

New Water®

Chlorine Pool Care System

Models 400/430 for pools up to 40,000 gallons
Model 120 for pools up to 25,000 gallons



The New Water® Cyclers and Replacement Cyclers Pacs

Customer Service 800-222-0169
www.kingtechnology.com

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For information on King Technology's entire product line, visit our website at www.kingtechnology.com

New Water®

Thank you for choosing New Water®. This system will maintain a clean, clear swimming pool while you spend less time on maintenance and more time having fun!



For In Ground Pools



For Above Ground Pools



New Water® Cycler

The New Water® Cycler is on constant watch dispensing chlorine to control bacteria and provide a protective bank of sanitizer for your pool.

Swimming Pool Tips

Water Balance Guidelines

Free Chlorine:	1.0 - 3.0 ppm
pH:	7.2 - 7.8
Total Alkalinity:	60 - 120 ppm
Calcium Hardness:	150 - 400
Total Dissolved Solids:	<1500
Stabilizer:	20 - 80 ppm

1. Before beginning with any pool care program, you must first balance your pool water. Take a water sample to your local pool professional or use a complete test kit that will test for the following important elements.



4. Add a stabilizer or conditioner to the pool at the beginning of the season if the stabilizer level is below 20 ppm. This will prevent chlorine burn off. Follow manufacturer's directions carefully.

2. If your fill water is high in metals, use a sequestering agent or metal-out product at start-up only before inserting a Pac. See your local dealer for details on using these products and always follow manufacturer's directions carefully.

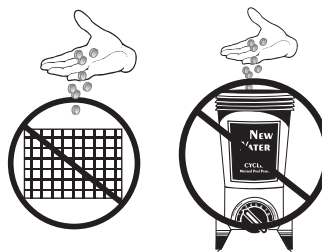
Cu
Mg Fe



3. After your pool is up and running smoothly, continue to test your water for pH, total alkalinity and chlorine and maintain its balance by adding any necessary adjustment products (see your dealer for details).



5. Shock the pool with chlorine to rid water of all contaminants before beginning. Follow manufacturer's directions carefully. This step is very important to start-up. Use chlorine shock only.



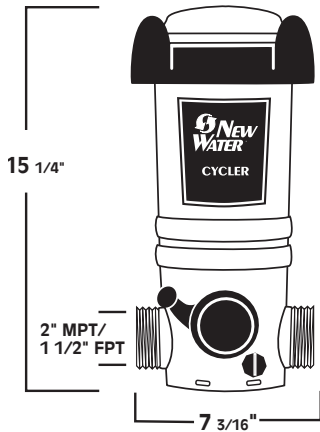
Do not add shock in or near the skimmer or into the New Water® Cycler as it could damage equipment, risk potential explosion or discolor your pool surface.

New Water® Cyclor

Installation

The New Water® Cyclor comes in several different models. Please review this list, determine which model you have and follow the appropriate installation instructions for that model only.

ABOVE GROUND POOLS



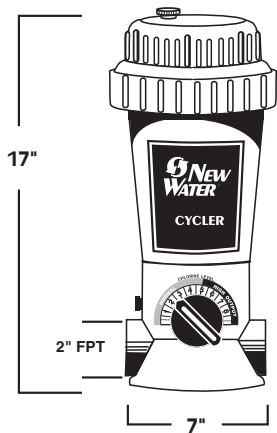
Cyclor Model #120

In-line for above ground pools ranging from 5,000 to 25,000 gallons. Uses a pre-filled chlorine pac, model 105C. Installation instructions are on pages 7 and 8.

Replacement Cyclor Pac
Model 105C for use in the New Water® Cyclor Model 120.



IN GROUND POOLS



Cyclor Model #400

In-line for in ground pools ranging from 5,000 to 40,000 gallons. Uses a pre-filled chlorine pac, model 407C. Installation instructions are on page 9.

Replacement Cyclor Pac
Model 407C for use in the New Water® Cyclor Models 400 and 430.



IN GROUND - Off-line



Cyclor Model #430

Off-line for in ground pools ranging from 5,000 to 25,000 gallons. Uses a pre-filled chlorine pac, model 407C. Installation instructions are on pages 10 and 11.

Installation Tips

- Do not plumb into copper pipe as corrosion will occur.
- By installing a flow indicating device on the inlet line you can monitor the gallons per minute. See manufacturer's directions for the installation of the flow indicating device.

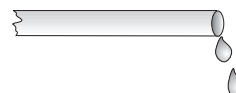
Before installing any of these Cyclors, make sure that:



- You have all the supplies.

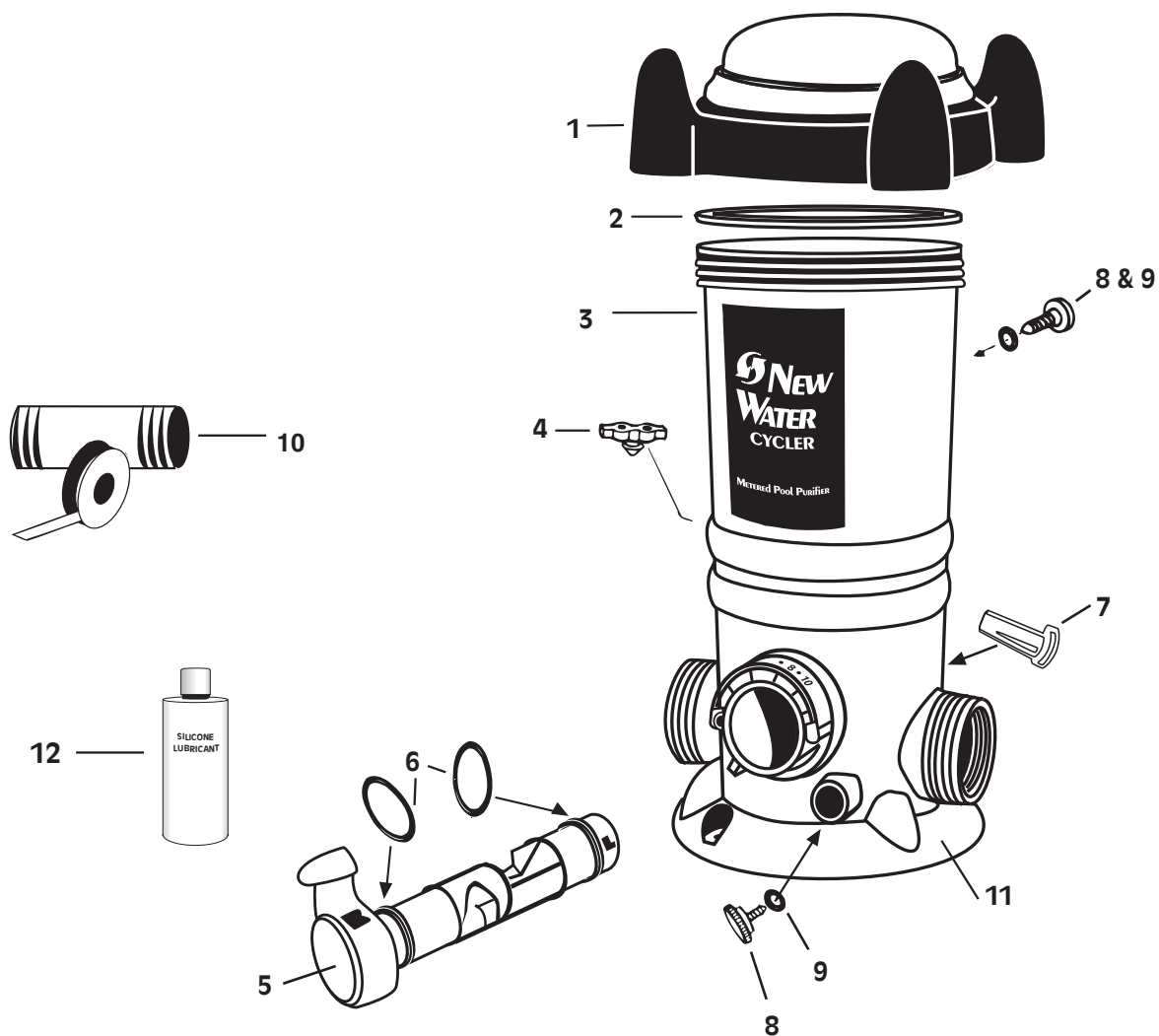


- The pump is turned off.



