

Pro Elite™ Professional Series Water Treatment System by GE


Operation Manual
Pro Elite Demand



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Performance Data Sheet

| Pro Elite Analyzer Water Softener System Performance Data Sheet | | | |
|---|---|---|---|
| Model | Pro Elite 268-762-100-1044 Demand | Pro Elite 268-762-150-1248 Demand | Pro Elite 268-762-200-1248 Demand |
| Rated Service Flow (gpm) | 8.0 | 13.0 | 15.0 |
| Pressure Drop at Rated Service Flow Rate (psi) | 5.5 | 9.5 | 14.4 |
| Rated Capacity (grains @ lb of salt) | 13,309 @ 3.3 lbs 26,327 @ 9.0 lbs 31,682 @ 15.0 lbs | 20,023 @ 4.95 lbs 39,609 @ 13.5 lbs 47,665 @ 22.5 lbs | 28,548 @ 6.6 lbs 56,472 @ 18.0 lbs 67,958 @ 30.0 lbs |
| Rated Efficiency (grains/lb Salt @ lb of salt) | 4,033 grains/lb @ 3.3 lbs | 4,045 grains/lb @ 4.95 lbs. | 4,325 grains/lb @ 6.6 lbs |
| Maximum Flow Rate During Regeneration (gpm) | 5.5 | 5.5 | 5.5 |
| Sybron C-249NS Ion Exchange Resin (cu ft) | 1.0 | 1.5 | 2.0 |
| Tank Size | 10" x 44" | 12" x 48" | 12" x 48" |
| Backwash - GPM | 2.7 | 3.9 | 3.9 |
| Rapid Rinse/Purge - GPM | 5.5 | 5.5 | 5.5 |
| Operating Pressure: 20-125 psi or 1.4-8.8 kg/Centimeter ² , Operating Temperature: 35-100°F or 1.7-38°C Acceptable Salt Type: Sodium Chloride - Pellet salt All Systems above tested at 35 psi ±5 psi, pH of 7.5 ±0.5, Capacity Testing Flow Rate = 50% of the rated service flow rate for the various size systems. | | | |
| <p>These water softener systems have been tested by WQA and conform to NSF/ANSI 44 for specific performance claims as verified and substantiated by test data. The rated salt efficiencies above were also determined in accordance with NSF/ANSI 44 and are only valid at the salt dosage referenced above. An efficiency rated water softener is a demand initiated regeneration (DIR) softener which also complies with specific performance specifications intended to minimize the amount of regenerant brine and water used in its operation. Efficiency rated water softeners shall have a rated salt efficiency of not less than 3350 grains of total hardness exchanged per pound of salt (based on NaCl equivalency) (477 grams of total hardness exchanged per kilogram of salt), and shall not deliver more salt than its listed rating. The rated efficiency of the water softener, the salt dosage at that efficiency, the capacity at that salt dosage and that of the efficiency is only valid at the stated salt dosage. Efficiency is measured by a laboratory test described in NSF/ANSI 44. The test represents the maximum possible efficiency the system can achieve. Operational efficiency is the actual efficiency achieved after the system has been installed. It is typically less than the efficiency due to individual application factors including water hardness, water usage, and other contaminants that reduce the water softener's capacity. These systems are not intended to be used for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Refer to the system Installation and Service Manuals for set-up and programming instructions. Contact your local Pro-Elite dealer for parts and service. See your Pro-Elite Analyzer Operation Manual for warranty information</p> <p>Important Notice: For conditions of use, health claims certified by the California Department of Public Health and replacement parts, see product data sheet</p> <p>Iowa Requirement:</p> <p>Seller: _____ Date: _____</p> <p>Buyer: _____ Date: _____</p> <p>7/15/10</p> | | |  <p>Tested and Certified by the WQA against NSF/ANSI Standard 44 & ORD 0902 for "lead free" compliance.</p> <p>The valve used on this unit is Tested and Certified by WQA against NSF/ANSI Standard 61 Section 8 for Material requirements Only.</p> |
| PENTAIR Residential Filtration, LLC 5730 North Glen Park Road Milwaukee, Wisconsin 53209 PHONE: (262) 238-4400 | | | |

How To Use This Manual

This installation manual is designed to guide the installer through the process of installing and starting water conditioning systems featuring Pro Elite equipment.

This manual is a reference and will not include every system installation situation. The person installing this equipment should have:

- Training in the Pro Elite Demand systems.
- Knowledge of water conditioning and how to determine proper control settings.
- Adequate plumbing skills and qualifications per local and state laws, codes, and ordinances.

Icons That Appear In This Manual



WARNING: Failure to follow this instruction can result in personal injury or damage to the equipment.

Note: Helpful hint to simplify procedure.

Safety Information

- Observe all warnings that appear in this manual.
- Please review the entire Installation and Operation Manual before installing the water conditioning system.
- As with all plumbing projects, it is recommended that a trained professional water treatment dealer install the water conditioning system. Please follow all local plumbing codes for installing this water conditioning system.



WARNING: Excessive Weight Hazard. Use two or more people to move and install the conditioner. Failure to do so can result in injury (including back injury).

- System is not intended to be used for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.
- This water conditioning system is to be used only for potable water.
- Inspect the water conditioning system for carrier shortage or shipping damage before beginning installation.

- Use only lead-free solder and flux, as required by federal and state codes, when installing soldered copper plumbing.
- Use caution when installing soldered metal piping near the water conditioning system. Heat can adversely affect the plastic control valve and bypass valve.
- All plastic connections should be hand tightened. Teflon^a tape may be used on connections that do not use an O-ring seal. Do not use pipe dope type sealants on the valve body. **Do not use pliers or pipe wrenches.**
- Do not use petroleum-based lubricants such as Vaseline, oils or hydrocarbon-based lubricants. Use only 100% silicone lubricants.
- Use only the power transformer supplied with this water conditioning system.
- All electrical connections must be completed according to local codes.
- The power outlet must be grounded

Install an appropriate grounding strap across the inlet and outlet piping of the water conditioning system to ensure that a proper ground is maintained.



WARNING: Dry location use only, unless used with a Listed Class 2 Power Supply suitable for outdoor use.

- To disconnect power, unplug the AC adapter from its power source.
- Observe drain line requirements. The drain line must be a minimum of 1/2-inch diameter. Use 3/4-inch pipe if the backwash flow rate is greater than 5 gpm (19 Lpm) or the pipe length is greater than 20 feet (6 m).
- Do not support the weight of the system on the control valve fittings, plumbing, or the bypass.
- Do not allow this water conditioning system to freeze. Damage from freezing will void this water conditioning system's warranty.
- Operating ambient temperature: 34° to 120°F (1° to 49°C).
- Operating water temperature: 35° to 100°F (1° to 38°C).
- Operating water pressure range : 20 to 125 psi (1.38 to 8.62 bar). In Canada the acceptable operating water pressure range is 20 to 100 psi (1.38 to 6.89 bar).

a. Teflon is a trademark of E. I. duPont de Nemours.

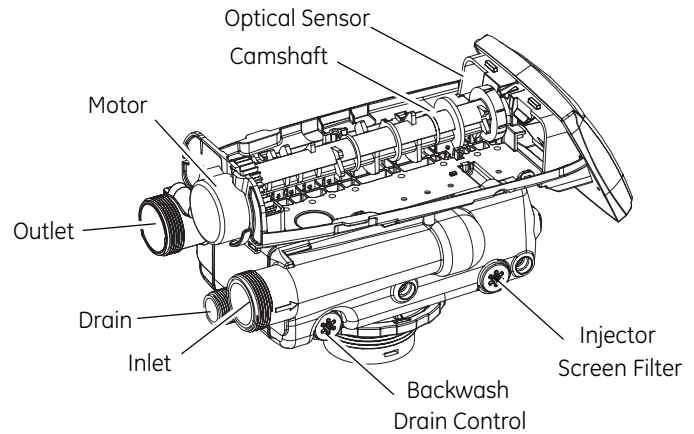
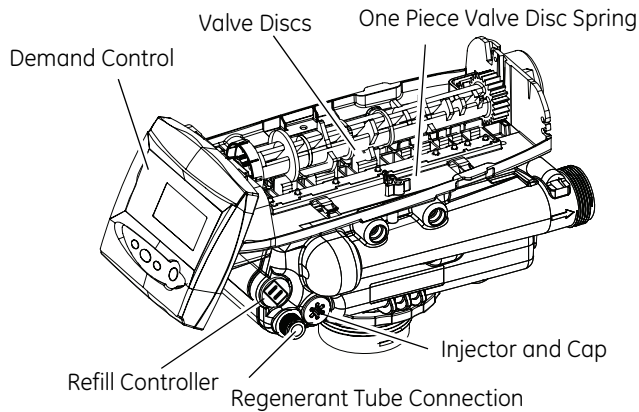


WARNING: The valve and tank components of this Pro Elite unit have been assembled and tightened to the proper factory torque specifications. Over

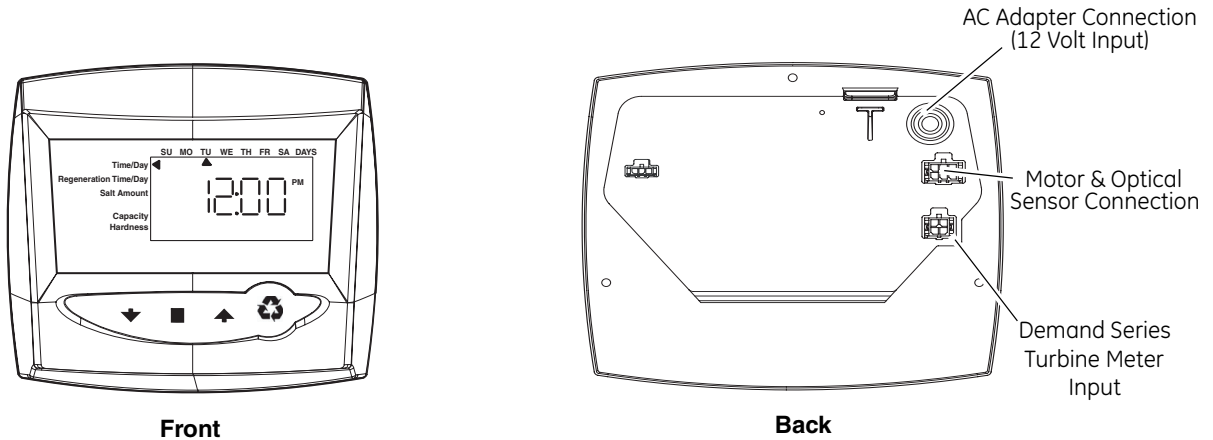
tightening may result in improper valve, probe and tank alignment and may damage the tank O-ring (PN 1010154).

