

# Perform-Max Pool Sanitizer Instruction Manual

## CHLORINE/BROMINE FEEDER for Pools up to 50,000 Gallons



**Model 940**  
for pools up to  
50,000 gallons



**Model 920**  
for pools up to  
25,000 gallons



### WARNING

To minimize the risk of serious injury, death or damage, before installing or first using this equipment, read Instruction Manual and all safety labels and follow all safety instructions and precautions. Save manual for future reference.

Customer Service 800-222-0169  
[kingtechnology.com](http://kingtechnology.com)

# TABLE OF CONTENTS

Perform-Max Introduction	3
Notes and Safety Information	4
Safety Labels on Feeder	5
Installation Tips to Ensure Proper Performance	6
Filter Flex-Hose Installation Model 920	7
Base Flex-Hose Installation Model 920	8
Hard-Plumbed Installation Model 920	9
In-Line Installation Model 940	10
In-line Installation Model 980 for 1½" Plumbing	10
Off-Line Installation Model 960	11-12
Step 1: Preparing the Pool	13-14
Step 2: Putting the Feeder to Work	15
Step 3: Setting the Control Dial	16
Step 4: Routine Pool Care	17
Winterizing	18
Troubleshooting	19
Parts List 920	20
Parts List 940, 960 and 980	21
Maintenance - Replacing Control Dial O-Rings	22
Maintenance - Replacing Cap O-Rings and Knobs	23
Warranty	24

For information on King Technology's entire product line, visit our website at [kingtechnology.com](http://kingtechnology.com)



Thank you for choosing the Perform-Max Pool Sanitizer for your pool. Perform-Max precisely meters chlorine at a consistent rate so you are ensured of a properly sanitized pool with less work and more time to enjoy. There are four models to choose from:



**Model 920**  
In-line for pools up to 25,000 gallons using chlorine and up to 15,000 gallons using bromine.  
Product # 01-05-0920



**Model 940**  
In-line for pools up to 50,000 gallons using chlorine and up to 25,000 gallons using bromine.  
Product # 01-05-0940



**Model 980**  
In-line for pools using 1 1/2 inch plumbing. For use on the same pool sizes as the Model 940.  
PRODUCT # 01-05-0980



**Model 960**  
Off-line for pools up to 50,000 gallons using chlorine and up to 20,000 gallons using bromine.  
Product # 01-05-0960

# Notes and Safety Information

## General Notes

These instructions contain information for the safe and proper operation of this Perform-Max Feeder. Observe the following principles:

- Ensure that everyone using this Perform-Max Feeder follows the instructions and safety precautions.
- Keep the instructions nearby and available for reference throughout the service life of this Perform-Max Feeder.

These instructions do not provide for every possible contingency that might be encountered in connection with installation, operation or maintenance of this equipment. Should further information be desired or should particular issues arise which are not covered sufficiently in this manual, contact King Technology at 800-222-0169.





## Explanation of the signal words

Signal words, which depict the probability and severity of harm, are used in these instructions. They are defined as follows:

Signal Word	Meaning
<b>DANGER</b>	Indicates an imminently hazardous situation which, if not avoided, will result in death, serious injury or major property damage.
<b>WARNING</b>	Indicates a hazardous situation which, if not avoided, could result in serious injury, death, or major property damage.
<b>NOTICE</b>	Indicates special instructions that are important but not related to physical injury hazards.


## Explanation of the safety pictographs

The following pictographs illustrate the type and source of a hazard.

Pictograph	Type of Danger
	Safety Alert/General Hazard
	Explosion Risk
	Hazardous Pressure
	Flammable Fire Hazard

## Identification of warnings

Warnings are intended to help you recognize risks and avoid death, injury or property damage. This is how warnings are identified:

 <b>Signal Word</b>
Pictographs
<p><b>Description of danger.</b> Consequences if ignored.</p> <p>⇒ The arrow signals a safety precaution to be taken to eliminate or reduce the risk.</p>

# Safety Label on Perform-Max Feeder

Review this label before installing or operating this Feeder. Contact King Technology at 800-222-0169 if this label is missing from your Perform-Max.



## Fire, explosion and high pressure hazards

To minimize the risk of serious injury, death or property damage while using the Perform-Max Feeder:

- ⇒ Read, understand and follow all instructions and safety precautions in the manual, and on this Perform-Max Feeder and on any label for chemicals used with this Perform-Max Feeder.

## DANGER

- ⇒ Never use fast dissolving chlorine tablets, liquid bleach, or calcium hypochlorite in the Perform-Max Feeder.
- ⇒ Never mix Trichlor chlorine tablets with Calcium Hypochlorite, or with any other form of concentrated chlorine or other chemicals.
- ⇒ Never add any other types of chlorine, pH adjusters, shock treatments or algaecides through the skimmer. These products should be added directly into the pool if required.
- ⇒ Do not contaminate the Perform-Max Feeder with dirt, organic matter, pool chemicals (such as calcium hypochlorite or pool shocks), fertilizers or other household chemicals. Contact between any of these substances and the Perform-Max Feeder will result in a chemical reaction with the generation of heat, liberation of hazardous gasses and fire or explosion.

## WARNING

- ⇒ Use only slow dissolving trichlor tablets or pucks or bromine tablets in the Perform-Max Feeder.
- ⇒ To prevent the build up of gas pressure in the Perform-Max Feeder, be sure the pool return line valves are open – except when opening or servicing the unit.
- ⇒ Do not inhale fumes from the Perform-Max Feeder.
- ⇒ Avoid sparks, smoking, or any open flame near Perform-Max Feeder or chemicals.
- ⇒ Do not exceed maximum operating pressure of 50 psi or maximum temperature of 104° F.
- ⇒ Do not remove the cap while under pressure. Always turn off pump and bleed off pressure before opening Perform-Max Feeder.
- ⇒ Do not install automatic or fast shut off valves downstream of Perform-Max Feeder.
- ⇒ Always install the Perform-Max Feeder AFTER a heater (if applicable) on the return line.
- ⇒ Always install any additional sanitizing equipment AFTER and NEVER BEFORE the Perform-Max Feeder is installed on the return line.
- ⇒ Do not permit children to use or climb on this product. This product must be positioned to prevent children from using it as a means of access to the pool.
- ⇒ Always stand clear of the Perform-Max Feeder during pump start-up.
- ⇒ Replace Perform-Max Feeder if you see signs of cracks, damage or degradation to the Perform-Max Feeder body or cap.

## NOTICE

- ⇒ Prior to pressurizing, check with your dealer to ensure your plumbing connections meet building codes.
- ⇒ Failure to properly winterize your Perform-Max Feeder could result in freeze damage. (See page 18 for winterizing details.)

# Installation Tips to Ensure Proper Performance

Before installing, read all directions carefully and contact your dealer for installation support.

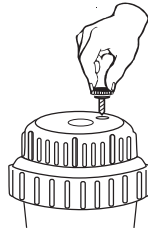


## WARNING

- Do not exceed maximum operating pressure of 50 psi.
- Do not install automatic or fast shut off valves downstream of feeder.
- Always install the Perform-Max Feeder AFTER the heater (if applicable) on the return line.
- Always install any additional sanitizing equipment AFTER and NEVER BEFORE the Perform-Max Feeder is installed on the return line.

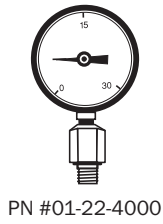
### 1) If using a multi-speed pump, run pump for at least 6 hours per day at high speed (at least 40 gpm).

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 Perform-Max Feeder with 4-8 psi back pressure.

Lower back pressures could result in under chlorination. Change the eyeball fittings in the return jets to a smaller size to increase back pressure. Contact King Technology at 800-222-0169 for a specially designed Perform-Max Feeder pressure gauge to determine back pressure at pool start-up.



PN #01-22-4000

### 3) Special Installation Requirements:

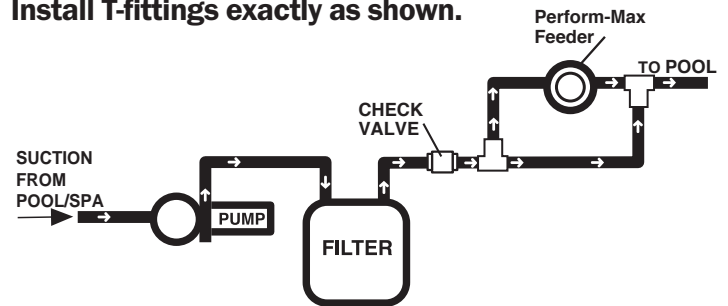
**IMPORTANT:** Over chlorination or damage to the Perform-Max Feeder or other equipment could result if special installations A, B or C are not used in these situations.

