ChlorKing®
A HAYWARD® COMPANY

NEXGENph On-Site Chlorine Generator

Models covered in this manual:

NEXGEN20, NEXGEN20R

NEXGEN40, NEXGEN40R

NEXGEN60, NEXGEN60R

NEXGEN80, NEXGEN80R

Installation, Operation, Maintenance, and Parts Manual

Manufacturer:

ChlorKing
2935 Northeast Parkway
Atlanta, GA 30360

1-800-536-8180

This manual is subject to change at any time based on system improvements, design changes, authorized modifications, or new information. Please consult ChlorKing for the latest revision.

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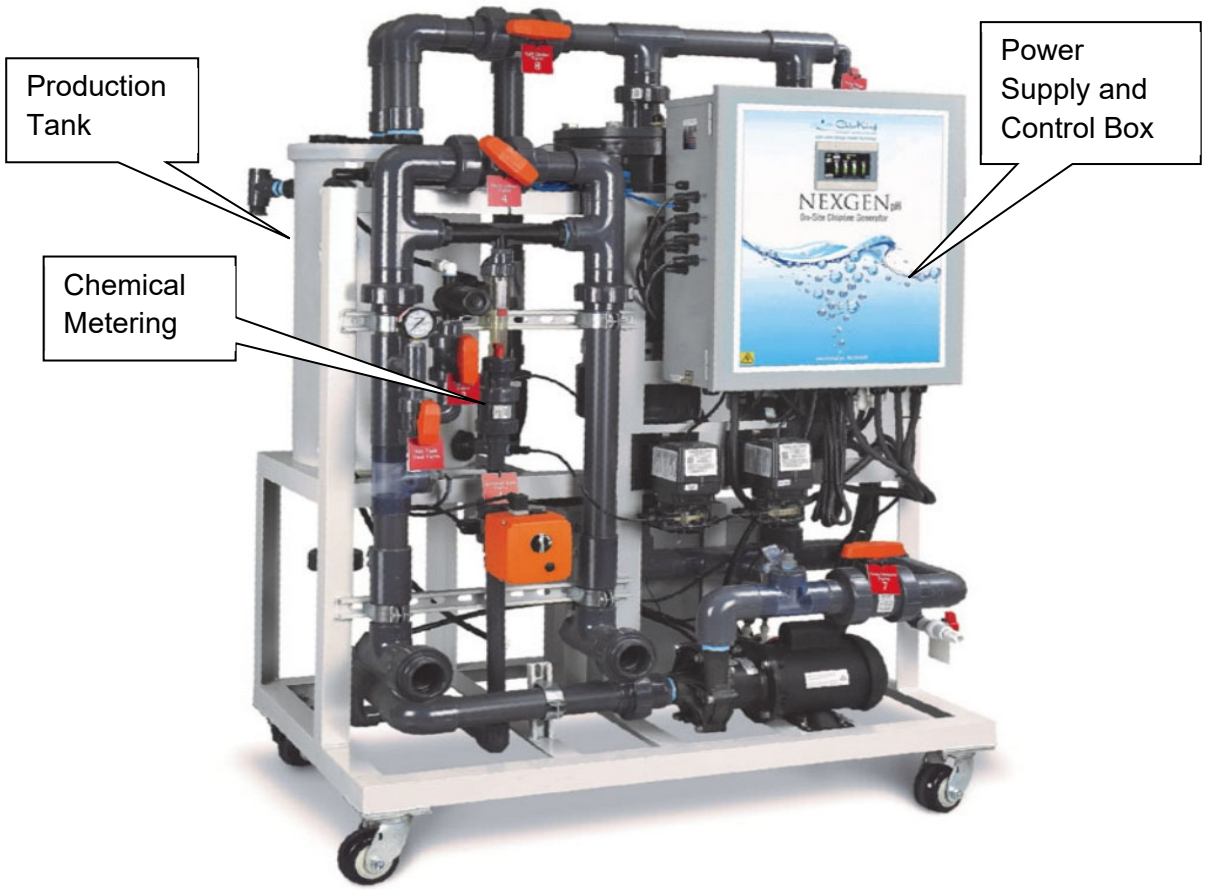
DESCRIPTION

GENERAL INFORMATION

The NEXGEN system is an on-site sodium hypochlorite generator designed for commercial swimming pool applications. With the appropriate accessories, the NEXGEN is capable of independently chlorinating up to six bodies of water. Depending on your model, the NEXGEN linear power supply can produce up to 96 pounds of equivalent chlorine per day. The system manufactures bleach continuously from a salt concentration of 5000 ppm to 7000 ppm and uses the water from the pool as a raw material. This unique feature eliminates issues with high TDS levels and requires less salt as raw material than traditional methods. The NEXGEN is designed for commercial service and can be run 24 hours a day or controlled by any pool controller. “R” models are reverse polarity for reduced maintenance. The basic components of the NEXGEN are outlined below**.**

For general information email info@chlorking.com or call 1.800.536-8180
For technical support email techsupport@chlorking.com or call 1.800.536-8180 Option 1



PRINCIPALS OF OPERATION

Production Tank Assembly

The production tank assembly consists of a polyethylene tank, an external electrolytic cell, a circulation pump and heat exchanger. Pool water from the pool return line is fed into the production tank. The circulation pump circulates water through the electrolytic cell and heat exchanger. The water in the tank is maintained between 5000-ppm and 7000-ppm salt concentration. The electrolytic cell produces a 1660 ppm to 2500 ppm sodium hypochlorite solution. The flow rate through the tank dictates the amount of sodium hypochlorite produced. The sodium hypochlorite flows to the pool for use in disinfection. Pool water flows through the heat exchanger to maintain tank temperatures of no more than 10 degrees F above the pool water.

Dilution Fan

Electrochemical production of sodium hypochlorite produces hydrogen as a byproduct. The dilution fan pumps fresh air into the production tank to dilute the hydrogen and force it out the vent. The vent must be vented to outside atmosphere.

Saturated Salt Feeder

The saturated salt feeder supplies the production tank with a constant supply of salt to produce sodium hypochlorite. Salt is used at the rate of 2 pounds per pound of equivalent chlorine produced or 3 pounds per pound of equivalent chlorine produced depending on production quantity selected. The saturated salt feeder is filled manually. Salt is pumped using standard peristaltic chemical feed pumps. All models ship with SSFEEDER 55-S which holds 550lbs of pure rock or pellet salt.

Chemical Metering

Chemical metering is accomplished using a venturi. The flow through the venturi is adjusted to provide the flow rate necessary to deliver the rated production of chlorine to the pool.

Power Supply and Control Box

The power supply provides the current to the electrolytic cell to produce the rated amount of sodium hypochlorite. The power supply houses all the safety features to prevent system operation in the event of a malfunction.

SPECIFICATIONS

NEXGEN Model	Max Sodium Hypochlorite Production*	Electrical Ratings	Breaker Size	Power Supply Fuse
NEXGEN20	Up to 24 lbs/day	240V, 39.88A, 60Hz	240-volt single phase @ 50 amps	40 amp RK5 class fuse
NEXGEN20R	Up to 24 lbs/day	240V, 39.88A, 60Hz	240-volt single phase @ 50 amps	40 amp RK5 class fuse
NEXGEN40	Up to 48 lbs/day	240V, 49.17A, 60Hz	240-volt single phase @ 60 amps	60 amp RK5 class fuse
NEXGEN40R	Up to 48 lbs/day	240V, 49.17A, 60Hz	240-volt, single phase @ 60 amps	60 amp RK5 class fuse
NEXGEN60	Up to 72 lbs/day	240V, 87.12A, 100Hz	240-volt, single phase @ 100 amps	2 x 60 amp RK5 class fuse
NEXGEN60R	Up to 72 lbs/day	240V, 87.12A, 100Hz	240-volt, single phase @ 100 amps	2 x 60 amp RK5 class fuse
NEXGEN80	Up to 96 lbs/day	240V, 87.12A, 100Hz	240-volt, single phase @ 100 amps	2 x 60 amp RK5 class fuse
NEXGEN80R	Up to 96 lbs/day	240V, 87.12A, 100Hz	240-volt, single phase @ 100 amps	2 x 60 amp RK5 class fuse
Additional 120-volt connection to a chemical feed controller or 120 volt outlet @ 1 amp				
*Based on 7,000 ppm salt concentration setpoint on the NEXGEN Touchscreen				

Maximum pool return line pressure:

25 PSI including plumbing to and from the venturi injector.

Certifications:

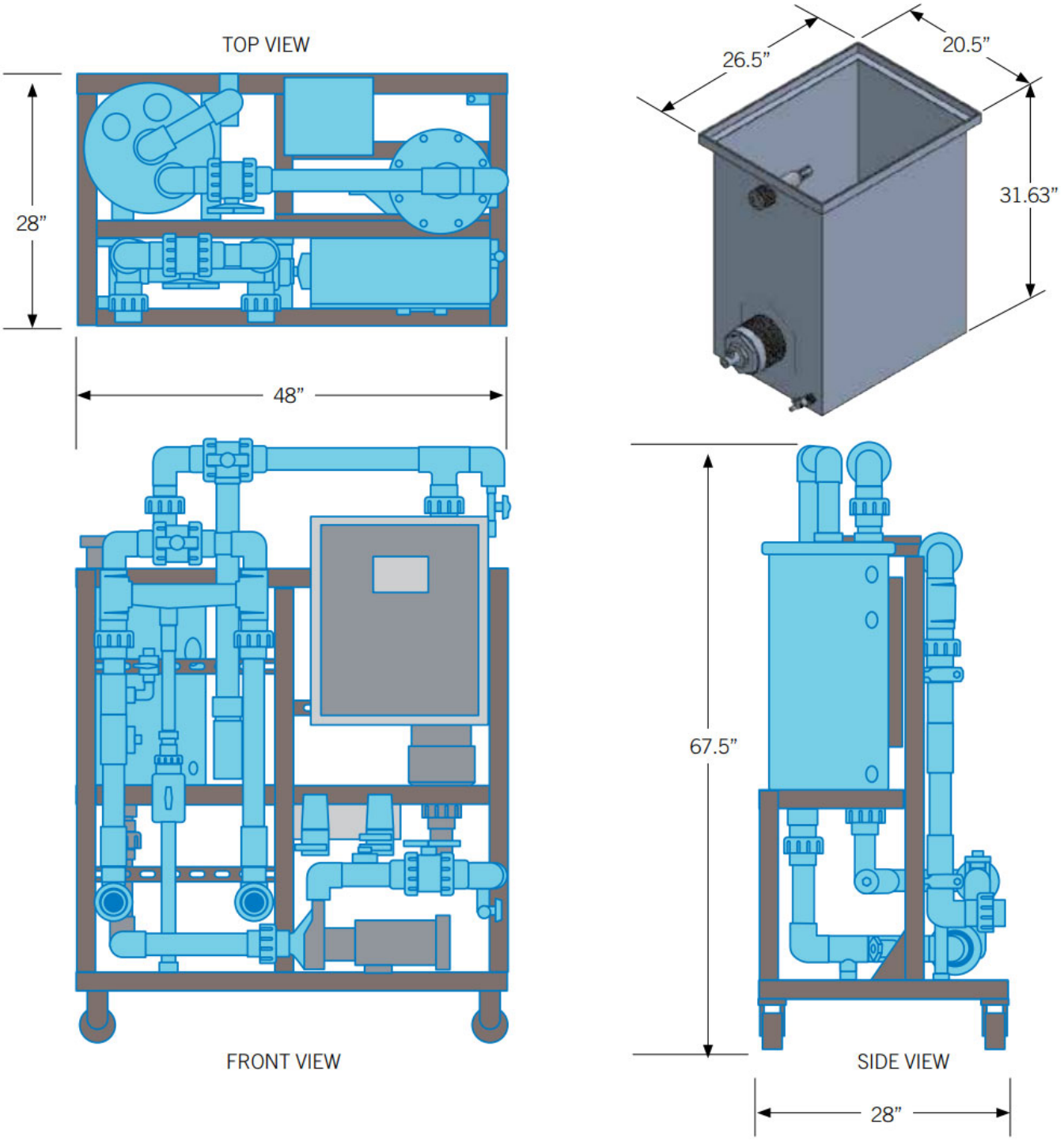
The NEXGEN is certified for indoor installation.

NSF Standard 50
UL Standard 1081
CSA Standard C22.2 #218.1
PRMA Reg. No. 33004

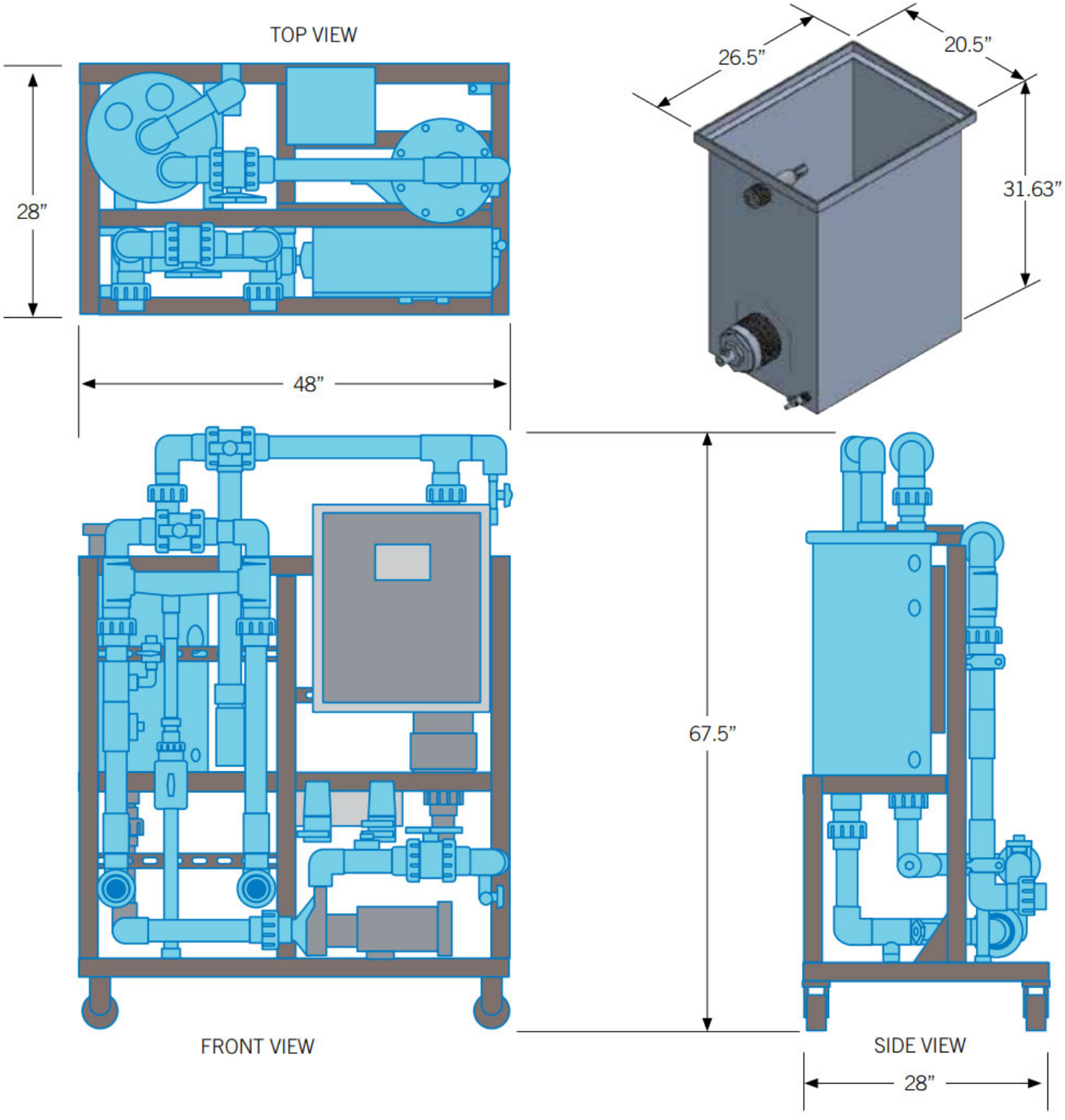
Sizing guidelines

Chlorinator sizing must comply with local codes. Please contact your local health department for specific requirements or contact your local ChlorKing representative for assistance.

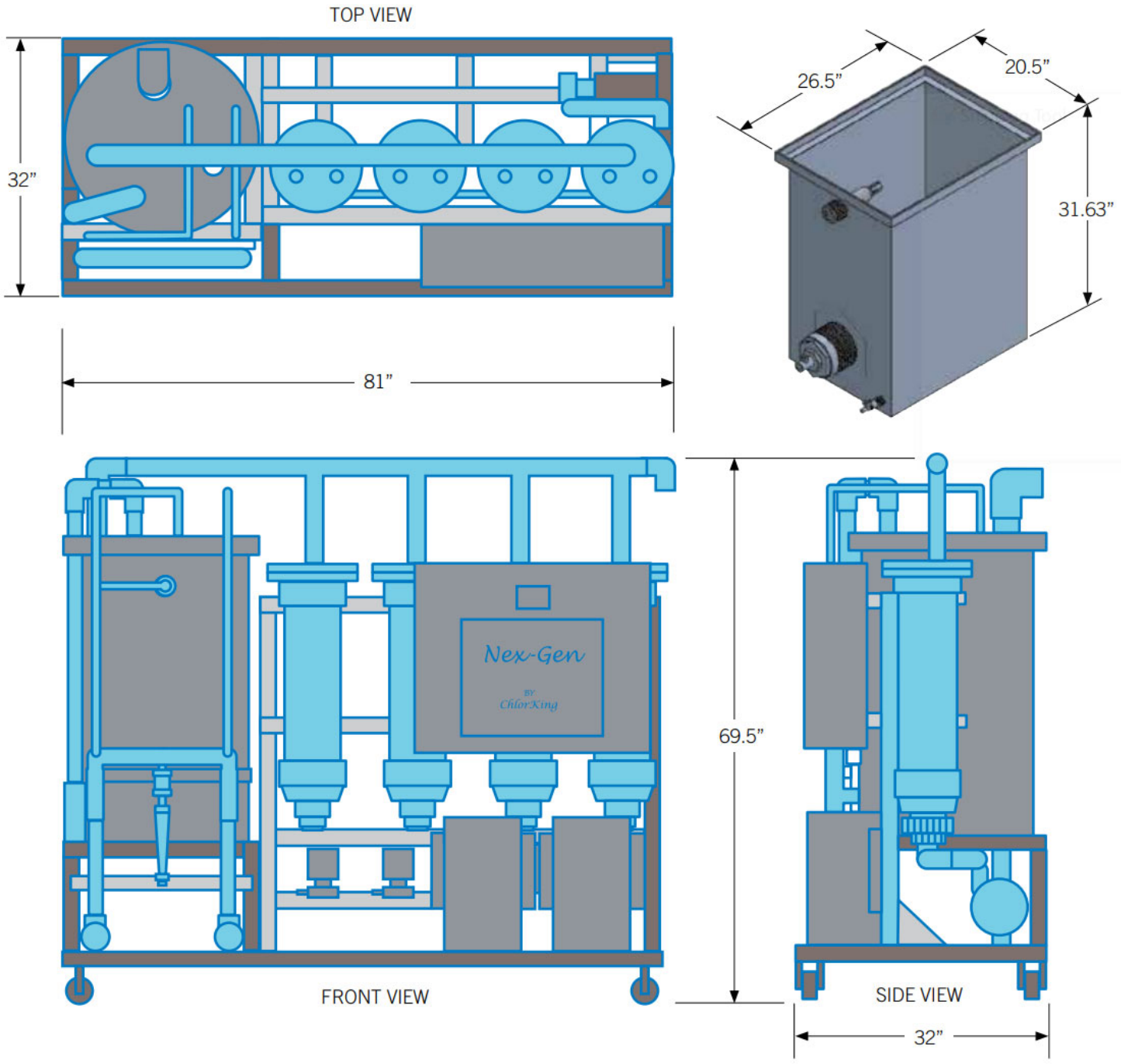
NEXGEN 20 AND NEXGEN 20R DEMENSIONS



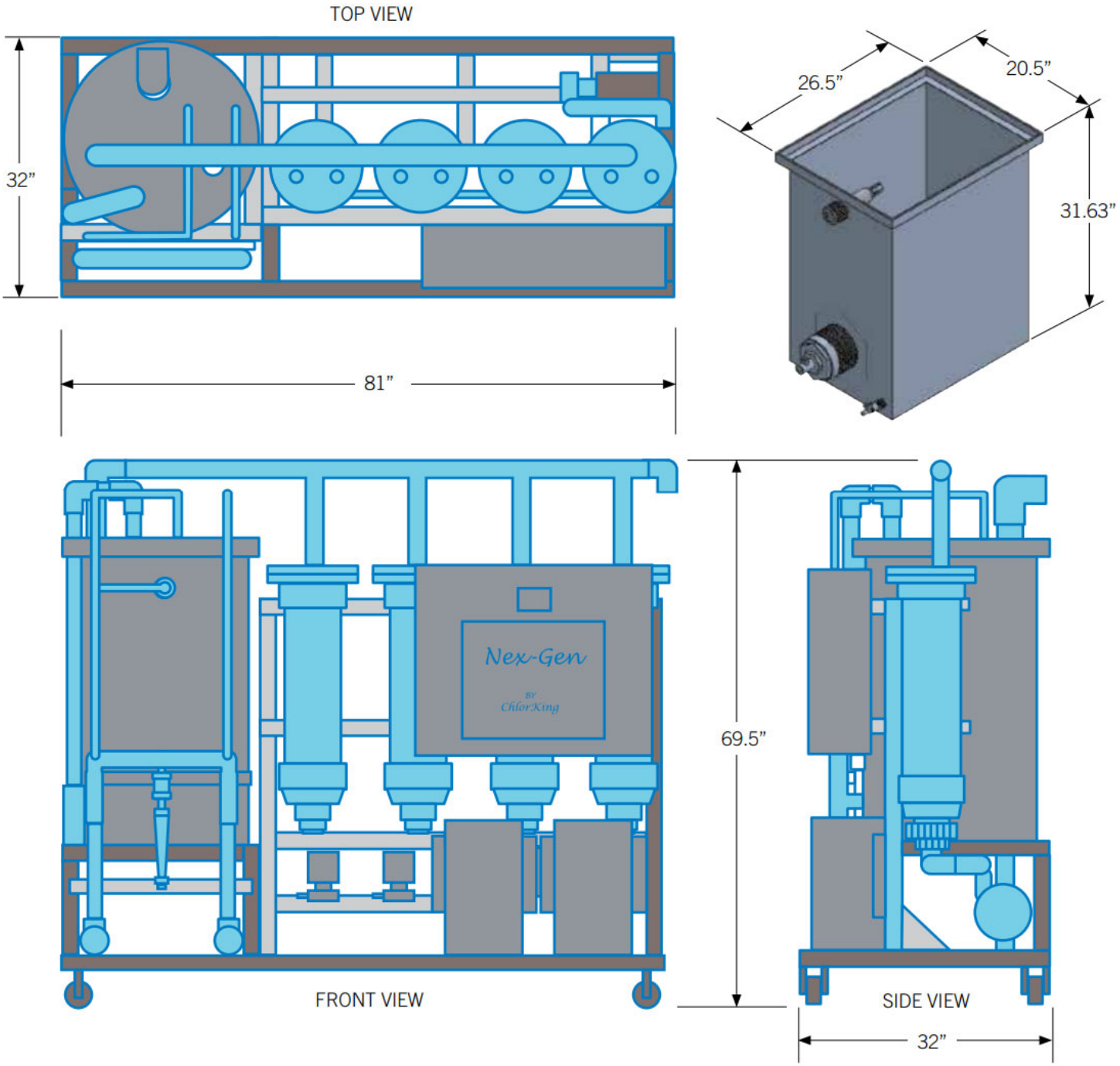
NEXGEN 40 AND NEXGEN 40R DEMENSIONS



NEXGEN 60 AND NEXGEN 60R DEMENSION



NEXGEN 80 AND NEXGEN 80R DEMENSIONS



INSTALLATION

UNPACKING

Units are shipped from the factory. In the event of damages during shipping, it is the responsibility of the customer to notify the carrier immediately and to file a damage claim. Open the crate carefully and examine all material inside.