- Keep the media tank in the upright position. Do not turn upside down or drop. Turning the tank upside down or laying the tank on its side can cause media to enter the valve.
- Ensure that all wiring and plumbing connections on the mineral and brine tanks are installed correctly.
- Use only regenerants designed for water conditioning. Acceptable salt type is sodium chloride pellet salt.

Valve Layout



Demand Control Layout



System Specifications 762

| Model Number | 268-762-100-1044 | 268-762-150-1248 | 268-762-200-1248 |
|----------------------------------|--|--|--|
| Recharge Style | Demand | Demand | Demand |
| Media Tank Size | 10" x 44" (25 x 112 cm) | 12" x 48" (30.5 x 122 cm) | 12" x 48" (30.5 x 122 cm) |
| Resin Volume | 1 ft ³ (0.03 m ³) | 1.5 ft ³ (0.04 m ³) | 2 ft ³ (0.056 m ³) |
| Recharge (Salt) Tank Size | 19" x 36" (48.3 x 91.5 cm) | 19" x 36" (48.3 x 91.5 cm) | 19" x 36" (48.3 x 91.5 cm) |
| Salt Storage | 240 lbs (109 kg) | 240 lbs (109 kg) | 240 lbs (109 kg) |
| Drain Water Rate | 2.7 gpm (10.2 L/m) | 3.9 gpm (14.7 L/m) | 3.9 gpm (14.7 L/m) |
| Service Connection Size | 1" NPT | 1" NPT | 1" NPT |
| Drain Connection Size | 3/4" NPT | 3/4" NPT | 3/4" NPT |
| Recharge (Brine) Connection Size | 3/8" NPT | 3/8" NPT | 3/8" NPT |
| Installation Space Requirements | 21" x 42" x 72" (53.3 x 106.6 x 182.8 cm) | 21" x 42" x 72" (53.3 x 106.6 x 182.8 cm) | 21" x 42" x 72" (53.3 x 106.6 x 182.8 cm) |
| Shipping Weight | 140 lbs (63.5 kg) | 165 lbs (74.8 kg) | 200 lbs (90.7 kg) |

Location Selection

Location of a water conditioning system is important. The following conditions are required:

- Level platform or floor.

Note: The Pro Elite System can be provided with optional leveling feet that may be used on the two tanks. Order part number 4000409

- Room to access equipment for maintenance and adding regenerant (salt) to tank.
- Ambient temperatures over 34°F (1°C) and below 120°F (49°C).
- Water pressure below 125 psi (8.62 bar) and above 20 psi (1.38 bar).
- In Canada the water pressure must be below 100 psi (6.89 bar).
- Constant electrical supply to operate the control.
- Total minimum pipe run to water heater of ten feet (three meters) to prevent backup of hot water into system.
- Local drain for discharge as close as possible.
- Water line connections with shutoff or bypass valves.
- Must meet any local and state codes for site of installation.
- Valve is designed for minor plumbing misalignments. Do not support weight of system on the plumbing.
- Be sure all soldered pipes are fully cooled before attaching plastic valve to the plumbing.



WARNING: Dry location use only, unless used with a Listed Class 2 Power Supply suitable for outdoor use.

Outdoor Locations

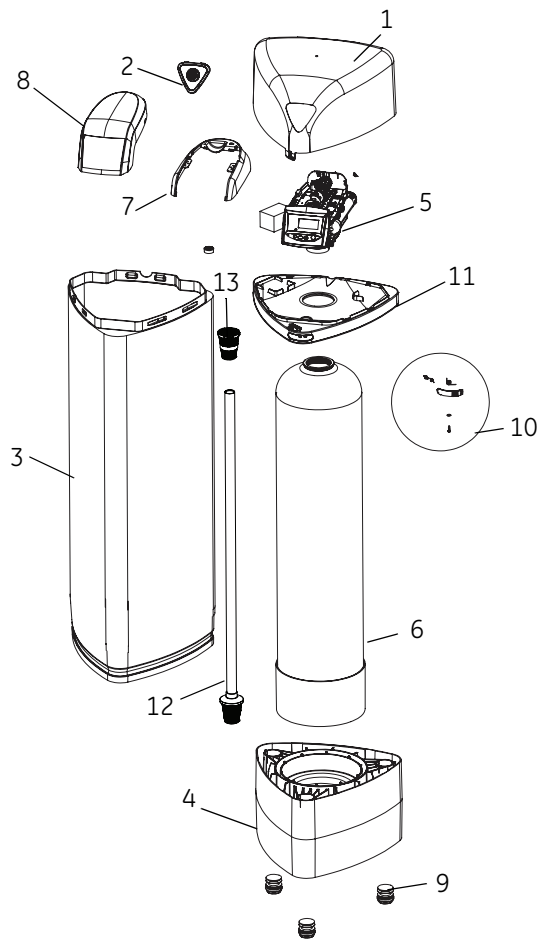
The Pro Elite System is designed to be installed indoors. A protected environment is recommended.

When the water conditioning system is installed outdoors, several items must be considered.

- Moisture – The valve and control are rated for NEMA 3 locations. Falling water should not affect performance. The system is not designed to withstand extreme humidity or water spray from below. Examples are: constant heavy mist, near corrosive environment, or upwards spray from sprinkler. Ensure that the Demand probe access panel is installed on the unit.
- Direct Sunlight – The materials used will fade or discolor over time in direct sunlight. The integrity of the materials will not degrade to cause system failures.
- Temperature – Extreme hot or cold temperatures will cause damage to the valve or control. Freezing temperatures will freeze the water in the valve. This will cause physical damage to the internal parts as well as the plumbing and conditioning resin. High temperatures will affect the control. The display may become unreadable but the control should continue to function. When the temperature returns to normal operating limits, the display will re-appear. A protective cover should assist with high temperature applications.
- Insects – The control and valve have been designed to keep all but the smallest insects out of the critical areas. Any holes in the top plate can be covered with duct tape. The top cover should be installed securely in place.

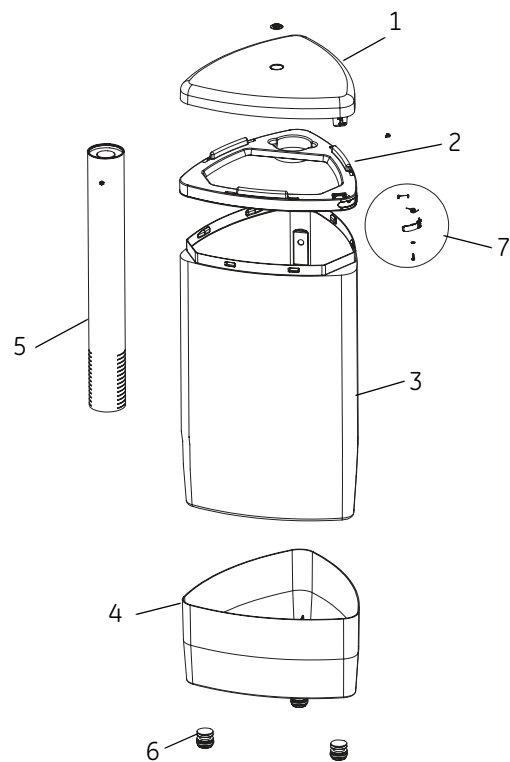
System Features

Resin Tank



- | | | | |
|---|----------------------------------|----|-----------------|
| 1 | Cover | 8 | Cover |
| 2 | Cap, Cover | 9 | Foot, Leveling |
| 3 | Jacket, Resin Tank | 10 | Latch Mechanism |
| 4 | Base | 11 | Tank Collar |
| 5 | 268 Logix PE Valve w/762 Control | 12 | Riser Tube |
| 6 | Resin Tank | 13 | Upper Basket |
| 7 | Shield | | |