- If water flow is higher than 80 gallons per minute (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.

**Questions?** Call Customer Service at 800-222-0169 Monday thru Friday, 8 am to 5 pm central time.

## A. With High Flow Rate (greater than 80 gpm)

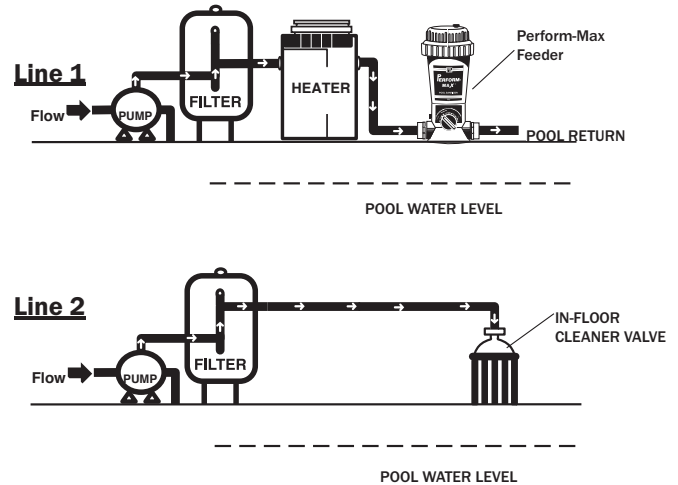
Install T-fittings exactly as shown.



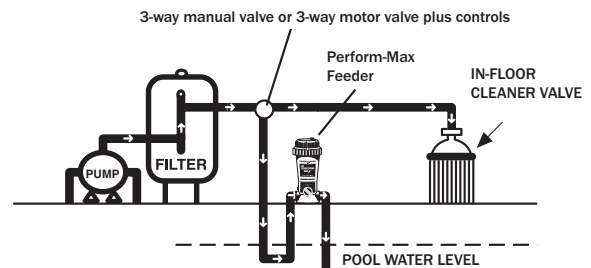
## B. With In-Floor Cleaner - TWO OPTIONS

### OPTION 1 - A Two-Line Installation

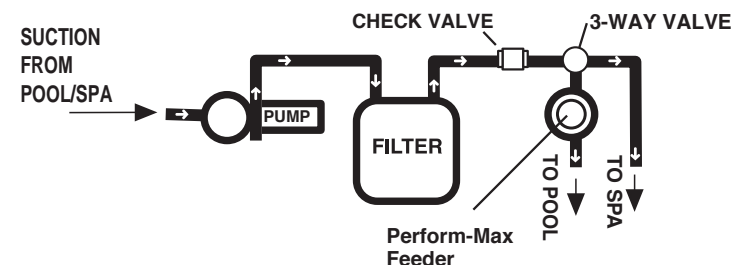
The best option is to have two lines. One line with pump, filter, heater and Perform-Max Feeder and a second line with a separate pump for the in-floor cleaning system (filter optional).



### OPTION 2 - A 3-Way Valve Installation

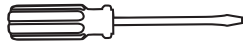


## C. Pool and Spillover Spa Combination

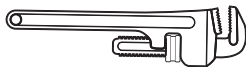


**TOOLS NEEDED**

Screwdriver

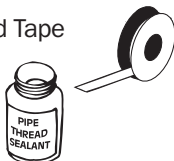


Pipe Wrench



**MATERIALS NEEDED**

Pipe Thread Tape or Sealant



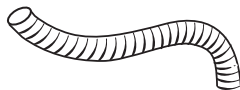
One 6" x 1 1/2" TBE PVC Nipple



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



One Section of  
1 1/2" or 1 1/4" Flex Hose  
(provided with filter)



One  
Hose Clamp



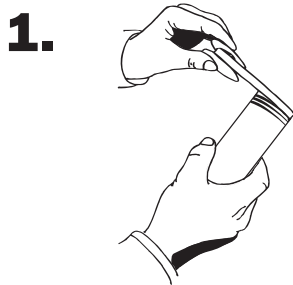
**RECOMMENDED**

4-8 psi Back Pressure

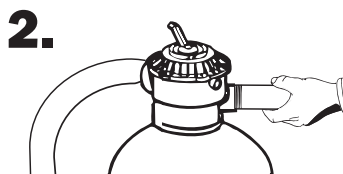
To avoid over or under chlorination, replace eyeball fittings in the return jets to a smaller or larger size to adjust back pressure. For best results use King Technology's pressure gauge, order part number 01-22-4000.



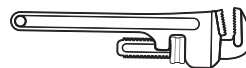
**Filter Flex-Hose Installation - Model 920**



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

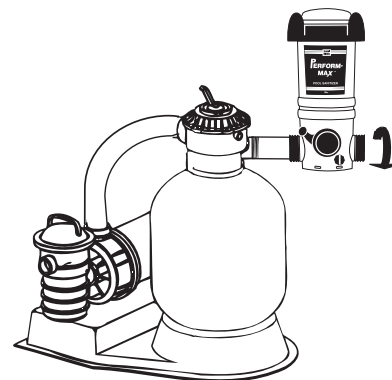


**2.** Screw one end of nipple into the filter return.

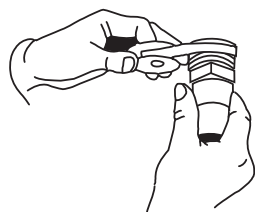


Hand tighten. Finish tightening by turning 1 to 2 revolutions with a pipe wrench.

**DO NOT OVER TIGHTEN.**



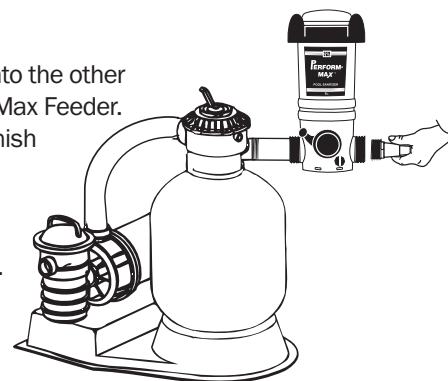
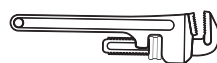
**3.** Screw either side of Perform-Max Feeder on to open nipple end until upright and secure.



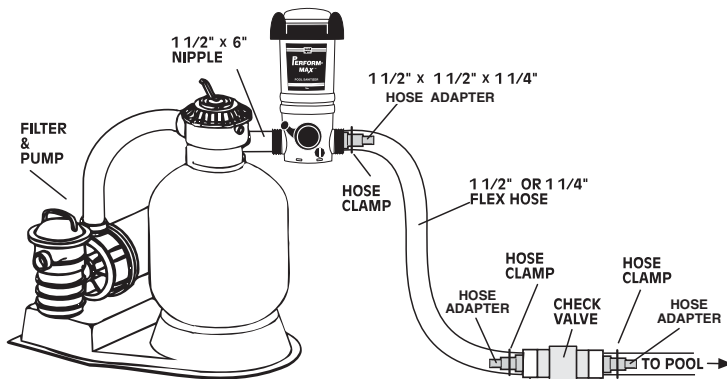
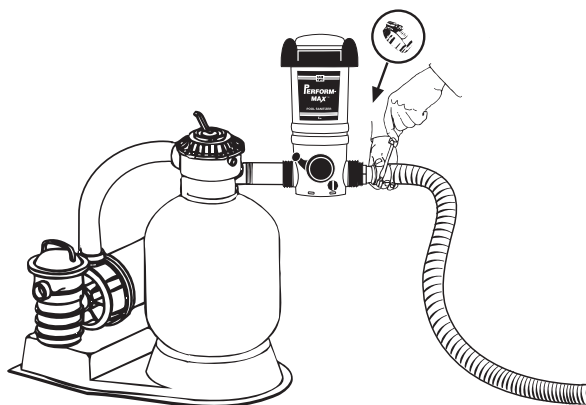
**4.** Apply pipe thread tape or sealant to threaded end of hose adapter.

**5.** Screw adapter into the other side of Perform-Max Feeder. Hand tighten. Finish tightening by turning 1 to 2 revolutions with a pipe wrench.

**DO NOT OVER TIGHTEN.**



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



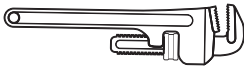
**7.** To prevent damage to heaters or filters, see your dealer about installing a **corrosion resistant check valve** which will reduce the back flow of chlorine gas when the Perform-Max Feeder is turned off.