- The plumbing lines are dry.

Parts List • Model 120



Included with New Water® 120

REF. #	DESCRIPTION	QTY. INCLUDED
1 & 2	Cap w/O-Ring	1
3	Body	1
4	Pressure Relief Valve	1
5, 6, 7	Control Dial with O-Rings & Locking Pin	1
8 & 9	Knob with O-Ring	2
11	Mounting Base	1
12	Silicone Lubricant	1

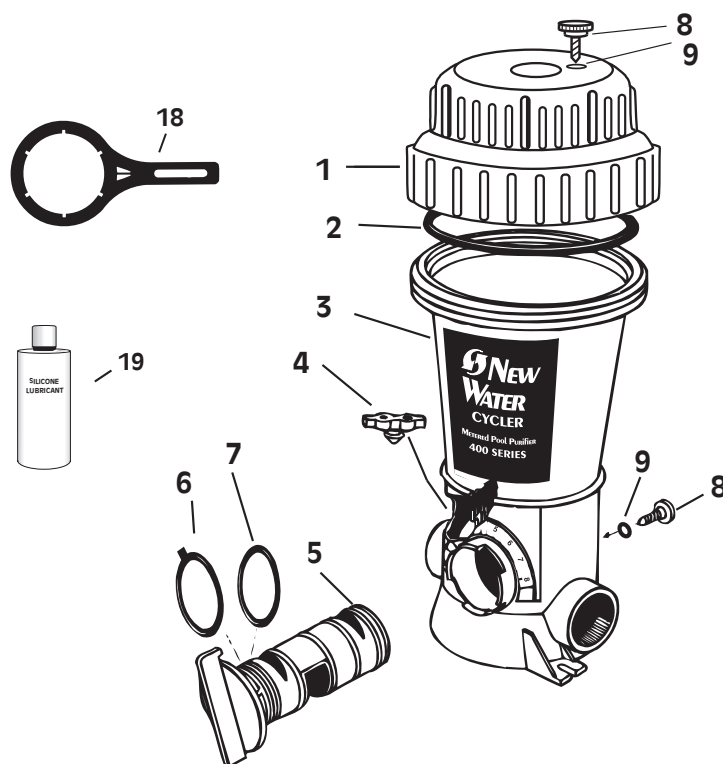
Replacement Parts for New Water® 120

REF. #	PART NO.	DESCRIPTION
1 & 2	01-22-1418	Cap w/O-Ring
2	01-22-1920	Cap O-Ring
4	01-22-9480	Pressure Relief Valve
5, 6, 7	01-22-1443	Control Dial with O-Rings & Locking Pin
6	01-22-1450	Control Dial O-Ring Set
8 & 9	01-22-9940	Knob with O-Ring
10	01-22-1710	Nipple Kit
11	01-22-1485	Mounting Base
12	01-22-9971	Silicone Lubricant

Parts List • Models 400 and 430

INCLUDED WITH • Model 400 and 430

REF. #	DESCRIPTION	QTY. INCLUDED
1 & 2	Cap w/O-Ring	1
3	Body	1
4	Pressure Relief Valve	1
5, 6, 7	Control Dial with O-Rings	1
8 & 9	Knob with O-Ring	2
18	Cap/Control Dial Tool	1
19	Silicone Lubricant	1



REPLACEMENT PARTS • Model 400 and 430

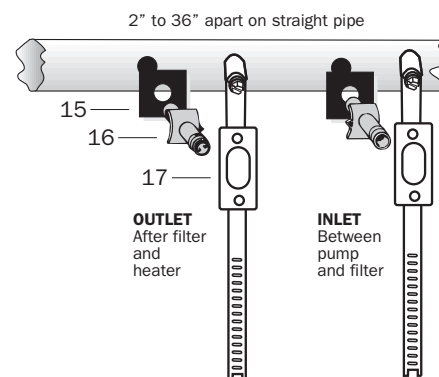
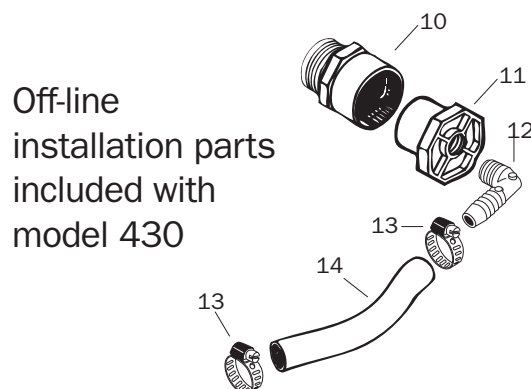
REF. #	PART NUMBER	DESCRIPTION
1 & 2	01-22-9417	Cap w/O-Ring
2	01-22-9920	Cap O-Ring
4	01-22-9480	Pressure Relief Valve
5, 6, 7	01-22-9440	Control Dial with O-Rings
6 & 7	01-22-9450	Control Dial O-Ring Kit
8 & 9	01-22-9940	Knob with O-Ring
10	01-22-9490	2" Male Adapter
18	01-22-8870	Cap/Control Dial Tool
19	01-22-9971	Silicone Lubricant

INCLUDED WITH OFF-LINE Model 430

REF. #	DESCRIPTION	QTY. INCLUDED
10	2" Male Adapter	2
11	2" X 1/2" Bushing	2
12	90 Degree Elbow	2
13	Small Clamp	4
14	6' PVC Tubing	1
15	Scoop Gasket	2
16	Venturi Scoop	2
17	Scoop Clamp	2

REPLACEMENT PARTS • Model 430

REF. #	PART NUMBER	DESCRIPTION
10	01-22-9490	2" Male Adapter
11	01-22-8620	2" X 1/2" Bushing
12	01-22-7800	90 Degree Elbow
13	01-22-7690	Small Clamp
14	01-22-7700	6' PVC Tubing
15	01-22-7850	Scoop Gasket
16	01-22-7790	Venturi Scoop
17	01-22-7910	Scoop Clamp

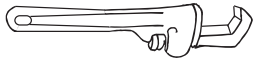


TOOLS NEEDED

Screwdriver



Pipe Wrench



MATERIALS NEEDED

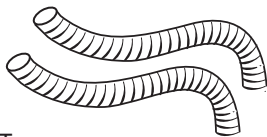
Pipe Thread Tape
or Sealant



Two hose adapters
1 1/2" x 1 1/2" x 1 1/4"



Two Sections of 1 1/2"
Flex Hose (one provided
with filter)



Two
Hose
Clamps

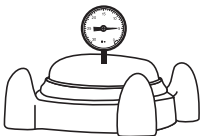


RECOMMENDED

Corrosion Resistant
Check Valve

4-8 psi Back Pressure

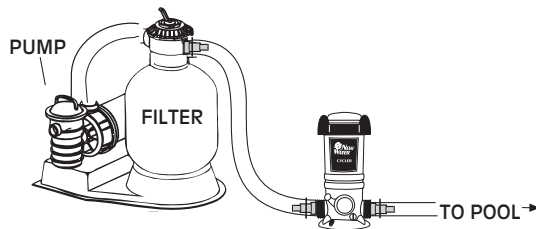
To avoid over or under chlorination,
replace eye ball fittings in the return
jets to a smaller or larger size to
adjust back pressure.



