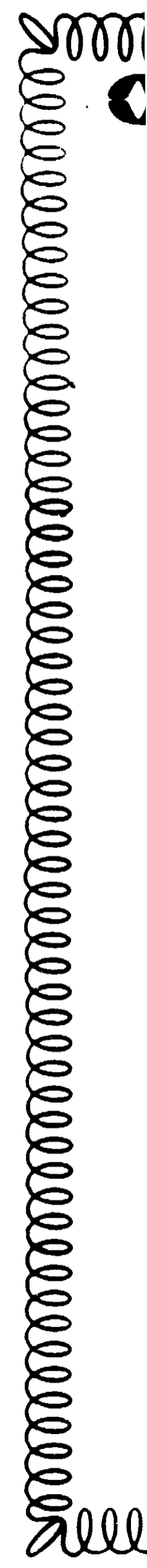
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E. TROUBLE SHOOTING

Problem	Causes	Solutions
No chlorine residual	Chlorine control dial clogged	Remove pellets and flush with clear warm water and move around. use cloth or brush if necessary.
Base tank overflow	Outlet valve clogged	Turn off inflow, remove chemical container separate body from base. Clean base tank, float valve assembly, and outlet tube. Flush with clear water.
	No pump suction or too low	Clean hair and lint trap, and filter.
	Feeder is below water level	Reposition feeder above pool water level.
Losing prime on pump	Outlet valve not sealing	Shut off pump, remove covers and Pulsar Pellets, separate body from base. Clean outlet valve and small suction cup shaped rubber seal.
	Air leak in tubing	Check return line to pump for leaks. Tighten nuts on tubing.
		Check fittings on pipe or lint trap for leakage. Tapped fitting usually requires some type of sealing tape or compound to minimize leakage.
	Air leak in pump suction line	Check hair and lint trap cover to be sure seal is OK, in place, and cover is on tightly.



Olin PULSAR POOL FEEDER SYSTEM WARRANTY

Your new OLIN Pulsar Feeder System is warranted against defects in material and workmanship to the original owner for three years from the date of installation on the pool on which it is originally installed. It is the high quality engineered into your Pulsar Feeder System which makes this generous warranty possible. In order to record and validate the warranty on your feeder it is necessary that you mail the attached registration card within 30 days from the date of purchase and indicate on the card the date of installation.

This warranty provides for the repair or replacement of the Pulsar Feeder System without charge, or at OLIN's option, refund of the purchase price during the three year warranty period, provided the unit is delivered or shipped postpaid to Olin at the address listed below. Regulations *require* that any feeder shipped be clean, dry and free of all chemicals.

This warranty is void on any feeder that has been subject to improper installation, misuse, negligence, accident, abuse or if at any time a product other than OLIN Pulsar Pellets is used in the Pulsar Feeder System.

This warranty is in lieu of all other warranties, expressed or implied and no representative or person is authorized to assume for OLIN any liabilities in connection with the sale of Pulsar Pool products.

Olin CHEMICALS

Consumer Products, Olin Corporation
120 Long Ridge Road, Stamford, Conn. 06904



CONSUMER WARRANTY REGISTRATION

Olin PULSAR POOL FEEDER SYSTEM

Name _____

Address _____

Purchase Date _____

Installation Date _____

Pool Gallonage _____

Purchased From _____

City _____ State _____

Price _____

Model _____

Installed By:

Builder Dealer

Serviceman Yourself

Purchased For:

New Pool Existing Pool

What is your regular brand of pool sanitizer

Have you previously used an automatic chlorinator? Yes _____ No _____

If yes, what brand _____

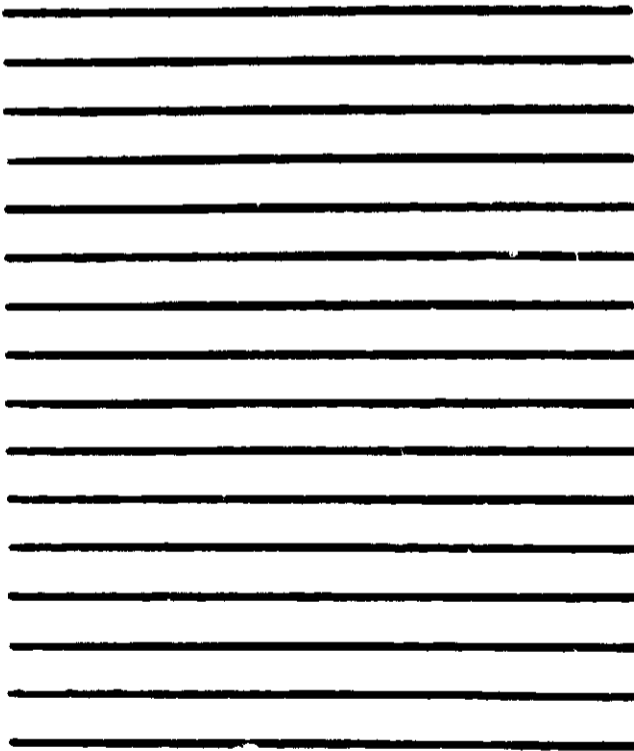
Why did you switch to Pulsar? _____

FIRST CLASS
Permit No. 1010
Mt. Vernon, N.Y.

Business Reply Mail no postage stamp necessary if mailed in U.S.A.

POSTAGE WILL BE PAID BY:

Olin CHEMICALS
Consumer Products
Olin Corporation
120 Long Ridge Road
Stamford, Connecticut 06904



ATT: HTH ADVERTISING DEPT.