STORAGE

When storing units, use the original packaging and store under a shelter to protect the contents from weather.

SAFETY CONSIDERATIONS

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

SAVE THESE INSTRUCTIONS

WHEN INSTALLING, OPERATING, AND MAINTAINING THIS EQUIPMENT, KEEP SAFETY CONSIDERATIONS FOREMOST. USE PROPER TOOLS, PROTECTIVE CLOTHING, AND EYE PROTECTION WHEN WORKING ON OR INSTALLING THE EQUIPMENT. FOLLOW THE INSTRUCTIONS IN THIS MANUAL AND TAKE ANY ADDITIONAL SAFETY MEASURES APPROPRIATE. BE EXTREMELY CAREFUL IN THE PRESENCE OF HAZARDOUS SUBSTANCES.

THE PERSONNEL RESPONSIBLE FOR INSTALLATION, OPERATION, AND MAINTENANCE OF THIS EQUIPMENT MUST BE FULLY FAMILIAR WITH THE CONTENTS OF THIS MANUAL.

ANY SERVICING OF THIS EQUIPMENT MUST BE DONE WITH THE UNIT FULLY OFF AND DISCONNECTED FROM THE POWER SOURCE AND ALL PRESSURE BLED FROM THE LIQUID LINES.

WARNING

- **CHLORKING® SYSTEMS ARE INTENDED TO BE INSTALLED ACCORDING TO ALL LOCAL AND NATIONAL REGULATIONS.**
- **CONNECT THE EQUIPMENT ASSEMBLY TO A CIRCUIT PROTECTED BY A GROUND-FAULT CIRCUIT-INTERRUPTER.**

- **ONLY A CERTIFIED TECHNICIAN MAY INSTALL AND SERVICE THE CHLORKING® NEXGEN SYSTEM.**
- **MODIFYING THE CHLORKING® NEXGEN SYSTEM IN ANY WAY MAY CAUSE BODILY INJURY AND WILL VOID THE WARRANTY.**
- **DO NOT ALLOW CHILDREN OR ANYONE NOT CAPABLE TO OPERATE THE CHLORKING® NEXGEN SYSTEM.**
- **ONLY REPLACE COMPONENTS WITH THOSE SPECIFIED BY THE MANUFACTURER.**
- **WHEN INSTALLING THE SYSTEM, ENSURE THAT POWER IS LINKED TO THE MAIN PUMP POWER SOURCE FOR THE POOL TO ENSURE THAT THE CHLORKING® NEXGEN SYSTEM NEVER OPERATES WHEN THE PUMPS ARE OFF.**
- **ALL BOXES ON THE CHLORKING® NEXGEN SYSTEM CONTAIN HIGH VOLTAGE COMPONENTS. NEVER OPEN ANY BOX WHILE THE POWER IS ON.**
- **THE SYSTEM HAS THE POTENTIAL TO RELEASE HIGH DOSES OF CHORINE. USE CAUTION WHEN HANDLING, SERVICING, OR OPERATING THE EQUIPMENT.**
- **DO NOT ENERGIZE OR OPERATE THE SYSTEM IF THE CELL HOUSING IS DAMAGED OR IMPROPERLY ASSEMBLED.**
- **THE MOUNTING LOCATION OF THE UNIT MUST BE AT LEAST 1.5 METERS FROM THE POOL.**

CONSERVEZ CES INSTRUCTIONS

LORS DE L'INSTALLATION, DE FONCTIONNEMENT ET L'ENTRETIEN DE CET ÉQUIPEMENT, GARDEZ LES CONSIDÉRATIONS SUR LA SÉCURITÉ AVANT TOUT. UTILISER DES OUTILS APPROPRIÉS, DES VÊTEMENTS DE PROTECTION ET LUNETTES DE PROTECTION LORSQU'ILS TRAVAILLENT SUR OU À L'INSTALLATION. SUIVEZ LES INSTRUCTIONS DE CE MANUEL ET PREND LES MESURES DE SÉCURITÉ SUPPLÉMENTAIRES APPROPRIÉES. SOYEZ VIGILANTS EN PRÉSENCE DE SUBSTANCES DANGEREUSES.

LE PERSONNEL CHARGÉ DE L'INSTALLATION, DE FONCTIONNEMENT ET D'ENTRETIEN DE CE MATÉRIEL DOIT ÊTRE PARFAITEMENT FAMILIARISÉ AVEC LE CONTENU DE CE MANUEL.

AUCUNE OPÉRATION DE MAINTENANCE DE CET ÉQUIPEMENT DOIT ÊTRE FAITE AVEC L'UNITÉ ENTIÈREMENT ÉTEINT ET DÉBRANCHÉE DE L'ÉLECTRICITÉ ET TOUTE LA PRESSION SAIGNÉ À PARTIR DES LIGNES DE LIQUIDES.

MISE EN GARDE

- **CHLORKING ® SYSTEMES SONT DESTINES A ETRE INSTALLES SELON TOUS LES REGLEMENTS LOCAUX ET NATIONAUX.**
- **CONNECTER LE MONTAGE DE L'ÉQUIPEMENT SUR UN CIRCUIT PROTÉGÉ PAR UN DISJONCTEUR DE FUITE À LA TERRE.**
- **SEUL UN TECHNICIEN CERTIFIE PEUT INSTALLER ET ENTRETENIR LE SYSTEME CHLORKING ® NEXGEN.**
- **MODIFIANT LA CHLORKING ® NEXGEN SYSTEME EN QUELQUE SORTE PEUT CAUSER DES LESIONS CORPORELLES ET LA GARANTIE ANNULATION.**
- **N'AUTORISENT PAS LES ENFANTS OU N'IMPORTE QUI PAS CAPABLE D'ALIMENTER LE SYSTEME CHLORKING ® NEXGEN.**
- **REMPLACEZ UNIQUEMENT LES COMPOSANTS AVEC CELLES SPÉCIFIÉES PAR LE FABRICANT.**
- **LORSQUE VOUS INSTALLEZ LE SYSTEME, S'ASSURER QUE LA PUISSANCE EST LIEE A LA SOURCE D'ALIMENTATION DE POMPE A MAIN POUR LA PISCINE POUR VOUS ASSURER QUE LE SYSTEME DE NEX-GEN CHLORKING ® FONCTIONNE JAMAIS QUAND LES POMPES SONT HORS SERVICE.**
- **TOUTES LES CASES SUR LE SYSTEME CHLORKING ® NEXGEN CONTIENNENT DES COMPOSANTS HAUTE TENSION. NE JAMAIS OUVRIR N'IMPORTE QUELLE BOÎTE TANDIS QUE L'APPAREIL EST ALLUMÉ.**
- **LE SYSTÈME A LA POSSIBILITÉ DE LIBÉRER DES DOSES ÉLEVÉES DE CHLORE. SOYEZ PRUDENT LORS DE MANIPULATION, ENTRETIEN OU FONCTIONNEMENT DE L'ÉQUIPEMENT.**
- **NE PAS METTRE SOUS TENSION OU FAIRE FONCTIONNER LE SYSTÈME SI LE BOÎTIER DE LA CELLULE EST ENDOMMAGÉ OU MAL ASSEMBLÉ.**
- **L'EMPLACEMENT DE MONTAGE DE L'UNITÉ DOIT ÊTRE D'AU MOINS 1,5 MÈTRES DE LA PISCINE.**

PLAN AHEAD

The NEXGEN is intended to be installed indoors. It is imperative to have prior knowledge of the facility in which the unit is to be installed. Evaluate space requirements, electrical requirements, and plumbing requirements. Determine what type of tools and hardware will be needed to complete the installation.

ADDITIONAL PARTS REQUIRED FOR INSTALLATION

½ inch polypropylene or polyethylene tubing
¼ inch polypropylene or polyethylene tubing
PVC tubing in 2 inch or PVC pipe in 2 inch
PVC 90's, 45's, couplings and saddles or adapters for the return line size encountered
2" or 3" inch PVC pipe, 90's, 45's and couplings for the hydrogen vent, see page 19
Anchors and mounting hardware
Container specified for 31.4% muriatic acid and the necessary amount of chemical
Pure rock or pellet salt for the Saturated Salt Feeder

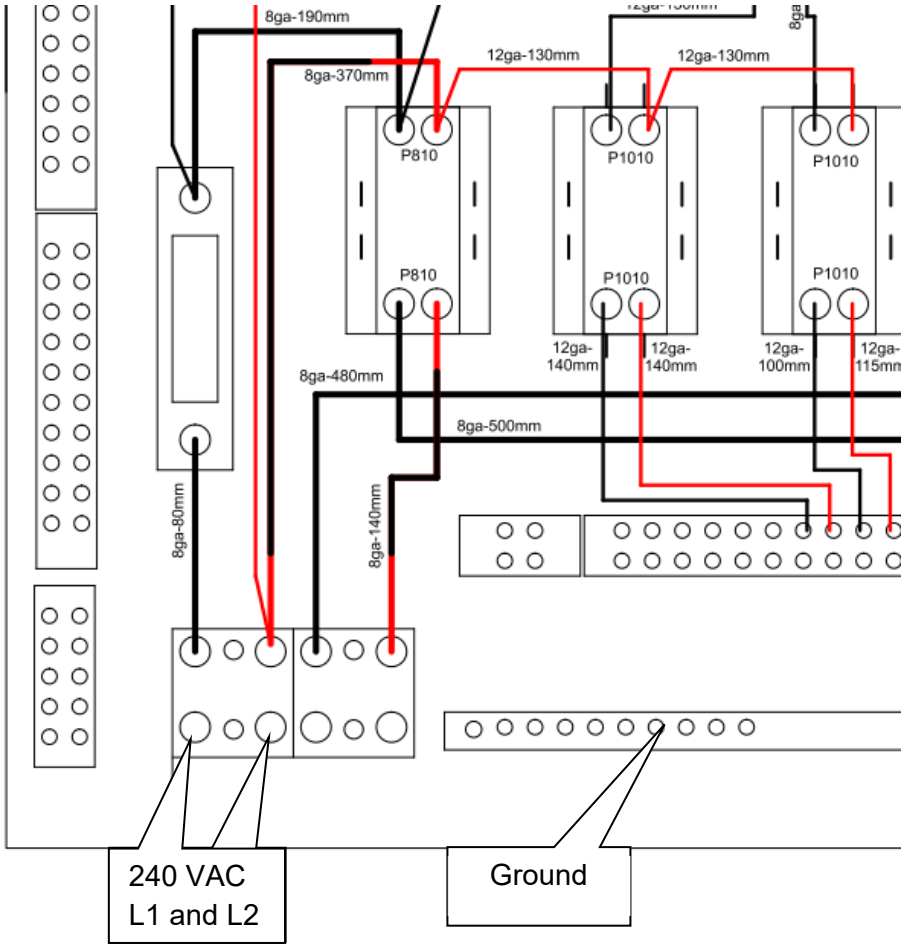
POWER SUPPLY ELECTRICAL CONNECTIONS

WARNING

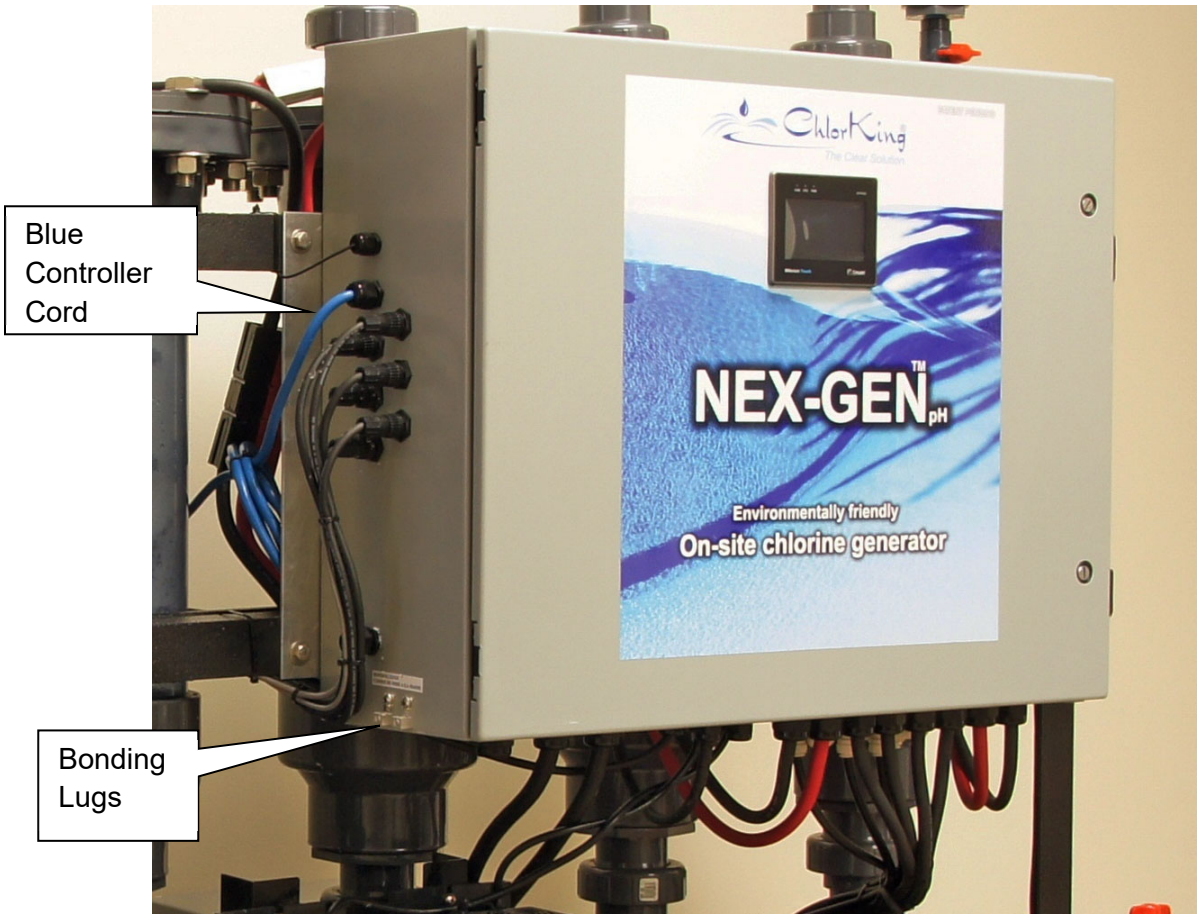
DO NOT FORGET TO CONNECT THE EARTH TERMINALS AND THE EQUIPMENT BONDING WIRE. THE ELECTRICAL SUPPLY MUST MATCH THE SYSTEM RATED CURRENT. ENSURE THAT POWER IS LINKED TO THE MAIN PUMP POWER SOURCE FOR THE POOL TO ENSURE THAT YOUR CHLORKING® NEXGEN SYSTEM NEVER OPERATES WHEN THE POOL PUMPS ARE OFF.

For ease of service, install a manual disconnect be installed between the electrical service and the NEXGEN system.

Connect the electrical supply from the pool equipment room to the connections marked 240 VAC L1, L2 and ground. Ensure that the electrical service is protected by a circuit interrupter and is rated for the model NEXGEN that is installed.



Connect the blue control cord to a chemical feed controller or for manual operation, into a 120V electrical outlet protected by a ground fault circuit interrupter.



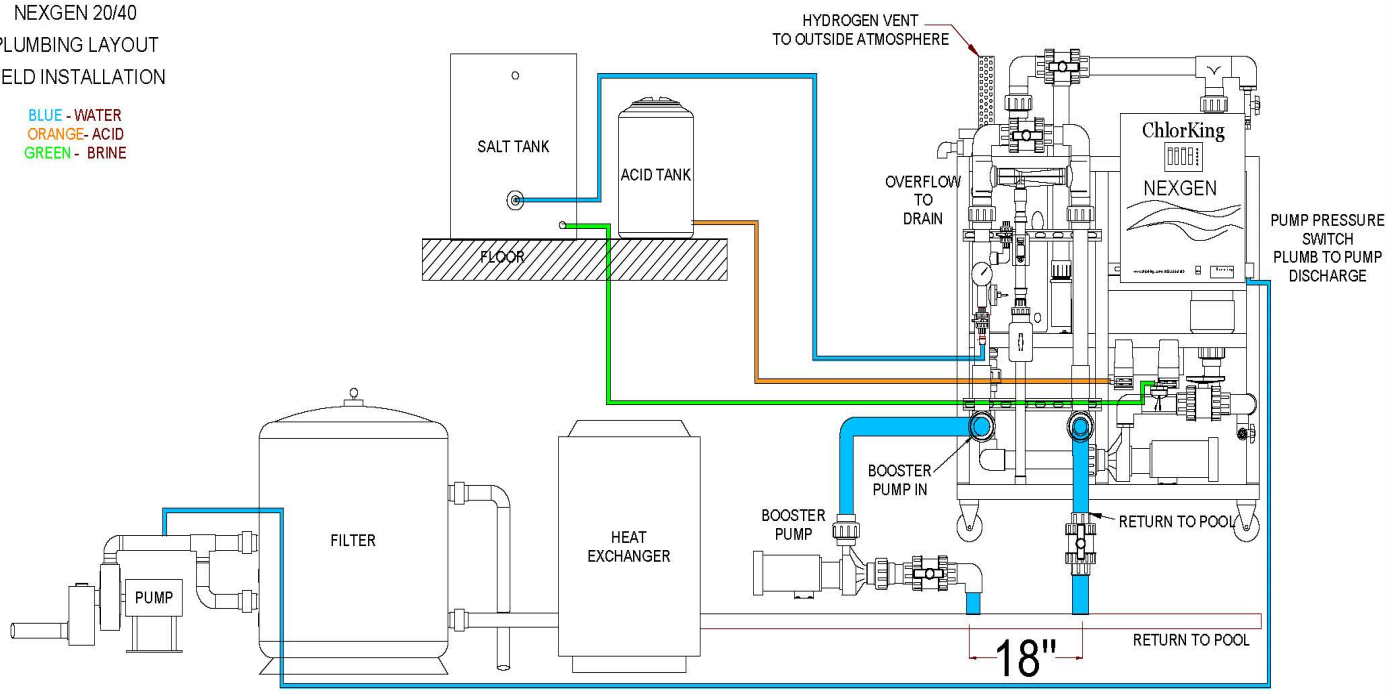
2.7 BONDING

Connect a minimum 8awg bonding wire to the bonding lug on the bottom of the electrical enclosure.