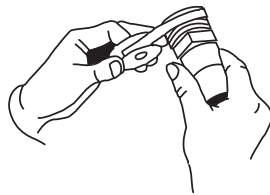
10 x 1 1/4" Phillips
Pan Head Screws with
Washers



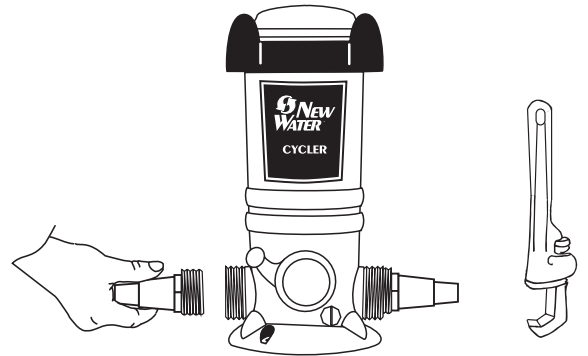
Above Ground, Base Installation - Model 120



The New Water® Cycler should always be
installed between the filter and pool (or
between heater and pool if applicable).

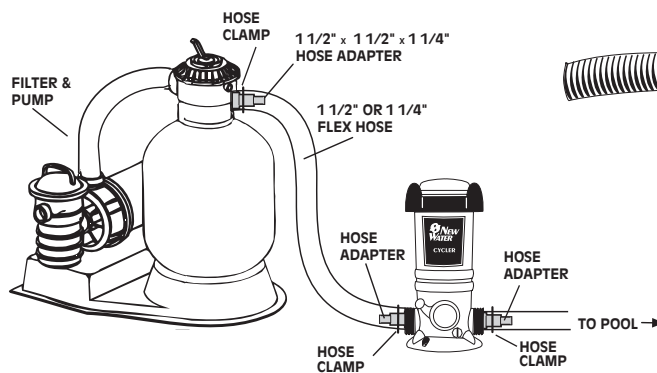


1. Apply pipe thread tape or
sealant to the threaded end of
both hose adapters.



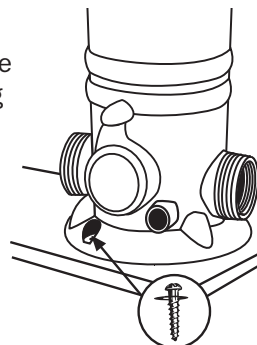
2. Screw adapters into each end of New
Water® Cycler. Hand tighten. Finish
tightening by turning 1 to 2 revolutions
with wrench. **DO NOT OVER TIGHTEN.**

3. Attach the filter section of flex hose to one hose
adapter and the return section of flex hose to the other
hose adapter with clamps and tighten with screwdriver.
Bi-flow valve design allows water flow in either direction.

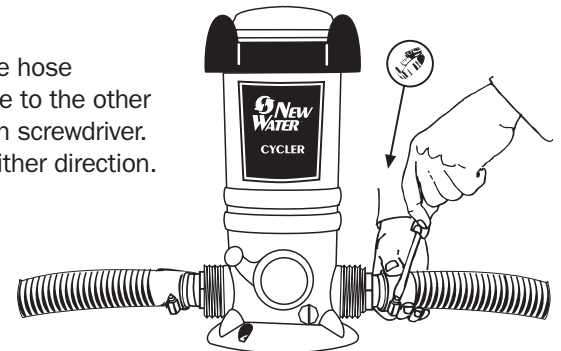


4. Isolating the New Water® Cycler by installing a
corrosion resistant check valve is recommended.

5. For better stability, the
New Water® Cycler may be
mounted on a base using
Phillips pan head screws.
One in front and two in
back.



- Install after all equipment and
as far as possible from heater.
- Any additional sanitizing
equipment that is installed with New
Water® Cycler must be installed after
New Water® Cycler (never before) on
the return line to the pool.



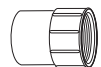
Option

1 1/2" Male Adapter
(slip x MPT)



or

2" Female Adapter
(slip x FPT)



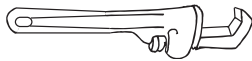
When installing with hard
PVC pipe, use either a female
adapter on the outside port
threads or a male adapter on
the inside port threads.

TOOLS NEEDED

Screwdriver

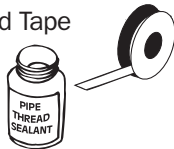


Pipe Wrench



MATERIALS NEEDED

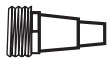
Pipe Thread Tape
or Sealant



One 6" x 1 1/2" TBE PVC
Nipple



One Hose Adapter
1 1/2" x 1 1/2" x 1 1/4"



One Section of
1 1/2" Flex Hose
(provided with filter)



One
Hose Clamp

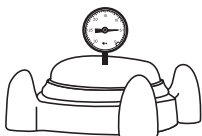


RECOMMENDED

Corrosion Resistant
Check Valve

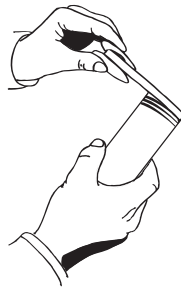
4-8 psi Back Pressure

To avoid over or under chlorination,
replace eye ball fittings in the return
jets to a smaller or larger size to
adjust back pressure.



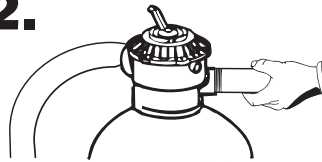
Above Ground, Filter Installation - Model 120

1.

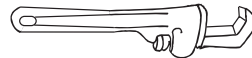


Apply pipe thread tape or
sealant to each threaded end
of nipple.

2.

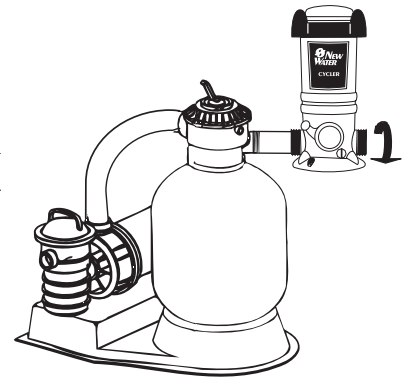


Screw one end of nipple
into the filter return.



Hand tighten. Finish tightening
by turning 1 to 2 revolutions
with wrench.

DO NOT OVER TIGHTEN.



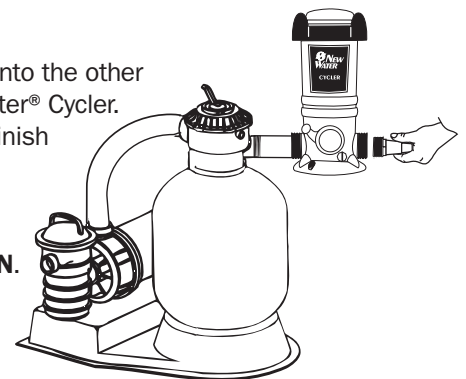
3.

Screw either side of
New Water® Cyclor on
to open nipple end until
upright and secure.

5.

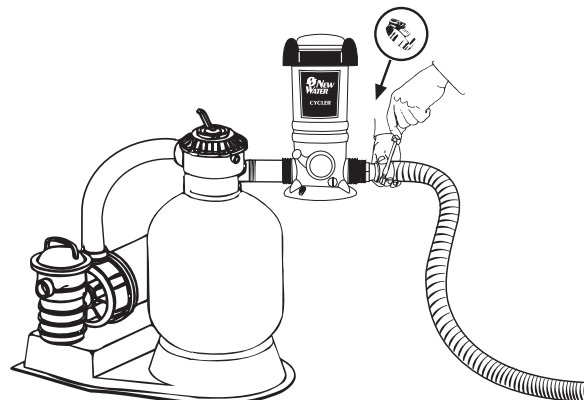
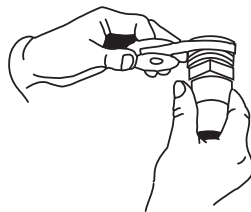
Screw adapter into the other
side of New Water® Cyclor.
Hand tighten. Finish
tightening by turning
1 to 2 revolutions
with wrench.

DO NOT OVER TIGHTEN.



4.

Apply pipe thread tape or
sealant to threaded end
of hose adapter.