Olin CHEMICALS

Consumer Products, Olin Corporation, 120 Long Ridge Rd., Stamford, Conn. 06904

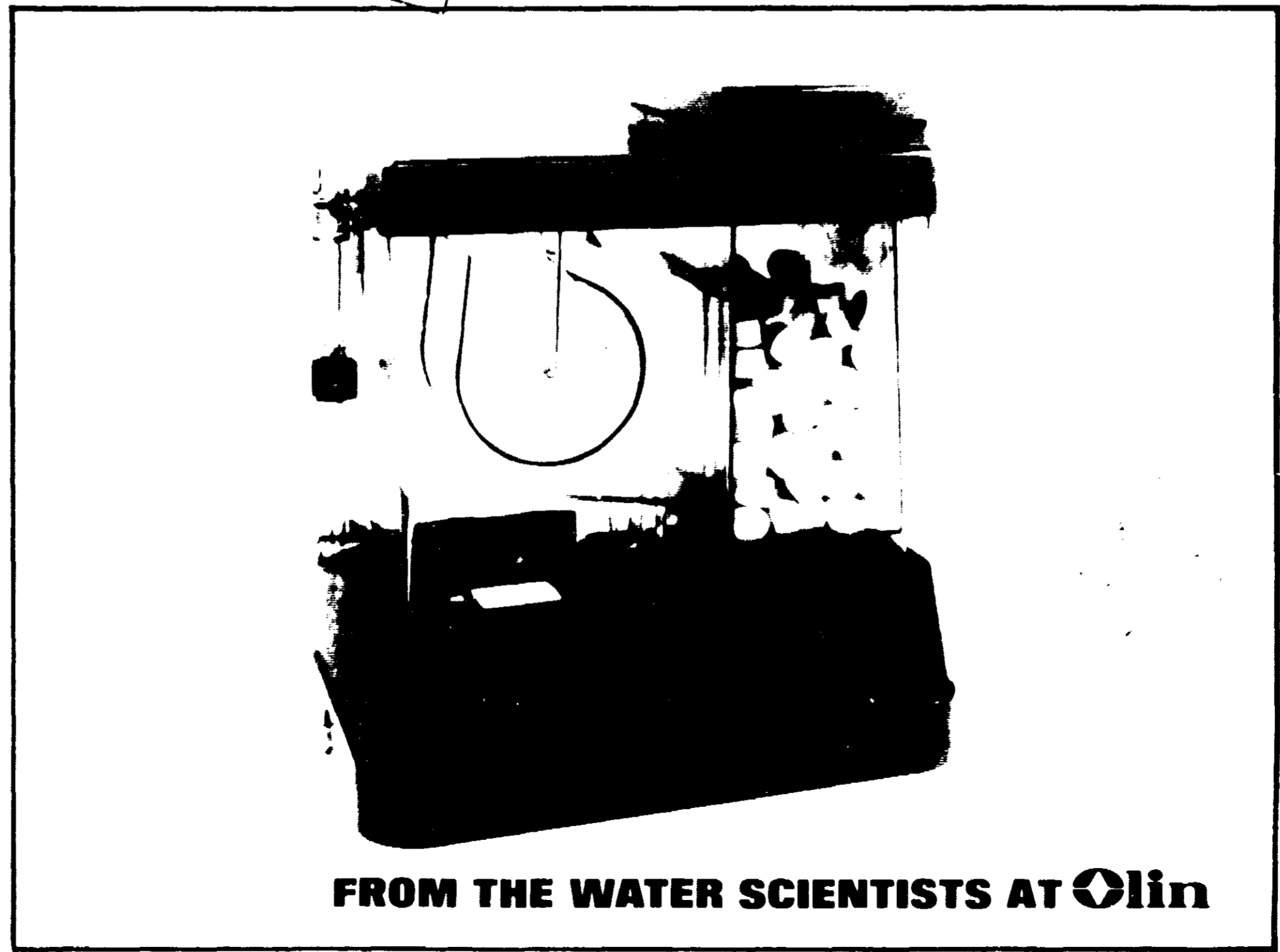
Pulsar™ is a trademark of Olin Corporation

**INSTALLATION
INSTRUCTIONS**

Olin
pulsar
**POOL FEEDER
SYSTEM**

ACCEPTED
UNIVERSITY MICROFILMS
SERIALS ACQUISITION
300 N. ZEEB RD.
ANN ARBOR MI 48106
FOR INFORMATION ONLY
DO NOT WRITE ON THIS LABEL
IT IS ATTACHED TO THE ORIGINAL SUBJECT

RECEIVED
12 FEB 1974
UNIVERSITY MICROFILMS
ANN ARBOR MI



FROM THE WATER SCIENTISTS AT Olin

1. PREPARATION

A. PACKING LIST

Pulsar Pool Feeder System
 2 Threaded Fittings
 2 Clamp and Saddle Fittings
 10 ft Plastic Tubing
 2 Foam Sealing Washers

B. TOOL REQUIRED

- Drill
- $\frac{3}{8}$ " Drill Bit
- Adjustable Wrench or Pliers
- Pocket Knife
- Screwdriver
- Extension Cord (Grounded)

C. UNPACKING

The Olin Pulsar Pool Feeder System is shipped completely assembled. Before installing, however, protective cushioning materials must be removed from the Float Valve Assembly, the Accumulator, and Tablet Container.

To remove cushioning from Float Valve Assembly:

1. Unscrew both Feeder Body Base Tank Set Screws two turns. A dime works fine (Figure 1.)

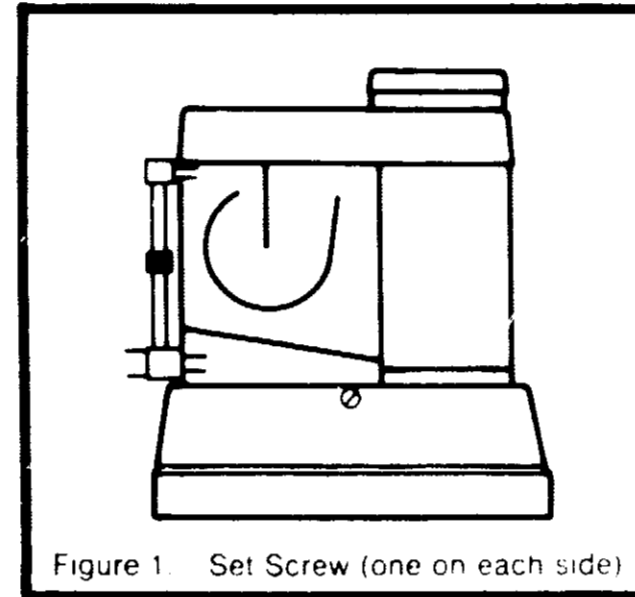
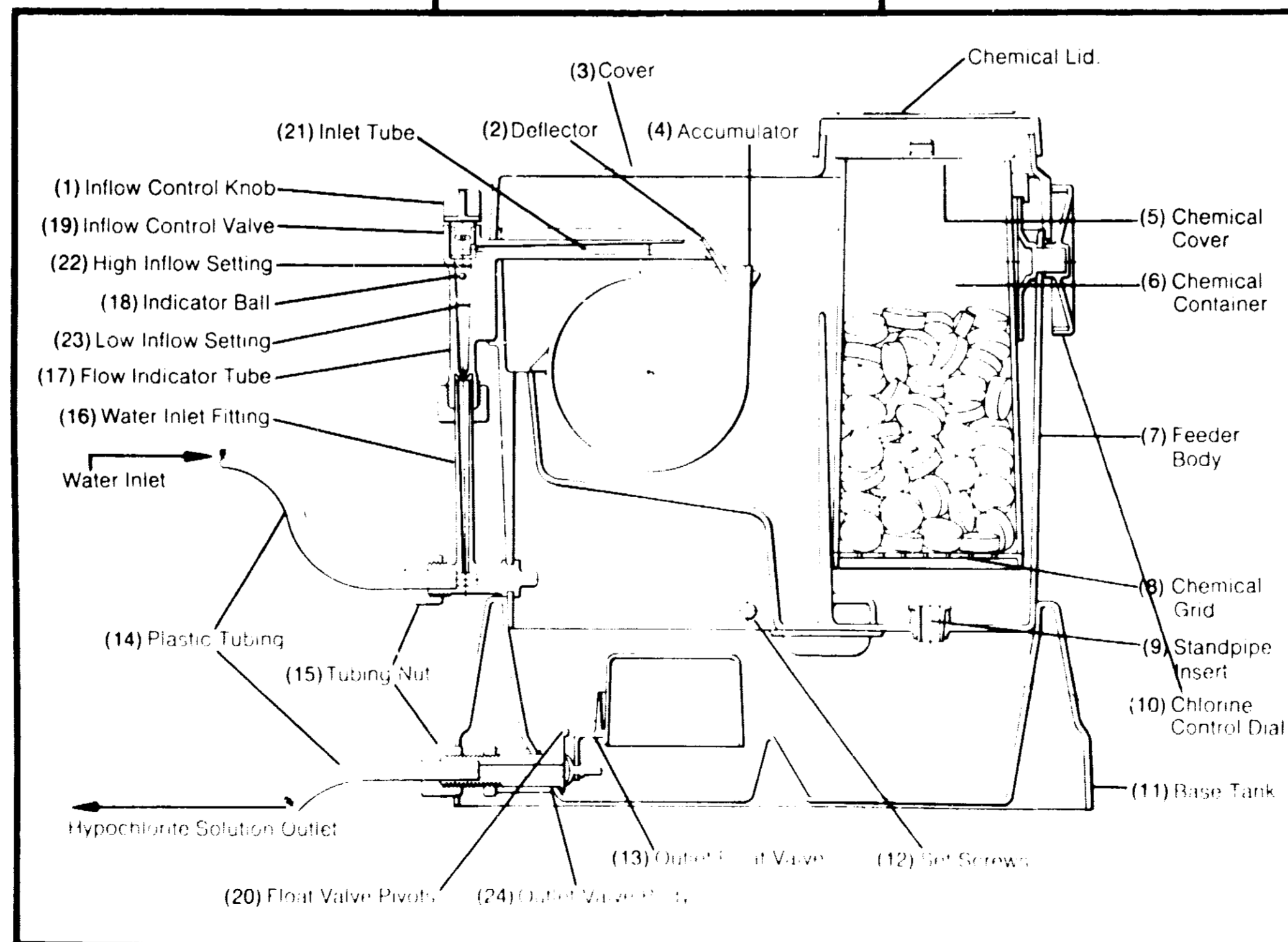