## TOOLS NEEDED

Screwdriver



Pipe Wrench



## MATERIALS NEEDED

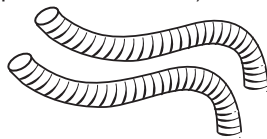
Pipe Thread Tape or Sealant



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



Two Sections of 1 1/2" or 1 1/4" Flex Hose (one provided with filter)



Two Hose Clamps



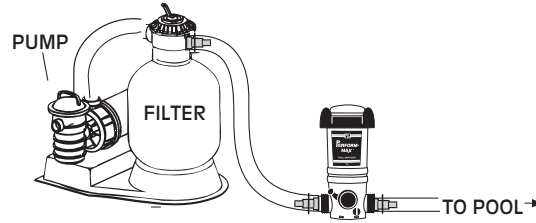
## RECOMMENDED

4-8 psi Back Pressure

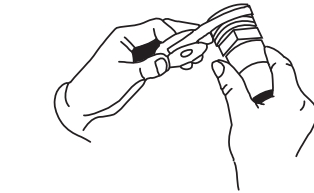
To avoid over or under chlorination, replace eyeball fittings in the return jets to a smaller or larger size to adjust back pressure. For best results use King Technology's pressure gauge, order part number 01-22-4000.



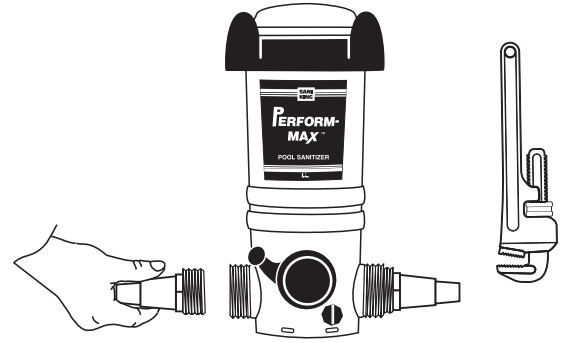
# Base Flex-Hose Installation - Model 920



The Perform-Max Feeder should always be installed between the filter and pool (or between heater and pool if applicable). Never install Perform-Max Feeder before the heater or damage to the heater could occur.

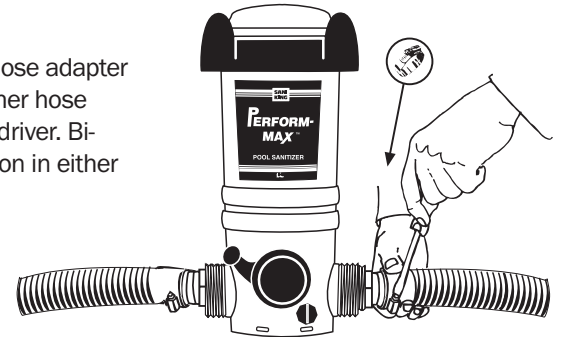


**1.** Apply pipe thread tape or sealant to the threaded end of both hose adapters.

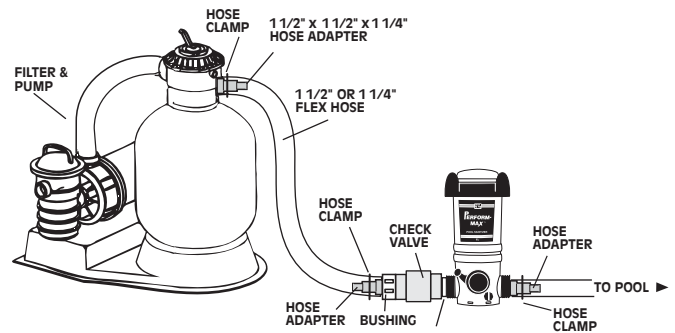


**2.** Screw adapters into each end of Perform-Max Feeder. Hand tighten. Finish tightening by turning 1 to 2 revolutions with pipe wrench. **DO NOT OVER TIGHTEN.**

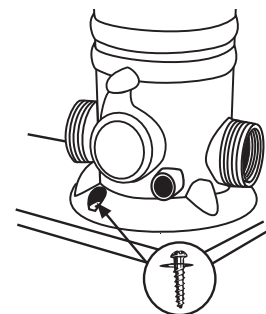
**3.** Attach the filter section of flex hose to one hose adapter and the return section of flex hose to the other hose adapter with clamps and tighten with screwdriver. Bi-flow valve design allows water flow installation in either direction.



**4.** To prevent damage to heaters or filters, install a **corrosion resistant check valve** which will reduce the back flow of chlorine gas when the system is turned off.



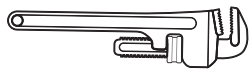
**5.** For better stability, Perform-Max Feeder may be mounted on a treated wood base using **Phillips pan head screws**, one in front and two in back. If you have questions about stability, please contact your dealer or King Technology.



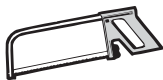


**TOOLS NEEDED**

Pipe Wrench



Hacksaw



Tape Measure



**MATERIALS NEEDED**

Pipe Thread Tape or Sealant and Primer and PVC Cement



1½" Male Adapter (slip x MPT)

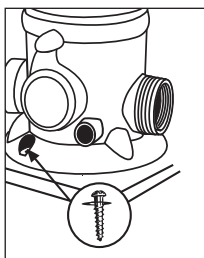


or

2" Female Adapter (slip x FPT)

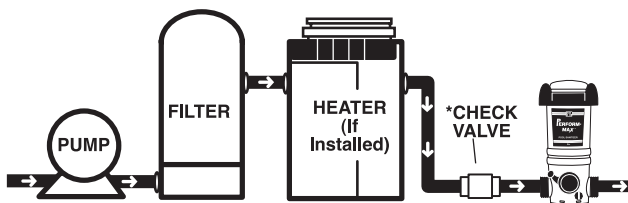


**SECURE SYSTEM**



For better stability, you can order a mounting base (part number 01-22-1485) that screws on to the bottom of the Perform-Max Feeder. Then mount on a treated wood base using **Phillips pan head screws**, one in front and two in back.

**Hard-Plumbed Installation - Model 920**

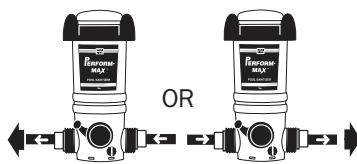


The Perform-Max Feeder should always be installed between the filter and pool (or between heater and pool if applicable). Never install Perform-Max Feeder before the heater or damage to the heater could occur.

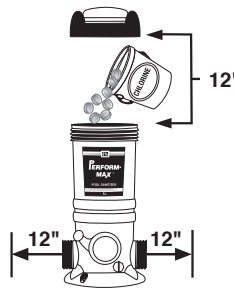
Do NOT install in copper pipe as chemical corrosion may lead to pipe failure.



Do NOT install Perform-Max Feeder off-line.



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



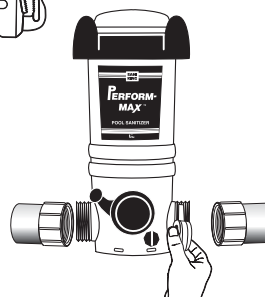
Allow a minimum of 12" above and on each side of Perform-Max Feeder to ensure room for easy chemical refilling.

1. Screw adapters into each end of Perform-Max Feeder following directions for a male adapter or a female adapter. Hand tighten. Finish tightening by turning 1 to 2 revolutions with pipe wrench. **DO NOT OVER TIGHTEN.**



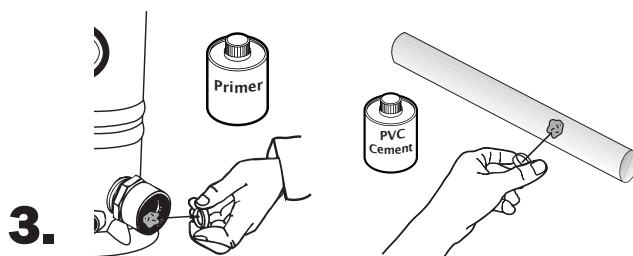
1a.

If using **male adapters**, apply pipe thread tape or sealant to the threaded end of each adapter.



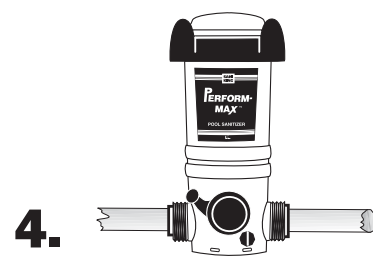
1b.

If using **female adapters**, apply pipe thread tape or sealant to the threaded end of each feeder port.



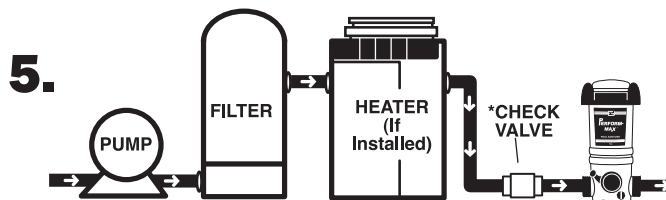
3.