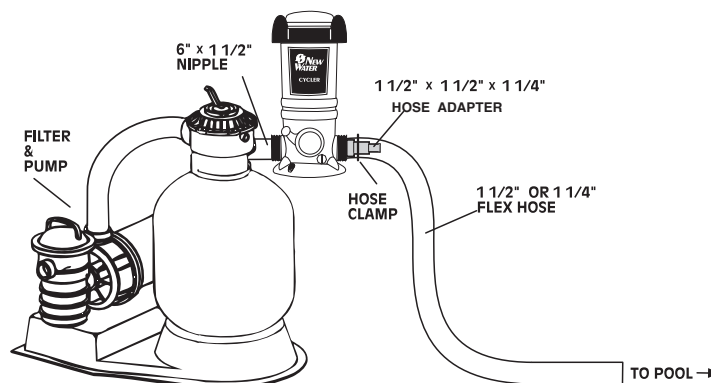


6.

Attach return section of hose
to the adapter with clamp.
Tighten clamp with screwdriver.

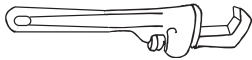
7.

Installing a corrosion resistant
check valve is recommended.

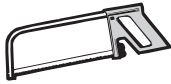


TOOLS NEEDED

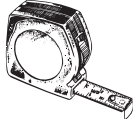
Pipe Wrench



Hacksaw



Tape Measure

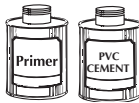


MATERIALS NEEDED

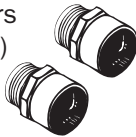
Pipe Thread Sealant



Primer and PVC Cement



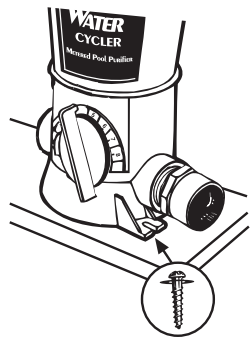
Two 2" Threaded x 2" or 1 1/2" Slip male adapters (not Included)



RECOMMENDED

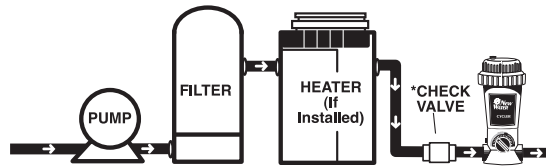
Corrosion Resistant Check Valve

#10 x 1 1/4" Phillips Pan Head Screws with Washers



Use Phillips pan head screws through the mounting holes at the New Water® Cycler base to secure the New Water® Cycler into a treated wood base.

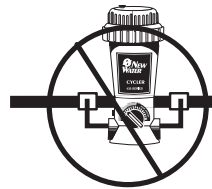
In Ground, In-line Installation - Model 400



Do NOT install in copper pipe as chemical corrosion occurs.



- Install after all equipment and as far as possible from heater.
- Any additional sanitizing equipment that is installed with New Water® Cycler must be installed after New Water® Cycler (never before) on the return line to the pool.



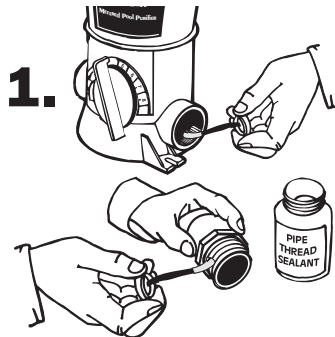
Do NOT install an in-line Cycler off-line.



Bi-flow valve design allows water flow in either direction.



12" to 15"
Leave 12" to 15" above and around New Water® Cycler to allow room for easy replacement of New Water® Cycler Pac.

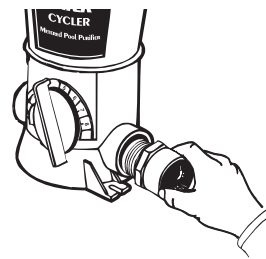


Following pipe thread sealant directions, brush sealant onto New Water® Cycler threads in both ports and both male adapters.

DO NOT USE PIPE THREAD TAPE



2.

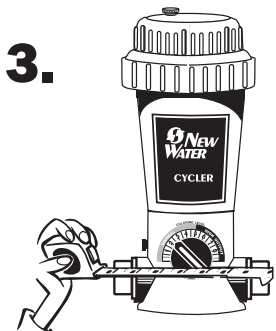


Screw a male adapter into each port of New Water® Cycler. Hand tighten. Finish tightening by turning 1 to 2 revolutions with wrench.

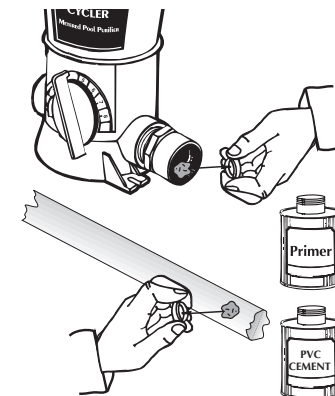
DO NOT OVER TIGHTEN.



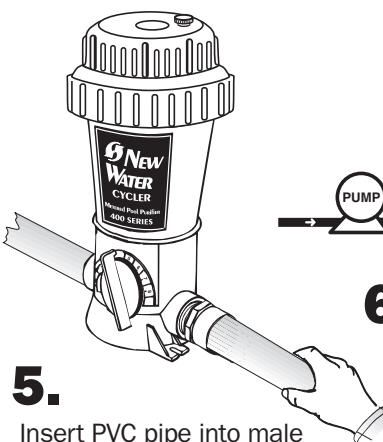
3.



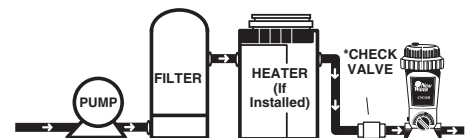
Measure the distance between New Water® Cycler male adapters and cut out a section of pipe 3" less than that dimension.



4. Following Primer directions, brush Primer on the inside of the male adapters and to ends of pipe. Repeat this process with PVC cement following directions on that product.



5. Insert PVC pipe into male adapters with a twisting action. Hold in place 5 to 10 seconds to bond.



6.

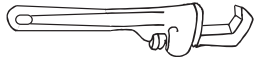
Isolating the New Water® Cycler by installing a corrosion resistant check valve is recommended.

TOOLS NEEDED

Screwdriver



Pipe Wrench



Battery

Operated Drill
with 5/8" or 19/32"
Bit



MATERIALS NEEDED

Pipe Thread
Sealant



Primer and
PVC Cement



OFF-LINE KIT

Included with the
New Water® Cyclo

Two Male
Adapters



Two Reducer
Bushings



Two 90
Degree Elbows



Four Hose
Clamps



6' of Tubing



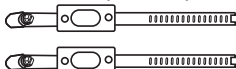
Two
Scoops



Two Scoop
Gaskets



Two Scoop Clamps



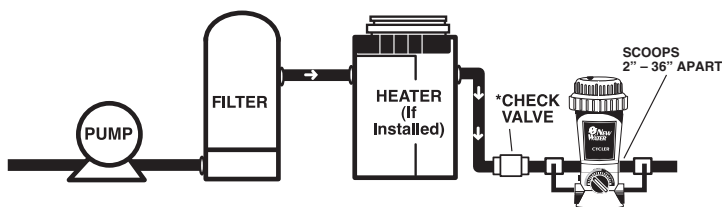
RECOMMENDED

Corrosion Resistant
Check Valve

#10 x 1 1/4" Phillips
Pan Head Screws with
Washers



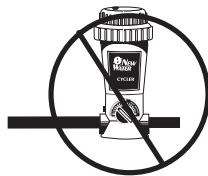
In Ground, Off-line Installation - Model 430



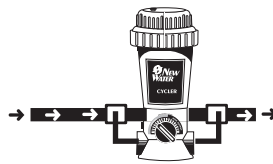
When insufficient room for an in-line application, install off-line in straight pipe with scoops between 2" - 36" apart. Install as far from the heater as possible.



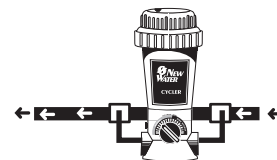
- Install after all equipment and as far as possible from heater.
- Any additional sanitizing equipment that is installed with New Water® Cyclo must be installed after New Water® Cyclo (never before) on the return line to the pool.