Figure 1. Set Screw (one on each side)

2. Lift Feeder Body off of Base Tank and remove cardboard cushioning from float valve. Make sure float moves freely on pivots.
3. Replace Feeder Body into Base Tank.
4. Tighten both Feeder Body Base Tank Set Screws. **Do Not Overtighten!**



To remove cushioning form Pellet Container:

1. Hold Base with one hand at Pellet Container end. Remove feeder body cover by applying sharp upward pressure at Pellet Container end with other hand. (Figure 2.)

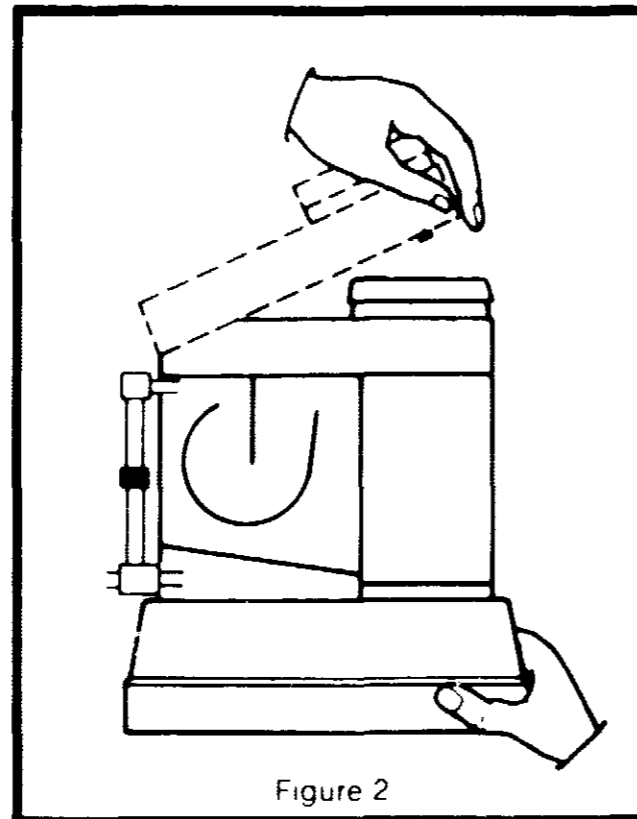


Figure 2

2. Remove Pellet Container from feeder and discard cardboard cushioning. Replace Pellet Container.

3. Rotate both Accumulator cardboard cushions toward Inflow Control Knob, then slide back toward Pellet Container as far as possible and remove upwards. (Figure 3, 4.)

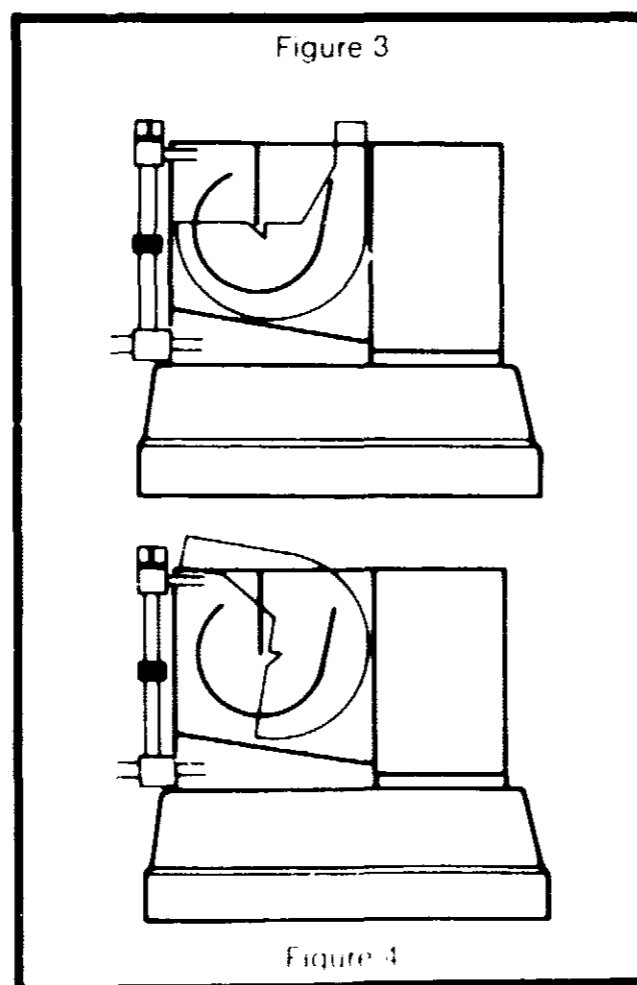


Figure 4

4. Replace feeder body cover by seating Pellet Container end first, then apply firm pressure or a sharp slap to both sides of Feeder Body Cover to "snap fit".

D. POSITIONING

IMPORTANT: The Pulsar Pool Feeder must be positioned at or above pool water level.

Select a position as close as possible to the filter pump in a location which is conveniently accessible but does not obstruct servicing the filter or pump. Placing the feeder on concrete blocks or other supports, to raise it a foot or more above ground level, adds to convenience when refilling with pellets or adjusting feed rate.