PLUMBING CONNECTIONS

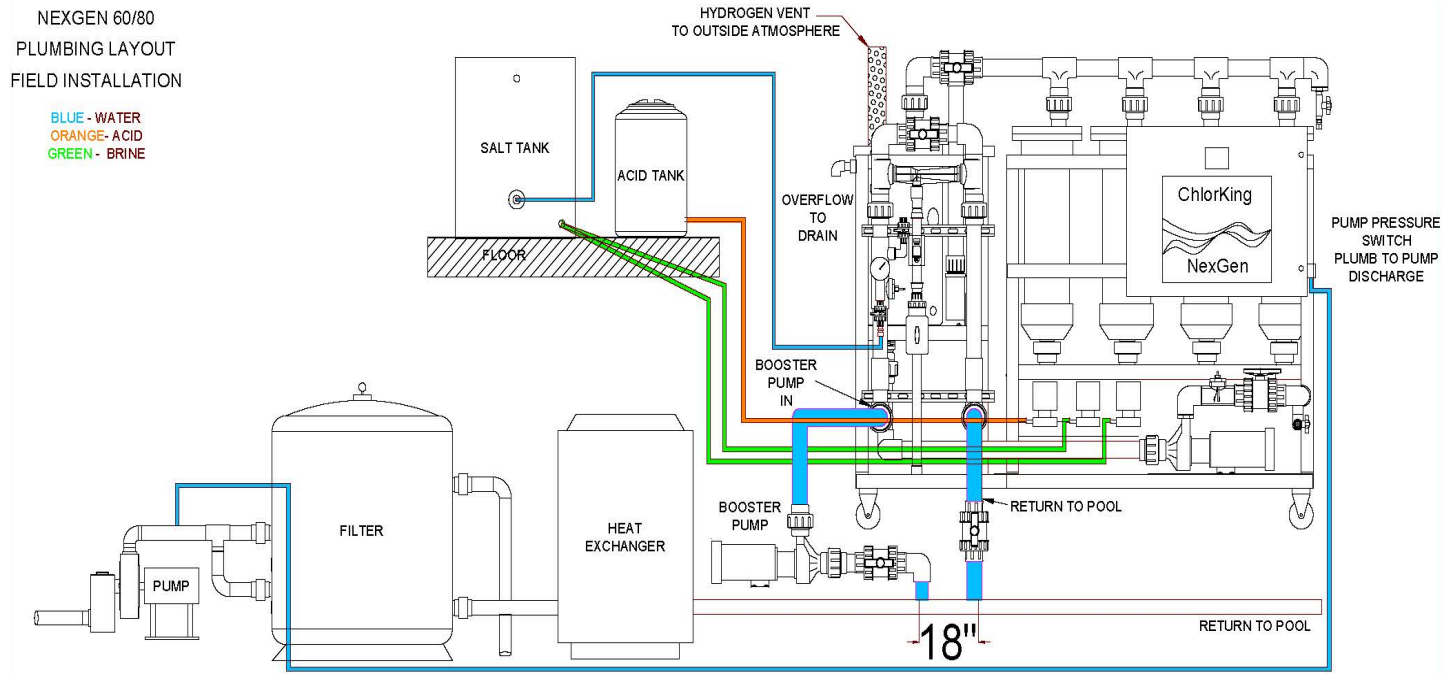
NEXGEN 20/40
PLUMBING LAYOUT
FIELD INSTALLATION

BLUE - WATER
ORANGE- ACID
GREEN - BRINE



NEXGEN 60/80
PLUMBING LAYOUT
FIELD INSTALLATION

BLUE - WATER
ORANGE- ACID
GREEN - BRINE



PLUMBING THE CHEMICAL METERING VENTURI

It is important that the Chemical Metering Venturi is plumbed with the correct size plumbing and booster pump, or the system will not function properly.

The chemical metering venturi injector requires a pressure differential across the venturi to achieve the rated chemical flow. A booster pump is needed to ensure the required pressure differential is achieved. The NEXGEN will provide 100% of the rated output with a maximum of 25 PSI at the venturi outlet. Install the booster pump in the supply line to the venturi. Consult table below for booster pump sizing.

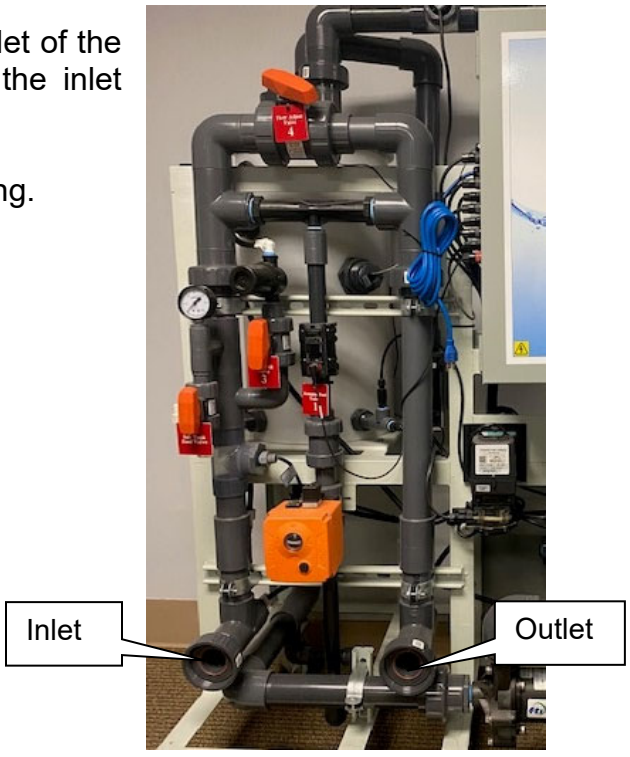
The booster pump is powered by the NEXGEN and must be installed within 10 feet of the NEXGEN skid to ensure the electrical connection will reach the pump. The pump wiring is located on the bottom side of the enclosure. Wire the booster pump to the NEXGEN with the cable provided and to the pump according to the instructions on the pump for 208/240 VAC connections. The NEXGEN ships with a 12amp breaker for a 1HP pump. Larger pumps will require changing the breaker. Contact ChlorKing for breaker sizing.

Reference the installation diagram. Using 2" PVC, plumb the inlet of the venturi to the booster pump discharge. Using an isolation valve, plumb the booster pump suction to the return line after all other pool equipment.

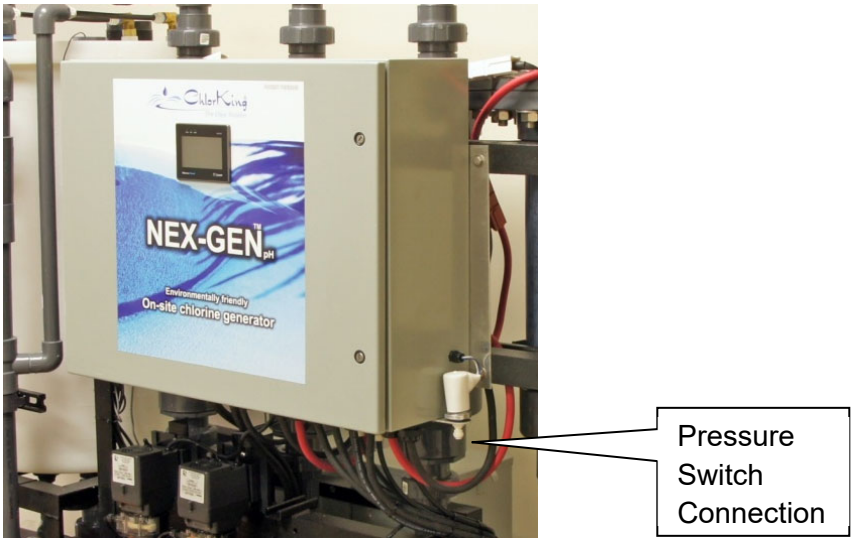
Using an isolation valve and 2" plumbing, plumb the outlet of the venturi to the return line of the pool 18 inches after the inlet plumbing connection.

Note: Systems with high TDH may require larger plumbing.

Size Booster Pump based on return line pressure	
Return Line Pressure	**Pump Horsepower**
5 PSI	½ HP
7 PSI	1 HP
12 PSI	2 HP
25 PSI	3 HP
Return line pressure will vary based on pump room hydraulics. Contact ChlorKing for proper sizing.	



PLUMBING THE PRESSURE SWITCH



Connect the pressure switch to the return line with ¼ tubing (not supplied) and the ¼ inch valve supplied. The pressure connection should provide a minimum of 5 psi when the pool pump is on, and pressure should be less than 3 psi when the pool pumps are off. Contact ChlorKing for installations that do not meet these specifications.

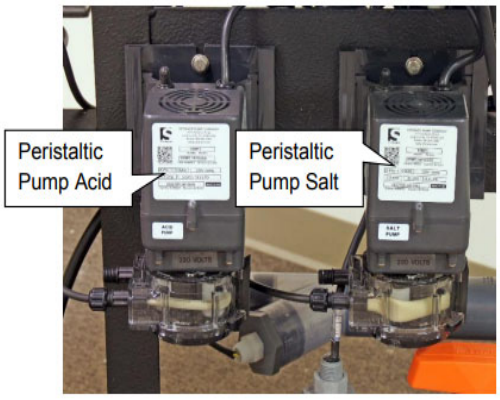
Note: A flow switch is available for below grade installations that do not meet the requirements listed. Contact ChlorKing for more information.

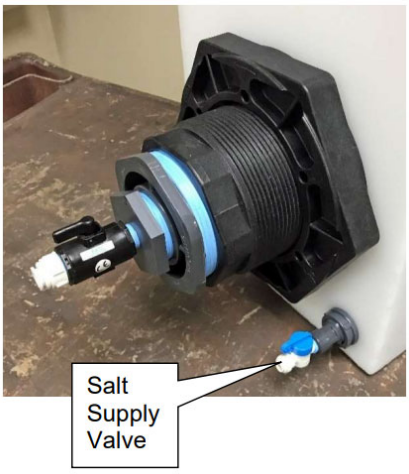
SATURATED SALT FEEDER INSTALLATION

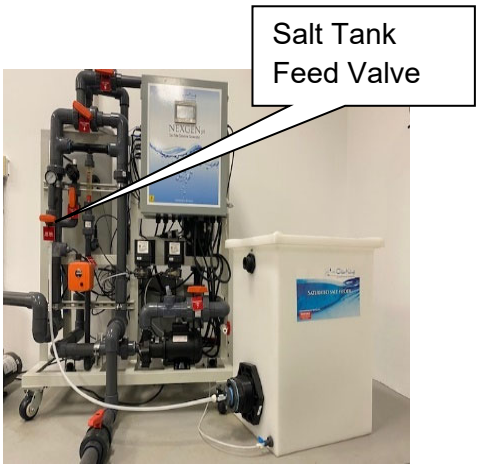
Place the Saturated Salt Feeder tank in an easy to access location. The tank will need access for adding salt on a continuous basis. All NEXGEN models ship with the SSFEEDER 55-S which will hold 550 pounds of pure rock or pellet salt. The Saturated Salt tank will receive the necessary water from the Salt Tank Feed Valve located on the NEXGEN.

Plumb the SALT pump suction line to the salt outlet on the Saturated Salt Feeder with 1/4 tubing supplied with the peristaltic pump. The salt outlet on the Saturated Salt Feeder is a small blue and white valve located at the bottom of the salt feeder. Plumb the Saturated Salt Feeder water supply to the fitting on the chemical metering assembly labeled Salt Tank Feed Valve using ½ inch tubing.

NOTE: The NEXGEN 60 and 80 will have two salt pumps.







PLUMBING THE PRODUCTION TANK OVERFLOW

Install the overflow with the T provided in the installation kit. This T will remain open on top to prevent syphoning in case of tank overflow. The bottom of the T receives a 1" FPT low pressure connection with hose directed to a floor drain, drain tube is not provided.

PREPARING THE pH NEUTRAL SYSTEM

Before use, remove the pH probe from the top of the production tank and remove the cover. Confirm the crown from the end of the pH probe is removed. Install the probe in the port located on top of the production tank.

Plumb the suction port of the ACID pump with the #1 or #2 hose to a container (not supplied with the NEXGEN) specified for muriatic acid solutions.

Note: Sulfuric acid, dry acid (sodium bisulfate), and other alternative acids are not recommended for pH adjustment. Under some conditions the electrolytic cell can be damaged.

WARNING

Read all cautions and directions provided with the muriatic acid used. Always add acid to water. Use only with adequate ventilation. If strong odor is noticed, STOP, ventilation is inadequate. Leave area immediately. If the work area is not well ventilated, you MUST use a properly fitted and maintained NIOSH approved respirator for acid fumes.

Fill the acid tank with a 1 to 1 water / 31.4% muriatic acid solution.

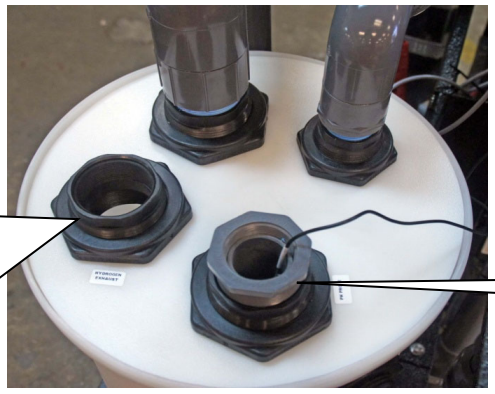
PLUMBING THE HYDROGEN VENT

WARNING

EXPLOSION RISK. FAILURE TO PLUMB THE HYDROGEN VENT TO OUTSIDE ATMOSPHERE MAY RESULT IN DAMAGE TO EQUIPMENT OR PERSONS. ALWAYS VENT THE SYSTEM AWAY FROM SPARK OR FLAME.

Hydrogen vent pipes must be rigid plastic (PVC) and installed in a continuous upward gradient of at least 1/8 inch per foot. The pipe must be vented to outside atmosphere. Use a minimum of 2 inch pipe for the vent on the NEXGEN 20, and 40. Use a 3 inch pipe for the NEXGEN 60 and 80 vent line. The vent pipe should not be longer than 100 feet. Consult ChlorKing if longer runs are required. Keep the opening clear and protected from water or debris with the use of a hood or bend.

Hydrogen Vent
100’ Max Run
NEXGEN20 2” Vent
NEXGEN40 2” Vent
NEXGEN60 3” Vent
NEXGEN80 3” Vent



INSTALLING AN OPTIONAL SECOND POOL WITH NEXGEN

This equipment is purchased separately and may not be part of your installation.

The NEXGEN comes equipped to feed a second pool with the addition of a Venturi Feed System (VFS) or a Pump Dosing System (PDS). These items are purchased separately. The CHLORVFS also requires a booster pump, sold separately.

CHLORVFS

CHLORPDS5

CHLORPDSAC40

DIMENSIONS

CHLORVFS	L 16” x H 24.5”
CHLORPDS	L 18” x H 24”
CHLORPDSAC40	L 16” x H 22”

Additional Items Needed:

- ½ inch PP or PE tubing
- Additional PVC pipe and fittings based on return line pressure or specific installation requirements.
- Appropriate hardware for mounting surface
- 6 conductor 18 awg SOOW or SJTOW cable or as required by code.
- 3 conductor 12 awg SOOW or SJTOW cable or as required by code.

GENERAL SPECIFICATIONS FOR SECOND POOL EQUIPMENT

Model Designation	Sodium Hypochlorite Dose Rate	Rated Pressure	Minimum Water Flow Rate across Venturi	Inlet/Outlet Diameter Venturi	Chemical Feed Diameter
CHLORVFS	Up to 1.3 GPM	30 PSI	30 GPM	1-1/2 inch	1/2 inch
CHLORPDS5	Up to .12 GPM	25 PSI	n/a	n/a	1/2 inch
CHLORPDSAC40	Up to 2 GPM	25 PSI	n/a	n/a	1/2 inch

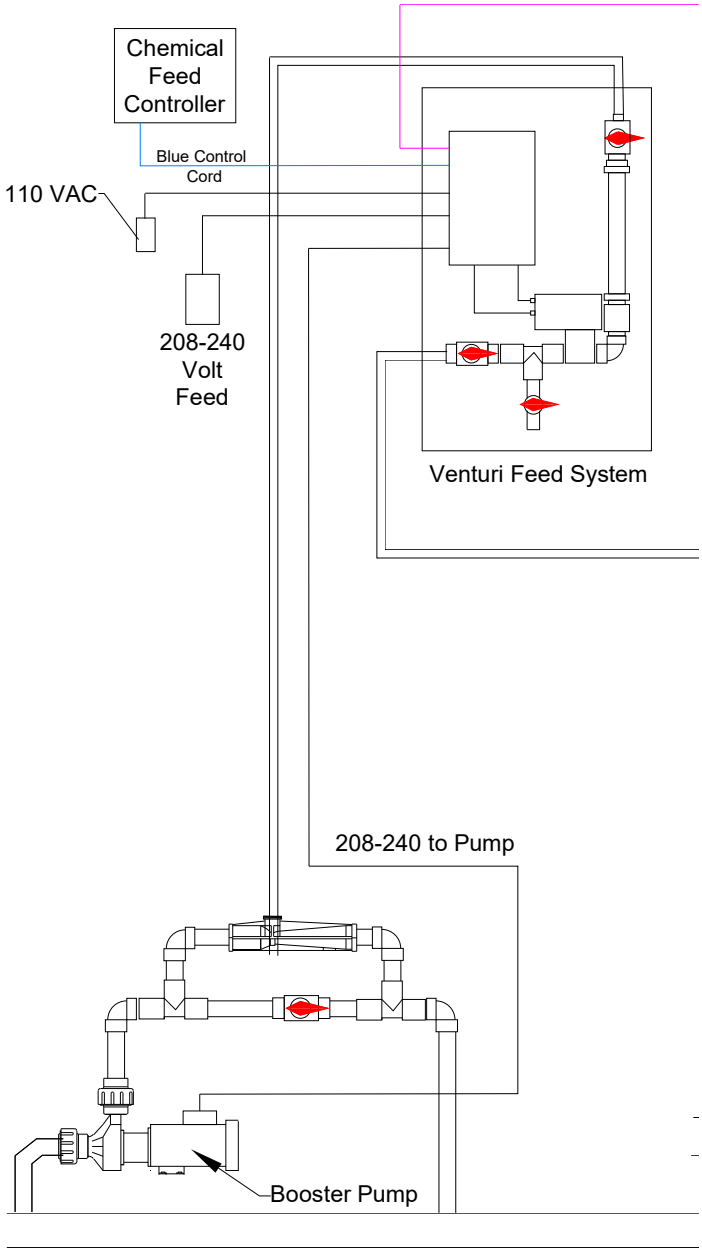
ELECTRICAL REQUIREMENTS

Model Designation	Voltage Supply (AC)	Phases	Frequency	Amps
CHLORVFS Power	120	1	60Hz	1
CHLORVFS Controller	120	1	60Hz	1
Booster Pump	120 to 240 VAC	1	60Hz	Up to 30 amps
CHLORPDS5 Power	120	1	60Hz	5
CHLORPDSAC40	230	1	50/60Hz	1.5
CHLORPDS Control Cord	120	1	60Hz	1
Multi Pool Control Box	120	1	60Hz	10

Note: Booster Pump power requirements are based on the rating of the booster pump. The CHLORVFS can control up to 30 amps.

OPTIONAL VENTURI and VENTURI FEED SYSTEM INSTALLATION (VFS)

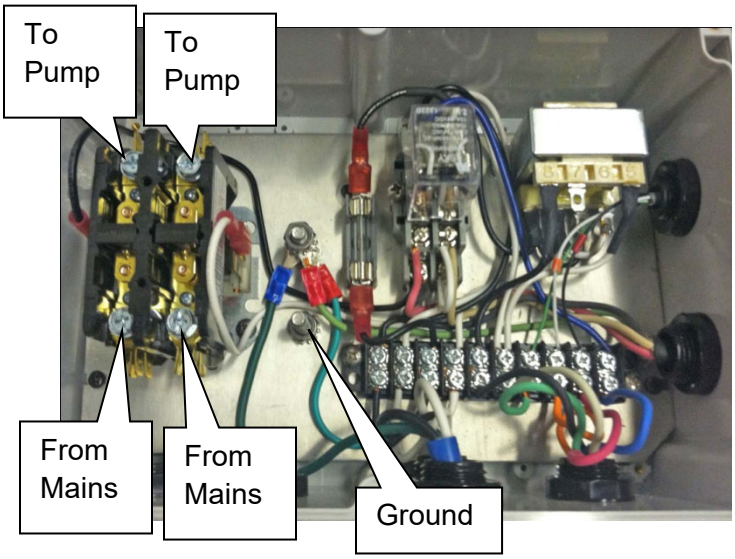
The venturi injector requires 30GPM of filtered water to function on pools with up to 25 PSI in the return line. Consult ChlorKing for rates necessary for higher pressures. Use an appropriately sized booster pump to achieve this flow. The venturi should be plumbed as the last component before the water returns to the pool. Plumb the venturi injector with 1-1/2 PVC pipe. For plumbing the line from the NEXGEN production tank through the Venturi Feed System to the venturi injector use ½ inch PP or PE tubing or ½ inch PVC pipe. The Venturi Feed System and NEXGEN production tank are pre-plumbed for use with tubing.



OPTIONAL VFS INSTALLATION CONTINUED

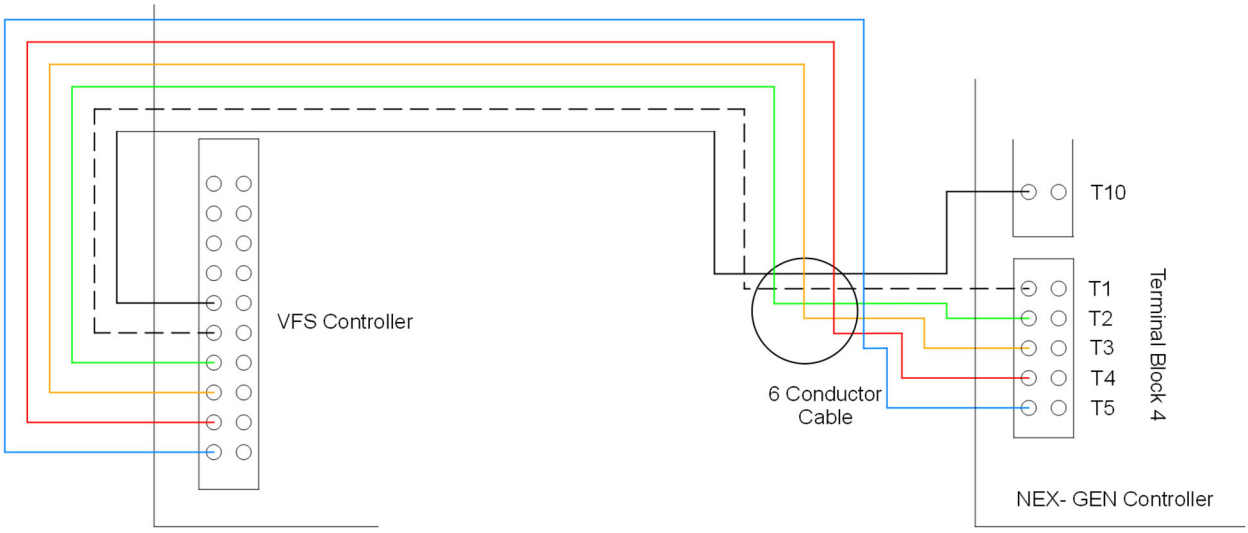
The Venturi Feed System's black power cord plugs into a 15a outlet. The blue control cord plugs into a chemical feed controller.