Do NOT install an off-line Cyclo in-line as this Cyclo is different than an in-line unit.

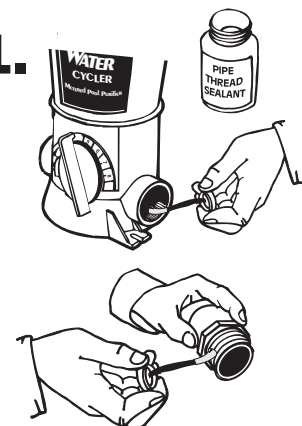


OR



Bi-flow valve design allows water flow in either direction.

1.

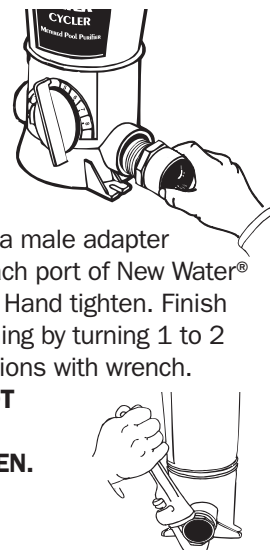


Following pipe thread sealant directions, brush sealant onto New Water® Cyclo threads in both ports and on both male adapters.

DO NOT USE PIPE THREAD TAPE as the threads on these units are not suitable for this use and leaking or fitting failure could result.

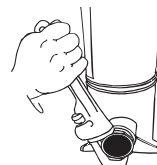


2.



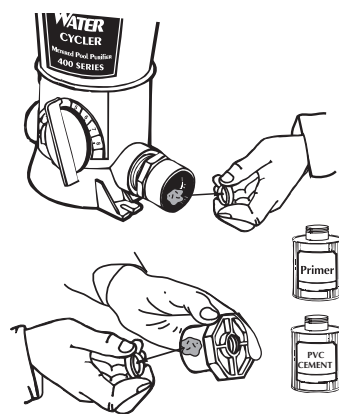
Screw a male adapter into each port of New Water® Cyclo. Hand tighten. Finish tightening by turning 1 to 2 revolutions with wrench.

DO NOT OVER TIGHTEN.



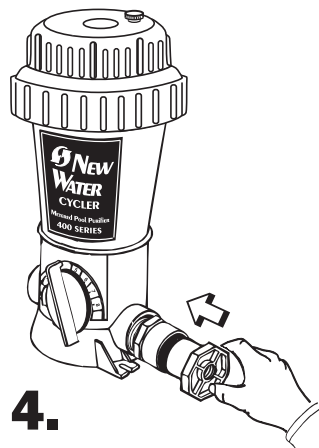
3.

Following Primer directions, brush Primer on reducer bushings and inside of male adapters. Repeat this process with PVC cement following directions on that product.



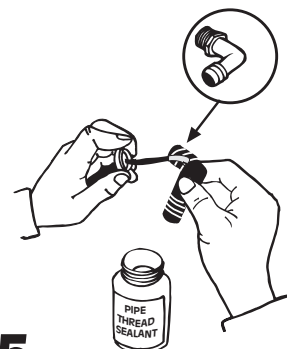
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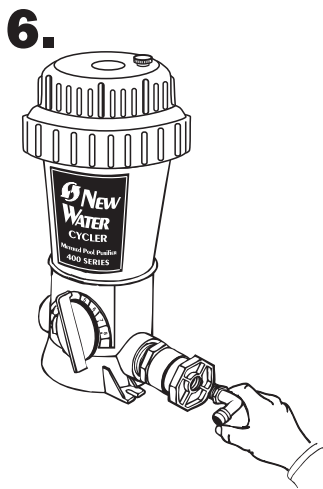
Insert reducer bushing into male adapter on both sides with a twisting action. Hold in place 5 to 10 seconds to bond.



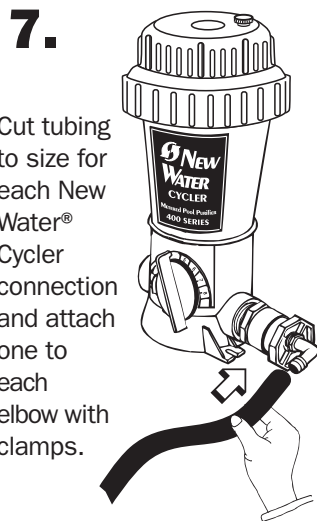
5.

Following pipe thread sealant directions, brush sealant onto elbow threads.

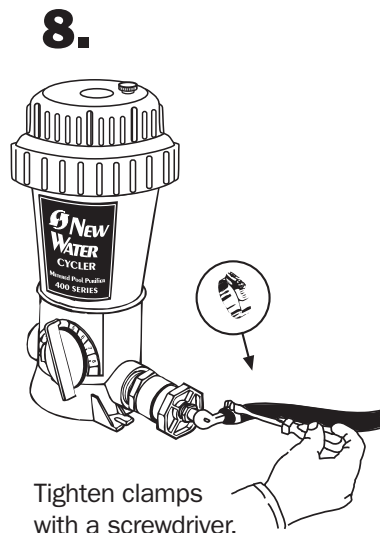




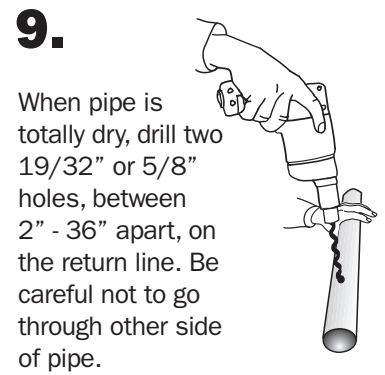
Screw elbow into reducer bushings on both sides.



Cut tubing to size for each New Water® Cyclor connection and attach one to each elbow with clamps.



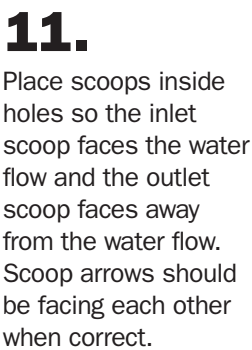
Tighten clamps with a screwdriver.



When pipe is totally dry, drill two 19/32" or 5/8" holes, between 2" - 36" apart, on the return line. Be careful not to go through other side of pipe.

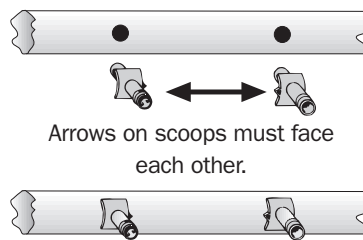


Attach a gasket to each scoop.



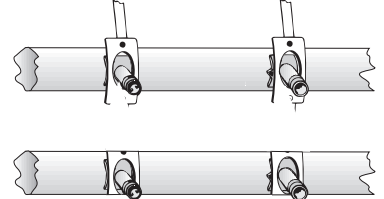
Place scoops inside holes so the inlet scoop faces the water flow and the outlet scoop faces away from the water flow. Scoop arrows should be facing each other when correct.

2" - 36" apart on straight pipe

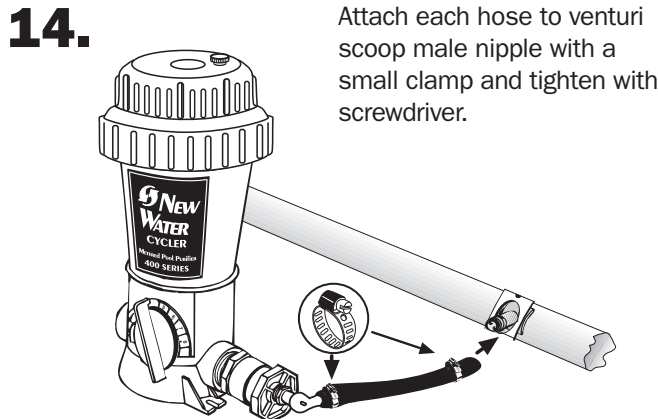


Arrows on scoops must face each other.