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



4.

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

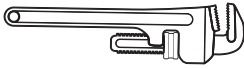


5.

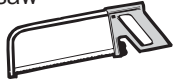
To prevent damage to heaters or filters, install a **corrosion resistant check valve** which will reduce the back flow of chlorine gas when the feeder is turned off.

## TOOLS NEEDED

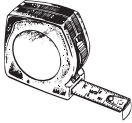
Pipe Wrench



Hacksaw



Tape Measure

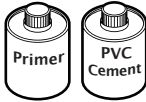


## MATERIALS NEEDED

Pipe Thread Sealant



Primer and PVC Cement



Two 2" Threaded x 2" or 1 1/2" Slip Male Adapters (not Included)



## Perform-Max 980

Use the 2" x 1 1/2" threaded bushing provided for steps 1 through 3.

Repeat steps 1 through 3 using a 1 1/2" threaded by 1 1/2" slip bushing (you provide). Then follow the remaining inline installation instructions.

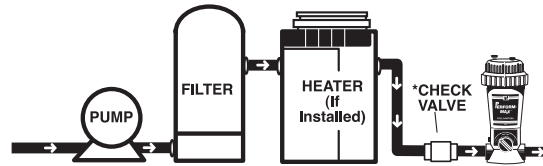


2" x 1 1/2" Threaded Bushing



1 1/2" Threaded by 1 1/2" Slip Bushing

## In-line Installation - Model 940

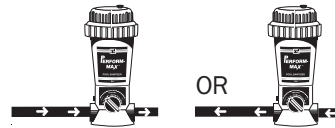


The Perform-Max Feeder should always be installed between the filter and pool (or between heater and pool if applicable). Never install Perform-Max Feeder before the heater or damage to the heater could occur.

Do NOT install in copper pipe as chemical corrosion may lead to pipe failure.



Do NOT install Perform-Max Feeder off-line.



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



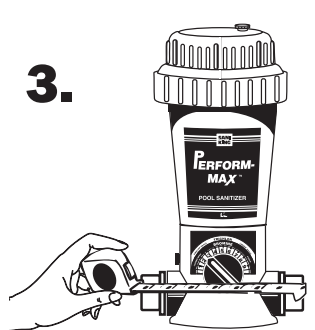
Allow a minimum of 12" above and on each side of Perform-Max Feeder to ensure room for easy access.



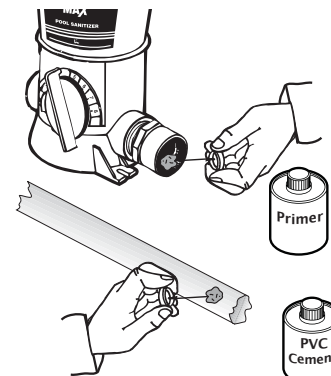
Following pipe thread sealant directions, brush sealant onto Perform-Max Feeder threads in both ports and both male adapters. DO NOT USE PIPE THREAD TAPE



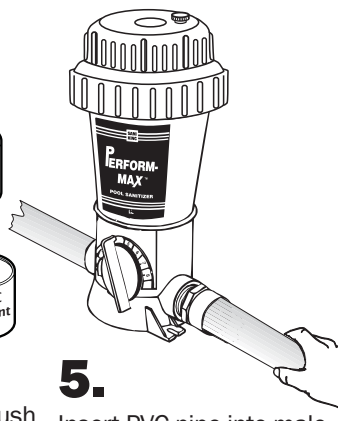
Screw a male adapter into each port of Perform-Max Feeder. Hand tighten. Finish tightening by turning 1 to 2 revolutions with a pipe wrench. DO NOT OVER TIGHTEN.



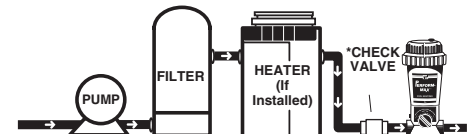
Measure the distance between Perform-Max Feeder male adapters and cut out a section of pipe 3" less than that dimension.



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 manufacturer's 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. To prevent damage to heaters or filters, install a **corrosion resistant check valve** which will reduce the back flow of chlorine gas when the feeder is turned off.



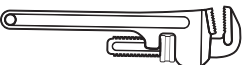
7. For better stability, Perform-Max Feeder may be mounted on a treated wood base using **Phillips pan head screws**, one in front and one in back. If you have questions about stability, please contact your dealer or King Technology.

**TOOLS NEEDED**

Screwdriver

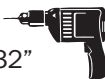


Pipe Wrench



Battery

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

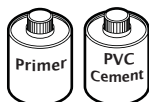


**MATERIALS NEEDED**

Pipe Thread Sealant



Primer and PVC Cement



**OFF-LINE KIT**

Included with the Perform-Max Feeder

Two Male Adapters



Two Reducer Bushings



Two 90 Degree Elbows



Four Hose Clamps



6' of Tubing



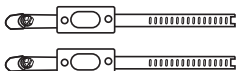
Two Scoops



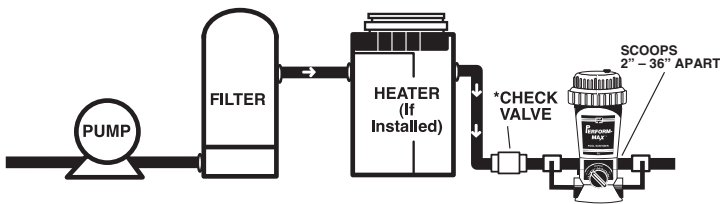
Two Scoop Gaskets



Two Scoop Clamps



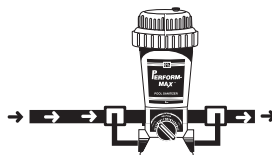
**Off-line Installation - Model 960**



The Perform-Max Feeder should always be installed between the filter and pool (or between heater and pool if applicable). Never install Perform-Max Feeder before the heater or damage to the heater could occur.



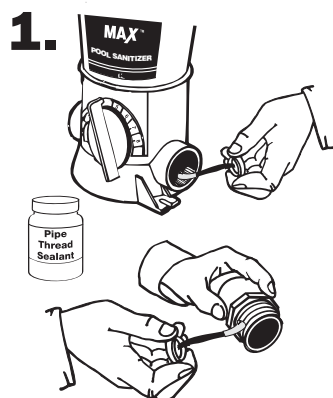
Do NOT install Perform-Max Feeder Model 960 in-line as this Perform-Max Feeder is different than an in-line unit.



OR



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

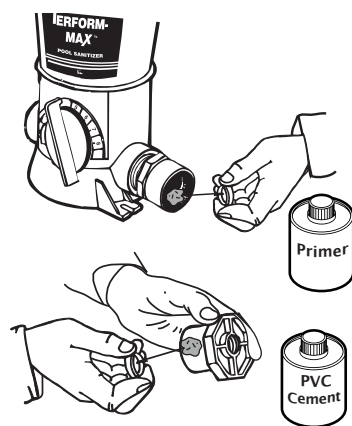


Following pipe thread sealant directions, brush sealant onto Perform-Max Feeder threads in both ports and on both male adapters.

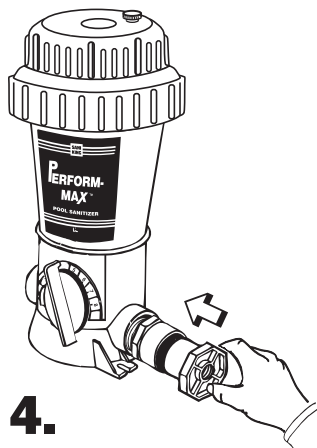
DO NOT USE PIPE THREAD TAPE as the threads on these units are not suitable for this use and leaking or fitting failure could result.



Screw a male adapter into each port of Perform-Max Feeder. Hand tighten. Finish tightening by turning 1 to 2 revolutions with a pipe 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.



**4.** 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.

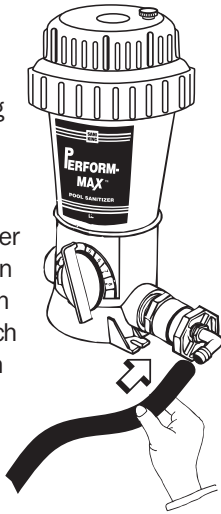
6.