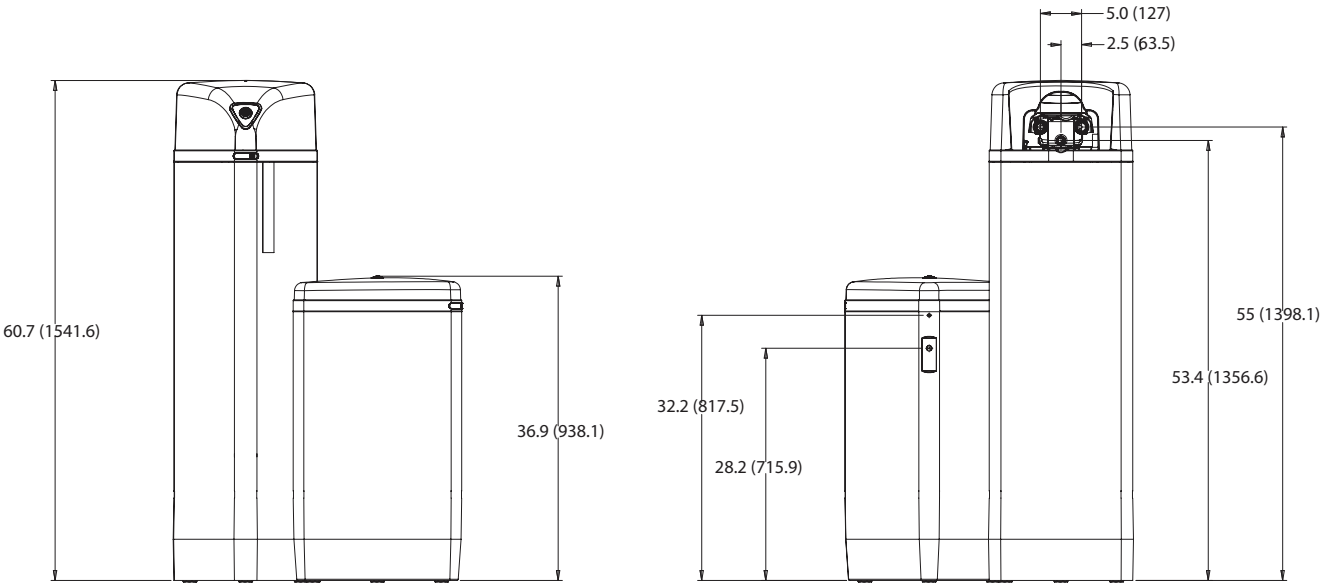
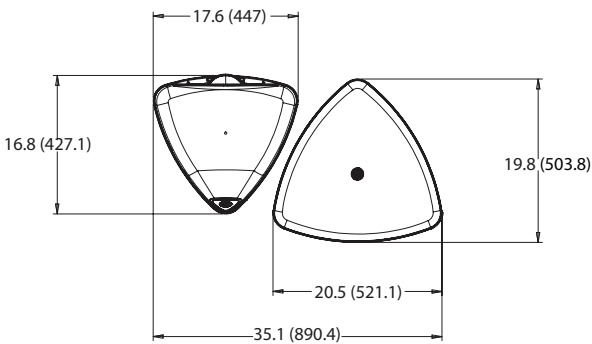
Brine Tank



- | | | | |
|---|--------------|---|---------------------|
| 1 | Cover | 5 | Brine Tube Assembly |
| 2 | Collar, Tank | 6 | Foot, Leveling |
| 3 | Tank, Brine | 7 | Latch Mechanism |
| 4 | Base, Tank | | |

Equipment Installation

Dimensions



Typical System Layout

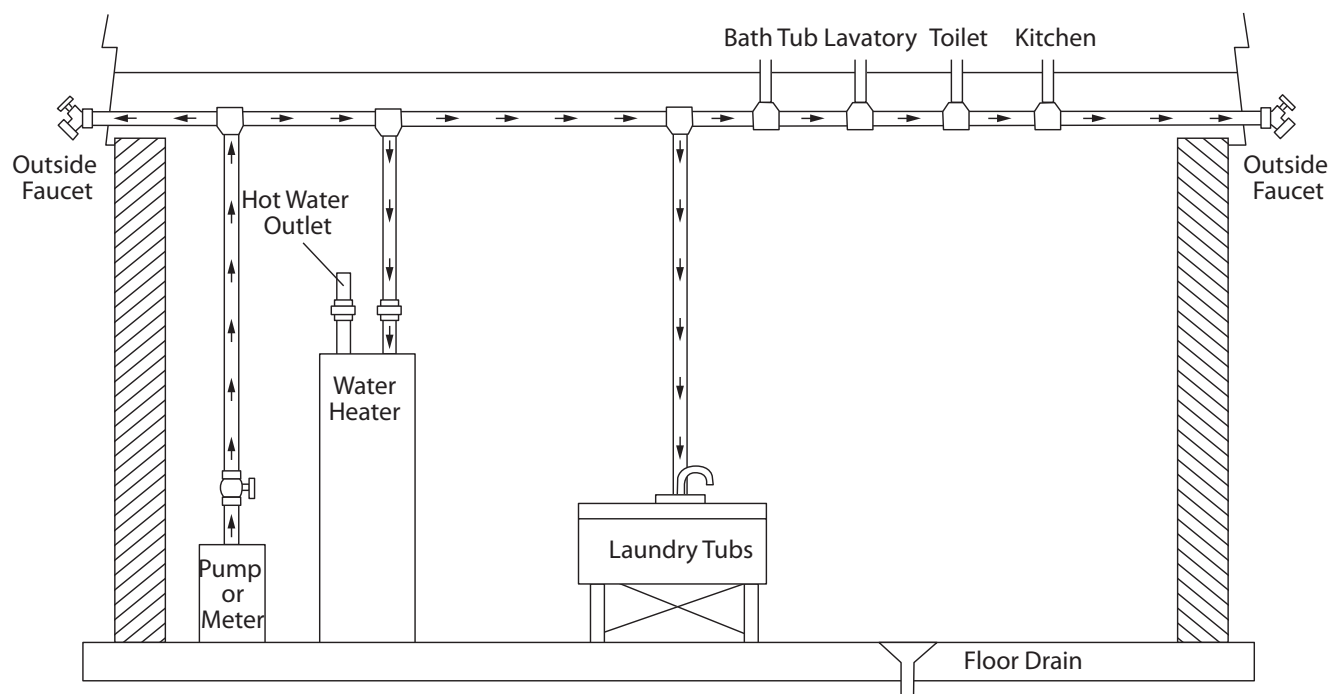


Figure 1 Standard Basement Before Installation. Cold water lines shown.

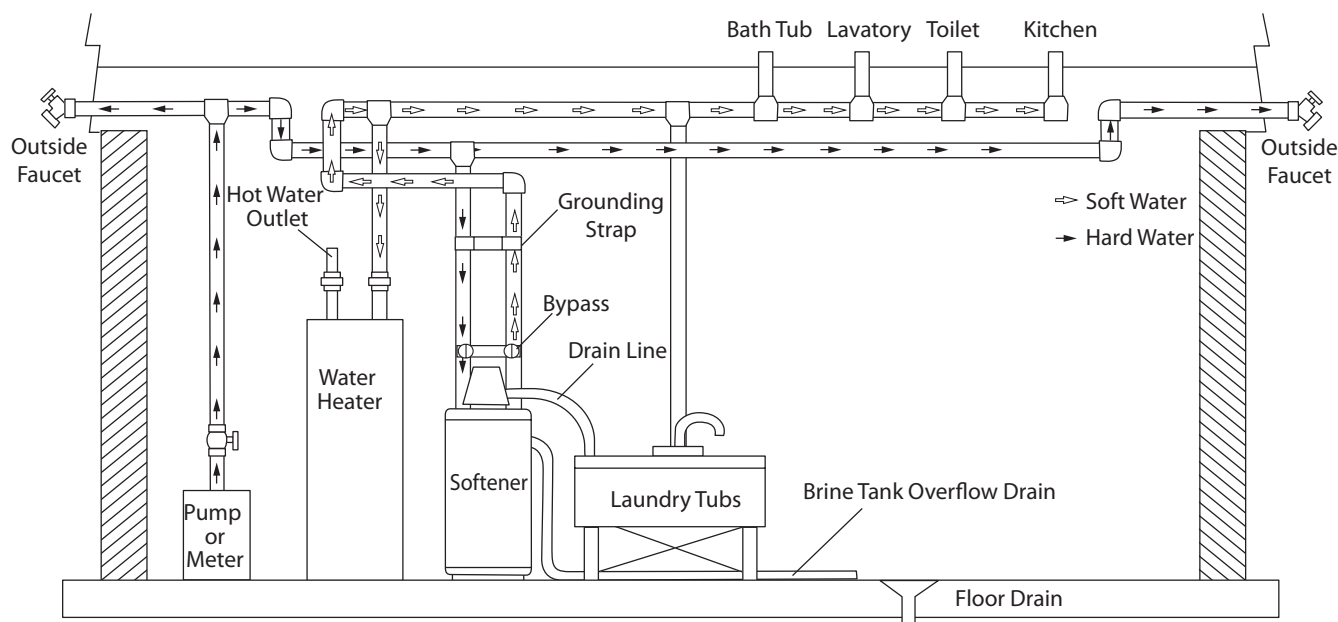


Figure 2 Softened Water Flow Diagram.

Inspection

The Pro Elite system is shipped with several parts unassembled. When parts are removed from the packing, they should be inspected for damage. If any parts are damaged or missing, contact your supplier.



WARNING: When handling the media tank, do not turn it upside down or drop on its side.

When the carton is first opened, the softener will be standing upright. The salt tank will be turned over and covering the softener (Figure 3).

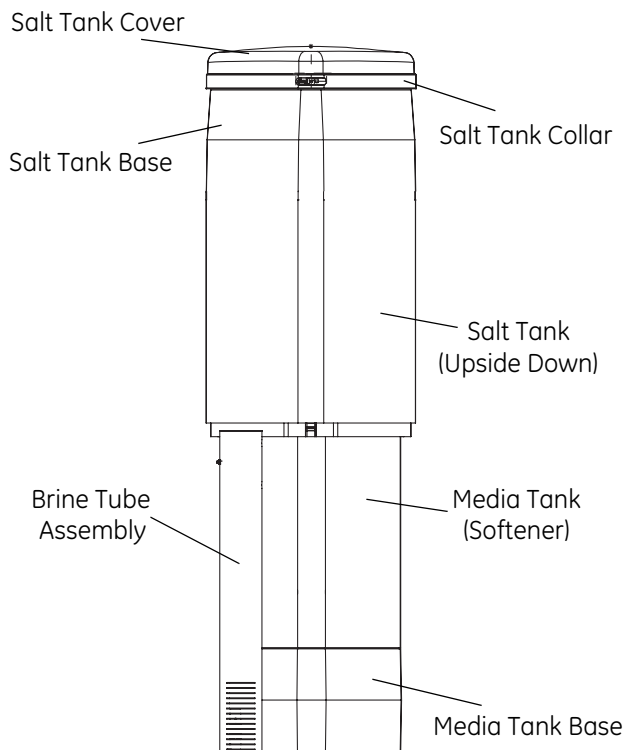


Figure 3

To assemble the system, remove the salt tank components (cover, collar, base and brine tube assembly) from the shipping container. The media tank can now be removed. Locate the miscellaneous parts bag.