It is not essential that the feeder be perfectly level in order to operate satisfactorily, but the zero and lower chlorine feed rate settings are affected if the unit is much off-level.

E. DETERMINING TYPE OF FILTER SYSTEM

Before installing the Olin Pulsar Pool Feeder System it is necessary to determine the type of pool filter system on your pool.

In some filter systems, water drawn from the pool goes through the pump first, and is then forced through the pool's filter and then passes back into the pool. This is a *pressure* filter system. (Figure 5.)

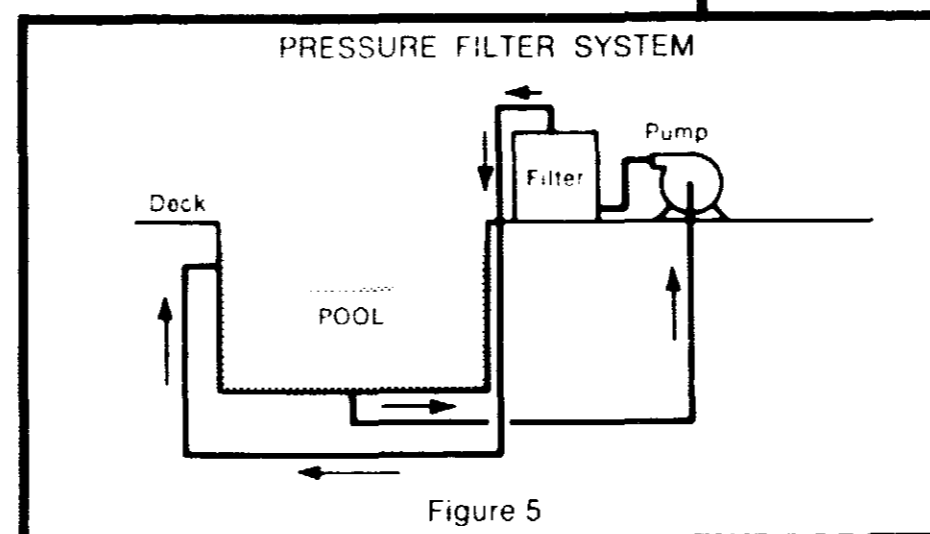


Figure 5

The other type filter system is called a *vacuum* filter system. Here pool water is drawn from the pool through the filter first and then the pump pushes it back into the pool (Figure 6.)

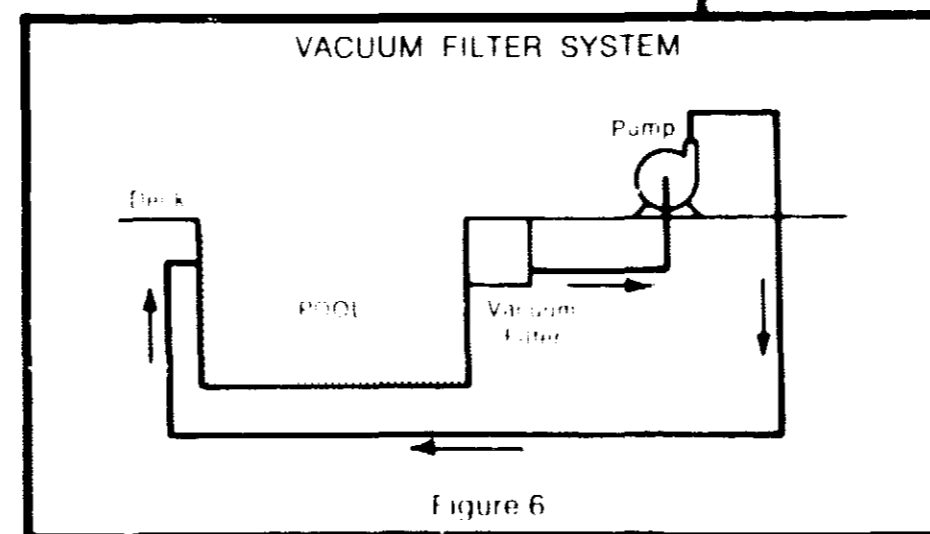


Figure 6

What System Do You Have?

- Pressure Filter System
- Vacuum Filter System

Use Appropriate Set Of Connection Instructions.