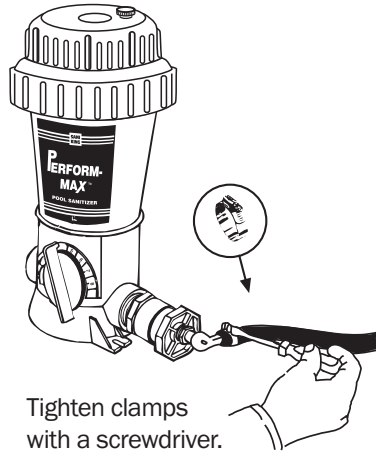
Screw elbow into reducer bushings on both sides.

7.

Cut tubing to size for each Perform-Max Feeder connection and attach one to each elbow with clamps.



8.



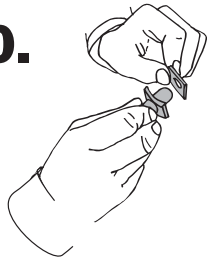
Tighten clamps with a screwdriver.

9.

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.



10.

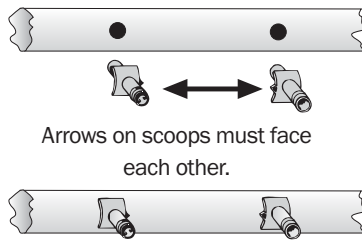


Attach a gasket to each scoop.

11.

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.

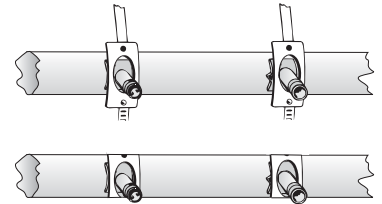
2" - 36" apart on straight pipe



Arrows on scoops must face each other.

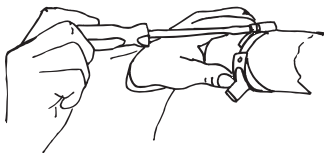
12.

Attach scoop clamps over the scoops and around the pipe.

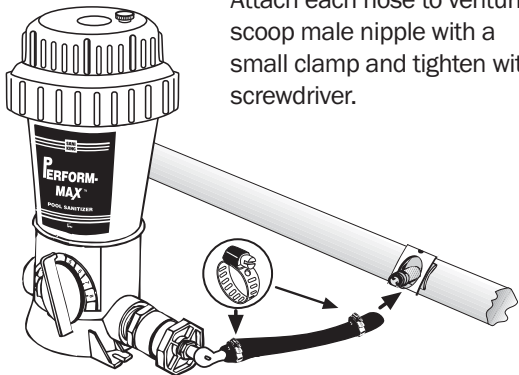


13.

Tighten scoop clamps with a screwdriver.

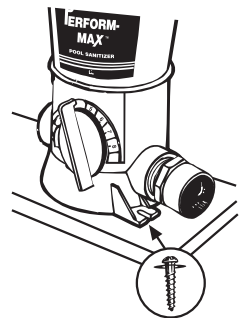


14.



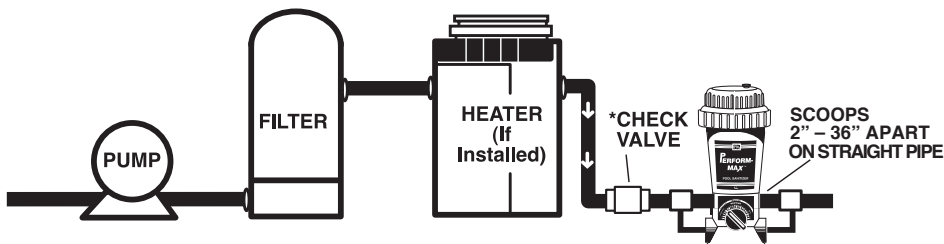
Attach each hose to venturi scoop male nipple with a small clamp and tighten with screwdriver.

15.




For better stability, Perform-Max Feeder may be mounted on a treated wood base using **Phillips pan head screws**, one in front and one in back. If you have questions about stability, please contact your dealer or King Technology.

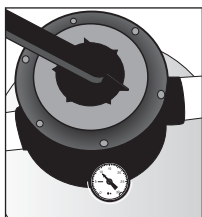
16.




To prevent damage to heaters or filters, install a **corrosion resistant check valve** which will reduce the back flow of chlorine gas when the feeder is turned off.


# Step 1: Preparing the Pool

- 1.**  Make sure the pool has adequate circulation. The total volume of pool water must completely circulate through the pump and filter at least 1 to 2 times per day. This usually requires 8 to 12 hours of circulation. Check with your dealer for the proper circulation time for your pool.

- 2.**  Check the pool's filter gauge often and periodically clean filter per the manufacturer's directions. A dirty filter will slow the flow of water which could hamper proper circulation.

 **WARNING**  
Do not exceed maximum operating pressure of 50 psi.

- 3.** Check the Water Hardness of your fill water before adding to the pool. If calcium content is higher than 400 ppm, find a soft water source to fill your pool instead; otherwise water balance will be very difficult.

- 4.**  Check for metals in the pool such as iron or copper. Before attempting water balance, these should be removed. See your dealer for a metal out or sequesterant and follow the label directions carefully.

- 5.** 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) to test for the important Water Balance Guidelines.

**IMPORTANT:** Always follow printed instructions on the balancing chemical packages. Add balancing chemicals in small increments one at a time with circulation running. **For best results, wait 8-12 hours** before testing again and adding any additional balancing chemicals.

## Water Balance Guidelines

pH:	7.2 - 7.8
Total Alkalinity:	80 - 120 ppm
Calcium Hardness:	200 - 400
Total Dissolved Solids:	<1500
Stabilizer:	20 - 80 ppm
Free Chlorine:	1.0 - 3.0 ppm

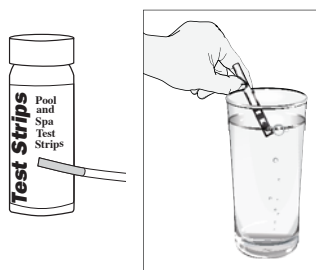
Continue.....

**Step 1: Preparing the Pool-page 14**

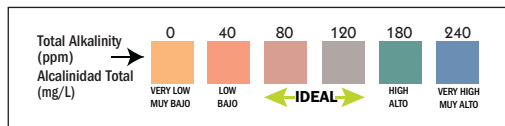
## Continue... Step 1: Preparing the Pool

For best results in achieving water balance, follow steps **5a through 5e** in order.

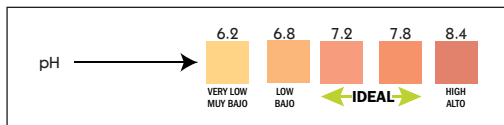
**5a.** Take a water sample from the pool and dip a test strip into it.



**5b.** Look at the **Total Alkalinity** reading first. Adjustments should be made to bring the Total Alkalinity in the range of **80 – 120 ppm** prior to making any adjustments to pH even if it throws pH off further.



**5c.** After Total Alkalinity is in range, test for **pH**. It should be between **7.2 and 7.8**. If higher or lower, add a pH adjuster.



**5d.** Then test your Water Hardness again. If lower than 200 ppm, add Calcium Increaser. Always maintain 200-400 ppm.

**5e.** Lastly test for **stabilizer or conditioner levels**. Add conditioner if the level is below 20 ppm. This will prevent chlorine burn off. If stabilizer level is above 80 ppm, partially drain water and re-fill.

**6.**



Initially shock the pool with a **chlorine shock only** to rid the water of contaminants and establish a chlorine residual. Always follow the manufacturer's directions carefully. See the DANGER box below for important guidance on shocking.



### DANGER

- Never add any other types of chlorine, pH adjusters, shock treatments or algaecides through the skimmer. These products should be added directly into the pool if required.
- Never use fast dissolving chlorine tablets, liquid bleach, or calcium hypochlorite in the Perform-Max Feeder.

# Step 2: Putting the Feeder to Work



## DANGER

Never use fast dissolving chlorine tablets, liquid bleach, or calcium hypochlorite in the Perform-Max Feeder.

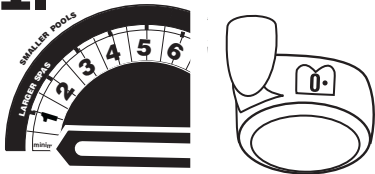


## WARNING

Avoid sparks, smoking, or any open flame near Perform-Max Feeder or chemicals.

**IMPORTANT:** Read the label on the Perform-Max Feeder carefully before using.

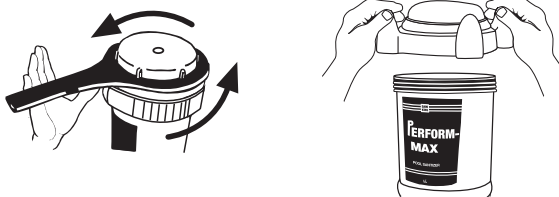
1.