To assemble the Salt Tank:

1. If the floor under the salt tank is uneven, the leveling feet may be installed. Lay the empty salt tank on its side. Press or tap the feet into the pockets.
2. Stand the salt tank up and in position. Level as needed. The tank has two ports that will be connected. One to a drain and one to the valve.
3. Place the brine tube in position inside the pocket at the bottom of the tank. Install the overflow fitting.

4. Place the tank collar over the top of the brine tube. Position the collar and push it down into the tank. Lay the cover aside for now.

To assemble the Media Tank:

1. If the floor under the media tank is uneven, the leveling feet may be installed. Slowly lay the tank on its side. Press or tap the feet into the pockets.



WARNING: The media tank contains loose particles that will shift. If the tank is turned upside down or laid back quickly, the particles may enter the valve. If this happens, the valve may need to be disassembled and cleaned.

2. Stand the tank up and in position. Level as needed.
3. Remove cover by pressing in on the latch and lifting cover (Figure 4). When the cover is removed, the valve is visible. Remove the power adapter. It should be secured to the tank collar near the inlet/outlet connections.

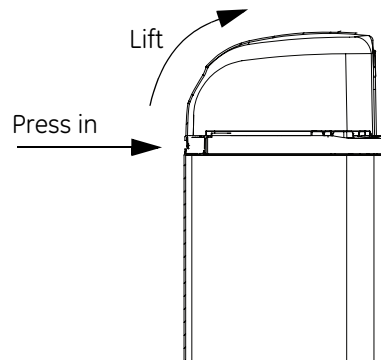


Figure 4

Water Line & Bypass Connections

A bypass valve system should be installed on all water conditioning systems. A model 1265 bypass is included with this system. The bypass valve isolates the conditioner from the water system and provides unconditioned water to service during routine maintenance and servicing procedures. See Figure 5 and Figure 6.

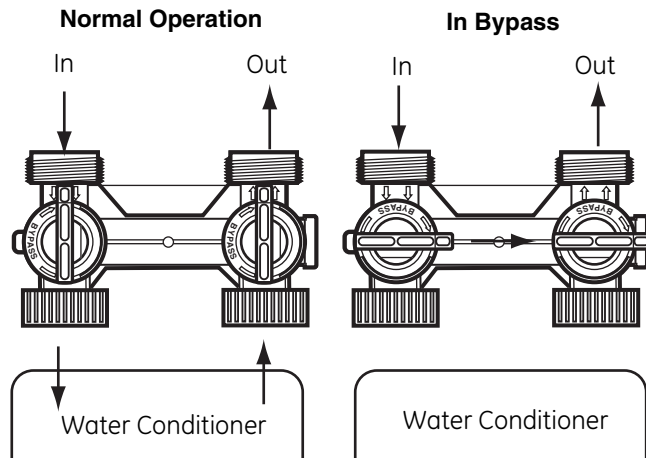


Figure 5 Model 1265 Bypass (Included)

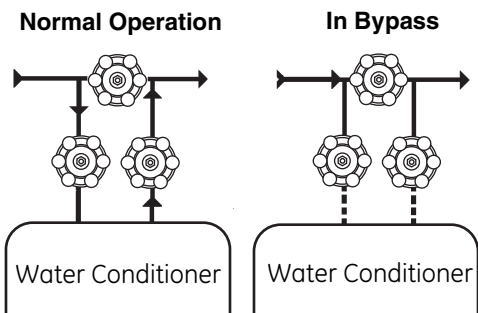


Figure 6 Typical Three Valve Bypass Configuration
(Not provided by manufacturer)

Note: Before turning on the water to the valve, rotate the two handles on the bypass valve 2-3 times. This will help seat the O-rings and prevent leaking.



WARNING: The inlet water must be connected to the inlet port of the valve. When replacing non-Pro Elite valves, it is possible that the inlet and outlet plumbing is installed in a reversed position. Ensure that the plumbing is not installed in the opposite order. Tank media may be pushed into the valve.



WARNING: Do not use tools to tighten plastic fittings. Over time, stress may break the connections. Hand tighten the nuts.



WARNING: Do not use petroleum grease on gaskets when connecting bypass plumbing. Use only 100% silicone grease products when installing any Pro Elite brand valve. Non-silicone grease may cause plastic components to fail over time.

Drain Line Connection

Note: Standard commercial practices are expressed here. Local codes may require changes to the following suggestions. Check with local authorities before installing a water conditioning system

1. The unit should be above and not more than 20 feet (6.1 m) from the drain. Use an appropriate adapter fitting to connect ½-inch (1.3 cm) plastic tubing to the drain line connection of the control valve.
2. If the backwash flow rate exceeds 5 gpm (22.7 Lpm) or if the unit is located 20-40 feet (6.1 – 12.2 m) from drain, use ¾-inch (1.9 cm) tubing. Use appropriate fittings to connect the ¾-inch tubing to the ¾-inch NPT drain connection on valve.
3. The drain line may be elevated up to 6 feet (1.8 m) providing the run does not exceed 15 feet (4.6 m) and water pressure at the conditioner is not less than 40 psi (2.76 bar). Elevation can increase by 2 feet (61 cm) for each additional 10-psi (.69 bar) of water pressure at the drain connector.
4. Where the drain line is elevated but empties into a drain below the level of the control valve, form a 7-inch (18 cm) loop at the far end of the line so that the bottom of the loop is level with the drain line connection. This will provide an adequate siphon trap. Tie or wire the hose in place at the drain point. Also provide an air gap of at least 1-1/2 inch between the end of the hose and the drain point.
5. Where the drain empties into an overhead sewer line, a sink-type trap must be used.
6. Secure the end of the drain line to prevent it from moving.

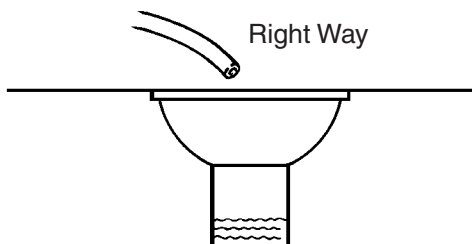


Figure 7 Drain Line Connection

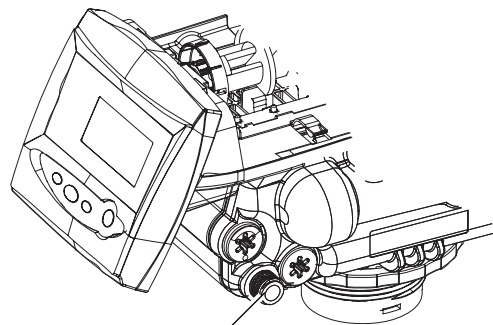


WARNING: Never insert drain line directly into a drain, sewer line or trap (Figure 7). Always allow an air gap between the drain line and the wastewater to prevent the possibility of sewage being back-siphoned into the conditioner.

Regenerant Line Connections

The regenerant line from the brine tank safety brine valve (Figure 9) connects to the valve. Make the connections and hand tighten. Be sure that the regenerant line is secure and free from air leaks. Even a small leak may cause the regenerant line to drain out, and the conditioner will not draw regenerant from the tank. This may also introduce air into the valve causing problems with valve operation.

Ensure that Teflon^a tape pipe sealant is applied to the 3/8-inch NPT regenerant line connection (Figure 8).



Regenerant Line Connection

Figure 8

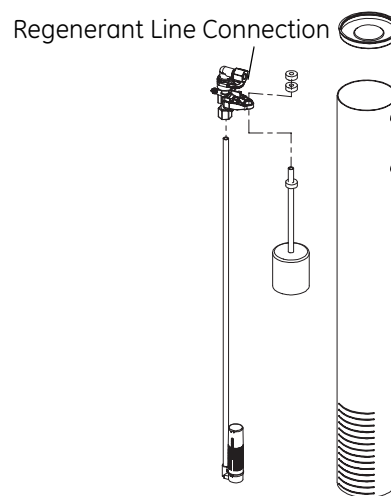


Figure 9 Salt Tank Safety Brine Valve and Brine Well Assembly

a. Teflon is a Trademark of E.I. duPont de Nemours.

Overflow Line Connection

In the event of a malfunction, the regenerant TANK OVERFLOW will direct “overflow” to the drain instead of spilling on the floor. This fitting should be on the side of the cabinet or regenerant tank, Figure 10.

To connect the overflow line, locate the connection on side of the regenerant tank. Insert overflow fitting into tank and tighten with plastic thumbnut and gasket. Attach length of ½-inch (1.3 cm) I. D. tubing (not supplied) to fitting and run to drain. Do not elevate overflow line higher than overflow fitting.

Do not tie into drain line of control unit. Overflow line must be a direct, separate line from overflow fitting to drain, sewer or tub with an air gap at the drain.

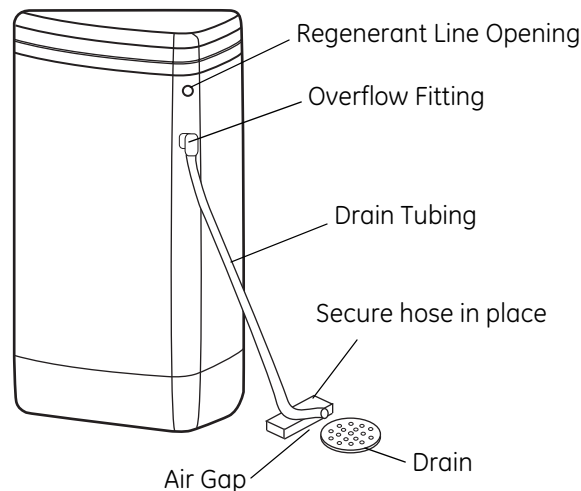


Figure 10

Electrical Connection

Note: There are no user serviceable parts in the AC adaptor, motor or the control board.