Page 4 Pressure Filter System
Page 6 Vacuum Filter System

F. TURN OFF FILTER PUMP

G. CLOSE VALVES BETWEEN FILTER SYSTEM AND POOL (IF ANY)

2. CONNECTION INSTRUCTIONS

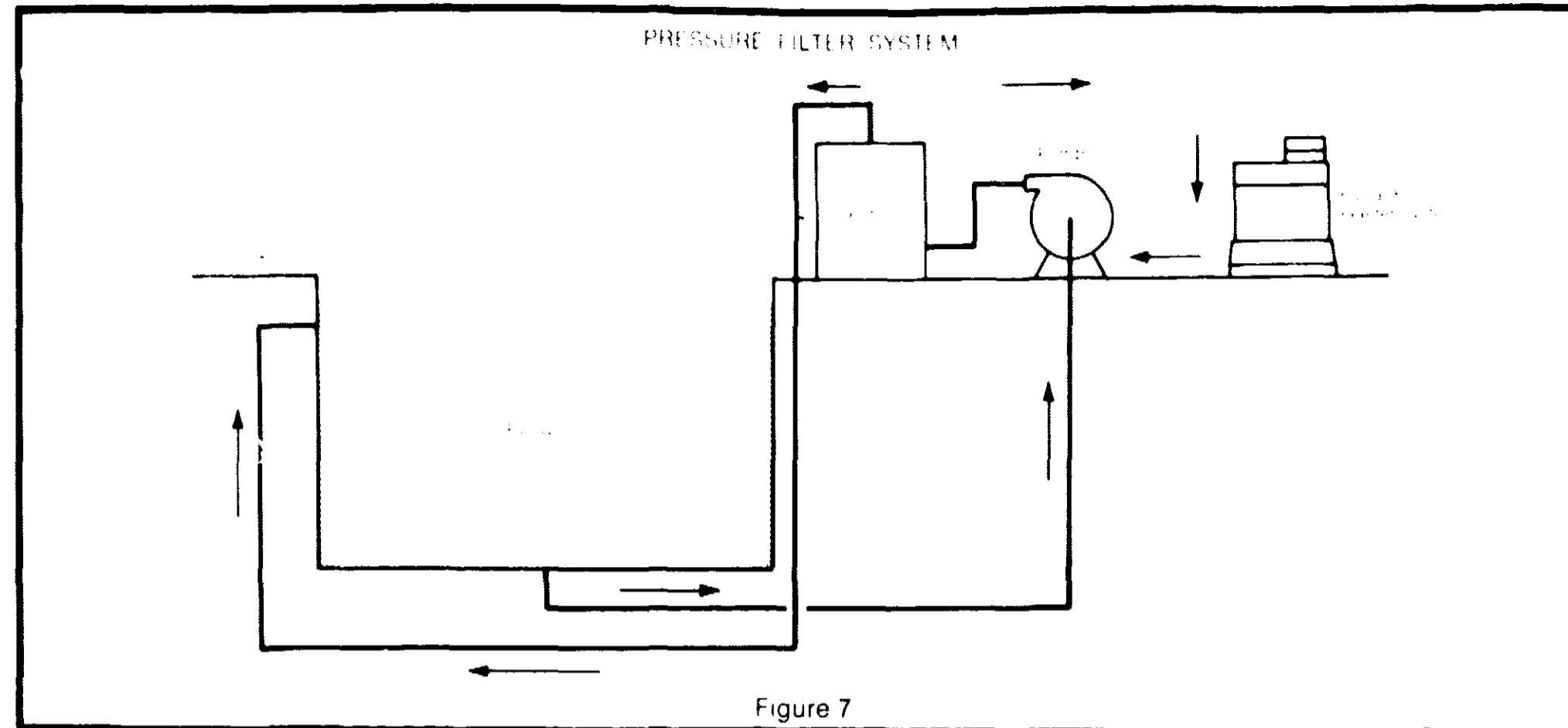
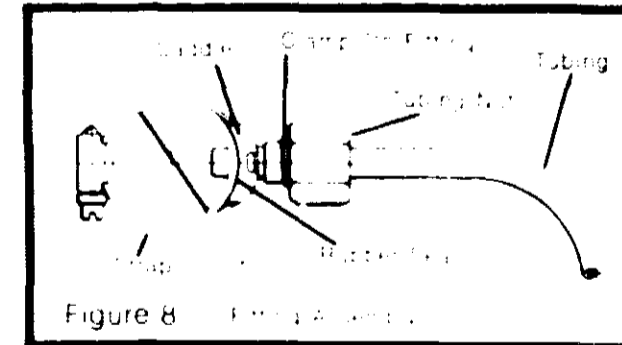
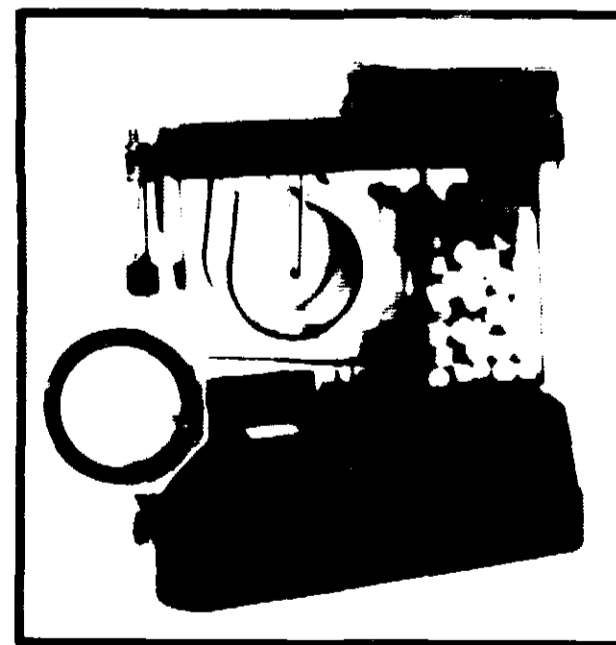


Figure 7

A. PRESSURE FILTER SYSTEM WATER INLET (POOL WATER) CONNECTION

The inlet water to the Olin Pulsar Pool Feeder System must be taken from a point in your pool's filter system *after* the water has gone through your pool's pump and filter, but before it returns to the pool or goes through a heater. In



6. Insert small end of fitting into hole, making sure rubber seal is in place around hole.
7. Close clamp and tighten fully with screwdriver.
8. Take plastic tubing supplied with feeder. Push one end of plastic tubing as deeply as possible into clamp-on fitting.
9. Push Tubing Nut (already on tubing) securely onto clamp-on fitting and then hand tighten as firmly as possible.

the pressure filter system, pool water is drawn from the pool by the pump and forced through the filter and returned to the pool (Figure 7).

1. Select site for a $\frac{3}{8}$ " hole on side (not top) of a straight run of pipe on the *outlet* side of filter (return to pool side of

filter). In selecting the site for the hole, consider direction tubing will point. It is best not to have clamp fitting (saddle) facing outward where it may project into the path of someone walking by.

2. Drill $\frac{3}{8}$ " hole parallel to ground through one side of pipe (not both sides).

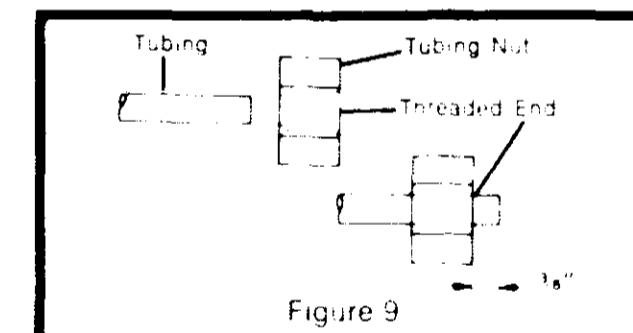
3. Clean hole. Remove shavings and burrs.

4. Select one of two clamp-on fitting assemblies supplied with feeder and open clamp by unscrewing all the way.

5. Position fitting directly over hole in pipe (Figure 8).

10. Run tubing to feeder and cut for connection to Inlet Fitting. (Don't Cut Too Short)

11. Push (with twisting motion) one of two loose Tubing Nuts supplied with feeder onto cut end of tubing so that the threaded end of nut faces the loose



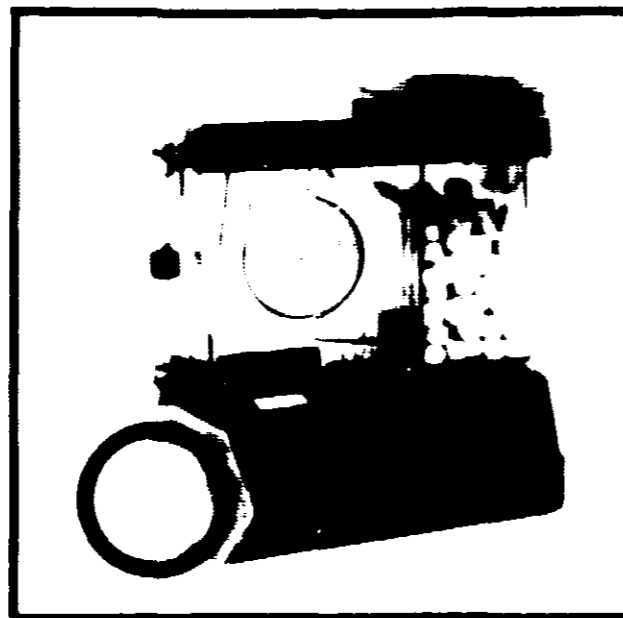
end of tubing. Push nut until at least $\frac{3}{8}$ " or more of tubing extends beyond threaded end of Tubing Nut. (Figure 9)

12. Insert loose end of tubing as deeply as possible into Water Inlet Fitting on pool feeder.

13. Push Tubing Nut securely onto Inlet Fitting. Hand tighten as firmly as possible.

SOLUTION OUTLET CONNECTION

The hypochlorite solution from the Olin Pulsar Pool Feeder System must be returned to the Pool Filter System at a point before the water has passed through the pump and filter, that is into the pump inlet line (see Figure 7.)