Models 940, 960, 980    Model 920

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

2.

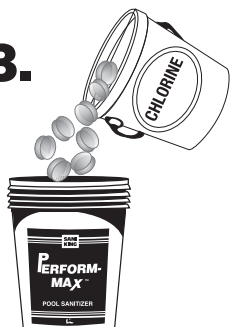


Models 940, 960, 980

Model 920

Open the cap. For Model 940/960/980 use the cap tool included with feeder to loosen cap by hitting the handle with the flat of your hand counterclockwise. Stand back to allow any chlorine fumes to dissipate.

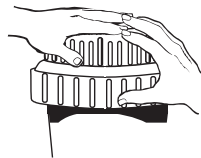
3.



Fill unit to top with the recommended chlorine OR bromine. **DO NOT MIX BROMINE AND CHLORINE.** Do not put small particles in feeder.

4.

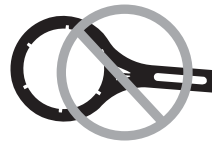
Replace cap by hand only. **DO NOT OVER TIGHTEN.**



Models 940, 960, 980



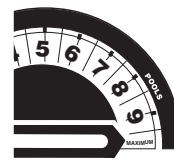
Model 920



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

## Changing Chemicals

(i.e. switching from chlorine to bromine)



Models 940, 960, 980



Model 920

Operate Perform-Max Feeder until empty of all chemical. When empty, set control dial to maximum or 10 and let run empty 24 hours.



Make sure all small particles have dissolved and been flushed out of feeder. Fill unit with new chemical following steps 1-4 above.

**DO NOT MIX BROMINE AND CHLORINE.** Do not put small particles in feeder.

# Step 3 - Setting Control Dial

When using slow dissolving trichlor, the Perform-Max Feeder should be operated based on its normal erosion design where only the bottom layer of tablets are wetted. This provides better controllability and longer lasting sanitation per refill.

When using bromine, the Perform-Max Feeder should be operated as a soaking feeder as this chemical works best when all tablets are wetted. Therefore bleeding the air on these units is recommended when using bromine.

## 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 3 to determine the correct setting for your pool.



Models 940, 960, 980      Model 920

### 1.

For all pools using **CHLORINE.....**



set the control dial at #2.



Models 940, 960, 980      Model 920

For all pools using **BROMINE...**



set the control dial at #4.

With bromine only, bleed air from unit by partially unscrewing back knob on Model 920 or cap knob on Models 940, 960 & 980 while the pump is running until water appears. Tighten knob.



### 2.

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

### 3.

After day one, adjust the dial up by 1/2 increment if the 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 and 3.0 ppm.



Models 940, 960, 980



Model 920

*Remember to adjust dial by 1/2 increments only. Higher than suggested settings could result in over chlorination and/or bleached pool surfaces.*



For Models 940, 960 & 980 use the handle end of cap tool if the dial is hard to turn.



## Step 4: Routine Pool Care

1.



Run filtration system enough hours to circulate all water 1 to 2 times per day. More than that could result in over chlorination.



### WARNING

To prevent the build up of gas pressure in the Perform-Max Feeder, be sure the pool return line valves are open -except when opening or servicing the unit.

2.



Regularly test water with test strips to maintain pH and Total Alkalinity.

**NOTE:** Water balance is affected by bather load, chemical usage, evaporation and the makeup of source water, so maintaining water balance regularly is important.

3.



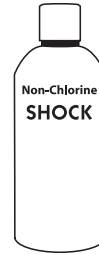
Maintain 1.0 - 3.0 free chlorine or 2.0-3.0 ppm bromine at all times.



### DANGER

Do not contaminate the Perform-Max Feeder with dirt, organic matter, pool chemicals (such as calcium hypochlorite or pool shocks), fertilizers or other household chemicals. Contact between any of these substances and the Perform-Max Feeder, will result in a chemical reaction with the generation of heat, liberation of hazardous gasses and fire or explosion.

4.



Shock the pool every week or as needed with a non-chlorine or chlorine shock.

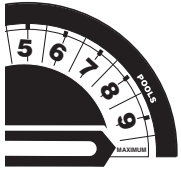


### DANGER

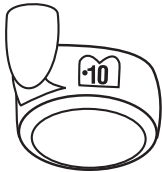
- Never add any other types of chlorine, pH adjusters, shock treatments or algaecides through the skimmer. These products should be added directly into the pool if required.
- Never use fast dissolving chlorine tablets, liquid bleach, or calcium hypochlorite in the Perform-Max Feeder.

# Winterizing

**1.**



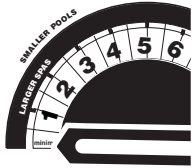
Models 940, 960, 980



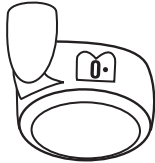
Model 920

Operate Perform-Max Feeder until empty of all chemical. When empty, set control dial to maximum or 10 and let run empty for 24 hours.

**2.**



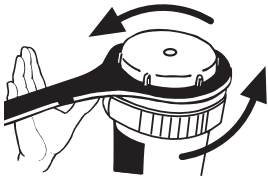
Models 940, 960, 980



Model 920

Turn pump off and turn dial to minimum or 0.

**3.** Remove cap.



Models 940, 960, 980

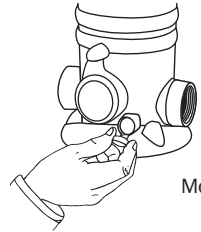


Model 920

**4.** Unscrew knob in front of Model 920 and in back of Models 940, 960, and 980. Allow all water to drain.



Models 940, 960, 980



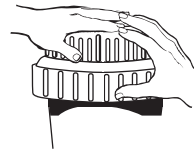
Model 920



## WARNING

Avoid sparks, smoking, or any open flame near Perform-Max Feeder.

**5.** Replace the cap and knobs loosely.



Models 940, 960, 980



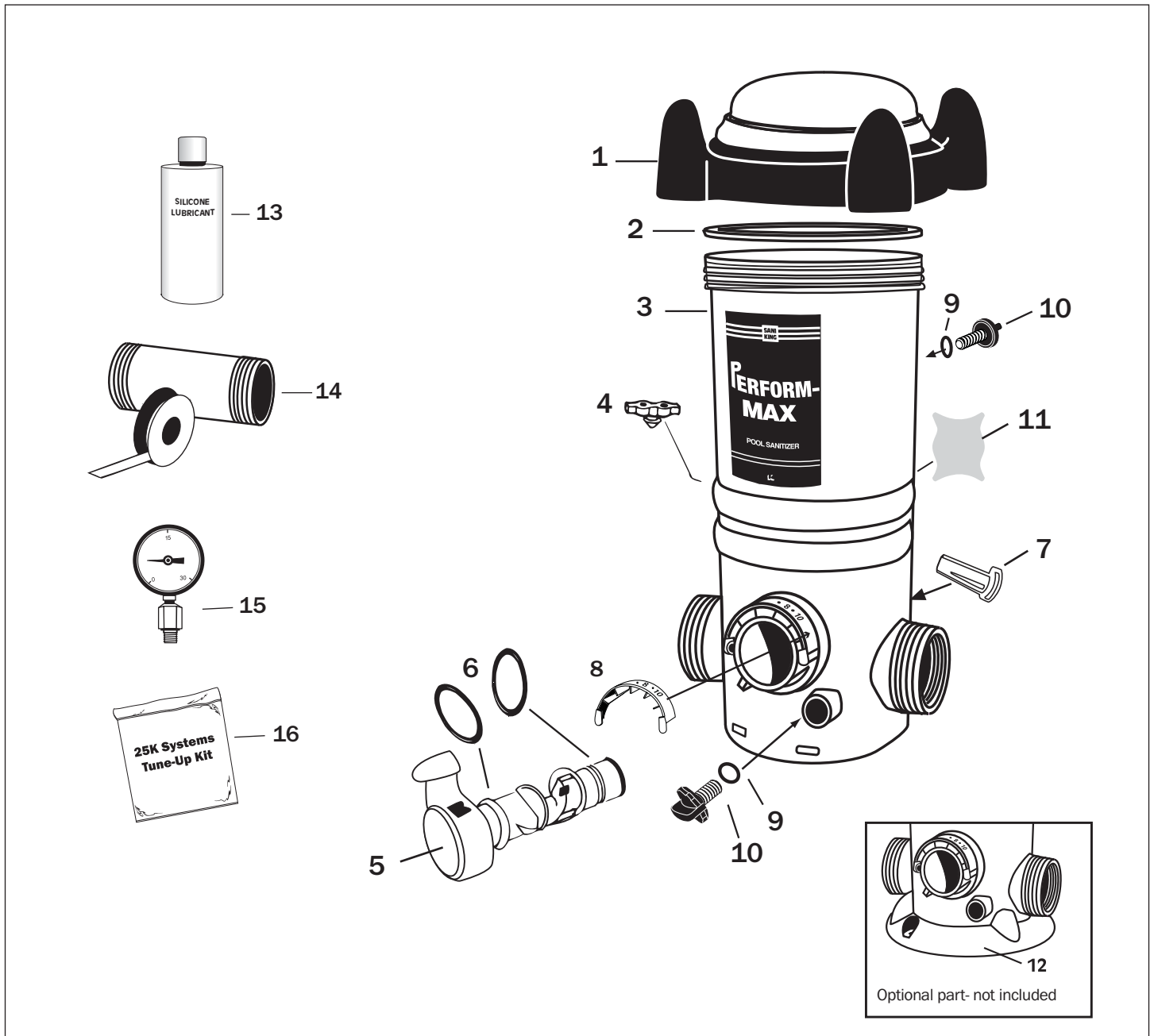
Model 920

# Troubleshooting

For help troubleshooting, call King Technology at 800-222-0169.