The Venturi Feed System Control box is equipped with a contactor rated for 240 Vac and 30a capable of controlling the booster pump for the venturi. Wire the contactor as shown below.



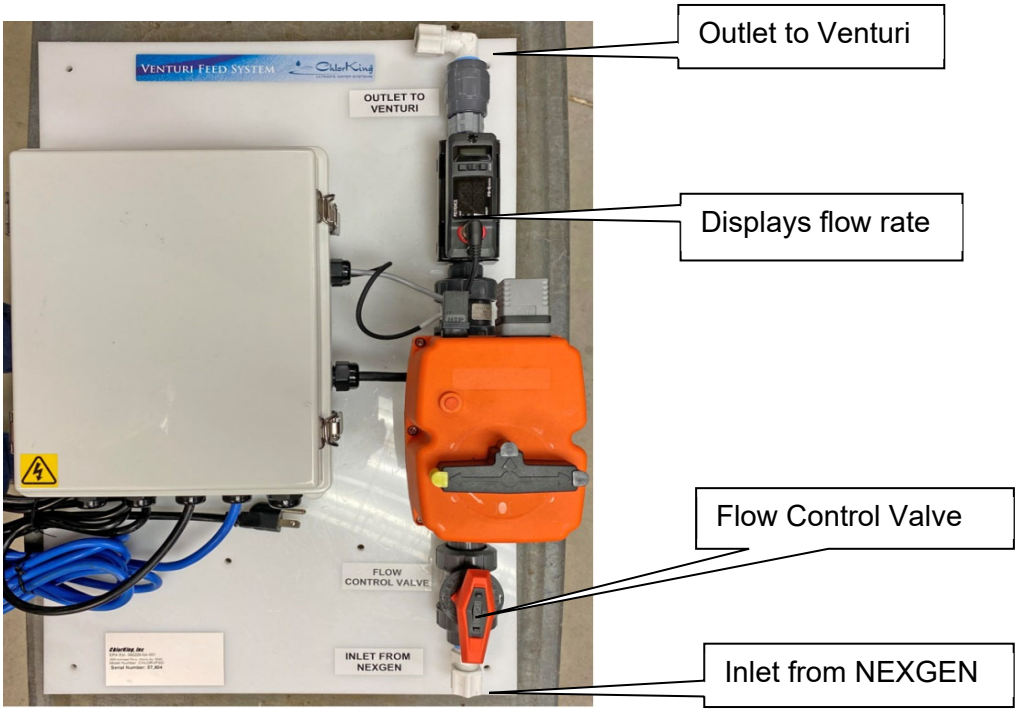
Connect a 6 conductor 18awg SJTOW or SOOW cable (not supplied) from the Venturi Feed System to the NEXGEN.

CONNECTION DIAGRAM FOR NEXGEN10, 20, 40, AND 80



OPTIONAL VFS INSTALLATION CONTINUED

Confirm that the Chemical Feed Valve is open, and the Service Valve is closed. Open the chemical flow control valve all the way. Activate the valve by plugging the blue cord into an outlet or by activating the feed function on the chemical feed controller. Ensure that the flow meter will flow more than the desired flow rate of product. Adjust the flow control valve for the desired rate (See Flow Rate Information ADJUSTING THE FLOW RATE Section). Flow is read at the top of the orange float or on the digital meter.



FLOW RATE INFORMATION FOR VFS

NEXGEN10 = up to 0.5 GPM

NEXGEN20 = up to 1 GPM

NEXGEN40 = up to 2 GPM

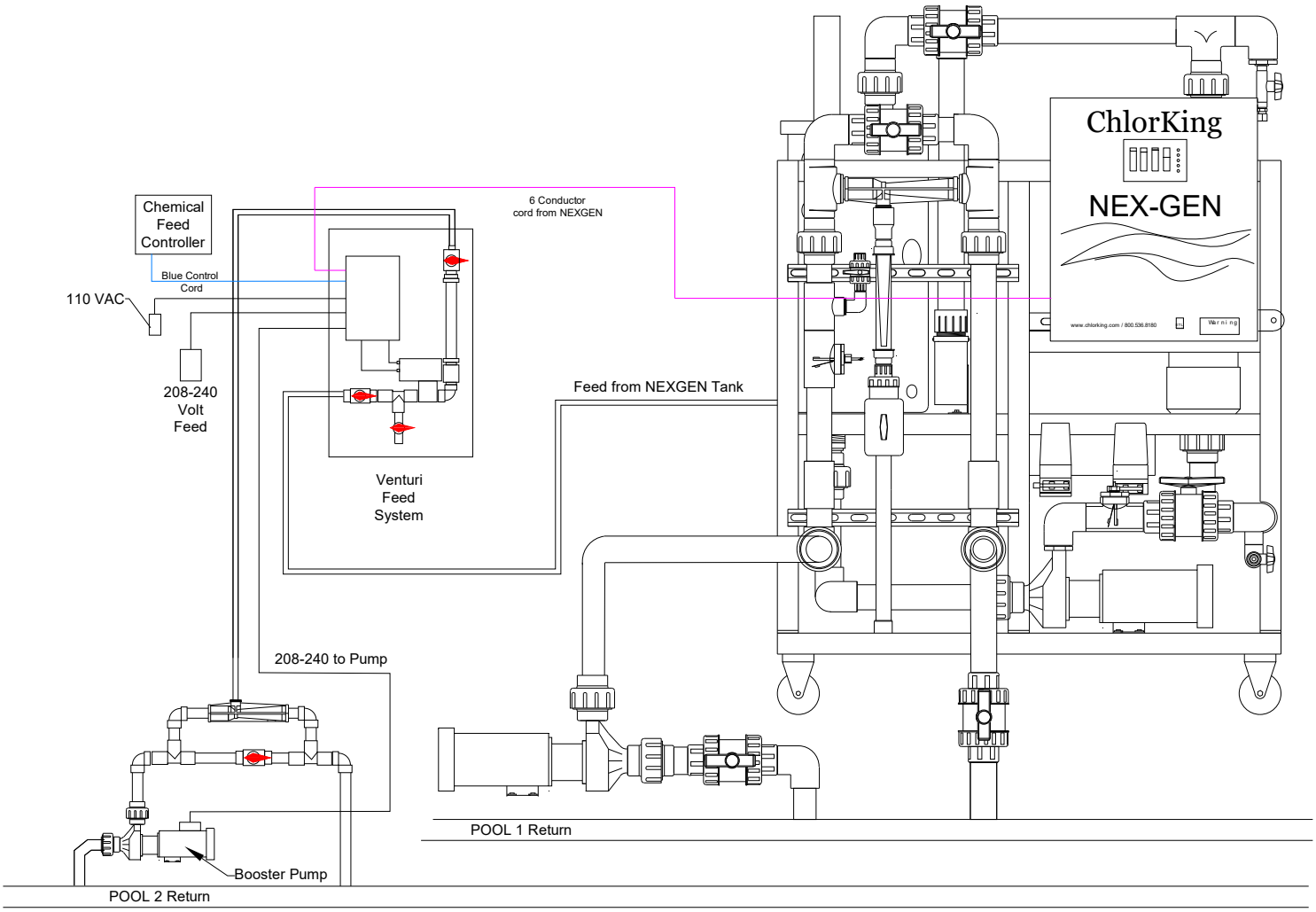
NEXGEN60 = up to 3 GPM

NEXGEN80 = up to 4 GPM

The total flow through the NEXGEN plus the Venturi Feed System cannot exceed the total rated flow of the NEXGEN.

Example: The NEXGEN20R has a total flow rate of 1 GPM. The NEXGEN can be adjusted to 0.5 GPM and the Venturi Feed Systems can be adjusted to 0.5 GPM for a total flow of 1 GPM.

One Additional Pool VFS Diagram



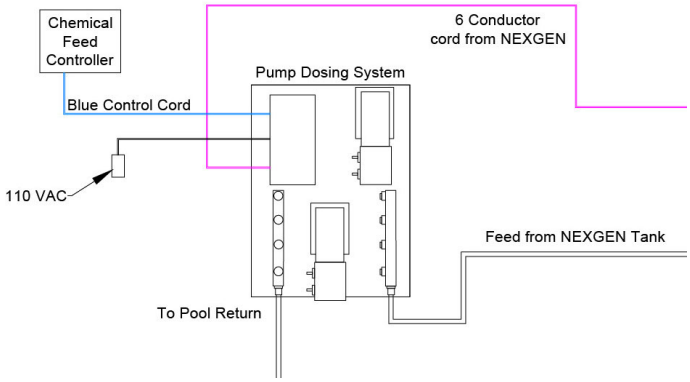
OPTIONAL PUMP DOSING SYSTEM INSTALLATION (PDS)

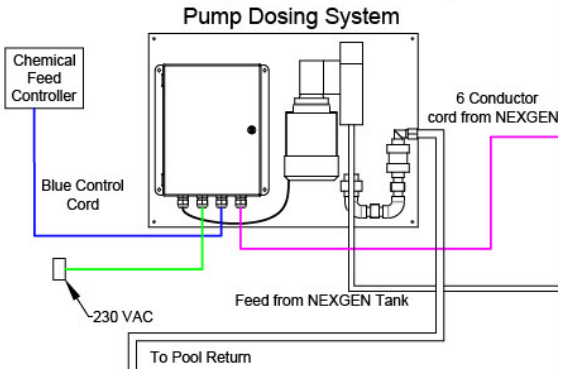
Locate a space on the wall in the pump room that will accommodate the dimensions of the CHLORPDS. Install in an easy to access location. Using a level, mark where the panel will be located. On a concrete wall installation, mark the wall (using a dot) where the first concrete anchor hole will be drilled. Install the system directly to the mounting surface.

NOTE: Pressure at the pump outlet must not exceed 25 psi.

Use ½ inch PP or PE tubing to plumb the line from the NEXGEN production tank to the CHLORPDS suction side and from the CHLORPDS pressure side to the pool return line. The line to the pool return should be plumbed as the last thing before the water returns to the pool.

The CHLORPDS5 has a 6 foot black power cord that plugs into a 15a outlet. The CHLORPDS40A is hard wired to 230 VAC. Both units use a 10 foot **blue control cord** that plugs into a chemical feed controller.

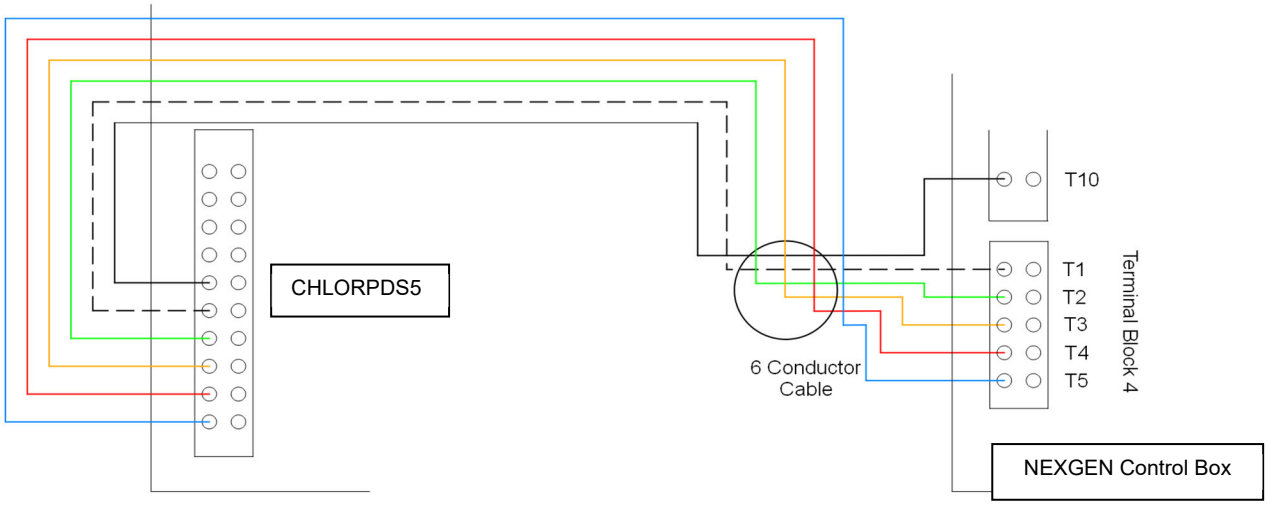




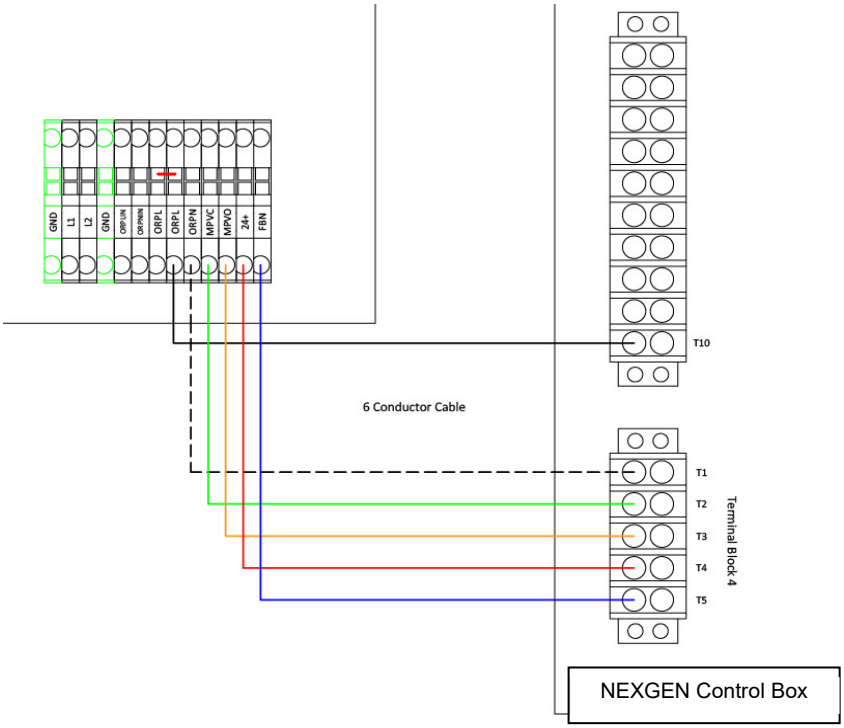
OPTIONAL PDS INSTALLATION CONTINUED

Connect a 6 conductor 18awg SJTOW or SOOW cable (not supplied) from the CHLORPDS to the NEXGEN.

CHLORPDS5 CONNECTION DIAGRAM FOR NEXGEN10, 20, 40, AND 80



CHLORPDSAC40A CONNECTION DIAGRAM FOR NEXGEN10, 20, 40, AND 80



OPTIONAL PDS INSTALLATION CONTINUED

Activate the CHLORPDS by plugging the blue cord into an outlet or by activating the feed function on a chemical feed controller.

FLOW RATE INFORMATION

The total flow through the NEXGEN plus the CHLORPDS assembly cannot exceed the total rated flow of the NEXGEN.

Example, a NEXGEN20R has a total flow rate of 1 GPM. The NEXGEN can be adjusted to 0.5GPM and a CHLORPDS40 can be adjusted to 0.5GPM for a total flow of 1 GPM.

NEXGEN10 = up to 0.5 GPM

NEXGEN20 = up to 1 GPM

NEXGEN40 = up to 2 GPM

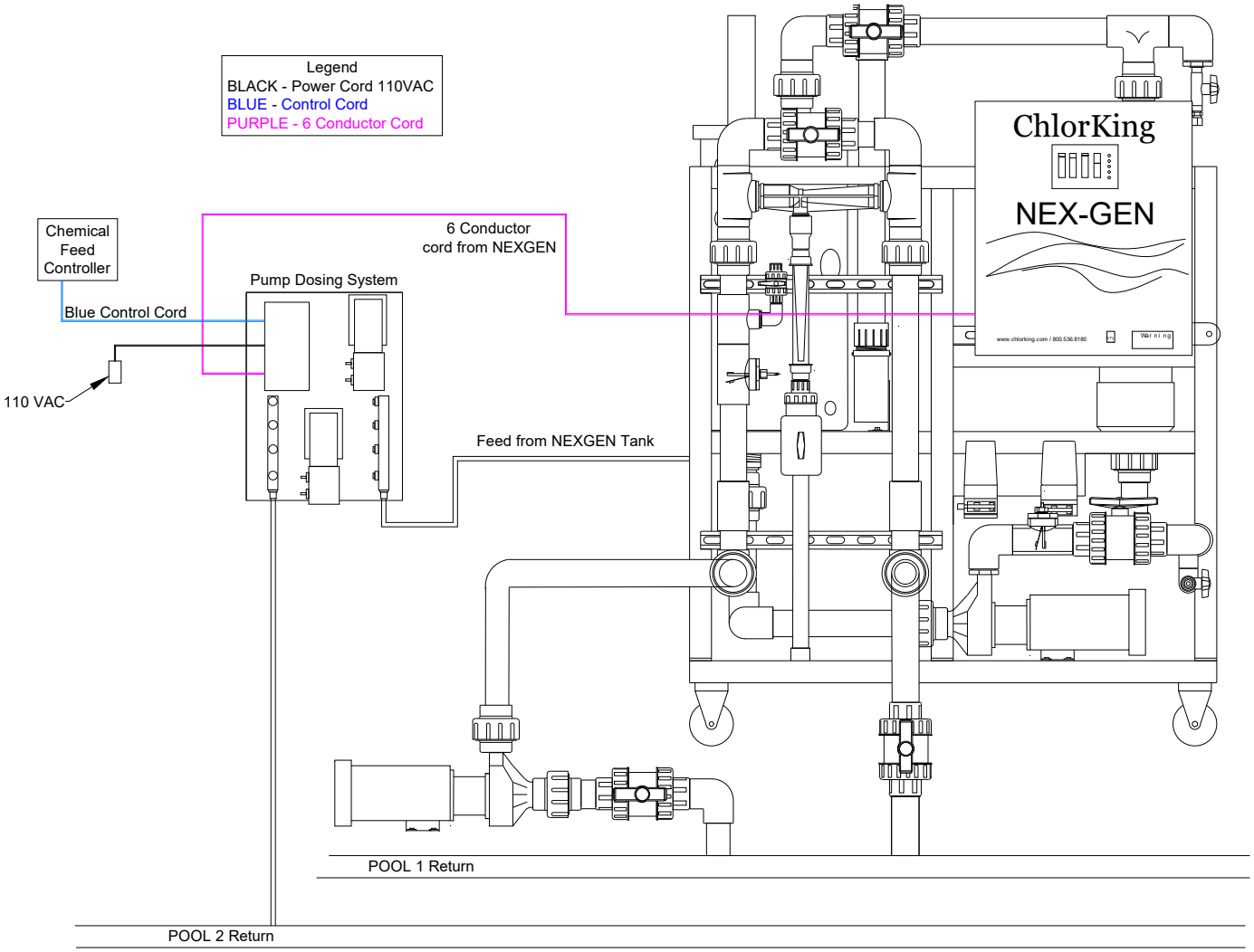
NEXGEN60 = up to 3 GPM

NEXGEN80 = up to 4 GPM

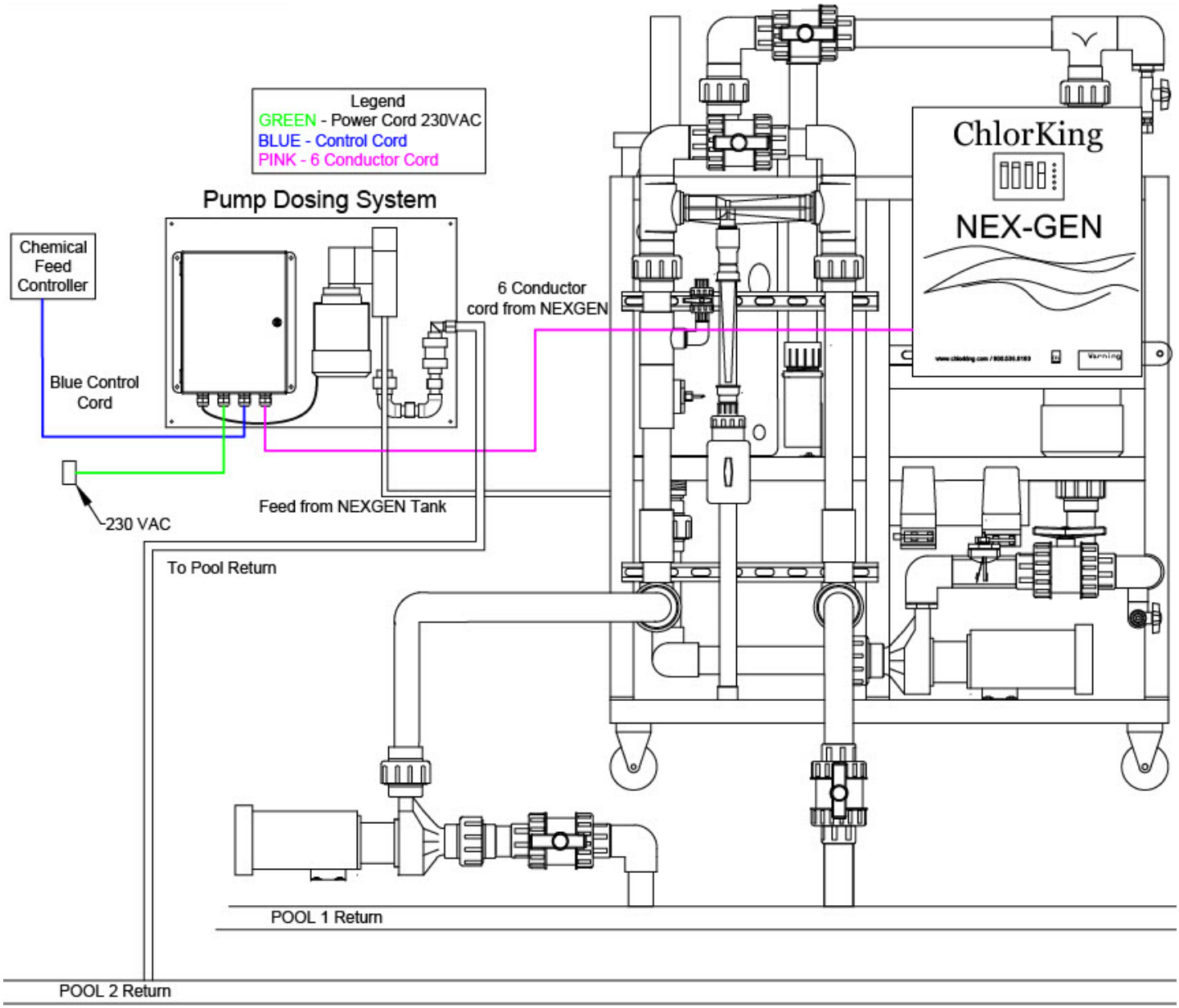
CHLORPDS5 = fixed 0.12 GPM

CHLORPDS40 = up to 2 GPM

One Additional Pool CHLORPDS5



One Additional Pool CHLORPDSAC40A



OPERATION

START-UP WATER CHEMISTRY

ChlorKing® NEXGEN systems operate by electrolyzing sodium chloride (salt) that has been added to machine into sodium hypochlorite (liquid chlorine).