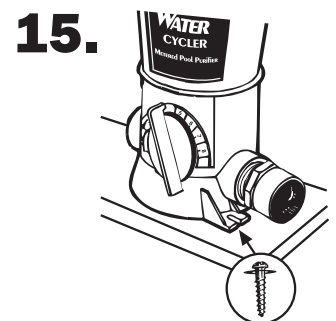
12. Attach scoop clamps over the scoops and around the pipe.



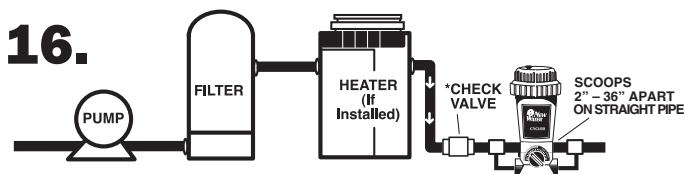
Tighten scoop clamps with a screwdriver.



Attach each hose to venturi scoop male nipple with a small clamp and tighten with screwdriver.



For best results use Phillips pan head screws through the mounting holes in the New Water® Cyclor base to secure the New Water® Cyclor into a treated wood base.



Isolating the New Water® Cyclor by installing a corrosion resistant check valve is recommended.

Troubleshooting

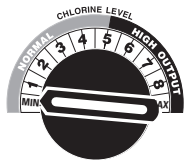
For more in-depth troubleshooting, go to www.kingtechnology.com

Problem	Remedy		
1. What do I do if the water looks cloudy?	1. Make sure your filtration system is working properly (i.e. clean filter, skimmer and pump basket). 2. Make sure circulation time is adequate – increase pump	time if not. 3. Make sure the pool is properly balanced (see page 3). 4. Shock the water to eliminate build up of any organic matter.	5. Make sure pool has a free chlorine reading of 1.0 to 3.0 ppm. 6. Check with your dealer for more information.
2. What do I do if the water turns color?	1. Metals in the fill water may have been oxidized. Have the pool tested. Shock the pool and clean the filter until water clarity returns.	2. Algae may be trying to form – shock the pool, increase circulation time if needed and clean the filter.	3. Check with your dealer for more information.
3. What do I do if algae forms in or on my pool?	1. Use an algaecide per the directions on the bottle and brush the sides of the pool often.	2. Clean the filter and shock the pool with chlorine daily until water clarity returns	3. Check with your dealer for more information.
4. What do I do if I am under chlorinating with the New Water® Chlorine Pac?	1. If you are unable to maintain at least 1.0 ppm, first make sure there are chlorine tablets in the tower areas of the New Water® Pac and it is installed properly. If a correction was made, test the water in 24 hours. 2. If still low, turn the dial up one setting and test the water again in 24 hours. Continue raising the setting by one increment each day until the proper reading is achieved.	3. Shock the pool if the reading has been lower than 1.0 ppm for more than one day. 4. Make sure pump run time is at least 6 hours on high speed (40 gpm or higher) or if not, bleed the air from the cap knob (see page 17 for directions). 5. Contact your dealer to have your back pressure tested to ensure it is at least 4 psi.	6. Check for a suction side leak by looking for air bubbles in your pump basket or at the return jet. Contact dealer for help in correcting this situation. 7. Contact King Technology's Customer Service Department at 800-222-0169.
5. What do I do if I am over chlorinating with the New Water® Chlorine Pac?	1. If the chlorine reading is over 3.0 ppm, remove the Chlorine Pac from the New Water® Cyclor and test the water daily until the reading is down to 1.0 ppm. 2. Reinsert the New Water® Pac, lower the dial one setting and test the water again in 24 hours. If the reading has risen, lower the dial one setting again. Continue this process until proper reading is achieved.	3. If over-chlorinating at the lowest possible setting, consider decreasing the circulation time. Depending on your pump size, you may be circulating the water more than is necessary. 4. Contact your dealer to have your back pressure tested. If over 8 psi consider a larger eye-ball fitting in the return jet.	5. Check to see if the pressure relief valve is loose or missing and replace. It is a clear plastic piece approximately 1" long installed inside near the base. If loose or missing, it can provide another avenue for water to reach the chlorine. 6. Contact King Technology's Customer Service Department at 800-222-0169.

Replacing a Cycler Pac



USE ONLY the factory recommended replacement New Water® Cycler Pac. (See label.) DO NOT USE any other pack or bulk chemical tablets in the New Water® Cycler. Use of any other product could result in over chlorination, bleached liners, unsafe pool conditions, fire or explosion. Warranty will be void if the correct New Water® Cycler Pac is not used.



1. Model 400

Model 120

Turn off pump. Turn dial to Minimum or 0. This reduces the flow of water into the unit when the cap is open.

2.

Model 400



Model 120

Open the cap. For in ground pools use the cap tool included with cycler to loosen cap by hitting the handle with the flat of your hand counter clockwise. Stand back upon removing cap to avoid inhaling fumes.

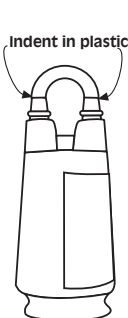
3.



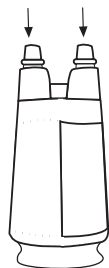
The chlorine pacs are made of HDPE plastic. Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Rinse thoroughly before recycling or discarding in trash.

4. Cut handle from New Water® Cycler Pac using a PVC cutting tool or a hacksaw (KEEP OUT OF REACH OF CHILDREN)

A. Find the indent in the plastic.



Finished cut ends

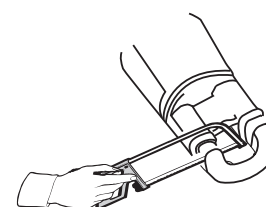
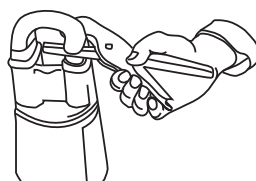


PVC cutting tool available at local hardware stores.



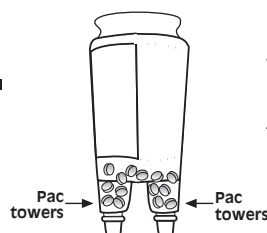
B. If using a cutting tool, place curved section of tool around the narrow end of one pac tower and line up blade on indent

C. Squeeze the handles together. Repeat for other side.



D. If using a hacksaw to cut the pac, line up hacksaw blade on indent and cut with a smooth sawing action.

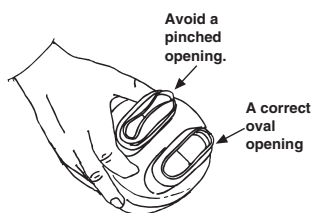
5.



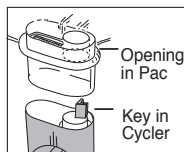
Turn pac over and shake slightly until tablets fall into tower areas.

E. Whether using a cutting tool or a hacksaw, make sure the blade comes straight across on the indent line for a clean cut.

F. If openings are pinched together, open with fingers or re-cut closer to the colored screens inside pac. Leave at least 1/4" of plastic to fit into cycler base.



6.



Insert pac into cycler, lining up the openings in pac with keys in cycler.

NOTE: Openings are a different shape than keys.

Avoid sparks, open flame or smoking when handling the pac.

7.



Model 400



Model 120

Replace cap by hand only. **DO NOT OVERTIGHTEN.**



DO NOT USE CAP TOOL TO TIGHTEN CAP. FOR REMOVAL ONLY.

Setting Control Dial

This system is designed to work effectively with a variety of pool equipment as long as the following basic procedures are followed.

1. Set control dial on New Water® Cycler by matching up the parameters of your pool on the chart below. THIS IS A STARTING POINT ONLY and may need to be adjusted to fit your individual pool needs. See #2 below for adjusting directions.