Problem	Remedy		
<p><b>1. What do I do if the water looks cloudy?</b></p>	<p>1. Make sure your filtration system is working properly (i.e. clean filter, skimmer and pump basket).</p> <p>2. Make sure circulation time is adequate – increase pump</p>	<p>time if not.</p> <p>3. Make sure the pool is properly balanced (see page 13).</p> <p>4. Shock the water to eliminate build up of any organic matter.</p> <p>5. Make sure pool has a</p>	<p>free chlorine reading of 1.0 to 3.0 ppm.</p> <p>6. Check with your dealer for more information.</p>
<p><b>2. What do I do if the water turns color?</b></p>	<p>1. Algae may be trying to form – shock the pool, increase circulation time if needed and clean the filter.</p>	<p>2. Metals in the fill water may have been oxidized. Have the pool tested. See pool dealer if a metal control product is required.</p>	<p>3. Check with your dealer for more information.</p>
<p><b>3. What do I do if algae forms in or on my pool?</b></p>	<p>1. Use an algacide per the directions on the bottle and brush the sides of the pool often.</p>	<p>2. Clean the filter and shock the pool with chlorine daily until water clarity returns.</p>	<p>3. Check with your dealer for more information.</p>
<p><b>4. What do I do if I am under chlorinating?</b></p>	<p>1. Make sure there are chlorine tablets in the Perform-Max Feeder. Consider using 1” tablets over 3” pucks for greater output.</p> <p>2. If reading dropped below 1.0 ppm, shock pool. Turn control dial to minimum when shocking and NEVER ADD SHOCK IN OR NEAR THE SKIMMER. Reset dial 1/2 setting higher than before and continue monitoring daily</p>	<p>until desired chemical level is achieved.</p> <p>3. 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 each time cap is open.</p> <p>4. Try bleeding the air, soaking tablets for greater output.</p> <p>5. Contact your dealer to have your back pressure tested. If</p>	<p>under 4 psi consider a smaller eye-ball fitting in the return jet.</p> <p>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.</p> <p>7. Contact King Technology’s Customer Service Department at 800-222-0169.</p>
<p><b>5. What do I do if I am over chlorinating?</b></p>	<p>1. Turn dial to minimum or 0. When reading drops to desired ppm, reset dial 1 setting lower than the starting dial setting and continue monitoring daily.</p> <p>2. Consider switching 1 inch tablets to 3 inch pucks for less output.</p> <p>3. If over-chlorinating at the lowest possible setting,</p>	<p>consider decreasing the circulation time. Depending on your pump size, you may be circulating the water more than is necessary.</p> <p>4. Contact your dealer to have your back pressure tested. If over 8 psi consider a larger eye-ball fitting in the return jet.</p>	<p>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.</p> <p>6. Contact King Technology’s Customer Service Department at 800-222-0169.</p>

# Parts List • Model 920



## Included with Model 920

REF. #	DESCRIPTION	QTY. INCLUDED
1 & 2	Cap w/O-Ring	1
3	Body	1
4	Pressure Relief Valve	1
5, 6, 7, 8	Control Dial with O-Rings	1
	Locking Pin and Number Plate	1
9 & 10	Knob with O-Ring	2
11	Screen	1
13	Silicone Lubricant	1

## Replacement Parts for Model 920

REF. #	PART NO.	DESCRIPTION
1 & 2	01-22-1418	Cap w/O-Ring
2	01-22-1926	Cap O-Ring
4	01-22-9486	Pressure Relief Valve
5, 6, 7, 8	01-22-1446	Control Dial with O-Rings & Locking Pin, Number Plate
6	01-22-1456	Control Dial O-Ring Set
9 & 10	01-22-9946	Knob with O-Ring
11	01-22-9666	Screen
12	01-22-1485	Mounting Base
13	01-22-9970	Silicone Lubricant
14	01-22-1710	Nipple Kit
15	01-22-4000	Pressure Gauge
16	01-22-1470	25k Tune-Up Kit

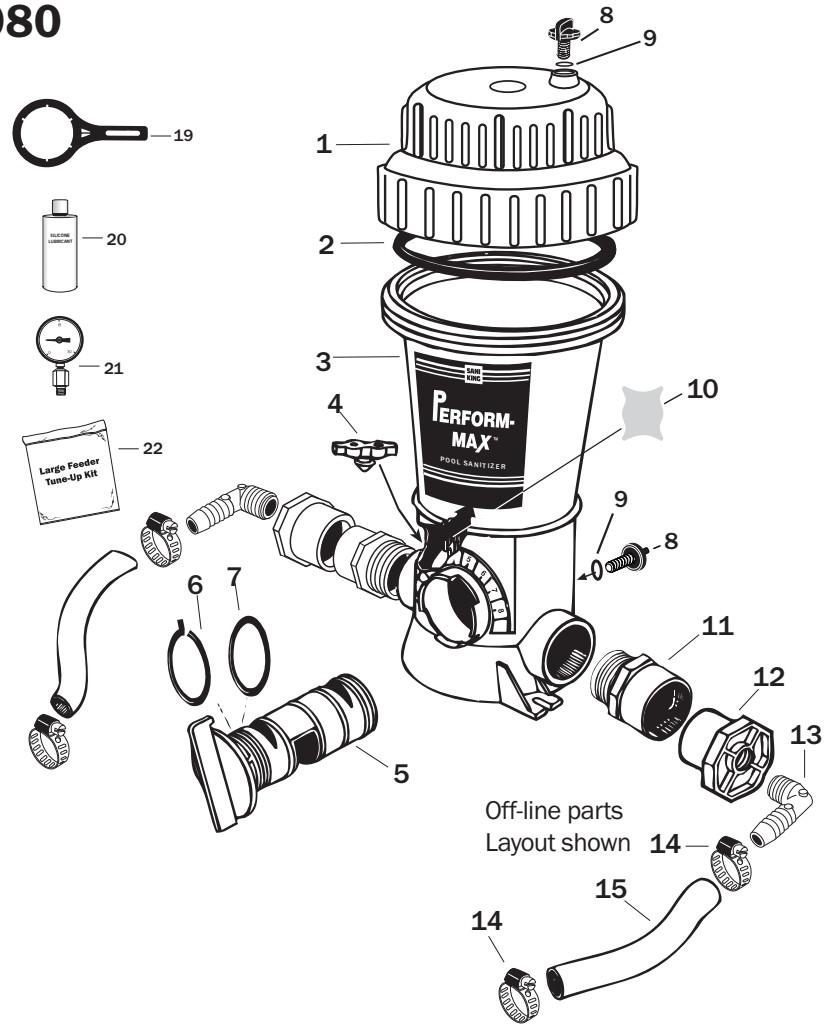
# Parts List Models 940, 960, 980

## INCLUDED WITH • Models 940, 960 and 980

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
10	Screen	1
19	Cap/Control Dial Tool	1
20	Silicone Lubricant	1

## REPLACEMENT PARTS • Models 940, 960 and 980

REF. #	PART NUMBER	DESCRIPTION
1 & 2	01-22-9411	Cap w/O-Ring
2	01-22-9926	Cap O-Ring
4	01-22-9486	Pressure Relief Valve
5, 6, 7	01-22-9446	Control Dial with O-Rings
6 & 7	01-22-9456	Control Dial O-Ring Kit
8 & 9	01-22-9946	Knob with O-Ring
10	01-22-9666	Screen
19	01-22-8870	Cap/Control Dial Tool
20	01-22-9970	Silicone Lubricant
21	01-22-4000	Pressure Gauge
22	01-22-9950	Large Feeder Tune-Up Kit