The Demand control operates on a 12-volt alternating current power supply. This requires use of the Pentair Water supplied AC adapter. AC adapters are available from your supplier for different applications. They include:

| AC Adapter | Input Voltage | Application | Part Number |
|---------------------------------|---------------|-------------------------------------|-------------|
| Standard wall-mount Energy Star | 120V 60 Hz | UL listed for dry locations | 3019151 |
| Outdoor rated | 120V 60 Hz | UL listed for outdoor installations | 1235448 |

120 VAC AC Adapters:

Make sure power source matches the rating printed on the AC adapter.

Note: The power source should be constant. Be certain the AC adapter is not on a switched outlet. Power interruptions longer than 8 hours may cause the control to lose the day and time settings. When power is restored, the control will display four dashes (- - :- -) indicating that the day and time settings must be re-entered.

System Operation

Treated Water (Downflow)

Untreated water is conditioned as it flows through the resin bed and up the riser.

If the model selected at first start-up was 268r, this is a system that will refill the salt tank at the start of a regeneration cycle. When a regeneration cycle begins, the salt tank is filled and brine is allowed to develop before Cycle 1 starts.

Backwash (Upflow) – Cycle C1

Flow is reversed by the control valve, directed down the riser, up through the resin bed and sent to drain. The bed is expanded and debris is flushed to the drain.

Regenerant Draw (Downflow) – Cycle C2^a

Water passes through the injector and regenerant is drawn from the regenerant tank. The regenerant is directed to the resin bed. The hardness ions are displaced by sodium ions. Regenerant draw is completed when the air check closes.

Slow Rinse (Downflow) – Cycle C3^a

Water flow moves the regenerant through the resin at a specific rate and rinses to the drain. The resin is regenerated.

Repressurization – Cycle C4

Pressure is balanced in the valve before continuing the regeneration.

Fast Rinse (Downflow) – Cycle C5

Water passes through the resin bed and up through the riser to drain. All remaining regenerant residual is rinsed from the resin bed.

2nd Backwash (Upflow) – Cycle C6

Flow is identical to C1 Backwash. The resin is reclassified.

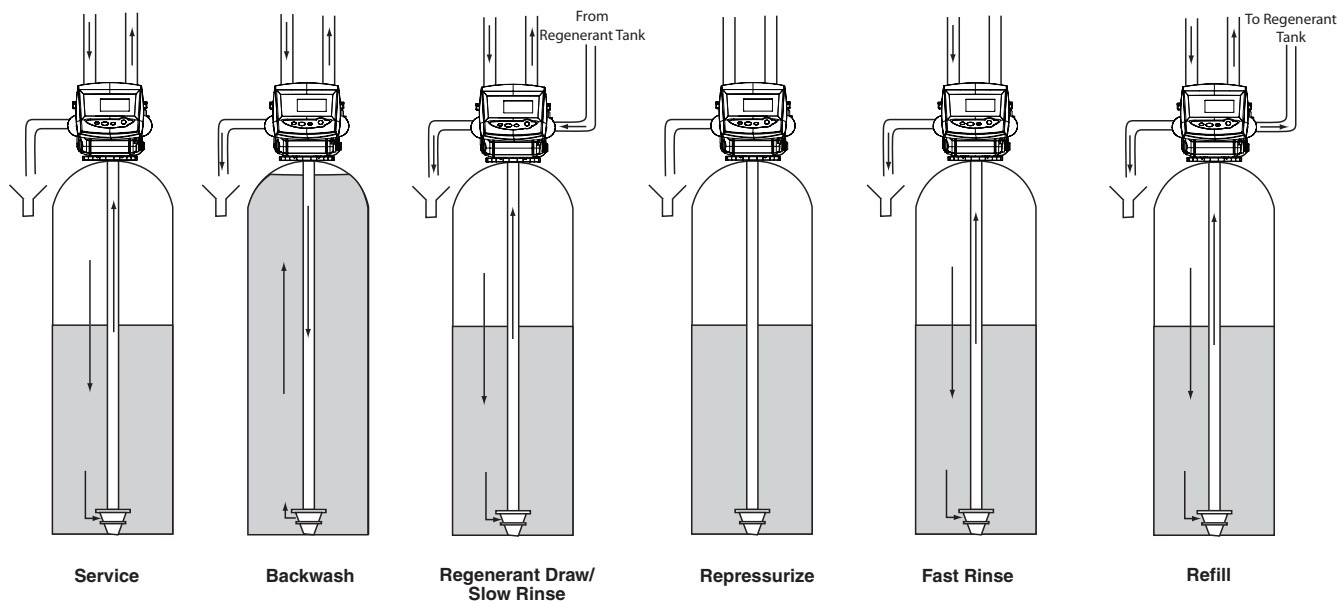
2nd Rinse (Downflow) – Cycle C7

Flow is identical to C5 Fast Rinse. The resin bed is rinsed to quality.

Regenerant Refill – Cycle C8

Water is directed to the regenerant tank to create regenerant for the next regeneration.

Cycle Water Flows



a. The camshaft does not change position between the C2 and C3 cycles. C2 is only momentarily displayed.

Camshaft Cycle Positions

The front end of the camshaft has an indicator cup. The cup has slots in the outer edge and cycle numbers on the inside face (Figure 11).

Remove the cover and look over the top of the Demand control to view the cycle numbers. The number at the top indicates the current cycle position of the control valve. The corresponding slot for the number is positioned at the optical sensor, which is rotated approximately 90 degrees out of phase.

Note: If electrical power is not available, the camshaft can be rotated counterclockwise by hand if the motor is removed.

Cycle Indicators:

- 0 = Treated Water or brine make-up if recharge cycle has started.
- 1 = Backwash Cycle
- 2 = Regenerant Draw Cycle
- 3 = Slow Rinse Cycle
- 4 = System Pause
- 5 = Fast Rinse Cycle 1
- 6 = 2nd Backwash
- 7 = 2nd Fast Rinse
- 8 = Regenerant Refill (if system is 268r, regenerant refill takes place before backwash cycle #1)

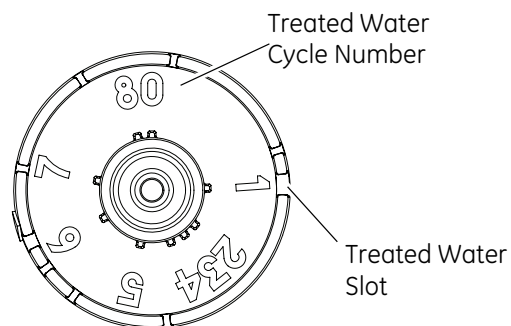


Figure 11

Valve Disc Location/Function

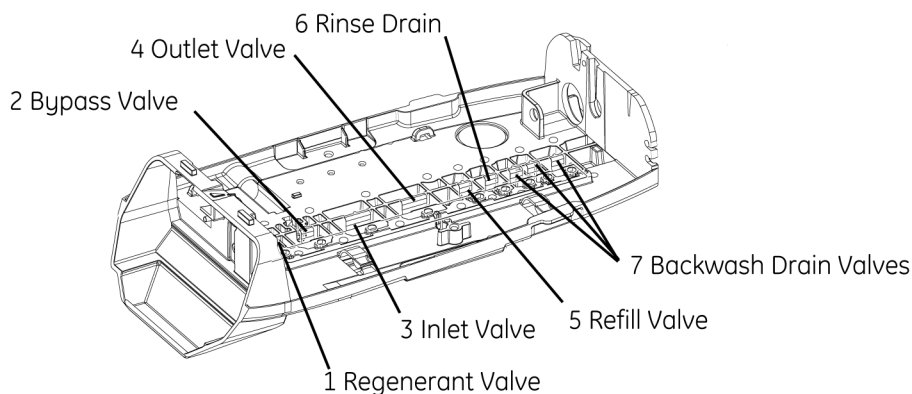


Figure 12 Valve

Disinfection of Water Conditioning Systems

The materials of construction in the modern water conditioning system will not support bacterial growth, nor will these materials contaminate a water supply. During normal use, a conditioner may become fouled with organic matter, or in some cases with bacteria from the water supply. This may result in an off-taste or odor in the water.

Some conditioners may need to be disinfected after installation and some conditioners will require periodic disinfection during their normal life.

Depending upon the conditions of use, the style of conditioner, the type of ion exchanger, and the disinfectant available, a choice can be made among the following methods.

Sodium or Calcium Hypochlorite

These materials are satisfactory for use with polystyrene resins, synthetic gel zeolite, and bentonites.

5.25% Sodium Hypochlorite

These solutions are available under trade names such as Clorox^a. If stronger solutions are used, such as those sold for commercial laundries, adjust the dosage accordingly.

1. Dosage

- Polystyrene resin; 1.2 fluid ounce (35.5 mL) per cubic foot.
- Non-resinous exchangers; 0.8 fluid ounce (23.7 mL) per cubic foot.

2. Regenerant tank conditioners

- A. Backwash the conditioner and add the required amount of hypochlorite solution to the well of the regenerant tank. The regenerant tank should have water in it to permit the solution to be carried into the conditioner.
- B. Proceed with the normal regeneration.

Calcium Hypochlorite

Calcium hypochlorite, 70% available chlorine, is available in several forms including tablets and granules. These solid materials may be used directly without dissolving before use.