Above Ground POOL SIZE		8 HOUR PUMP RUN TIME				12 HOUR PUMP RUN TIME				24 HOUR PUMP RUN TIME			
Gallons	Diameter	PUMP SIZE				PUMP SIZE				PUMP SIZE			
		1/2 hp	3/4 hp	1 hp	1 1/2 hp	1/2 hp	3/4 hp	1 hp	1 1/2 hp	1/2 hp	3/4 hp	1 hp	1 1/2 hp
7,000	(18')	4.5	4.0	3.5	3.0	2.5	2.0	1.0	3.0*	1.5	1.0	1.0	2.0*
9,000	(21')	5.0	4.5	4.0	3.5	3.0	2.5	2.0	3.5*	2.0	1.5	1.0	2.5*
12,000	(24')	5.5	5.0	4.5	4.0	3.5	3.0	2.5	2.0	2.5	2.0	1.5	3.0*
18,000		NR	5.5	5.0	4.5	4.0	3.5	3.0	2.5	3.0	2.5	2.0	1.5
20,000		NR	NR	5.5	5.0	4.5	4.0	3.5	3.0	3.5	3.0	2.5	2.0
25,000		NR	NR	6.0	5.5	5.0	4.5	4.0	3.5	4.0	3.5	3.0	2.5

IMPORTANT: For in ground pools, pump run times of at least 6 hours per day at high speed are recommended for proper performance. If running the pump at low speed only or on high speed less than 6 hours, please follow the 24 hour low speed directions below.

In Ground POOL SIZE Gallons	SINGLE-SPEED PUMP OR HIGH-SPEED PUMP RUN TIME											
	6 HOUR PUMP RUN TIME				12 HOUR PUMP RUN TIME				24 HOUR PUMP RUN TIME			
	PUMP SIZE				PUMP SIZE				PUMP SIZE			
	3/4 hp	1 hp	1 1/2 hp	2 hp	3/4 hp	1 hp	1 1/2 hp	2 hp	3/4 hp	1 hp	1 1/2 hp	2 hp
7,000	3.5	3.0	2.5	2.5*	2.5	2.0	3.5*	3.0*	1.0	3.0*	2.5*	2.0*
9,000	4.0	3.5	3.0	2.5	3.0	2.5	2.0	3.5*	2.0	3.5*	3.0*	2.5*
12,000	4.5	4.0	3.5	3.0	3.5	3.0	2.5	2.0	2.5	2.0	1.0	3.0*
18,000	NR	4.5	4.0	3.5	4.5	3.5	3.0	2.5	3.0	2.5	2.0	1.5
25,000	NR	NR	4.5	3.5	NR	4.5	3.5	3.0	3.5	3.0	2.5	2.0
30,000	NR	NR	5.5	4.5	NR	5.0	4.5	3.5	NR	3.5	3.0	2.5

Dial settings based on 1.5 ppm *Bypass installation recommended. See "For Proper Performance" on page 17 NR- This pump size is not recommended for this size pool.

24 HOUR, LOW-SPEED PUMP RUN TIME

In order to ensure proper performance when running the pump on low speed for 24 hours per day or high speed less than 6 hours per day, bleed the air while the pump is on by unscrewing the cap knob until water appears. Then screw the knob back on. Repeat this process each time the cap is removed for any reason. Set the control dial at 6 and follow the adjustment directions in Step 2 to determine the correct setting for your pool.

2.



For the first week or so, test the water daily for free chlorine.



After day one, adjust the dial up by 1/2 increment if the free chlorine reading has dropped or down by 1/2 increment if the reading has risen. Continue this process each day until the reading stabilizes at your desired level between 1.0- 3.0 ppm. Remember to adjust dial by 1/2 increments only. Higher than suggested settings could result in over chlorination and/or bleached pool surfaces.

3.



Use the handle end of cap tool if the dial is hard to turn.

4.



Shock pool every week or as needed to maintain water quality. Follow label directions on the shock treatment used.



Do not add shock in or near the skimmer or into the New Water® Cycler as it could damage equipment, risk potential explosion or discolor your pool surface.

Replacing Control Dial O-Rings

Model 120

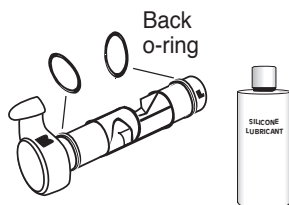
Center of locking pin



1. In the back of the New Water® Cyclor depress center of locking pin with a finger and pull pin out of dial.



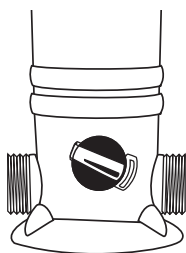
2. Turn control dial back and forth as you pull it out of the housing.



3. Replace both o-rings. Apply silicone lubricant that came with your New Water® Cyclor on o-rings.

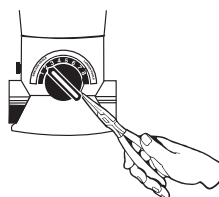


4. Carefully insert control dial back into housing.



5. Replace locking pin by pushing it through the slots on the dial until it locks into place.

Models 400/430



1. Using a needle nose pliers, find the snap ring tail located at approximately the 5 o'clock position under the control dial.



2. Pull down and out of the groove.



3. Using a large screwdriver, loosen the control dial. Carefully pry the dial until it pulls out.



4. Carefully replace the rubber o-ring without stretching it. Apply silicone lubricant that came with your New Water® Cyclor on o-ring.



5. Push control dial completely into the housing and turn the dial to setting 2.

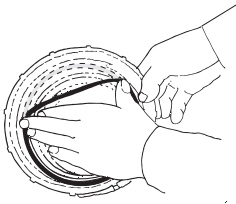


6. Insert the non-lipped end of snap ring into the groove opening beginning at the 5 o'clock position and push it up so that it threads itself around the control dial.

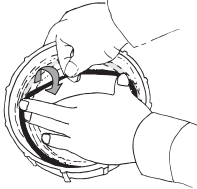


7. Using a small screwdriver or pointed tool to help guide it, make sure the snap ring stays in the groove as it is inserted.

Replacing Cap O-ring



1. Hold cap in front of you upside down with the o-ring groove facing up. Place one end of o-ring into cap groove at the point closest to you. Hold o-ring down with the thumb and index finger of one hand.



2. Take hold of the far end of the o-ring with the thumb and index finger of the other hand. Roll o-ring slightly back towards you as you stretch the o-ring into the remainder of the cap groove.



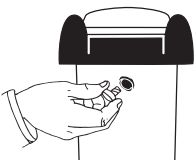
3. Lubricate o-ring often with silicone lubricant that came with your New Water® Cycler. DO NOT USE petroleum based lubricants.

Replacing Knobs

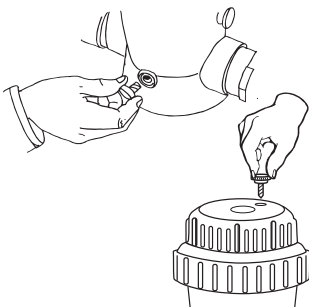
• To replace, simply unscrew old knob and replace with the new one.



• Front of 120 Cycler

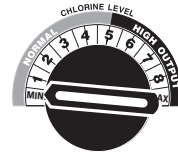


• Back of 120 Cycler

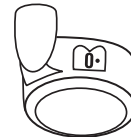


• Back of 400/430 Cyclers and Cap of 400/430 Cyclers

Winterizing

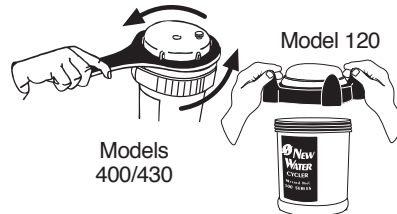


Models 400/430



Model 120

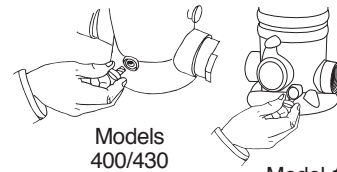
1. Turn dial to minimum or 0. Turn pump off. Unscrew back knob of Model 120 to relieve pressure.