Use standard industry test kit, confirm the pool water is balanced within the following range before turning your ChlorKing® system on:

Note: Sulfuric acid is not recommended for use in pools with electrolytic cells.

Chlorine:	2 – 5 ppm
Total Chlorine:	No more than 0.5 ppm above the free chlorine
Ph:	7.2 – 7.6
Alkalinity:	80 – 120
Hardness:	180 – 280 ppm
TDS:	Up to 7,000
Cyanuric acid:	15 – 30 ppm (Outdoor Pools only)
Phosphates:	Less than 250 ppb

START-UP PROCEDURES AND CHECKS

Check that all components are mounted securely. Check that all plumbing is secure and tight. Check that all plumbing and electrical connections are connected in the proper place.

Ensure that all system isolation valves installed during installation are open.

Fill the Saturated Salt Feeder with pure rock or pellet salt. **Do Not Use Granular Salt.** Open both Saturated Salt Feeder valves.

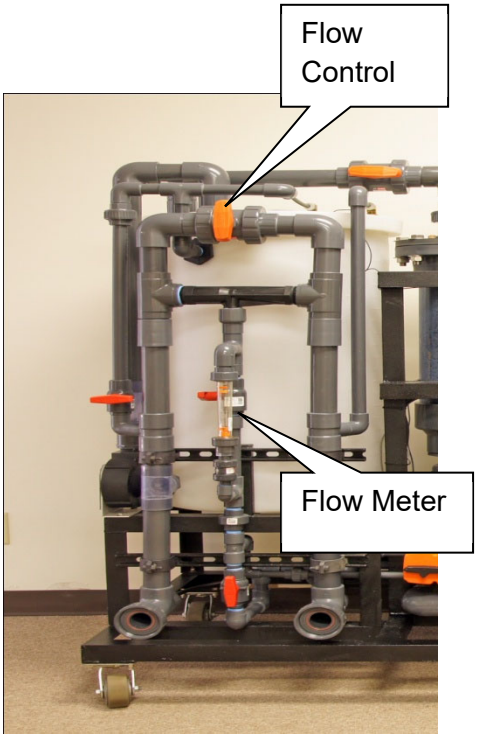
Ensure the muriatic acid container is filled with a 50% water to 50% muriatic acid solution.

Turn on any breakers or disconnect boxes used for circuit protection.

Ensure the blue cord is connected to a chemical feed controller and the controller is calling for feed, or that the blue cord is plugged into a live outlet.

The NEXGEN will go through a series of startup steps and automatically start generating chlorine.

ADJUSTING CHLORINE OUTPUT



Adjustment for the NEXGEN 20 and 20R

Adjust the flow through the flow meter for the following production rates:

1.2 GPM = 24 pounds of chlorine production per day
.88 GPM = 19.6 pounds of chlorine production per day
.72 GPM = 21.2 pounds of chlorine production per day
.32 GPM = 18.4 pounds of chlorine production per day

NO TE: 24.0 pounds is achieved at 7000 ppm salt concentration and 1.2 GPM. Total flow of NEXGEN + VFS or PDS cannot exceed total 1.2 GPM.

Adjustments more than 1.2 gallons per minute will not produce more chlorine. Adjustments of more than 1.2 gallons per minute will only consume excess salt.

Adjustment for the NEXGEN 40 and 40R

Adjust the flow through the flow meter for the following production rates:

2.4 GPM = 48 pounds of chlorine production per day
1.8 GPM = 39 pounds of chlorine production per day
1.44 GPM = 42 pounds of chlorine production per day
.64 GPM = 36 pounds of chlorine production per day

NOTE: 48.0 pounds is achieved at 7000 ppm salt concentration and 2.4 GPM. Total flow of NEXGEN + VFS or PDS cannot exceed total 2.4 GPM.

Adjustments more than 2.4 gallons per minute will not produce more chlorine. Adjustments more than 2.4 gallons per minute will only consume excess salt.

Adjustment for the NEXGEN 60 and 60R
Adjust the flow through the flow meter for the following production rates:

3.3 GPM = 72 pounds of chlorine production per day
2.6 GPM = 58 pounds of chlorine production per day
2.2 GPM = 63 pounds of chlorine production per day
1.0 GPM = 54 pounds of chlorine production per day

NOTE: 72 pounds is achieved at 7000 ppm salt concentration and 3.3 GPM. Total flow of NEXGEN + VFS or PDS cannot exceed total 3.3 GPM.

Adjustments more than 3.3 gallons per minute will not produce more chlorine. Adjustments more than 3.3 gallons per minute will only consume excess salt.

Adjustment for the NEXGEN 80 and 80R
Adjust the flow through the flow meter for the following production rates:

4.4 GPM = 96 pounds of chlorine production per day
3.5 GPM = 78 pounds of chlorine production per day
2.9 GPM = 85 pounds of chlorine production per day
1.3 GPM = 73 pounds of chlorine production per day

NOTE: 96 pounds is achieved at 7000 ppm salt concentration and 4.4 GPM. Total flow of NEXGEN + VFS or PDS cannot exceed total 4.4 GPM.

Adjustments more than 4.4 gallons per minute will not produce more chlorine. Adjustments more than 4.4 gallons per minute will only consume excess salt.

TOUCH SCREEN ICON EXPLANATIONS

This icon is displayed if the system is turned off.

This icon is displayed if the system is waiting for a signal from an external controller.

This icon is displayed if cell cleaning mode has been selected. This icon will be displayed until the cell cleaning process is complete.

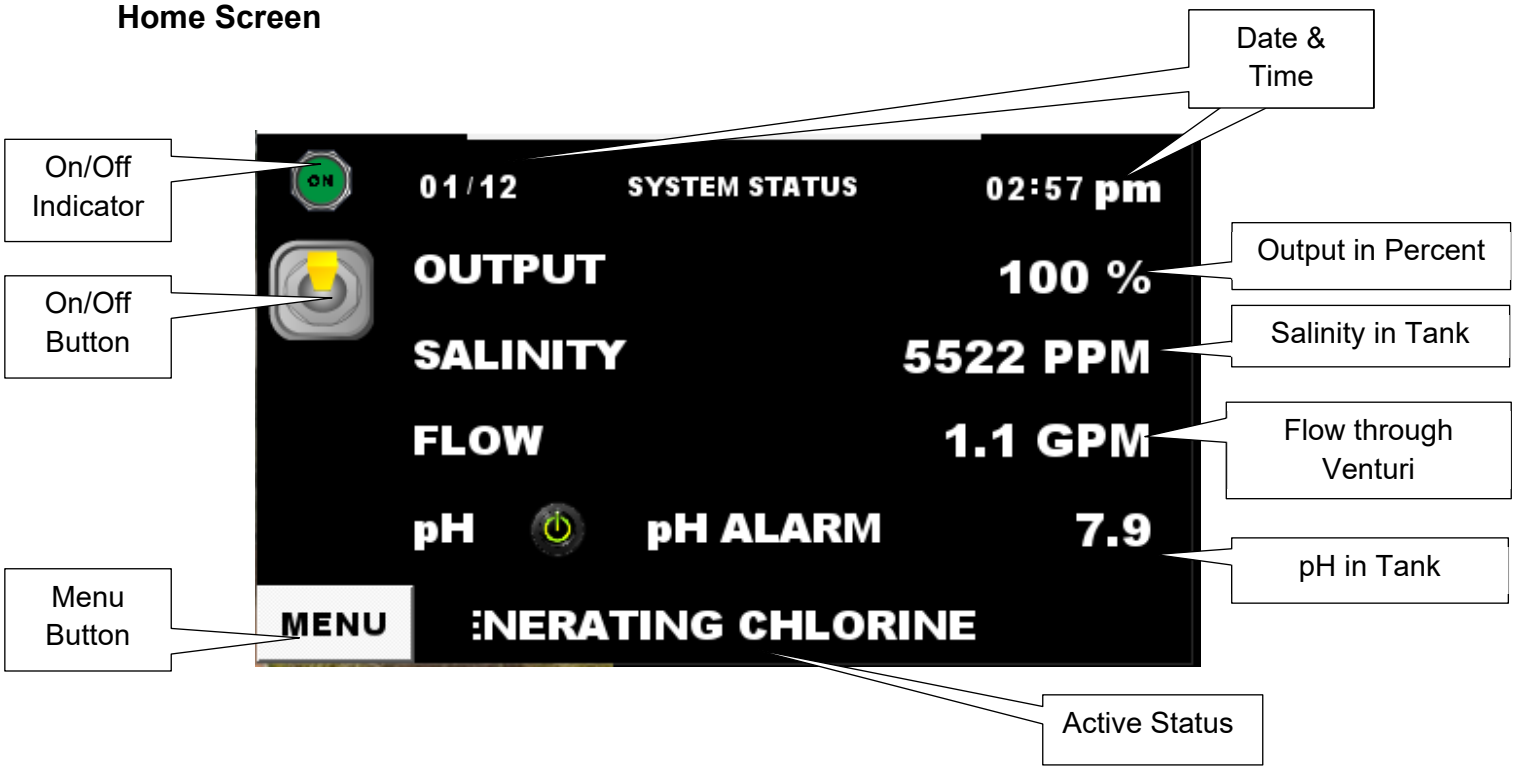
This icon indicates a failure during the acid wash sequence for cell maintenance.

Press this icon to clear a pH alarm.

This icon indicates that acid is being pumped during the cell cleaning cycle.

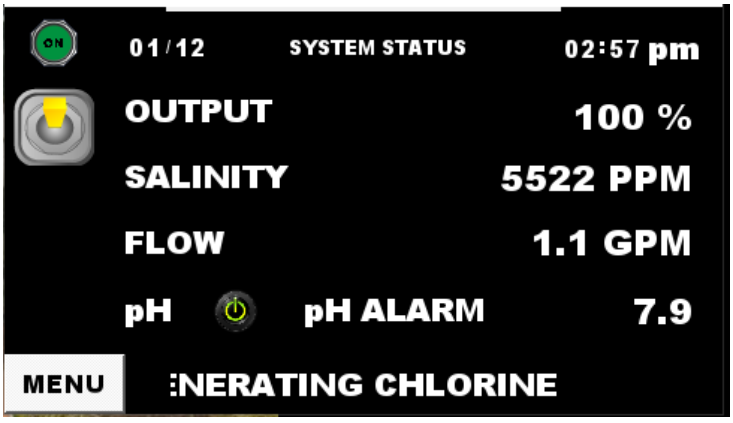
USING THE TOUCHSCREEN

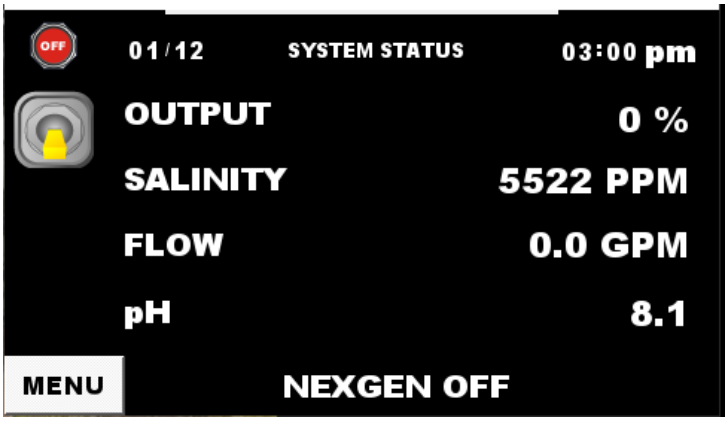
Home Screen



Turning the NEXGEN On or Off

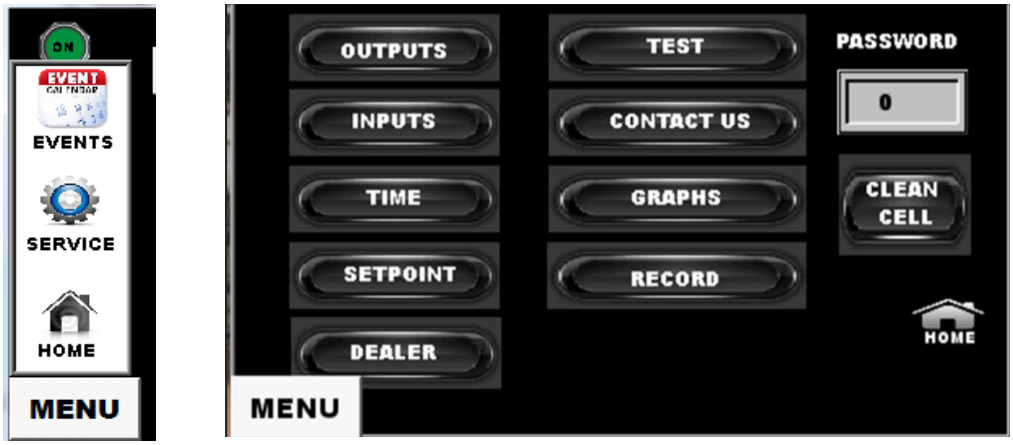
To turn the system on or off, press the ON/OFF button until the desired ON/OFF indicator is displayed. The NEXGEN may take several minutes to completely turn on or off. Below is the HOME screen that will be displayed any time the NEXGEN is operating normally.





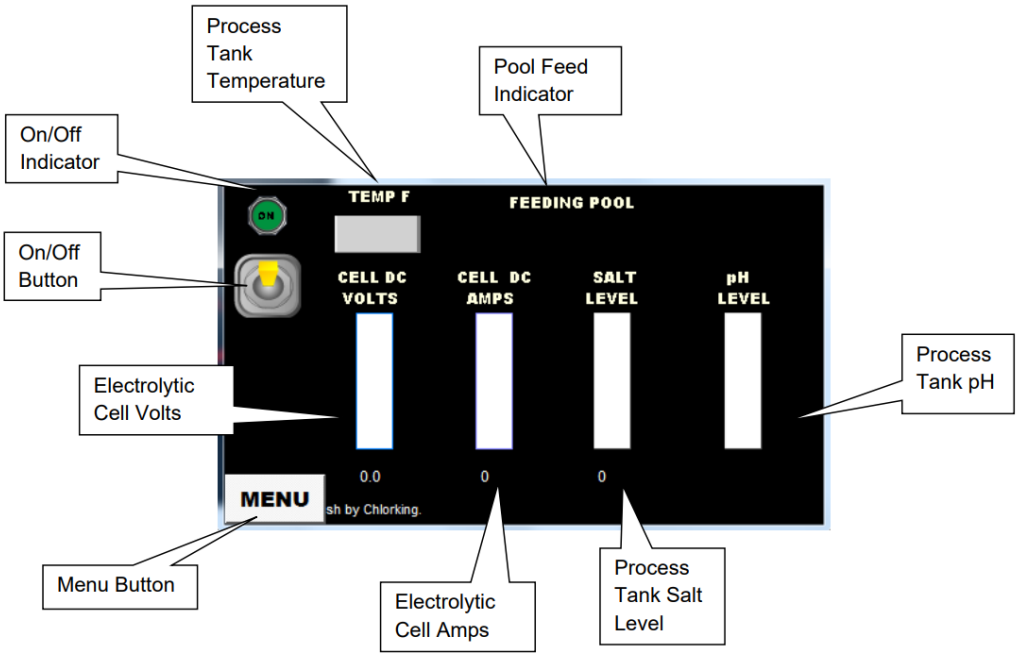
The Service Screen

Press MENU then SERVICE to access the SERVICE screen. The service screen has the option to view the current state of the system OUTPUTS, the current state of the system INPUTS, to manually TEST system outputs, to view or set system SETPOINTS, and to view recorded data.



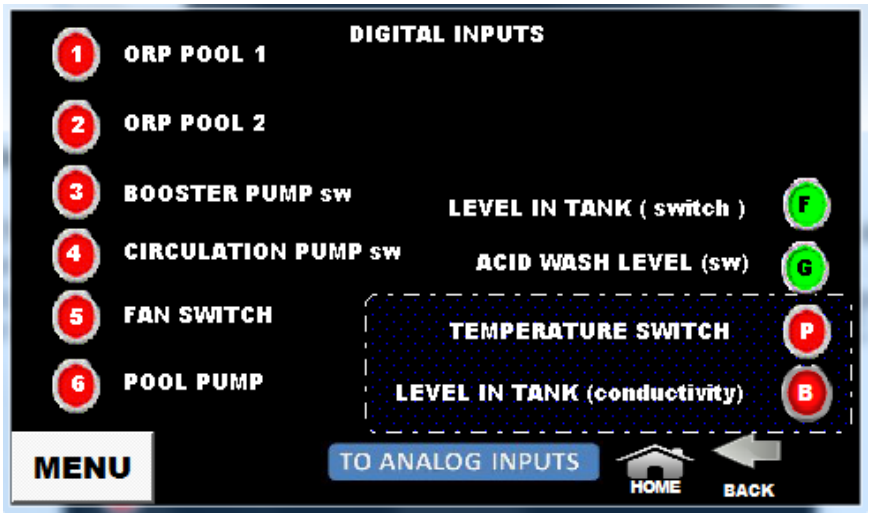
The Dealer Screen

Press MENU then SERVICE then DEALER to access the Dealer screen. The Dealer screen will display Cell VOLTS and AMPS. The NEXGEN 60 and NEXGEN80 will display two bars on CELL DC VOLTS and CELL DC AMPS.



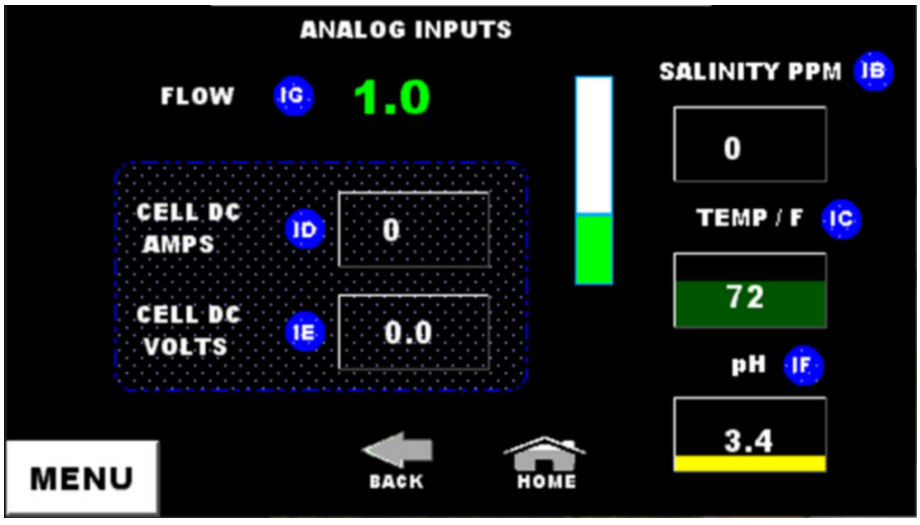
View System Digital Inputs

Press MENU then SERVICE then INPUTS to display the current state of all digital inputs. An active input is indicated by the GREEN dot next to the input name. A check mark indicates the parameter is OK. A RED dot indicates an inactive input. The number or letter inside of the dot indicates the actual input number on the PLC.



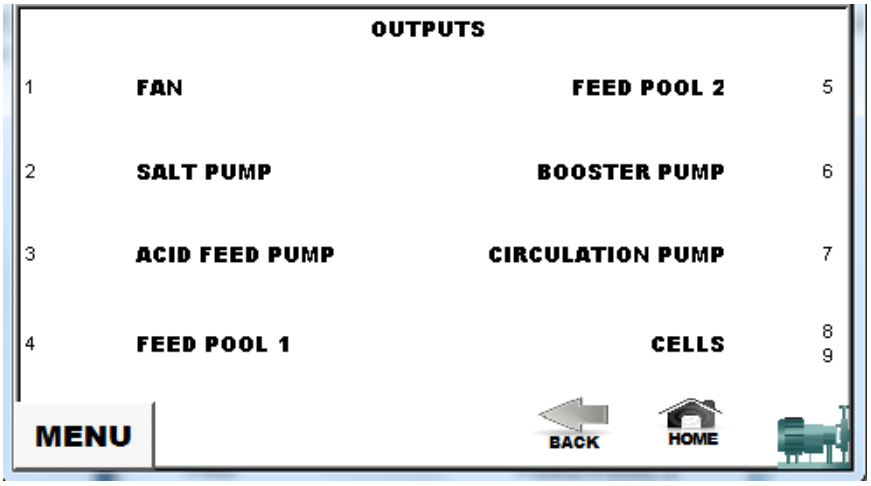
View System Analog Inputs

Press MENU then SERVICE then INPUTS then ANALOG INPUTS to display the current value of all analog inputs. The letters inside of the dot indicates the actual input number on the PLC.