1. Dosage

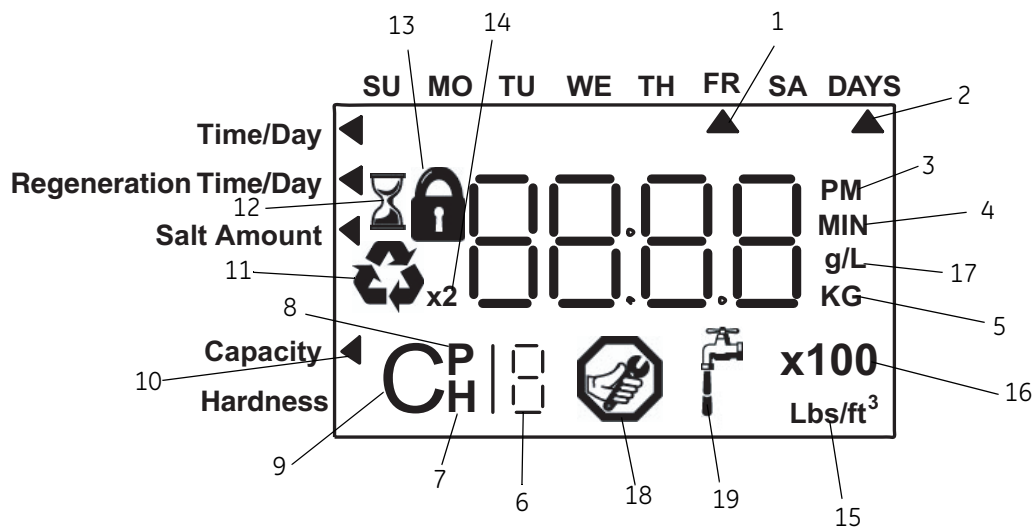
- A. Two grains (approximately 0.1 ounce (3 mL) per cubic foot.

2. Regenerant tank conditioners

- A. Backwash the conditioner and add the required amount of hypochlorite to the well of the regenerant tank. The regenerant tank should have water in it to permit the chlorine solution to be carried into the conditioner.
- B. Proceed with the normal regeneration.

a. Clorox is a trademark of the Clorox Company.

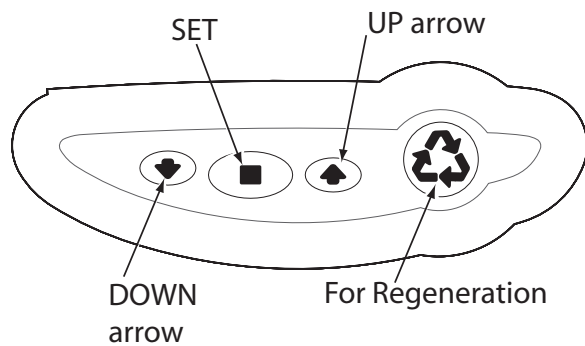
Displays, Icons & Cursors



Note: In normal operation and during programming, only a few of the icons will actually be displayed.

1. Used to select and indicate the actual Day of the Week setting.
2. This cursor is displayed when programming the Days Override.
3. PM indicator displayed when setting Time of Day and Time of Regeneration. Note: There is no AM indicator.
4. Indicates displayed value in minute increments.
5. Indicated kilograins or kilograms when estimated capacity is displayed.
6. Used to display "P", "H", and "C" parameter.
7. Indicates access into "H" Level IV History viewing.
8. Indicates access into "P" Level II programming.
9. Used to display cycle position during regeneration. Also indicates access into "C" Level III cycle programming.
10. This cursor is displayed during Level I programming: Time of Day, Regen Time, Day, Salt Amount, Capacity and Hardness.
11. When flashing, this indicates regeneration is to occur at next Time of Regen. Appears as a solid icon during regeneration.
12. When hourglass is flashing, this indicates that the control is moving to a regeneration cycle. Appears as a solid icon during a cancelled regeneration and the control is cycling directly back to the home position.
13. Indicates the selected program setting has been locked out. Lock settings are changed in Level II programming.
14. Indicates double regeneration.
15. When Lbs/ft³ is displayed, the value for regenerant amount entered is in pounds per cubic foot.
16. X100 multiplier for large values.
17. When "g/L" is displayed, the valve is in grams per liter.
18. Maintenance display turns on if the months in service exceed the valve programmed in P11 Service Interval.
19. Faucet is displayed when the current flow rate is displayed. Control may show the faucet and "O" indicating no flow.

Button Functions



DOWN & UP Arrows: Used to scroll through settings or change setting value.

SET: Used to enter a setting into memory or activate a setting to be changed.

REGEN: Used to command the control to regenerate and enable or disable lockout setting.

Programming Overview

The Demand control includes multiple program levels that allow the Water Treatment Professional to customize the system for many water conditions. Additionally, historical data can be viewed allowing quick and easy troubleshooting. In most cases, Level I programming is all that is required to set up the water conditioning system for proper operation. A brief description of each program level is listed below.

Level I Used to program control for normal applications..

Level II (P-Values) Allows the installer to customize programming for non-standard applications.

Level III (C-Values) Allows the installer to adjust the length of select cycles for non-standard applications.

Level IV History (H-Values) Allows access to historical information for troubleshooting the system.

Note: If a button is not pushed for thirty seconds, the control returns to normal operation mode.

Level I Programming

The Demand control can be quickly programmed by following the sequential procedure on the following page. Level I program parameters are those that can be accessed by pressing the UP or DOWN buttons.

- Valve Type: Select 268 for traditional refilling the salt tank last.
- Resin Volume Setting: Set to match the volume (cubic feet) of resin in the mineral tank.
- Time of Day: Includes PM indicator. Can be set to display as a 24-hour clock. See Level II programming
- Day of Week: Set to actual day of the week.
- Time of Regeneration: Fully adjustable. Default is 2:00 AM.
- Days Override: Range 0.5 to 99 days. Leave at 0 to disable.
- Salt Dosage: Set at pounds of salt per cubic foot of resin in the conditioner tank.

Note: When the control is set up for a twelve-hour clock, a PM indicator will illuminate when the displayed time is in the PM hours. There is no AM indicator.






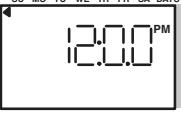











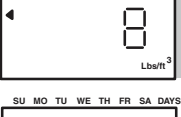


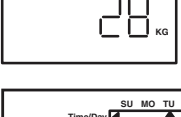
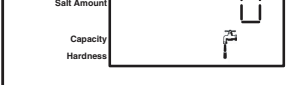
Demand Control Operation

Power Loss Memory Retention

The Demand control features battery-free Time of Day and Day of Week retention during loss of power. A super capacitor is designed to hold the information in memory for 8 to 24 hours depending on the installation. If the super capacitor is exhausted, the Demand control will display four dashes (- - :- -) immediately upon power up. The Time of Day and Day of Week must be reset.

All other programmed parameters are stored in the static memory and are retained during power outages.

Level I Programming - Demand Conditioner

| Screen | Buttons to Press | Description | Range |
|---|---|---|------------------------------|
|  | press  then ↓ or ↑ press  | 1. Valve Type Select Model | Model: 268 (Refill Last) |
|  | then ↓ or ↑ press  | 2. Resin Volume Select correct resin volume | Cubic feet: 1.0 to 2.0 |
|  | press  then ↓ or ↑ press  | 3. Time of Day (12 hr.) Set to time of day Note: Setting includes PM indicator. | |
|  | press  then ↓ or ↑ press  | 4. Day of Week Set to actual day of the week | |
|  | press  then ↓ or ↑ press  | 5. Time of Regeneration Set to desired time of regeneration | |
|  | press  then ↓ or ↑ press  | 6. Days Override Leave at 0 to disable or Set to desired days between regeneration | Days: 1 to 30 |
|  | press  then ↓ or ↑ press  | 7. Salt Dosage Set to desired dosage lbs per cubic feet of resin | Lbs/ft³: 3 to 18 |
|  | press ↓ | Programming is complete Estimated exchange capacity (view only) based on resin volume and salt setting | |
|  | | Service Display Displays alternates between Flow Rate and Capacity Remaining. | |

Note: Upon completing the Level I Programming, the Regen Icon will begin flashing indicating that a delayed regeneration will occur at the next programmed time of regeneration. If a delayed regeneration is not desired, press the REGEN Button to disable the delayed regeneration and the system will regenerate by water usage.

Level I Programming – P Values

Pressing the SET key will enter the change mode at “Time of Day”. The change mode will be entered at the displayed parameter if the control is in data mode when the SET key is pressed. The displayed parameter will flash. Pressing the Up or Down key will change the flashing value of the parameter. Holding the UP or DOWN key will scroll the flashing parameter value. Pressing the SET key again will enter the flashing value in the appropriate parameter and advance to the next parameter.

| P# | Description | Range | Minimum Increments | Default | Units | Notes |
|----|--------------------------------|---|--------------------|-----------|---|---|
| P1 | Time of Day | 1:00 - 12:59 AM or PM 00:00 - 23:59 | 1 Min | 12:00 PM | Hr./Min. | Range depends on value selected for P10. Clock mode. |
| P2 | Day of Week | N/A | 1 Day | None | N/A | Uses arrows under days of week on overlay. |
| P3 | Time of Regen | 1:00 - 12:59 AM or PM 00:00 - 23:59 | 1 Min | 2:00 AM | Hr./Min. | Range depends on value selected for P10. Clock mode. |
| P4 | Calendar Override | 0-99 | 1 | 3 | Days | 0 = No calendar override, 0.5 = Regeneration twice a day at time of regeneration and 12 hours later. Calendar Override skipped if at least one Day of Regeneration selected. Can be locked out of changes in Level I Programming. |
| P5 | Day of Week Regeneration | N/A | 1 Day | None | N/A | Uses bars under days of week on overlay. Day of Week Regeneration is skipped if calendar override is more than zero. |
| P6 | Salt Setting | 3-18 50-290 | 1 Varies | 9 110 | Lbs/Cu Ft g/L | Unit of measure depends on value in P9. Units of Measure. |
| P7 | Capacity of Unit (Demand Only) | 1-900 0.1-90.0 | 1 0.1 | (1) | Kilograins Kilograms | Unit of measure depends on value in P9. Units of Measure. |
| P8 | Hardness of Water | 3-200 30-2000 | 1 10 | 25 250 | Grains per Gallon Milligrams per liter | Unit of measure depends value selected for P9. Units of measure. |

Notes: (1) Calculated depending on salt setting and resin volume.