Models 400/430

Model 120

2. Remove cap.



Models 400/430

Model 120

3. Unscrew knob in back of Models 400/430 or from the front of Model 120. Allow all water to drain.



4. Remove Pac.



Models 400/430



Model 120

5. Replace the cap and knobs loosely.

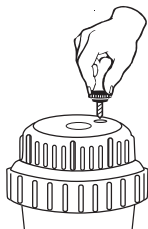


6. If Pac still contains chlorine wrap in plastic bag and store in shed or cool well-ventilated location away from children, pets, motorcycles, cars or anything metal that can rust, pit, etc. Make sure the Pac is away from open flame.

For Proper Performance

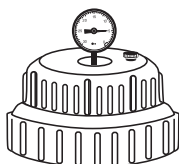
1) If using a multi-speed pump, run pump for at least 6 hours per day at high speed (at least 40 gpm).

If the pump will run on low speed 24 hours per day or less than 6 hours per day on high speed, you must bleed the air while the pump is on by unscrewing the cap knob until water appears. Then screw the knob back on. Repeat this process each time the cap is removed for any reason.



2) Install system with 4-8 psi back pressure.

Lower back pressures could result in under chlorination. Adjust eye ball fittings in the return jets to a smaller size to increase back pressure. Contact King Technology at 800-222-0169 for a cap tapped for a pressure gauge to determine back pressure at pool start-up.



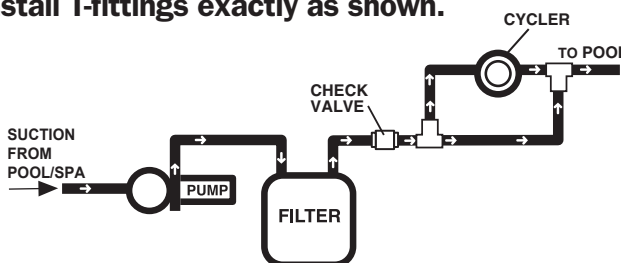
3) Special installation:

- If water flow is higher than 80 gpm, see diagram A.
- If an in-floor cleaner is included with pool, see diagram B, with two options. Preferred installation is Option 1 with two separate lines.
- If set-up is a pool and spa combination with common equipment, see diagram C.
- Any additional sanitizing equipment that is installed with New Water® must be installed after New Water® (never before) on the return line to the pool.

NOTE: Over chlorination or damage to the New Water® Cycler or other equipment could result if these special installations are not used in these situations.

A. With High GPMS

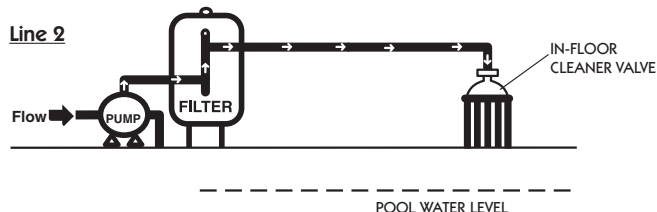
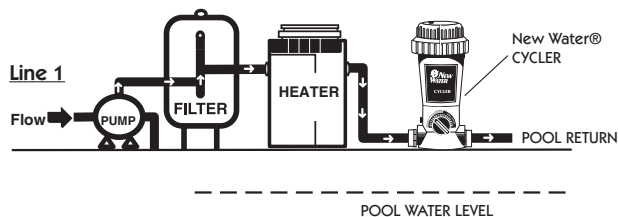
Install T-fittings exactly as shown.



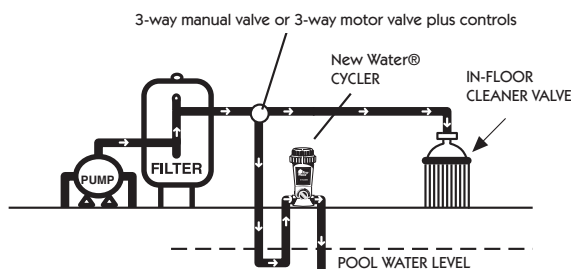
B. With In-Floor Cleaner - TWO OPTIONS

OPTION 1 - A Two-Line Installation

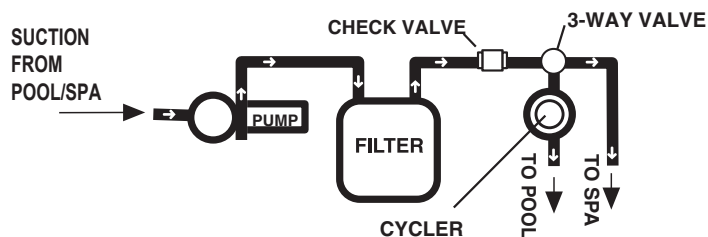
The best option is to have two lines. One line with pump, filter, heater and cycler and a second line with a separate pump for the in-floor cleaning system (filter optional).



OPTION 2 - A 3-Way Valve Installation



C. Pool and Spillover Spa Combination



Limited One-Year Warranty

King Technology, Inc. warrants to the original purchaser this unit will be free from any defects in workmanship and/or material, for a period of one (1) year from the date of original purchase. This warranty covers body, cap and control dial, but specifically excludes o-rings. King Technology at its option may replace any defective parts or the entire unit without charge after it is determined what is needed to correct any deficiency. Replacement parts with the exception of o-rings are warranted for the remainder of the original warranty.

1. To obtain warranty service, you must deliver the unit to King Technology or its nearest authorized dealer. Shipping expenses are the purchaser's responsibility. The name of the nearest authorized dealer can be obtained by writing or calling King Technology at the address and telephone number provided below. Proof of purchase is required when requesting warranty service. Purchaser must present the sales receipt or other documentation verifying proof of purchase.

2. This warranty does not cover defects caused by: Modification, alteration, repair or service of the unit contrary to the accompanying instructions; physical abuse to or misuse of the product or operation or installation in a manner contrary to the accompanying instructions. This warranty also excludes all costs arising from the installation, adjustment, removal or replacement of defective units or parts. This warranty also excludes any and all claims arising out of the chemicals used in the product or their characteristics.

3. CAUTION - Read carefully – Failure to follow these instructions will void the warranty. Do not add shock in or near skimmer.

A. This unit is not designed for shock treatment of pools. See your pool dealer or distributor for further information concerning shock treatments.

B. Control dial settings in excess of the recommended setting levels for trichlor can result in excess sanitizers being

discharged into the pool. This can result in bleaching or discoloration of areas around the pool inlet or in some cases bleaching or discoloration of the entire pool liner or paint.

C. Excess trichlor in the pool can create health hazards to bathers. Consult each chemical manufacturer's warnings and cautions for specifics.

D. Misuse or failure to use the proper chlorine Pac for New Water® as directed in the instruction manual may cause damage to equipment or personal injury. This warranty will be null and void if this unit is not used with the recommended chlorine Pac or trichlor tablets.

4. This warranty is the exclusive warranty for the New Water® Cycler. This warranty is not transferable. **KING TECHNOLOGY MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER MATTER CONCERNING THE NEW WATER® CYCLER.** Any express warranty not provided herein, and any remedy for breach of contract but which for this provision might arise by implication or operation of law is hereby excluded and disclaimed. THE EXCLUSIVE REMEDY FOR ANY CUSTOMER IS THE REPAIR OR REPLACEMENT OF THE UNIT, AND THE RECOVERY OF DAMAGES WILL NOT EXCEED THE PURCHASE PRICE OF THE UNIT. IN NO EVENT WILL KING TECHNOLOGY BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL OR PUNITIVE DAMAGES FROM ANY CAUSE.

5. Under no circumstance shall King Technology be liable to purchaser or any other person for any damage or loss incurred because of any chemicals used in the product or their physical characteristics, or interruption of service of the product, or any resulting special, incidental or consequential damages or losses. Some states do not allow the exclusion or limitation of incidental consequential damages, so the above limitation or exclusion may not apply to you.



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Made in U.S.A.

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