View System Outputs

Press MENU then SERVICE then OUTPUTS to display the current state of all outputs. An active output is indicated by an icon next to the output name. The number next to the output indicates the actual output number on the PLC.

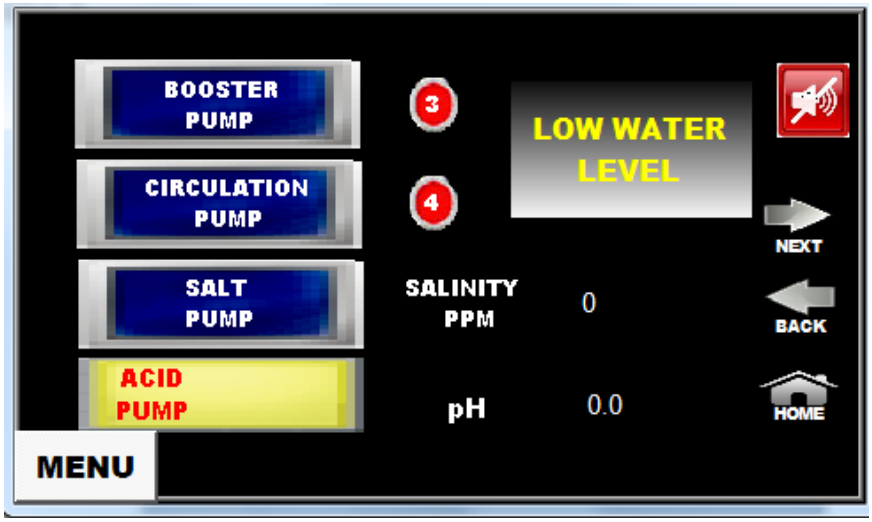


System Tests

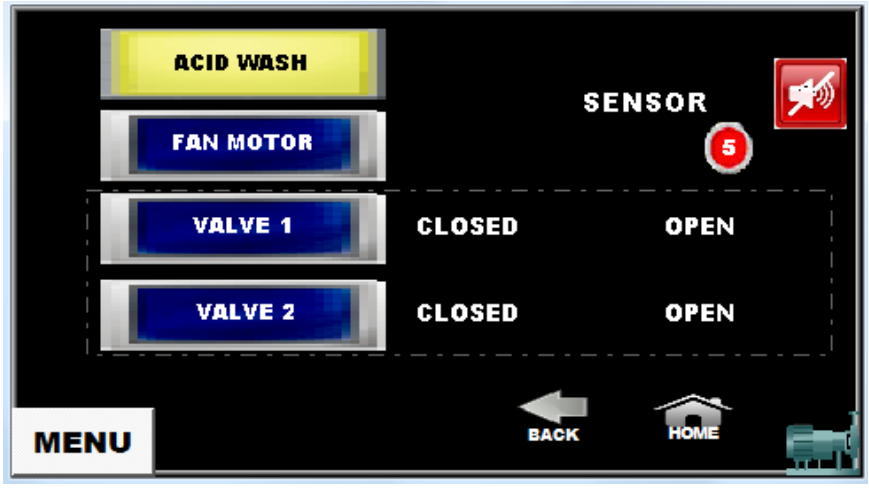
Note: Selecting the TEST screen will turn the NEXGEN system off.

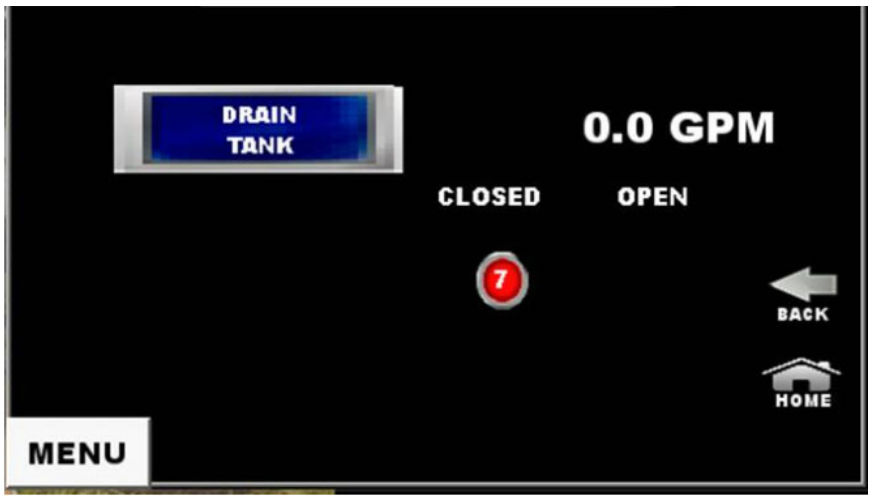
Press MENU then SERVICE then TEST to view the test screen. Press NEXT for the second TEST screen and NEXT for the third test screen. The following components can be manually operated for testing from these screens. See following screen shots below.

- Booster Pump and Booster Pump Flow Switch
- Circulation Pump and Circulation Pump Flow Switch
- Salt Pump and Salt Sensor Reaction
- pH Pump and pH Reaction (Press for 2 seconds)
- Acid Wash Pump (Press for 2 seconds)
- Hydrogen Vent Blower and Flow Switch
- Feed Valve 1
- Feed Valve 2 (ORP 2 must be active for this test)
- Tank Drain


BOOSTER PUMP
3
LOW WATER LEVEL
CIRCULATION PUMP
4
NEXT
SALT PUMP
SALINITY PPM
0
BACK
ACID PUMP
pH
0.0
HOME
MENU

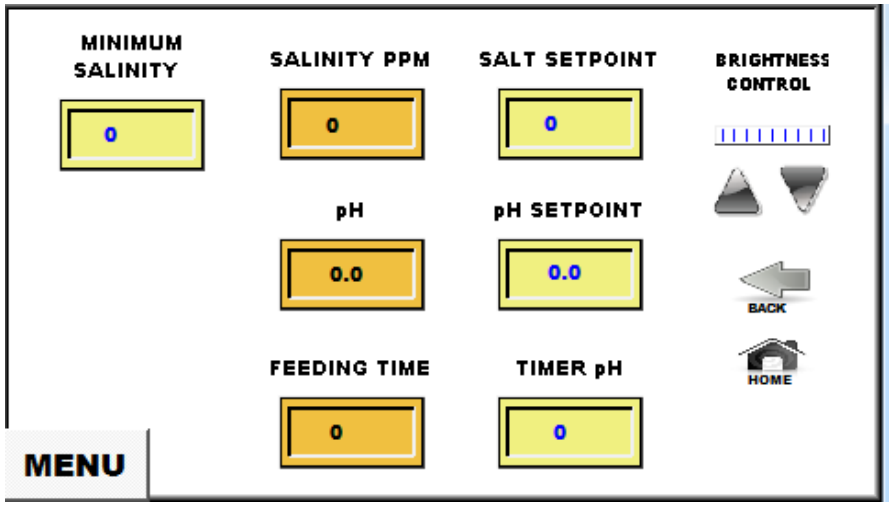
.


ACID WASH
SENSOR
FAN MOTOR
5
VALVE 1
CLOSED
OPEN
VALVE 2
CLOSED
OPEN
BACK
HOME
MENU


DRAIN TANK
0.0 GPM
CLOSED
OPEN
7
BACK
HOME
MENU

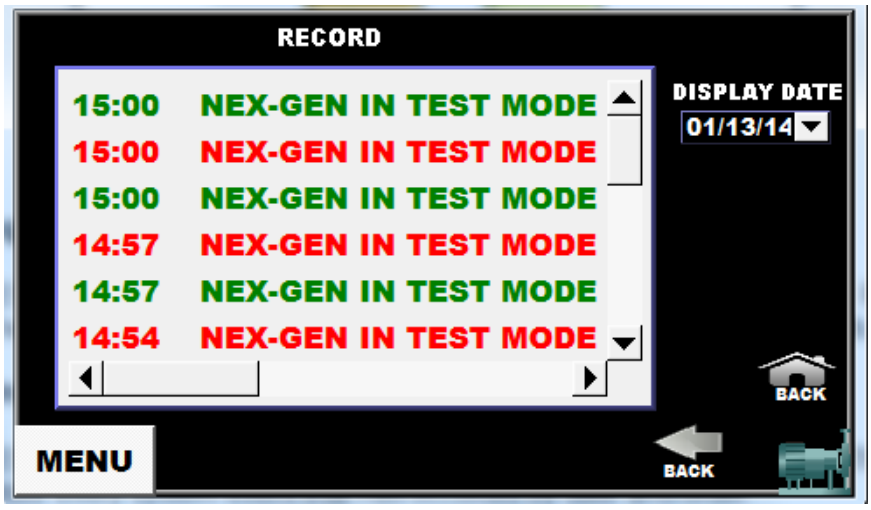
Viewing or Changing Set-points

Press MENU then SERVICE then SETPOINT to access the set-point screen. From this screen the SALT SETPOINT, PH SETPOINT, ACID FEED TIME, and MINIMUM SALINITY can be adjusted. The factory default is 5000 for salt, 7.4 for pH, and 60 seconds for feed time.



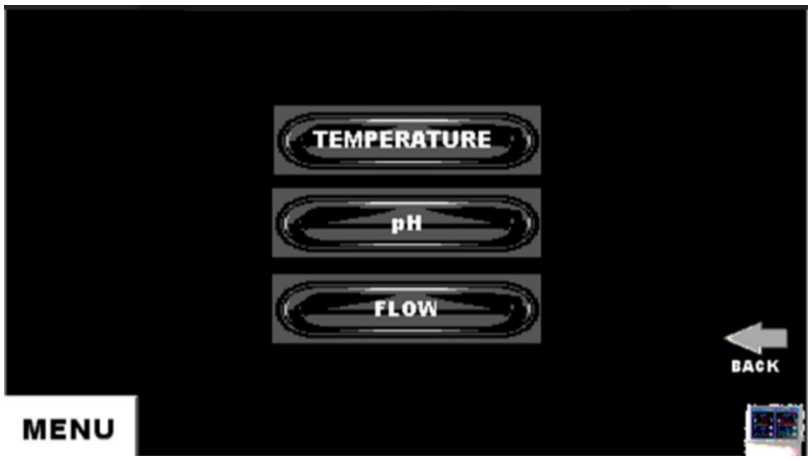
Accessing the Recorded Event Log

Press MENU then SERVICE then RECORD to access the event log screen. The event log will store every system event that has occurred by date and order.



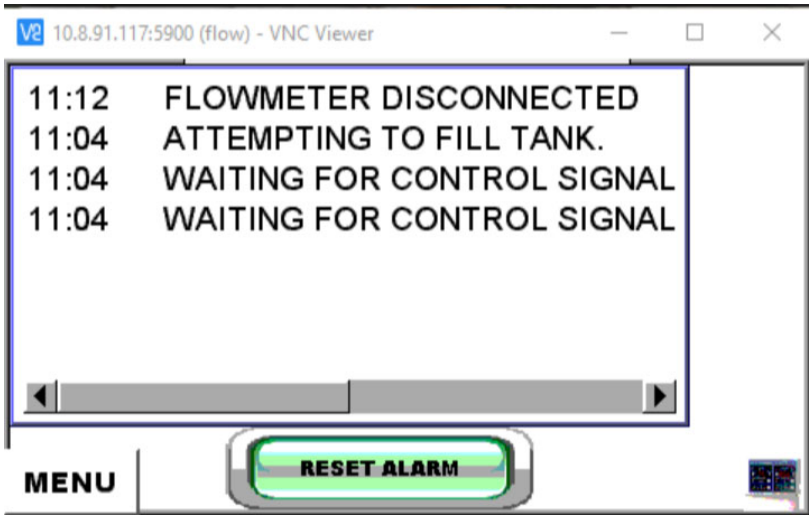
Accessing Graphs

Press MENU then SERVICE then GRAPHS to access the graphs screen. From this screen process temperature, process pH, and low pH can be seen over history.



Accessing the Current Event Log

Press MENU then EVENTS to access the current event log. This screen lists current events or faults. This screen will also activate automatically whenever a fault occurs. A current fault is displayed in black. Pressing the RESET ALARM button will reset all alarms. WAITING FOR CONTROL SIGNAL 2 may remain if a second body of water is not installed.



MAINTENANCE

ROUTINE MAINTENANCE

Daily

Confirm system operation with a visual inspection.
Confirm the OUTPUT is at 100% on the NEXGEN touchscreen.
Confirm the salt concentration is at setpoint on the NEXGEN touchscreen.
Confirm appropriate flow displayed on the flow sensor.
Address any EVENTS on the NEXGEN touchscreen.

Weekly

Inspect the electrode stacks each week for calcium build up and perform acid was as needed.
Check the salt in Saturated Salt Feeder and fill as needed.
Check the acid in the acid tank, fill as needed with a 50% diluted muriatic acid.

Monthly

Inspect the dilution fan screen and clean as necessary.

WINTERIZING NEXGEN

NEXGEN installed outdoors in freezing climate areas may be shut down for the winter. Observe the following procedure for winterizing:

1. Drain water from NEXGEN
2. Disconnect all sources of power
3. Break union connections and leave open till spring

The following pages list suggested quarterly maintenance schedule along with expanded guidance manual.

NEXGEN MAINTENANCE SCHEDULE: 60 MONTH

Location	
Model	
Serial Number	

	Suggested Maintenance Items	3 month	6 month	9 month	12 month	15 month	18 month	21 month	24 month	27 month	30 month	33 month	36 Month	39 Month	42 Month	45 Month	48 Month	51 Month	54 Month	57 Month	60 Month	Note
1	Wipe Down NEXGEN Completely	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2	Identify and Address Any Leaks	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
3	Inspect and Wipe Down Blower Screen	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
4	Inspect Tank Water Level & Confirm Float	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5	Inspect Cells for Calcium, Acid Wash*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
6	Confirm pH Neutral Function	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
7	Clean Inlet Strainer	X			X				X				X				X				X	
8	Inspect Venting Line		X		X		X		X		X		X		X		X		X		X	
9	Replace Squeeze Tube on Salt Pump		X		X		X		X		X		X		X		X		X		X	
10	Replace Squeeze Tube on Acid Pump		X		X		X		X		X		X		X		X		X		X	
11	Clean pH Probe		X		X		X		X		X		X		X		X		X		X	
12	Inspect Multipool VFS Flow Meter & Jaco's		X		X		X		X		X		X		X		X		X		X	
13	Replace all 1/4" Tubing on Stenner Pumps				X				X				X				X				X	
14	Clean out Salt Tank				X				X				X				X				X	
15	Inspect Cell Connections				X				X				X				X				X	
16	Inspect Control Box Connections				X				X				X				X				X	
17	Replace Blower and Switch**								X								X					
18	Replace Venturi Flow Meter**								X								X					

*Indicates may be required more often based on water hardness, see #5 on maintenance guidance for more detail

**Indicates As Needed

For an EVENT, parts, or other troubleshooting support please see Technical Guide or contact ChlorKing at 800.536.8180

NEXGEN MAINTENANCE SCHEDULE

	Cell DC AMPS on Screen				Cell DC Volts on Screen					
Record Cell Amps and Volts	**Cell 1 DC Amps**	**Cell 2 DC Amps**	**Cell 3 DC Amps**	**Cell 4 DC Amps**	**Cell 1 DC Volts**	**Cell 2 DC Volts**	**Cell 3 DC Volts**	**Cell 4 DC Volts**	**Run Time**	**Comments**
3 month										
6 month										
9 month										
12 month										
15 month										
18 month										
21 month										
24 month										
27 month										
30 month										
33 month										
36 month										
39 month										
42 month										
45 month										
48 month										
51 month										
54 month										
57 month										
60 month										

Expected Values for NEXGEN	Cell DC Amps	Cell DC Volts
NEXGEN10SMR	50	14 – 18
NEXGEN20R	100	14 – 18
NEXGEN40R	100	28 – 36
NEXGEN50SMR	100	17 – 23
NEXGEN60R	100	21 – 27
NEXGEN80R	100	28 – 36
NEXGEN100SMR	100	17 - 23

Record Correct Flowmeter Position in GPM	
NEXGEN GPM for Body 1	
VFS GPM for Body 2	
VFS GPM for Body 3	
VFS GPM for Body 4	
VFS GPM for Body 5	
VFS GPM for Body 6	

CONTINUED SECTION 4 MAINTENANCE GUIDANCE

1. Wipe down the NEXGEN Completely

The NEXGEN should be wiped down to prevent premature or unnecessary component failure or skid degradation. Using a lint free cloth and a mild soap solution, wipe the NEXGEN down from top to bottom. This will also assist the operator with any leak identification addressed in the next maintenance item.

2. Identify and Address Any Leaks

The NEXGEN has several threaded connections that should be inspected. Addressing leaks immediately will avoid unnecessary damage and is an essential part of proactive maintenance.

If salt buildup is observed, the connection is leaking and should be addressed by isolating the machine, draining the tank as needed, and cleaning the impacted area. Fresh thread tape should be applied and the fitting resecured. If a cracked or faulty component is the cause of the leak, refer to the NEXGEN Parts Guide and contact ChlorKing for replacement component.

3. Inspect and Wipe Down the NEXGEN Fan

The fan is located on the back of the NEXGEN and is used to force air into the production tank for venting byproduct. The screen on the fan can become obstructed and cause the NEXGEN to shut down. Using a lint free cloth, wipe the screen to remove any dust or debris.

4. Inspect Tank Water Level & Confirm Float

Step 1. On the touchscreen, press MENU / SERVICE / TEST.
Step 2. Select booster pump.
Step 3. Note Valve 4 position and close Valve 4.
Step 4. Wait 30 seconds and mark the water level on tank.

Note: should be about 6in from the top of the tank.

Step 5. Allow booster pump to run for five minutes.
Step 6. Ensure there is no change in the water level in the tank.
Step 7. Push next on the touchscreen and press valve 1.

Step 8. Adjust Valve 4 back to original flow on flowmeter.
Step 9. Push home on the touchscreen.

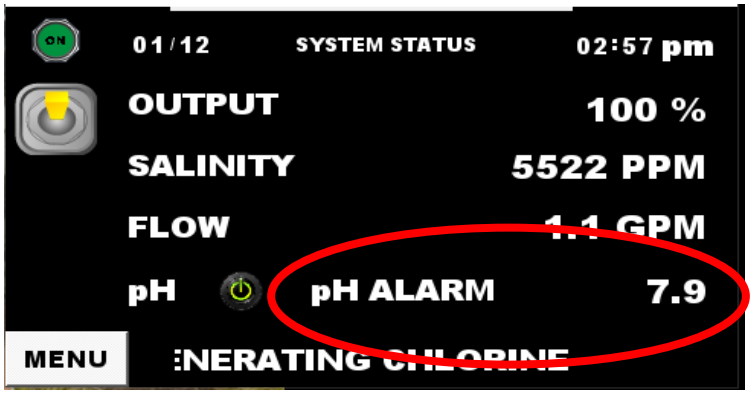
5. Inspect Cells for Calcium, Acid Wash as Needed

Visually inspect the electrolytic cell through the cell tube for calcium buildup on or in between the plates and on the headers. If calcium is present, refer to the Cell Cleaning Procedure in section 4.2 of this manual. Manual inspection of the cell and headers may be necessary for higher calcium hardness levels.

NOTE: ChlorKing recommends a certified technican remove and inspect the cells and headers every 6 months to remove calcium build-up, as needed.

6. Confirm pH Neutral Function

The NEXGEN is designed to produce sodium hypochlorite with a balanced pH. The pH of the production tank solution is displayed on the NEXGEN touchscreen. Confirm the pH is within the desired level and being fed with a 31.4% diluted muriatic acid / water mixture. See Technical Service Bulletin to troubleshoot pH.



7. Clean Inlet Strainer

The Inlet strainer is in place to capture minor debris that passed through the filter. The screen is cleaned by closing Valve 3 and unscrewing the black housing. Rinse the screen and reinstall.

8. Inspect the Venting Line

The NEXGEN vent is installed with PVC that may be dry fit, glued, or have a union.

Step 1. Disconnect vent line from NEXGEN production tank.
Step 2. Inspect the vent line at the NEXGEN for salt build up in the tank fitting.
Step 3. Inspect the vent line at the NEXGEN for salt build up in the vent pipe.
Step 4. Reconnect the vent line to NEXGEN.
Step 5. Ensure the vent line has an 1/8 inch per foot rise to termination point.
Step 6. Ensure all connections on the vent line are tight.
Step 7. Inspect the vent line termination point for clogs or debris.

9. Replace the Squeeze Tube on the Salt Pump

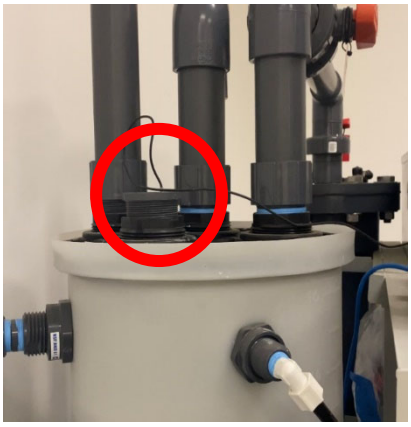
The Stenner salt pump feeds raw material to the NEXGEN to produce sodium hypochlorite. This pump has a #5 Stenner tube. Reference QR code on the Stenner pump for replacement instructions.