1. Check lower side of hair and lint trap before pump. Many hair and lint traps have a 1/4" NPT plug in the lower side. There may also be a 1/4" NPT plug in the bottom of the pump. Do Not use the plug in the bottom of the pump.
2. If there is a plug in the hair and lint trap, go to inst. 3; if not, skip to inst. 5.
3. Remove plug with wrench or pliers.
4. Take one of two threaded fittings supplied with feeder. (Figure 10) Teflon thread sealing tape applied to thread may improve the seal. Screw smaller, tapered end of this fitting carefully into

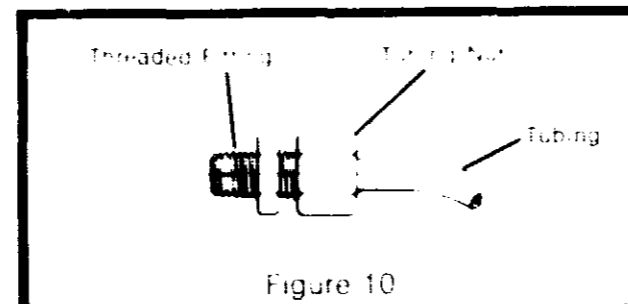


Figure 10

hole in bottom of lint trap tightly enough to prevent air from leaking into filter system. Go to inst. 12. (Skip inst. 5 through 11)

5. Select a site for a 1/2" hole in the side (not top) of a straight run of pipe on the inlet side of the pump (line from pool to pump). In selecting site for hole consider direction tubing will point. It is best not to have huddle of huddle clamp fitting facing outward where it might project into the path of someone walking by

6. Drill 1/2" hole parallel to ground through one side of pipe (not both sides)
7. Clean hole. Remove shavings and burrs.
8. Take second clamp on fitting assembly supplied with feeder. Open clamp by unscrewing all the way.
9. Position fitting directly over hole in pipe.
10. Insert small end of fitting into hole, making sure rubber seal is in place around hole.
11. Close clamp and tighten fully with screwdriver. Loose connection will allow air to enter filter system.
12. Take remainder of plastic tubing supplied with feeder. Push end of plastic tubing with tubing nut as deeply as possible into clamp on fitting or threaded fitting.
13. Push Tubing Nut (already on tubing) securely onto clamp-on threaded fitting. Hand tighten as firmly as possible. Loose fitting will allow air to enter filter system.
14. Run tubing to feeder and cut for connection to Solution Outlet Fitting in base of Feeder (DON'T CUT TOO SHORT)
15. Push (with twisting motion) one of two loose Tubing Nuts supplied with feeder onto cut end of tubing so that the threaded end of nut faces the loose end of tubing. Push nut until at least 3/8" or more of tubing extends beyond threaded end of Tubing Nut.
16. Insert loose end of tubing as deeply as possible into Solution Outlet Fitting on pool feeder.
17. Push Tubing Nut securely onto Solution Outlet Fitting. Hand tighten as firmly as possible. Loose fitting will allow air to enter filter system.

2. CONNECTION INSTRUCTIONS continued

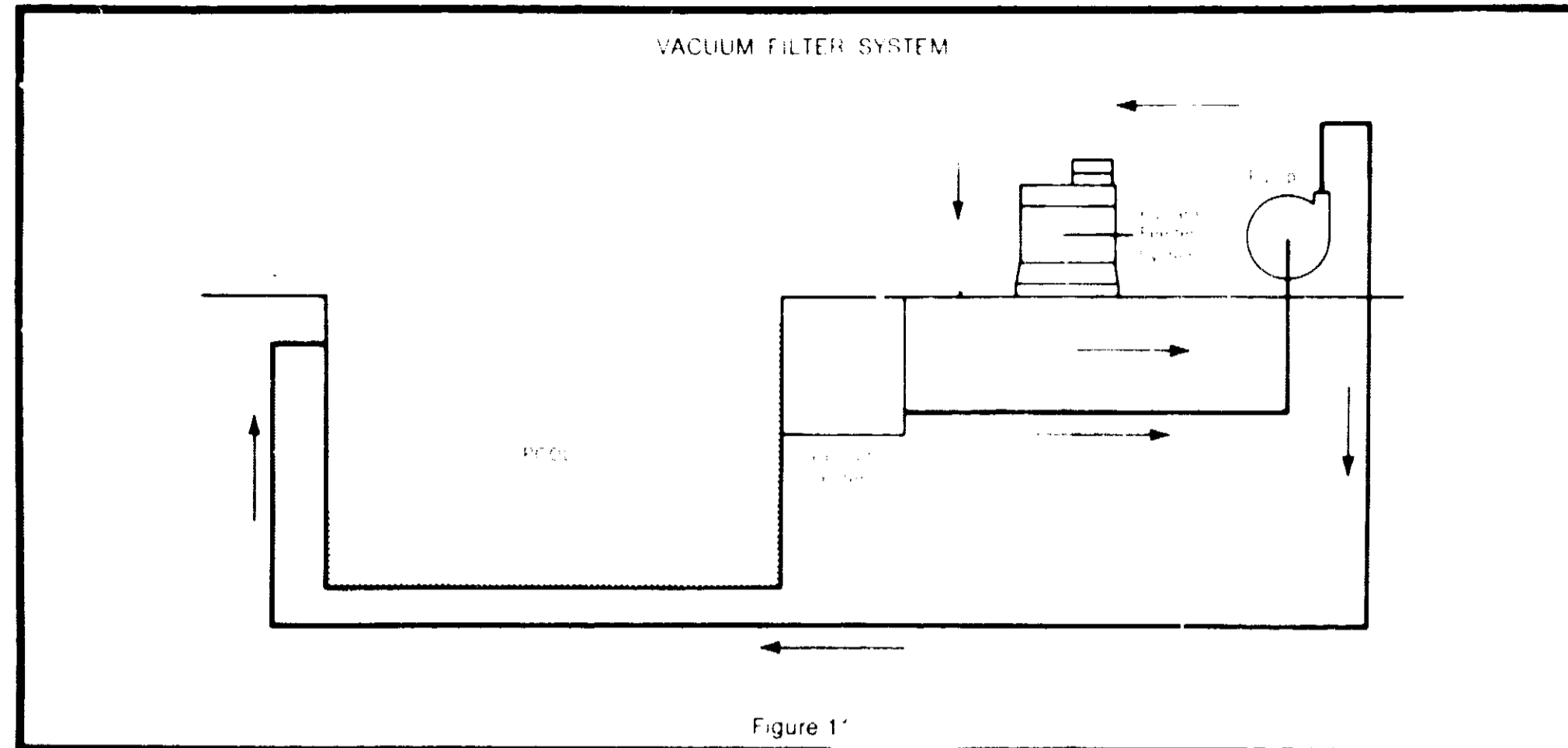
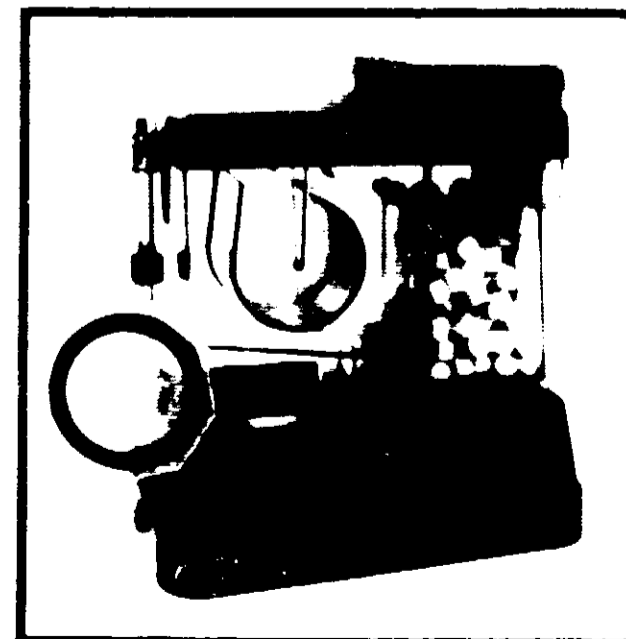