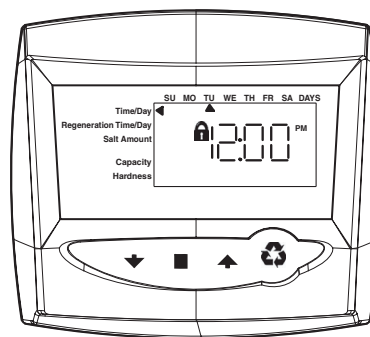
Level II Programming – P Values

Level II program parameters can be adjusted and used to fine-tune the conditioner's operation. The parameters are accessible by pressing and holding the UP and DOWN buttons until the control displays a "P" value. Note: The control must be in the home position to change settings. See Table below for Level II parameters. Typically the Level II parameters will not need to be adjusted, as the default settings accommodate most applications. Contact your Water Treatment Professional before attempting any programming.

| P# | Description | Range | Minimum Increments | Default | Units | Notes |
|---|--------------------------------------|---------------------|--------------------|-----------|---------------|--|
| P9 | Units of Measure | 0-1 | 1 | (2) | | 0 = US 1 = Metric |
| P10 | Clock Mode | 0-3 | 1 | (2) | | 0 = 12 Hr Clock, flow rate displayed 1 = 24 Hr Clock, flow rate displayed 2 = 12 Hr Clock, time of day displayed 3 = 24 Hr Clock, time of day displayed |
| P11 | Service Interval | 0-250 | 1 | 0 | Months | Uses 30 days for each month. |
| P12 | Remote switch delay for regeneration | 3-250 | 1 | 60 | Seconds | Time remote switch must be active to start regeneration on 742 time clock units. |
| P13 | Chlorine Generator Options | 0-2 | 1 | 0 | | 0 = No Chlorine Generator 1 = Salt Check Only 2 = Generate Chlorine |
| P14 | Refill Rate | 1-700 | 1 | (1) | gpm x 100 | |
| P15 | Draw Rate | 1-700 | 1 | (1) | gpm x 100 | |
| P16 | Reserve Type | 0-3 | 1 | 0 | | 0 = Variable reserve delayed regeneration 1 = Fixed reserve delayed regeneration 2 = Variable reserve immediate regeneration 3 = Fixed reserve immediate regeneration |
| P17 | Initial average or fixed reserve | 0-70 | 1 | 30 | % of Capacity | Depends on value entered in P16 |
| P18 | Flow sensor select | 0-5 | 1 | (1) | | 0 = Internal magnum NHWB 1 = 1" Pro Elite turbine 2 = 2" Pro Elite turbine 3 = User define K-Factor 4 = User defined Pulse Equivalent 5 = Internal magnum HWB |
| P19 | K-factor or Pulse Equivalent | 1.0-99.99 0-9999 | 0.01 1 | 0.01 1 | | K-factor P18 = 3 Pulse Equivalent P18 = 4 |
| P r | Refill First | 0-1 | 1 | 0 | | 0 = Refill first off 1 = Refill first on |
| P d | Remote switch operation | 0-1 | 1 | 0 | | 0 = Immediate Regeneration 1 = Delayed Regeneration |
| Notes: (1) Default selected with valve type and resin volume. (2) Factory Default is "0" for North America units and "1" for World Units | | | | | | |

Programming the Lockout Feature

All parameters can be locked out when the control is in Level II programming. Simply press the REGEN button during Level II programming and a Lock Icon will appear indicating that the specific setting has been locked out. When locked out, the setting cannot be adjusted. To disable the Lock Out Feature, press the REGEN button when in Level II. The lock icon will not be displayed.



Level III Cycle Programming – C Values

Several Level III program parameters can be adjusted to fine-tune a conditioner's operation for non-standard applications. Typically these parameters will not need to be adjusted, as the default settings accommodate most applications. Contact your Water Treatment Professional before attempting any programming. The parameters are accessible by pressing and holding the UP and SET buttons until the display shows a "C" value.

Note: The control must be in the treated water position to change settings.

| C# | Description | Range | Minimum Increments | Default Setting | Notes |
|----|-----------------------------|----------------|--------------------|-----------------|---|
| C1 | Backwash | 0 – 200 | 1 Min | 10 | Flow rate dictated by size of drain line flow controller |
| C2 | Regenerant Draw | Not Adjustable | 1 Min | See Notes | Automatically calculated from resin volume and salt dosage settings |
| C3 | Slow Rinse | 0 – 200 | 1 Min | See Notes | Automatically calculated from resin volume. |
| C4 | Repressurization | 0 – 200 | 1 Min | 3 | Allows system to equalize water pressure across valve discs |
| C5 | Fast Rinse | 0 – 200 | 1 Min | 4 | Rinses residual regenerant from tank |
| C6 | 2 nd Backwash | 0 – 200 | 1 Min | 1 | Disperses non-regenerated areas of the resin bed |
| C7 | 2 nd Fast Rinse) | 0 – 200 | 1 Min | 1 | Rinses to Quality |
| C8 | Regenerant Refill | Not Adjustable | 1 Min | See Notes | Automatically calculated from resin volume and salt dosage settings |
| C0 | Service/Brine Prep | 0 - 200 | 1 Min | 120 | Used when Pr is set to 1. Brine prep allows brine to come up to concentration after refill. |

Level IV Viewing History - H Values

Historical information can be viewed by pressing the SET and DOWN buttons simultaneously with the Demand control in the home position. Release both buttons when the control displays an "H" value. Press the UP or DOWN buttons to navigate to each setting.

| H# | Description | Range | Notes |
|-----|---|--|--------------|
| H0 | Initial Setting Value | Cubic Feet or Liters | Resin Volume |
| H1 | Days since last regeneration | 0-255 | |
| H2 | Current Flow Rate | Depends on Turbine Used | 762 only |
| H3 | Water used today in gallons/m ³ since Time of Regeneration | 0-131,070 gallons or 0-1,310.70 m ³ | 762 only |
| H4 | Water used since last regeneration in gallons/m ³ | 0-131,070 gallons or 0-1,310.70 m ³ | 762 only |
| H5 | Total water used since reset in 100s | 0-999900 gallons or 0-9999 m ³ | 762 only |
| H6 | Total water used since reset in 1,000,000 | 4,294 x 10 ⁶ gal or 4264 x 10 ⁴ m ³ | 762 only |
| H7 | Average useage for Sunday in gallons or m ³ | 0-131,070 gallons or 0-1,310.70 m ³ | 762 only |
| H8 | Average useage for Monday in gallons or m ³ | 0-131,070 gallons or 0-1,310.70 m ³ | 762 only |
| H9 | Average useage for Tuesday in gallons or m ³ | 0-131,070 gallons or 0-1,310.70 m ³ | 762 only |
| H10 | Average useage for Wednesday in gallons or m ³ | 0-131,070 gallons or 0-1,310.70 m ³ | 762 only |
| H11 | Average useage for Thursday in gallons or m ³ | 0-131,070 gallons or 0-1,310.70 m ³ | 762 only |
| H12 | Average useage for Friday in gallons or m ³ | 0-131,070 gallons or 0-1,310.70 m ³ | 762 only |
| H13 | Average useage for Saturday in gallons or m ³ | 0-131,070 gallons or 0-1,310.70 m ³ | 762 only |
| H14 | Average service cycle | 0-255 days | 762 only |
| H15 | Peak Flow Rate | 0-200 gpm or 1000 lpm | 762 only |
| H16 | Day and Time of Peak Flow Rate | Time and day that peak flow occurred | 762 only |
| H17 | Months since service | 0-2184 Months | |
| H r | Number of regenerations since last serviced | 0-65536 | |

Program Reset

The Demand control can be reset to original factory parameters when viewing the H0 parameter. Press and hold the SET button for three seconds while H0 is displayed. Release the button. All settings except for Time of Day and Day of Week will be reset. The Demand control will now display three dashes indicating that the resin volume must be set.

System Capacities

The Demand control software contains the following preloaded system capacities for each salt setting (please see the Performance Data Sheet on page 3 for certified claims):

| Salt: Lbs/Ft ³ | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Cap KG: 10x44 1.00 | 14 | 18 | 21 | 23 | 25 | 27 | 28 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 36 | 37 |
| Cap KG: 12x48 1.50 | 21 | 27 | 31 | 35 | 38 | 40 | 43 | 45 | 46 | 48 | 50 | 51 | 52 | 54 | 55 | 56 |
| Cap KG: 12x48 2.00 | 28 | 36 | 42 | 46 | 50 | 54 | 56 | 60 | 62 | 64 | 66 | 68 | 70 | 72 | 72 | 74 |

Placing 268 Water Conditioning System Into Operation (Fill Brine Tank Last)

Quick Cycling the Demand Control

It is required that the control be quick cycled to specific regeneration cycles when placing the conditioner into operation. Please review the following instructions for quick cycling the control before proceeding to start-up.

1. With the control in the treated water position, press and hold the REGEN button on the control for 5 seconds. This will initiate a manual regeneration. The control will display an hourglass indicating that the motor and camshaft are turning. The control also displays the total regeneration time remaining. When the control reaches the backwash cycle, the hourglass is no longer displayed and the motor will turn off. Pressing the SET button will display the time remaining for the current cycle.
2. Press and release the UP and SET buttons to move the control to the next cycle.

Note: The control can be sent directly back to the treated water position from any regeneration cycle. Press the UP and SET buttons (about 5 seconds) until the hourglass icon appears solid. The control will now skip all remaining regeneration cycles.