Troubleshoot

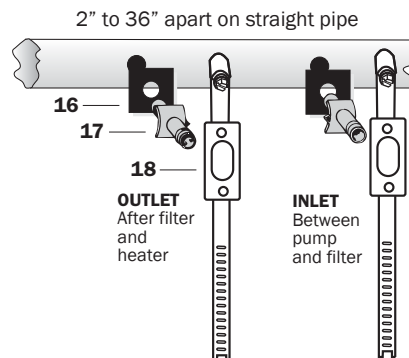
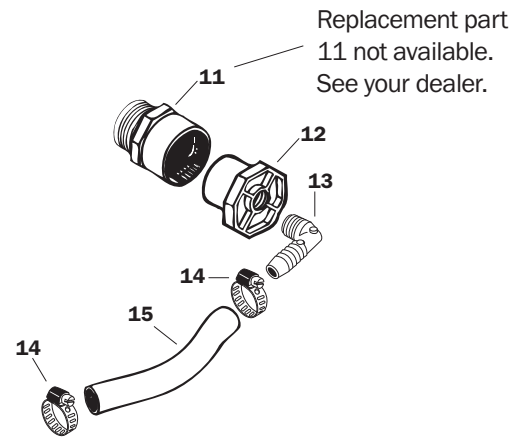
## Off-line parts 11 to 18

### INCLUDED WITH OFF-LINE Model 960

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

### REPLACEMENT PARTS • Model 960


REF. #	PART NUMBER	DESCRIPTION
12	01-22-8626	2" X 1/2" Bushing
13	01-22-7806	90 Degree Elbow
14	01-22-7696	Small Clamp
15	01-22-7700	6' PVC Tubing
16	01-22-7856	Scoop Gasket
17	01-22-7796	Venturi Scoop
18	01-22-7916	Scoop Clamp



# Maintenance

## Replacing the Control Dial O-Rings

### Model 920

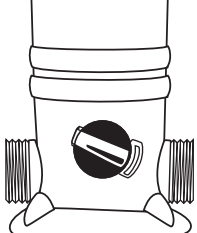
**1.**  Center of locking pin  
In the back of the Perform-Max Feeder depress center of locking pin with a finger and pull pin out of dial.

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

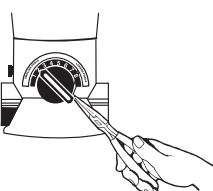
**3.**  Back o-ring  
Replace both O-rings. Apply silicone lubricant that came with your Perform-Max Feeder on O-rings.


 SILICONE LUBRICANT  
PN # 01-22-9970


**4.**  Carefully insert control dial back into housing.

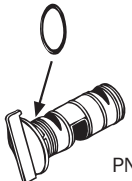
**5.**  Replace locking pin by pushing it through the slots on the dial until it locks into place.


### Models 940/960/980


**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 Perform-Max Feeder on O-ring.

 SILICONE LUBRICANT  
PN # 01-22-9970

**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.

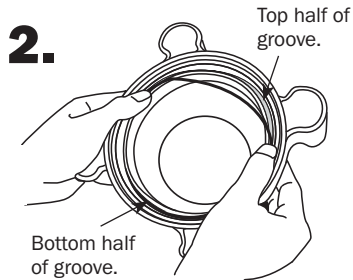
**7.**  Using a small screwdriver or pointed tool to help guide it, make sure the snap ring stays in the groove as it is inserted.

continued... **Maintenance**

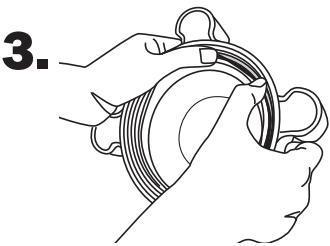
**Replacing the Cap O-Ring**

**Model 920**

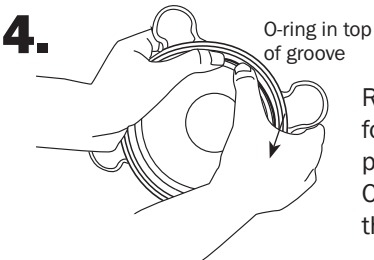
**1.** Remove old O-ring.



Place new O-ring in bottom half of groove.



Place your thumbs on each side of the cap over the O-ring in the groove.



Roll your thumbs back and forth over the O-ring while pushing upward until the O-ring falls into the top of the groove.

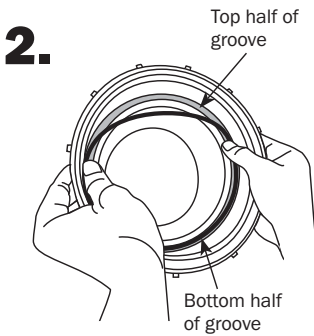
Product # 01-22-9971



Lubricate O-ring every couple of months with silicone lubricant that came with your Perform-Max Feeder. **DO NOT USE** petroleum based lubricants.

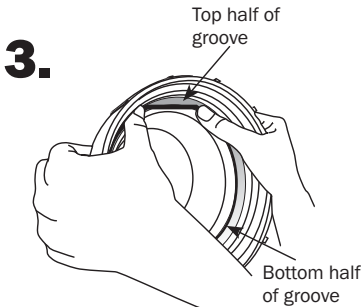
**Models 940, 960 & 980**

**1.** Remove old O-ring.



Place new O-ring in bottom half of groove.

Place your thumbs on each side of the cap over the O-ring in the groove.



Roll your thumbs back and forth over the O-ring while pushing upward until the O-ring falls into the top of the groove.

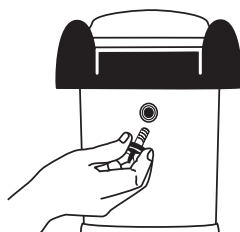
**Troubleshoot**

**Replacing Feeder Knobs** To replace, simply unscrew old knob and replace with the new one.

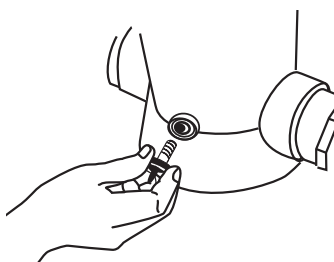
Front of Model 920



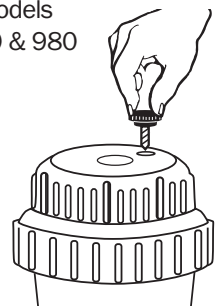
Back of Model 920



Back of Models 940, 960 & 980



Cap of Models 940, 960 & 980



## Limited One-Year Warranty

*King Technology, Inc. will warrant this unit with a complete replacement for the original purchaser, should it prove defective by reason of improper workmanship and/or material for a period of one (1) years from the date of original purchase/installation. This warranty covers body, cap and control dial excluding O-rings. King Technology holds the option of replacing any defective part without charge if it is determined to be all that is needed to correct any situation. Parts used for replacement, with the exception of O-rings, are warranted for the remainder of the original warranty.*

1. To obtain warranty service, you must deliver product 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 at [frogproducts.com/find-a-dealer](http://frogproducts.com/find-a-dealer) or by calling King Technology at 1-800-222-0169. Proof of purchase is required when requesting warranty service. Purchaser must present the sales receipt or other document which establishes proof of purchase.

2. This warranty does not cover defects caused by: modification, alteration, repair or service of the product 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. Any express warranty not provided for herein, and any remedy for breach of warranty or breach of contract which, but for this provision, might arise by implication or operation of law, is hereby expressly excluded and disclaimed. The implied warranties of merchantability and of fitness for any particular purpose are expressly limited to a term of one year. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

4. 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 special, incidental or consequential damages or losses, whether arising out of breach of warranty, breach of contract or otherwise. Some states do not allow the exclusion or limitation of incidental consequential damages, so the above limitation or exclusion may not apply to you.

5. Misuse or failure to use the proper chlorine or bromine in the Perform-Max Feeder may cause damage to equipment or personal injury. All warranty null and void if this product is not used with the recommended chlorine or bromine.

**Register your warranty at [kingtechnology.com/product-registration](http://kingtechnology.com/product-registration).**

MANUFACTURED BY



530 11th AVENUE SOUTH  
HOPKINS, MINNESOTA 55343 U.S.A.

952-933-6118 • 800-222-0169

[kingtechnology.com](http://kingtechnology.com)

Made in U.S.A.  
Patents: [kingtechnology.com/IP](http://kingtechnology.com/IP)

20-48-0118  
553041943R8N