Figure 11

**A
FI
W
C**

B. VACUUM FILTER SYSTEM WATER INLET (POOL WATER) CONNECTION

The Feeder pipe for the pool filter system must be taken from a point in your pool's filter system *after* the water has gone through your pool's filter and pump, but before it returns to the pool or goes through a heater. In the vacuum filter system, pool water is taken from the pool and drawn through the filter by the pump and returned to the pool (Figure 11.)



1. Select site for a 3/8" hole on side (not top) of a straight run of pipe on the *outlet side of pump* (return to pool side

of pump). In selecting this site, consider direction tubing will run. It is best not to have clamp-on fitting (saddle) facing outward where it may project into the path of someone walking by.

2. Drill 3/8" hole parallel to ground through one side of pipe (not both sides).

3. Clean hole. Remove shavings and burrs.

4. Select one of two clamp-on fitting assemblies supplied with feeder and open clamp by unscrewing all the way.

5. Position fitting directly over hole in pipe (Figure 12)

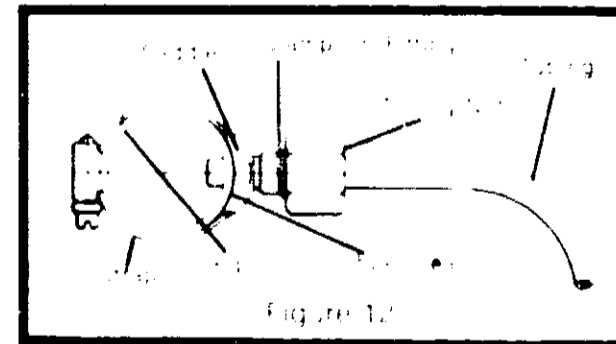


Figure 12

6. Insert small end of fitting into hole, making sure rubber gasket is in place around hole.

7. Close clamp and tighten fully with screwdriver.

8. Take plastic tubing supplied with feeder. Push one end of plastic tubing as deeply as possible into clamp-on fitting.

9. Push Tubing Nut (already on tubing) securely onto clamp-on fitting and then hand tighten as firmly as possible.

10. Run tubing to feeder and cut for connection to Inlet Fitting. (Don't Cut Too Short)

11. Push (with twisting motion) one of two loose Tubing Nuts supplied with feeder onto cut end of tubing so that the threaded end of nut faces the loose end of tubing.

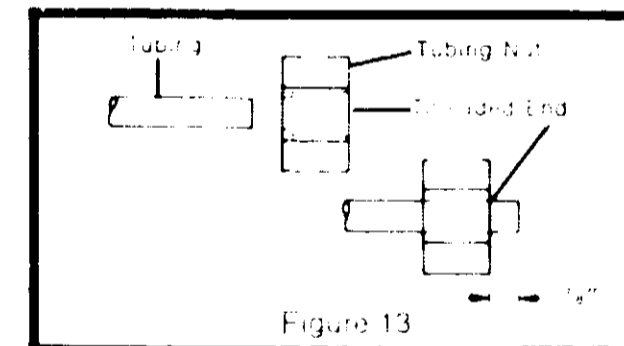


Figure 13

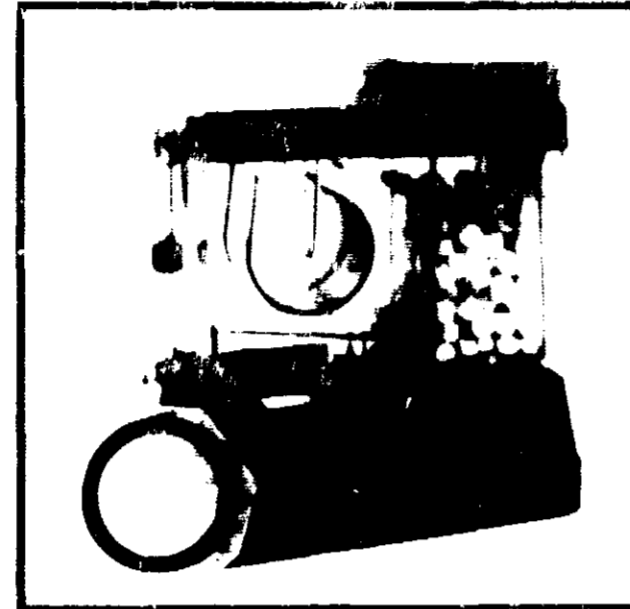
of tubing. Push nut until at least 3/8" or more of tubing extends beyond threaded end of Tubing Nut.

12. Insert loose end of tubing as deeply as possible into Water Inlet Fitting or pool feeder.

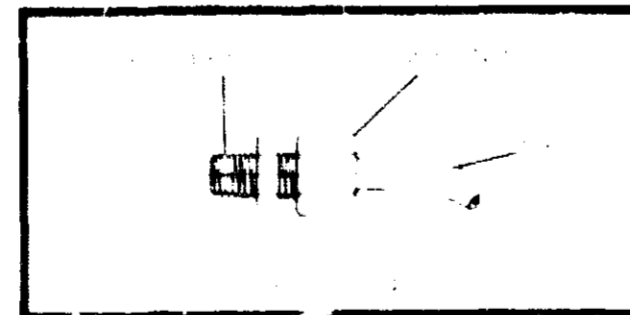
13. Push Tubing Nut securely onto Inlet Fitting. Hand tighten as firmly as possible.

SOLUTION OUTLET CONNECTION

The top side of the filter has a 1/2" NPT plug in the lower side. There may also be a 1/2" NPT plug in the bottom of the pump tank. Not use the plug in the bottom of the pump.