10. Replace the Squeeze Tube on the Acid Pump

The Stenner acid pump feeds raw material to the NEXGEN to deliver sodium hypochlorite with a balanced pH This pump has a #1 or a #2 Stenner tube. Reference QR code on the Stenner pump for replacement instructions.

11. Clean pH Probe

Carefully remove the pH probe and inspect the bulb. Clean the pH probe with a mild acid, vinegar, or CLR and a soft bristle brush. Ensure the protective crown has been removed. Replace the pH probe carefully to avoid damage and ensure the wire is not under stress or kinked.



12. Inspect Multipool VFS Flow Meter & Jaco's

If the NEXGEN equipment services more than one body of water, a VFS will be present for each body of water. Visually inspect the VFS for any leaks. Wipe the equipment down and tighten any loose fittings or replace any gaskets.

13. Replace all 1/4" Tubing on the Stenner Pumps

Replace the 1/4” tubing on the suction and pressure side of each Stenner pump.

14. Clean the Salt Tank

Throughout operation, the SSFEEDER may accumulate dirt and debris. Occasional cleaning may be required to prevent clogging. Drop salt level down, rinse the brine tank, refill, and resume normal operation.

15. Inspect Cell Connections

Visually inspect the header connections, the cell connectors, and the connections at the reverse box. Clean, repair, or replace any damaged or corroded connectors. Record DC amps and volts.

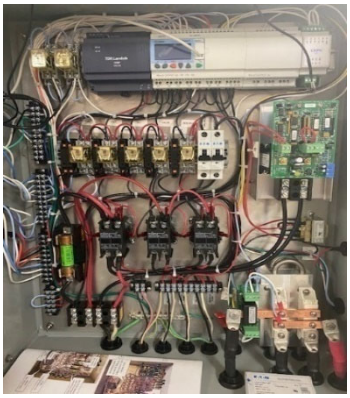
HEADER CONNECTION

CELL CONNECTORS

REVERSE BOX

16. Visual Inspection of Control Box Connections

Turn the NEXGEN off and disconnect all sources of power. Inspect the components and wiring for signs of heat damage, melted insulation, or loose connections. Repair or replace wiring or components, as necessary.



17. Replace Fan and Fan Flow Switch as Needed

The Fan is a safety feature of the NEXGEN that forces air into the production tank and pushes byproduct out the vent. The Fan Flow Switch is a safety feature to confirm the Fan is operational.

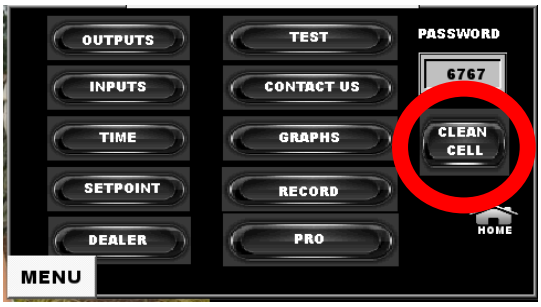
Reference the NEXGEN Parts Guide section.

18. Replace Venturi Flow Meter as Needed

The flow sensor and / or meter are an essential part of the NEXGEN operation. Ensure they are in working order or replace as needed.

Refer to the NEXGEN Parts Guide section for part number.

CELL CLEANING PROCEDURE



Note: This process will take approximately **60 minutes** and cannot be interrupted once begun. Ensure you have time to complete before beginning.

Press MENU then SERVICE then CLEAN CELLS to Access on screen instructions for cleaning the cells. Review QR code instructional video for support.

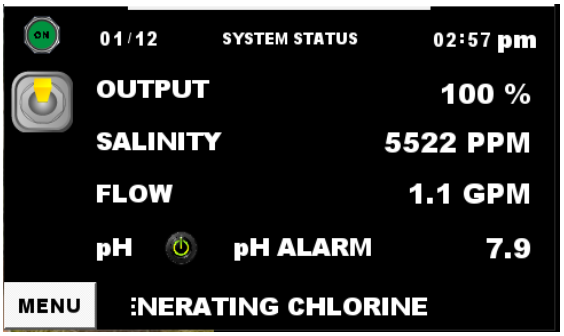
Note: Sulfuric acid and dry acid (sodium bisulfate) are not recommended for cell cleaning. Under some conditions the electrolytic cell can be damaged.

WARNING

Read all cautions and directions provided with the muriatic acid used. Always add acid to water. Use only with adequate ventilation. If strong odor is noticed, STOP, ventilation is inadequate. Leave area immediately. If the work area is not well ventilated, you MUST use a properly fitted and maintained NIOSH approved respirator for acid fumes.

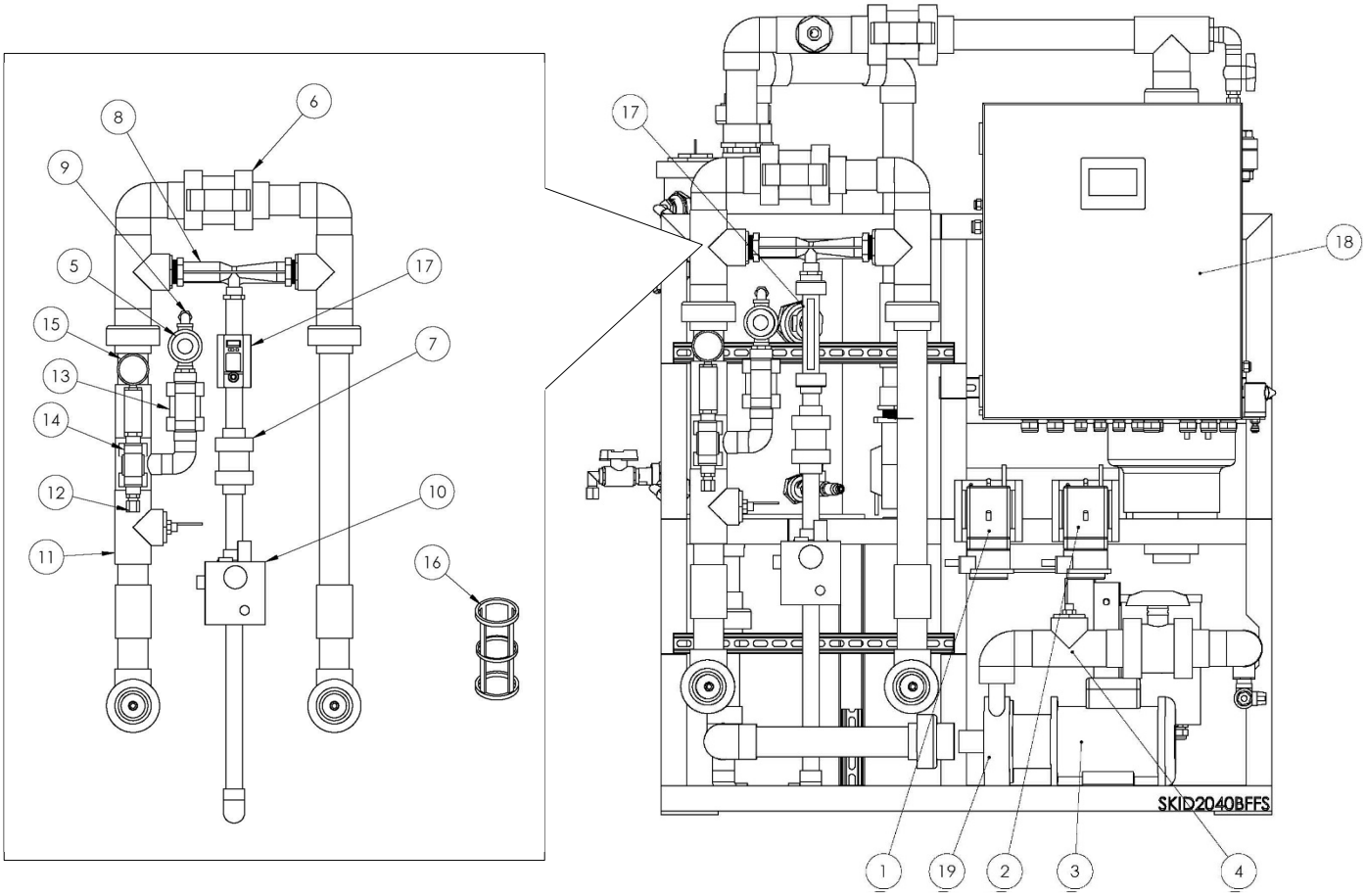
SCAN ME

Once acid wash is complete, the home screen will be displayed. The NEXGEN will start automatically. The startup process will include automatic adjustment of the pH and salt concentration in the production tank. Once this process is complete the NEXGEN will resume normal operation.

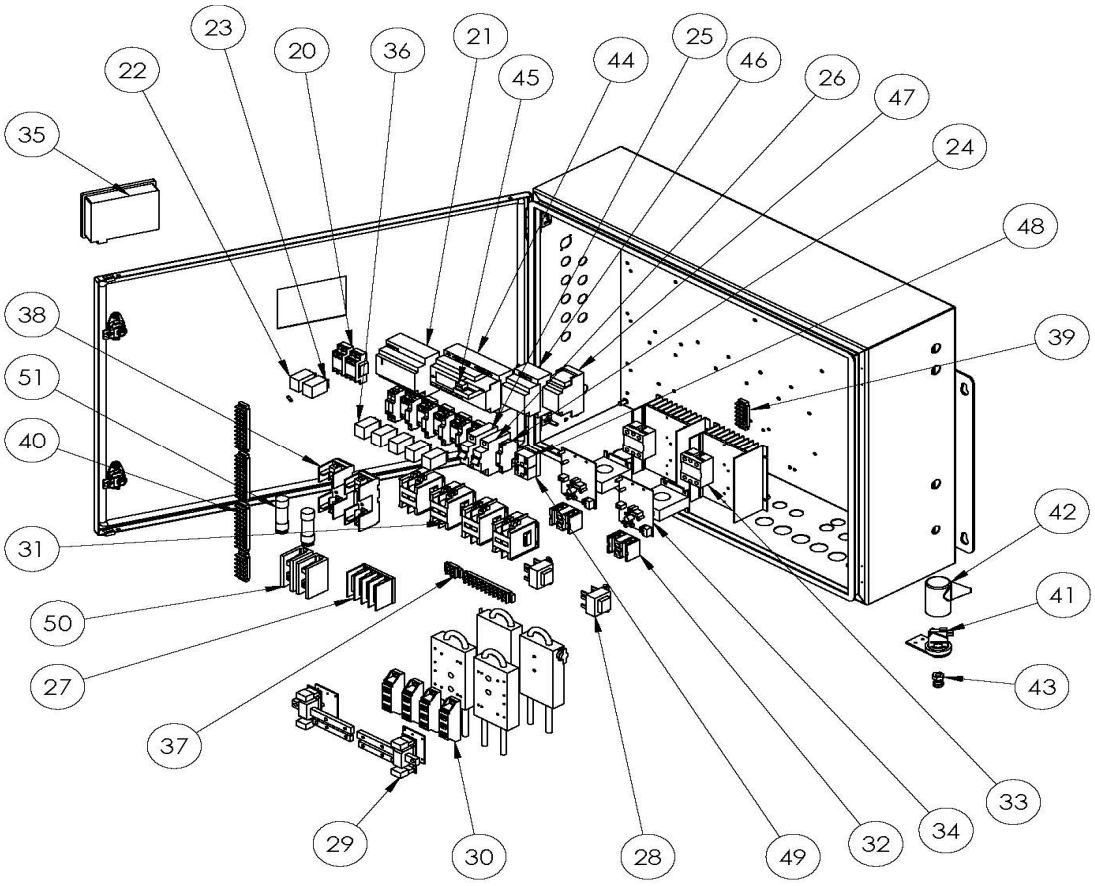


PARTS GUIDE

The following pages contain the parts guide for forward and reverse polarity NEXGEN Models 20, 40, 60, and 80.

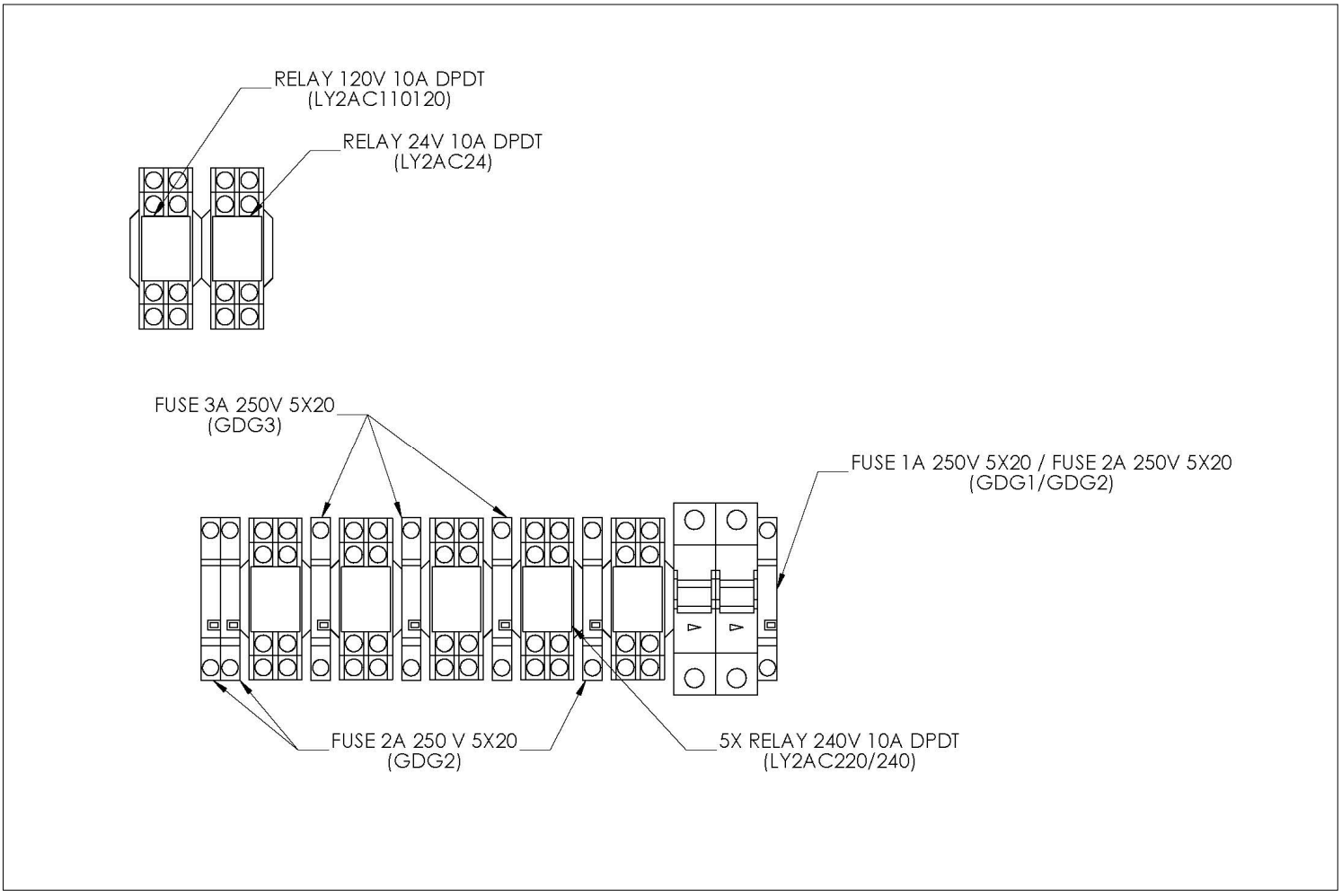


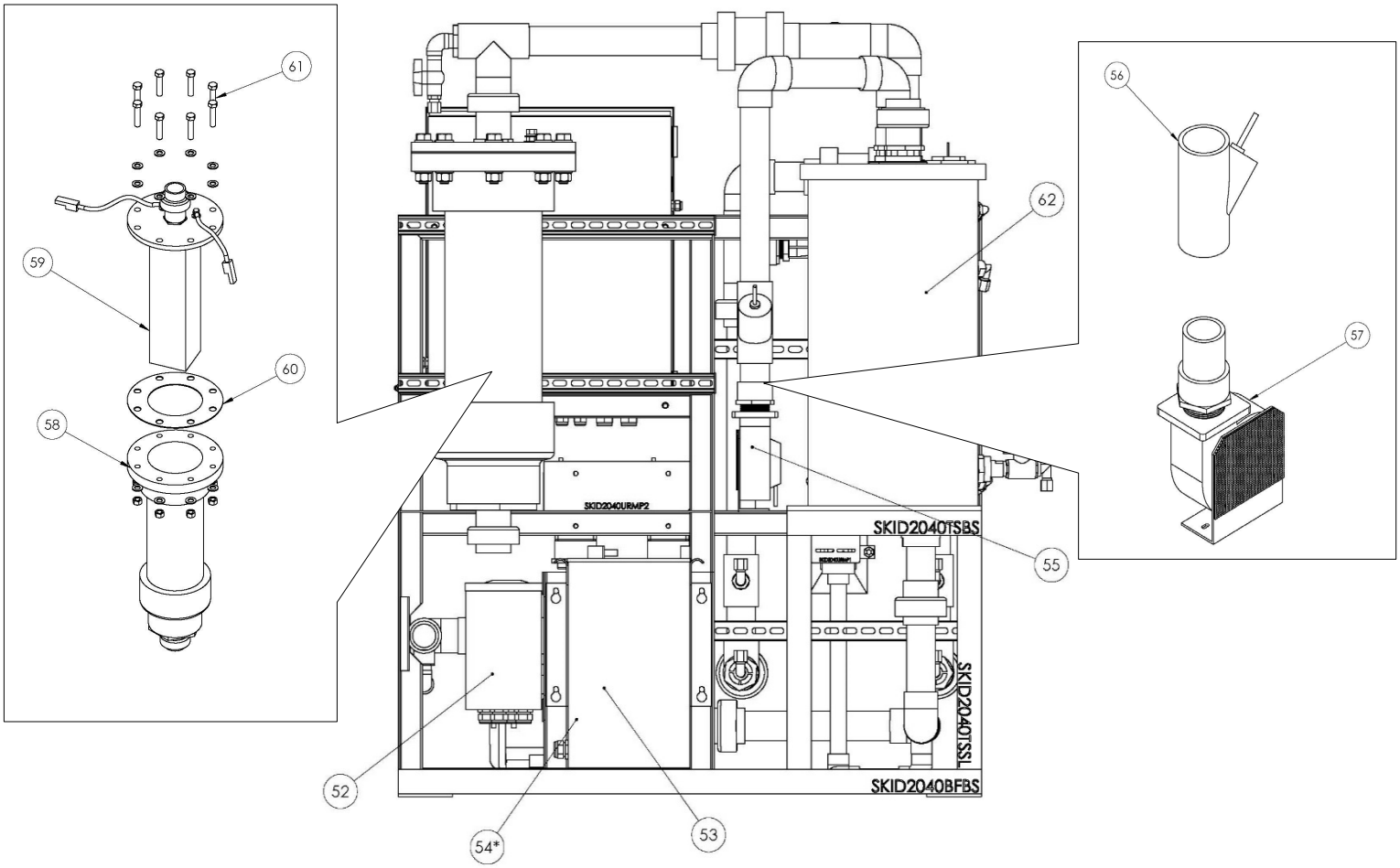
ITEM NO.	MODEL	PART NUMBER	DESCRIPTION	QTY.
1A	20, 20R	PUMPSF1220	PUMP STENNER FIXED #1 HOSE 220 VAC (HOSE - UCCP201)	1
1B	40, 40R, 60R, 80, 80R	PUMPSF2220	PUMP STENNER FIXED #2 HOSE 220 VAC (HOSE - UCCP202)	1
2A	20, 20R, 40, 40R	PUMPSF5220	PUMP STENNER FIXED #5 HOSE 220 VAC (HOSE - MCCP205)	1
2B	60R, 80, 80R	PUMPSF5220	PUMP STENNER FIXED #5 HOSE 220 VAC (HOSE -MCCP205)	2
3A	20 & 20R	PUMPFT6	PUMP 1/3 HP MAG DRIVE CIRCULATION	1
3B	40 & 40R	PUMPFT7	PUMP 3/4 HP MAG DRIVE CIRCULATION	1
3C	60R, 80, 80R	PUMPFT10	PUMP 3/4 HP MAG DRIVE CIRCULATION	1
4	ALL	FSKHARWIL2MSCNOT	FLOW SWITCH HARWIL 2	1
5A	20, 20R, 40, 40R	20157	STRAINER	1
5B	60R, 80, 80R	RV19043	STRAINER	1
6	ALL	TB1200ST	PVC BALL VALVE TU 2" VITON SXT	1
7	ALL	TC10100ST	PVC BALL CHECK VALVE 1"	1
8A	20, 20R, 40, 40R	1587	MAZZEI INJECTOR 1587	1
8B	60R, 80, 80R	2081	MAZZEI INJECTOR 2081	1
9	ALL	40-8-8-P-PG	JACO ELBOW MALE 1/2 TUBE X 1/2 NPT	5
10	ALL	150107215	VALVE 1" ELEC ACTUATED	1
11	ALL	FSKHARWIL2MSCNOT	FLOW SWITCH 2	1
12	ALL	10-8-8-P-PG	JACO MALE CON 1/2 TUBE X 1/2 NPT	1
13	ALL	TB1100ST	PVC BALL VALVE TU1	1
14	ALL	TB1050ST	PVC BALL VALVE TU 1/2" FPM SXT	1
15	ALL	1448	PRESSURE GAUGE	1
16	ALL	10549	STRAINER SCREEN	1
17A	ALL	FD-Q32C	FLOW SENSOR	1
17B	20 & 20R	17.101.987	FLOW METER (MODELS WITHOUT ELECTRONIC SENSOR)	1
17C	40, 40R, 60R, 80, 80R	17.101.983	FLOW METER (MODELS WITHOUT ELECTRONIC SENSOR)	1
18A	20 & 40	CBPS2040NEXGEN	POWERBOX	1
18B	20R & 40R	CBPS2040RNEXGEN	POWER BOX	1
18C	80	CBPS80NEXGEN	POWERBOX	1
18D	60R & 80R	CBPS80RNEXGEN	POWER BOX	1
19A	20 & 20R	DP6	PUMP WET END REPLACEMENT	1
19B	40 & 40R	DP7	PUMP WET END REPLACEMENT	1
19C	60R, 80, 80R	DP10	PUMP WET END REPLACEMENT	1