1. Check lower side of hair and lint trap before pump. Many hair and lint traps have a 1/2" NPT plug in the lower side. There may also be a 1/2" NPT plug in the bottom of the pump tank. Not use the plug in the bottom of the pump.
2. If there is a plug in the hair and lint trap, get a 1/2" Tubing Nut to insert.
3. Remove plug with wrench or pliers.
4. Take out a 1/2" threaded fitting supplied with feeder (Figure 14) (Feltion thread) and a Tubing Nut. If it read that it will have the seal. Show smaller tubing nut. After fitting into pipe in bottom of filter tank, be enough to prevent air from entering the filter system. (Don't use 1/2" instructions 5 to 11)



5. Take out a 1/2" threaded fitting supplied with feeder (Figure 14) (Feltion thread) and a Tubing Nut. If it read that it will have the seal. Show smaller tubing nut. After fitting into pipe in bottom of filter tank, be enough to prevent air from entering the filter system. (Don't use 1/2" instructions 5 to 11)

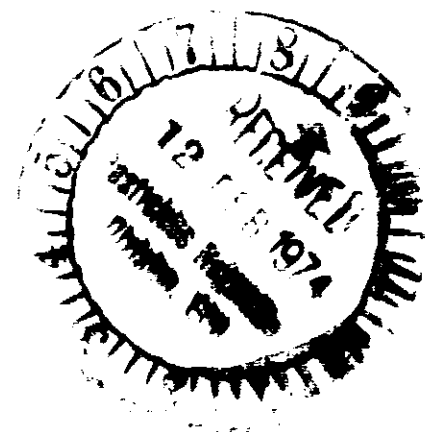
to not to have saddle of saddle clamp fitting facing outward where it might project into the path of someone walking by.

6. Drill 1/2" hole in plastic pipe and thread side of 1/2" plug into it with nut.
7. Take out a 1/2" Tubing Nut and plug.
8. Take out a clamp on fitting assembly supplied with feeder. Open clamp by unscrewing all the way.
9. Fit into fitting clamp side by cover hole in pipe.
10. Insert small end of fitting into hole, making sure rubber seal is in place around hole.
11. Close clamp and tighten fully with screwdriver. Loose connection will allow air to enter filter system.
12. Take remainder of plastic tubing supplied with feeder. Push end of plastic tubing with tubing nut as deeply as possible into clamp-on fitting or threaded fitting.
13. Push Tubing Nut (already on tubing) securely onto clamp on or thread fitting. Hand tighten as firmly as possible. Loose connection will allow air to enter filter system.
14. Run tubing to feeder and cut for connection to Solution Outlet Fitting in case of feeder. (Don't Cut Too Short)
15. Push with twisting motion one of two loose Tubing Nuts supplied with feeder into cut end of tubing so that the threaded end of nut faces the loose end of tubing. Push nut until at least 3/8" or more of tubing extends beyond threaded end of Tubing Nut.
16. Insert loose end of tubing as deeply as possible into Solution Outlet Fitting on pump feeder.
17. Push Tubing Nut securely onto Solution Outlet Fitting. Hand tighten as firmly as possible. Loose connection will allow air enter filter system.

3. PRE-START-UP CHECKLIST

- 1. Is unit positioned above pool (water level)?
- 2. Is unit reasonably level?
- 3. Is accumulator(4) properly set in body? Does it rotate freely?
- 4. Are all four cardboard cushioning pieces removed from feeder?
- 5. Is float valve(13) in base tank(11) on pivot(20) and free to move up and down?
- 6. Is deflector(2) in place at end of inlet tube(21)?
- 7. Are filter and hair and lint trap clean?
- 8. Is pool water balanced? If not, water should be balanced before unit is operated.

Note: Unbalanced pool water is either corrosive or scale forming. It shortens the life and reduces the efficiency of heaters, filters, and pumps. Keeping pH between 7.2 and 7.4 for a few days usually restores water to a balanced condition. If you are in doubt about the condition of your pool water, take a water sample to a pool dealer for analysis.



Olin CHEMICALS

4. START-UP

A. General (Refer to Diagram of Pool Feeder.)

1. Remove lid and cover(5), and chemical container(6) from feeder.
2. Open valves between filter system and pool.
3. Turn on pump (or use flow relay). Check chlorine residual in pool with a reliable test kit.
4. Fill chemical container with Olin Pulsar Pellets. Use only Pulsar Pellets in the Olin Pulsar Pool feeder. Open inflow control valve(19) by turning inflow control knob(1) counter clockwise. Water should begin to flow from inlet tube(21) into accumulator.
5. The chlorine feed rate is controlled by a combination of two feeder settings.
 - a. Chlorine Control Dial(10) determines the amount of water per cycle that contacts the feeder chemical.
 - b. Indicator Ball Setting: the indicator ball(18) shows the rate of water inflow into the feeder and therefore, the number of times (cycles) per hour the accumulator will fill and empty. The correct setting of these two controllers for your pool is the combination that maintains a chlorine residual in your pool of between 0.6 and 1.0 parts per million. For pools conditioned with cyanuric acid at concentrations up to 50 ppm, always maintain the chlorine residual at 1.0 to 1.5 ppm as determined by a test kit. The chlorine requirement and, thus, the setting necessary to maintain that residual, are based on your pool conditions (e.g. size, bathing load, temperature, amount of sunlight, etc.).
6. Adjust the inflow control knob so that the indicator ball is at the top mark on the indicator tube. Initially set the chlorine control dial to five(5).
7. After 24 hours, check the chlorine residual. If between 0.6 and 1.0 ppm, leave the chlorine control dial setting as is; if above 1.0 ppm, decrease the feed rate by setting the chlorine control dial to a lower number; if below 0.6 ppm, increase the feed rate by setting the control dial to a higher number. The procedure should be repeated until the 0.6 to 1.0 ppm chlorine residual is established.

8. Continue to monitor chlorine residual and to adjust the chlorine control dial setting until the residual remains between 0.6 and 1.0 ppm. Allow sufficient time (e.g. one day) after changing the chlorine control dial setting for the chlorine residual reading to readjust. In general, it is best to check the chlorine residual at the same time each day (e.g. early morning).

9. Always maintain pH between 7.2 and 7.6.

10. Remember, for pools conditioned with cyanuric acid at concentrations up to 50 ppm, always maintain the chlorine residual at 1.0 to 1.5 ppm as determined by a test kit.

11. Check all fittings for leaks. Tighten where necessary.

12. If your pool's daily chlorine requirements is very low, it may be desirable to re-adjust the indicator ball so that it is at the hash mark near the middle of the indicator tube. This adjustment should be made with the hair and lint trap clean. It will effectively reduce the water inflow, and therefore, the number of cycles per hour and thus the amount of chlorine feed at each control dial setting.

13. If algae develops, fill container with pellets, set indicator ball to top mark and chlorine control dial to ten(10). Continue to run filter until algae condition is controlled or until the chlorine residual is 5.0 ppm. Before entering pool, check chlorine residual, and if above 2.0 ppm, allow pool to stand (set chlorine control dial to zero) until residual drops to 2.0 ppm. Then monitor chlorine residual until chlorine levels are as indicated in instructions 7 through 10.

Note: Use only Olin Pulsar Pellets. Fire, explosion, or generation of toxic gases could result from contamination with other pool products or other foreign materials.