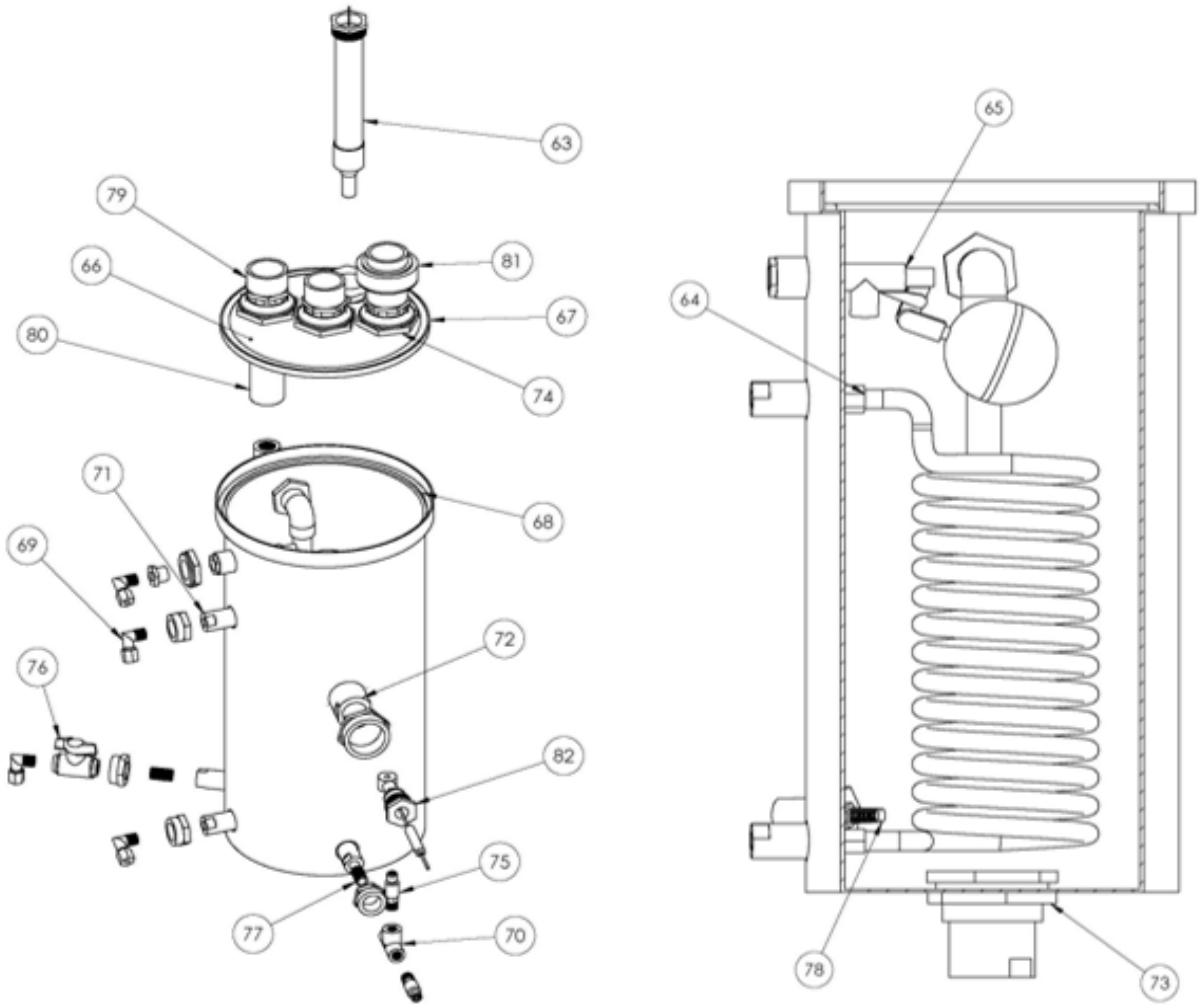
ITEM NO.	MODEL	PART NUMBER	DESCRIPTION	QTY.
20	ALL	27E895	RELAY SOCKET DIN RAIL DPDT	7
21	ALL	DSP100-24	POWER SUPPLY 30W 24V DC	1
22	ALL	LY2AC110120	RELAY 120V 10A DPDT	1
23	ALL	LY2AC24	RELAY 24V 10A DPDT	1
24	ALL	1011000000	TERMINAL BLOCK FUSE HOLDER	7
25	ALL	FAZ-D10/1	BREAKER CIRCUIT 10 AMP	1
26	ALL	FAZ-D12/1	BREAKER CIRCUIT 12 AMP	1
27	ALL	14002-4	TERMINAL BLOCK 4 POLE	1
28A	20, 20R, 40 40R	KITFD4240NEXGEN	TRANSFORMER .250VA TRIAD (SOLDER WIRES FOR KIT)	1
28B	60R, 80, 80R	KITFD4240NEXGEN	TRANSFORMER .250VA TRIAD (SOLDER WIRES FOR KIT)	2
29A	20, 20R, 40, 40R	XXCVC	CONTROLLER CURRENT/VOLTAGE (SHIPS WITH XXCVCBARE)	1
29B	60R, 80, 80R	XXCVC80	CONTROLLER CURRENT/VOLTAGE (SHIPS WITH XXCVCBARE)	2
30A	20, 20R, 40, 40R	SKKD100/XX	DIODE POWER MODULE 9A (SHIPS AS PAIR WITH NTE303)	2
30B	60R, 80, 80R	SKKD100/XX	DIODE POWER MODULE 9A (SHIPS AS PAIR WITH NTE303)	4
31A	20, 20R, 40, 40R	C25BNB230B	CONTACTOR 2 POLE 30A 240V	3
31B	60R, 80, 80R	C25BNB230B	CONTACTOR 2 POLE 30A 240V	4
32A	20, 20R, 40, 40R	14002-2	TERMINAL BLOCK	1
32B	60R, 80, 80R	14002-2	TERMINAL BLOCK	2
33A	20, 20R, 40, 40R	KITSH48R125	RELAY FOR 1032 CARD 125A (SHIPS WITH NTE303)	1
33B	60R, 80, 80R	KITSH48R125	RELAY FOR 1032 CARD 125A (SHIPS WITH NTE303)	2
34A	20, 20R, 40, 40R	SP23-40A	CURRENT DRIVE 40A	1
34B	60R, 80, 80R	SP23-40A	CURRENT DRIVE 40A	2
35	ALL	88970553	TOUCH SCREEN MTPX50	1
36	ALL	LY2AC220/240	RELAY 240V 10A DPDT	5
37	ALL	TB100-02SP	TERMINAL BLOCK 2 POS 18AWG	1
38A	20, 20R, 40, 40R	RM25060-1CR	FUSE HOLDER 60 AMP	1

38B	60R, 80, 80R	RM25060-1CR	FUSE HOLDER 60 AMP	2
39A	20, 20R, 40, 40R	TB100-05SP	TERMINAL BLOCK 5 POS 18AWG	1
39B	60R, 80, 80R	TB100-05SP	TERMINAL BLOCK 5 POS 18AWG	2
40	ALL	TB100-10SP	TERMINAL BLOCK 10 POS 18AWG	4
41	ALL	800120-3	PRESSURE SWITCH	1
42	ALL	182010	BOOT COVER PRESSURE SWITCH	1
43	ALL	PP450821W	FEMALE ADAPTER 1/4 X 1/8	1
44A	20, 20R, 40, 40R	88974161	CONTROLLER XD26 24VDC M3	1
44B	60R, 80, 80R	88981103	EM4 LOCAL B26 24VDC GLOSSY BLA	1
45	60R, 80, 80R	88980123	EM4 INTERFACE RS485 24VDC MODB	1
46A	20, 20R, 40, 40R	88970321	EXTENSION MODULE M3 XE10	1
46B	60R, 80, 80R	88982113	MODULE EM4 EXTENSION E10R GLOS	1
47	ALL	CKPH	PH MODULE 0-10 VOLTS	1
48	60R, 80, 80R	3273070	DINRAIL TERMINAL BLOCK 7 RED	1
49	60R, 80, 80R	3273080	DINRAIL TERMINAL BLOCK 7 BLK	1
50	60R, 80, 80R	PDB220-1	TERMINAL BLOCK 175A	2
51A	20 & 20R	DLNR40	FUSE	1
51B	40 & 40R	DLNR60	FUSE	1
51C	60R, 80, 80R	DLNR60	FUSE	2

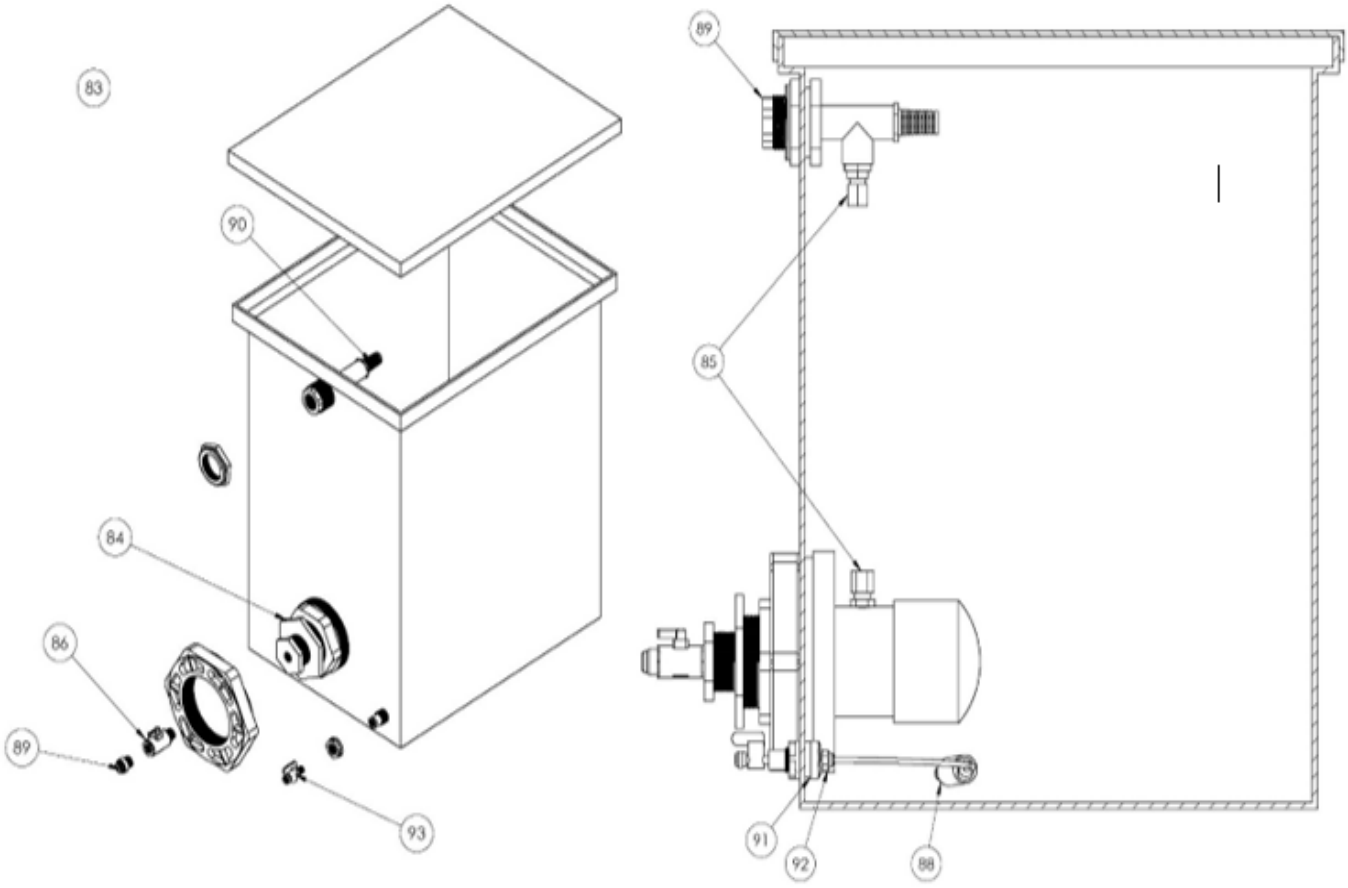




ITEM NO.	MODEL	PART NUMBER	DESCRIPTION	QTY.
52A	20R	SU192RPNEXGEN	REVERSING BOX	1
52B	40R, 60R, 80R	SU19240RNEXGEN	REVERSING BOX	2
53A	20, 20R, 40, 40R	KITHS19F7.5A12/24NEXGEN	TRANSFORMER	1
53B	60R, 80, 80R	KITHS22F10A24/48NEXGEN	TRANSFORMER	2
54*	ALL	KITFLOATSWITCH	FLOAT SWITCH MINI HORIZONTAL KYNAR (NOT SHOWN)	1
55	ALL	BLOWERXGEN24VDC	BLOWER ASSEMBLY XGEN 24VDC	1
56	ALL	KITAIRFLOWSENSORYR3T	KIT AIRFLOW SENSOR	1
57	ALL	KIT BLOWERXGEN24VDC	BLOWER 24VDC (SHIPS W/ 10' B11802 18AWG + 318-2PG-330)	1
58A	20R, 40R, 80R	CH8X80	CELL HOUSING	1 PER STACK
58B	20, 40, 60R, 80	CH6X80	CELL HOUSING	1 PER STACK
59A	20	ESTK20.0CNEX	ELECTRODE STACK NEXGEN 20	1
59B	20R	ESTK20.0SMNEX	ELECTRODE STACK NEXGEN 20	1
59Ca	40	ESTK25.0CNEXL	ELECTRODE STACK LEFT NEXGEN 40	1
59Cb	40	ESTK25.0CNEXR	ELECTRODE STACK RIGHT NEXGEN 40	1
59D	40R	ESTK20.0SMNEXRL	ELECTRODE STACK NEXGEN 40	2
59E	60R	ESTK15.0SMNEXRL	ELECTRODE STACK 15.0 SM NEX RL	4
59Fa	80	ESTK25.0CNEXL	ELECTRODE STACK LEFT NEXGEN 80	2
59Fb	80	ESTK25.0CNEXR	ELECTRODE STACK RIGHT NEXGEN 80	2
59G	80R	ESTK20.0SMNEXRL	ELECTRODE STACK NEXGEN 40	4
60A	20R, 40R, 80R	NR201-080	GASKET 8 NEOPRENE RUBBER	1 PER HOUSING
60B	20, 40, 60R, 80	NR201-060	GASKET 6 NEOPRENE RUBBER	1 PER HOUSING
61	ALL	KITSSBOLT3.5	BOLT KIT SS 3.5" FOR CELL TUBE	1 PER HOUSING
62A	20, 20R, 40, 40R	KITCH40NEX	TANK NEXGEN 20-40	1
62B	60R, 80, 80R	KITCH80X	TANK NEXGEN 80	1



ITEM NO.	MODEL	PART NUMBER	DESCRIPTION	QTY.
63	ALL	PHXT	pH PROBE	1
64	ALL	10-12-8-K-PG	JACO KYNAR MALE 1/2 TUBE X 1/2 NPT	2
65A	20, 20R, 40, 40R	KIT2670A	FLOAT VALVE ASSY.	1
65B	60R & 80R	2680A	FLOAT VALVE ASSY.	1
66A	20, 20R, 40, 40R	3523CNEX2040	TANK LID CH40NEX	1
66B	60R & 80R	3523CX80	TANK LID CH80X	1
67A	20, 20R, 40, 40R	GSKTTANKLID 3.8'	LID GASKET	1
67B	60R & 80R	GSKTTANKLID 6.3'	LID GASKET	1
68A	20, 20R, 40, 40R	GASKETPEFOAM 3.8'	TANK GASKET	1
68B	60R & 80R	GASKETPEFOAM 6.3'	TANK GASKET	1
69	ALL	40-8-8-P-PG	JACO ELBOW MALE 1/2 TUBE X 1/2 NPT	4
70	ALL	805-005	PVC T 1/2 TXT	1
71	ALL	BFAS1005TFS	BULKHEAD UNION 1/2"	4
72	ALL	BFAS1015TFS	BULKHEAD UNION 1-1/2"	1
73	ALL	BFAS1020SFS	BULKHEAD UNION 2"	1
74	ALL	TF200	BULKHEAD UNION 2"	4
75	ALL	MCDBINJ	VALVE CHECK DUCK BILL 1/4	2
76	ALL	1071-005	PVC BALL VALVE 1/2 OMNI THR/EP	1
77	ALL	882-005	PVC NIPPLE 1/2 SCH80	2
78	ALL	CFVSI-005	STRAINER 1/2"	1
79	ALL	836-020	PVC MALE ADAPTOR 2" SXT	4
80	ALL	803-020	2" SCH80 PVC PIPE 6"	1
81A	20, 20R, 40, 40R	8056-020	2" PVC SCH80 FKM UNION	1
81B	60R & 80R	8056-030	3" PVC SCH80 FKM UNION	1
82	ALL	KITBEIN75110NEXGEN	SENSOR TOROIDAL 1-10V CONDUCTIVITY	1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
83	SSFEEDER55S	SALT FEEDER 55G SINGLE TANK (INCLUDES ALL PARTS SHOWN)	1
84	FLOAT ASSEMBLY	FLOAT VALVE ASSEMBLY	1
85	10-6-8-K-PG	JACO 3/8" X 1/2" PP MALE CONNECTOR	2
86	LV050MTV	PP VALVE MICRO 1/2 FPT X 1/2 MNP	1
87	PP011624W	PP MALE CONNECTOR 1/2 TUBE X 1/2 NPT	1
88	ST114	STENNER PUMP STRAINER PICK UP	1
89	TF100	PVC BULKHEAD UNION 1 TXT	1
90	CFVSI-010	STRAINER 1"	1
91	8172V-002	PVC BULKHEAD UNION 1/4 TXT	1
92	PP010822W	PP MALE CONNECTOR 1/4 TUBE X 1/4 NPT	1
93	PPSV010822W	PP VALVE 3/8 TUBE X 3/8 NPT	1

ACCESSORIES

PART NUMBER	COMPONENT	DESCRIPTION
CHLORKING5000TDS-WV	TDS Controller	The ChlorKing® 5000 TDS Controller automates the process of controlling Total Dissolved Solids (TDS).
CHLORKING 5000 HHS	Salt Meter	The ChlorKing® 5000 HHS is a handheld, digital toroidal salt tester.
PUMPBOOSTER	Booster Pump	The booster pump is required for NEXGEN operation and is sold separately. Booster pump HP determined by return line pressure.
SSFEEDER100S	Brine Tank	The NEXGEN ships with a 550lb brine tank. The SSFEEDER100S is a larger option, holding 1,000 lbs. of salt in a single tank design.
MULTIPOOL OPTIONS		With additional accessories, the NEXGEN can chlorinate up to six bodies of water. Contact www.sales@chlorking.com for more information

Visit www.chlorking.com to view other products available

CHLORSM	The CHLORSM is designed for commercial swimming pool applications and is capable of producing up to 28 pounds of equivalent chlorine per day with 3,500 to 5,000 ppm salinity in the body of water.
LOW PRESSURE HIGH OUTPUT UV	The Sentry Aqua Guard system is a low pressure, high output, amalgam, ultraviolet light sterilizer. Both Supplemental or Secondary disinfection systems available.

WARRANTY INFORMATION

The ChlorKing® NEXGEN system carries a limited 3-year warranty

1. 3-year warranty on assembly of the system.
2. 1 year on all electrical items, cell tubes, and production tanks.
3. 2 years pro-rated monthly, on titanium electrodes. (Year 1 is warranted fully, thereafter pro-rated warranty applies, applicable over the full 2-year period. Applicable on electrode stacks where full price has been paid.)

- **ChlorKing®** advises that titanium electrodes will have to be replaced based on run time and water conditions.

- **ChlorKing®** warranties will not be honored should it be shown that the operating and maintenance procedures have not been followed, particularly with regard to the cleaning frequency program.

- **ChlorKing®** warranties of the titanium electrodes will not be honored if the system is operated in water temperatures lower than 59 degrees F.

- During the warranty period the customer shall return the defective component, freight prepaid, accompanied by the original invoice or proof of purchase, and **ChlorKing®** shall at its sole discretion elect to repair or replace the defective component and return it to the customer, freight pre-paid.

ChlorKing® accepts no responsibility other than to repair or replace a defective component, and this warranty specifically excludes product failure due to accidental damage, abuse, misuse, and negligence, damage due to non-compliance of the operating manual or unauthorized alterations or modifications to the system. **ChlorKing®** accepts no responsibility and is not liable for any extended warranties or variations to this warranty offered by re-sellers of **ChlorKing®** systems.

Warranty Registration Card

Please complete and return to activate ChlorKing® warranty
Please mail or fax to ChlorKing® inc. P.O. Box 80823, Atlanta, GA, 30366 Fax: 770-685-6576

Dealer Name: _____

Address:_____City:_____

State: _____Zip:_____Tel:_____

Installation site of equipment:_____

Address:_____City:_____

State: _____Zip:_____

Date of purchase:_____ Serial number:_____

1. Pool size:_____ 2. Pool finish:_____

3. Indoor / Outdoor:_____ 4. Heated: Yes / no

5. Filter Type:_____ 6. Pool Age:_____

7. New or existing pool:_____ 7. Controller installed: Yes / No

8. If controller installed, what make and model: _____