Start-Up

After you have programmed the control, the conditioner will need to be placed into operation. Follow these steps carefully, as they differ from previous Pro Elite valve instructions.

1. Remove the cover from the valve. Removing the cover will allow you to see that the camshaft is turning, and in which cycle the camshaft is currently positioned.
2. With the supply water for the system still turned off, position the bypass valve to the "not in bypass" (normal operation) position.
3. Press and hold the REGEN button on the Demand control for 5 seconds. This will initiate a manual regeneration. The control will display an hourglass indicating that the motor and camshaft are turning to the backwash cycle (C1). The control also displays the total regeneration time remaining. When the control reaches the backwash cycle, the hourglass is no longer displayed and the motor will turn off. Pressing the SET button will display the time remaining for the current cycle.

4. Filling the media tank with water.

- A. While the Demand control is in cycle (Backwash), open the water supply valve very slowly to approximately the $\frac{1}{4}$ open position. Water will begin to enter the media tank. Air will begin to be purged to drain as the media tank fills with water.



WARNING: If opened too rapidly or too far, media may be lost out of the tank into the valve or the plumbing. In the $\frac{1}{4}$ open position, you should hear air slowly escaping from the valve drain line.

- B. When all of the air has been purged from the media tank (water begins to flow steadily from the drain line), open the main supply valve all of the way. This will purge the final air from the tank.
- C. Allow water to run to drain until the water runs clear from the drain line. This purges any debris from the media bed.

5. Adding water to the regenerant tank.

- A. With a bucket or hose, add approximately 4 gallons (15 liters) of water to the regenerant tank.

If the tank has a salt platform in the bottom of the tank, add water until the water level is approximately 1 inch (25 mm) above the platform.

Note: It's recommended that you do not put regenerant into the tank until after the control valve has been put into operation. With no regenerant in the tank, it is much easier to view water flow and motion in the tank.

6. Priming the regenerant line.

- A. Slowly open the main water supply valve again to the fully open position. Be sure not to open too rapidly, as that would push the media out of the media tank.
- B. Quick cycle the control to the regenerant tank Refill position (C8).

Note: As you advance through each cycle, there will be a slight delay before you can advance to the next cycle. There will be a pause after the regenerant draw and slow rinse cycles. This cycle (C4) is a repressurization cycle and is designed to allow the water pressure to equalize on each side of the valve discs. Allow the control to repressurize (3 minutes) before cycling the control to the regenerant tank refill position.

- C. The control will cycle to the regenerant tank refill cycle and water will be directed down through the regenerant line to the regenerant tank. Let the water flow through the line until all air bubbles have been purged from the line.
 - D. Once the air is purged from the line, press the SET button and the UP button simultaneously to advance to Treated Water position.
7. Checking Regenerant Draw.
- A. From the treated water position, initiate a manual regeneration.
 - B. The control will begin a manual regeneration and advance the control valve to the backwash cycle. Press the SET and UP button to advance to regenerant draw/slow rinse cycle.
 - C. C2 will be displayed. With the control in this position, check to see that the water is being drawn out of the regenerant tank. The water level in the regenerant tank should recede very slowly.
 - D. Observe that water is being drawn from the regenerant tank for at least three minutes. If the water level does not recede, check all regenerant line connections for air leaks.
8. If the water level is receding from the regenerant tank, you can quick cycle the control back to the treated water position by pressing SET and the UP buttons simultaneously.
9. Finally, turn on a faucet plumbed after the water conditioner. Run the faucet until the water runs clear.
10. Add the appropriate amount of regenerant to the regenerant tank.

The Water Conditioning System is Now Fully Operational

Refill First Operation

The ProElite Demand system operates using a wet salt tank. When the system is started up and 268 is selected as the valve type, the salt tank will fill with water at the end of the regeneration cycle. In this "Refill Last" system, the water turns to brine between regenerations. The ProElite Demand system can be programmed to have a dry salt tank between regenerations. This operation refills the salt tank first. Cycles for a "Refill First" system will change to fill first. Then, after the brine make-up cycle (120 minutes), the regeneration continues.

Cycle Sequence Table

| C# | Cycle Description | Time in Minutes |
|--|-------------------------------|-----------------|
| C0 | Service | |
| C4* | Re-pressurize | 3 |
| C8 | Brine Refill | Calculated |
| C0 | Brine Make-up | 120 |
| C1 | Backwash | 14 |
| C2 | Brine Draw | Calculated |
| C3 | Slow Rinse | Calculated |
| C4* | 2 nd Re-pressurize | 3 |
| C5 | Fast Rinse | 6 |
| C6 | 2 nd Backwash | 1 |
| C7 | 2 nd Fast Rinse | 1 |
| *Note: C4 re-pressurization does not have flow to drain. | | |

To change to a refill first operation, enter the Level II Programming. Change value Pr to 1.

Water levels in the salt tank will adjust automatically after the first cycle.

Manual Regeneration Options

The Demand control features several options that offer additional flexibility for manually regenerating the conditioner.

Delayed Manual Regeneration

Pressing and releasing the REGEN button starts a delayed manual regeneration. The Regeneration icon on the display will flash indicating a regeneration will start when the time of day reaches the programmed time of regeneration. Pressing the REGEN button again will turn off the regeneration icon and cancel the delayed regeneration.

Immediate Manual Regeneration

Pressing and holding the REGEN button for three seconds starts an immediate manual regeneration. A solid regeneration icon will be displayed. The control will immediately begin a regeneration.

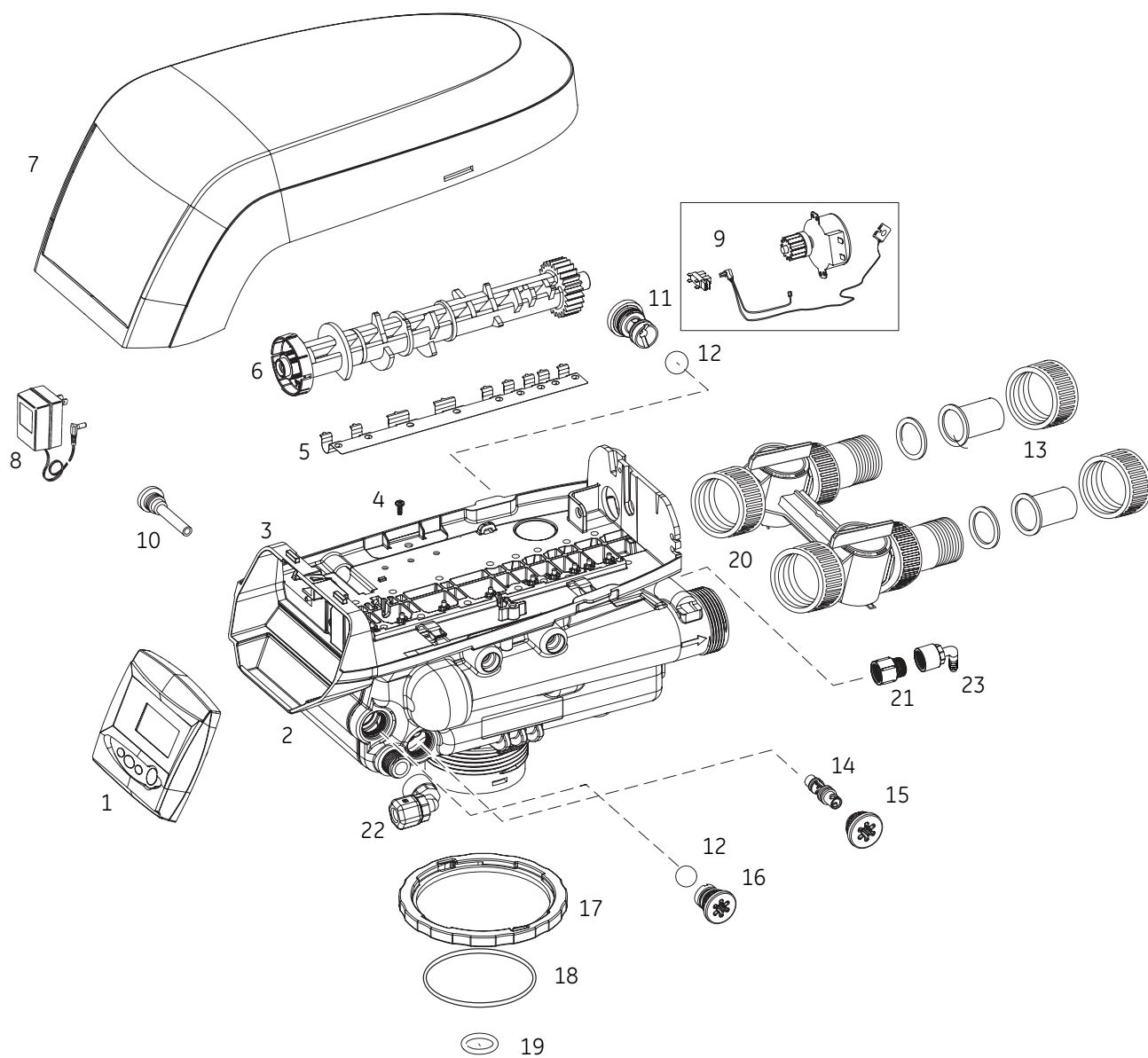
Delayed Second Regeneration

Pressing and releasing the REGEN button while the control is in regeneration will program the control for a delayed second regeneration. A flashing x2 icon next to the regeneration icon will appear, indicating a second regeneration will start when the time of day reaches the programmed time of regeneration.

Double Immediate Manual Regeneration

Back-to-Back manual regenerations are initiated by pressing and holding the REGEN button for three seconds while the control is in the regenerating mode. A solid x2 icon next to the regeneration icon will appear, indicating a second manual regeneration will start immediately after current regeneration is complete.

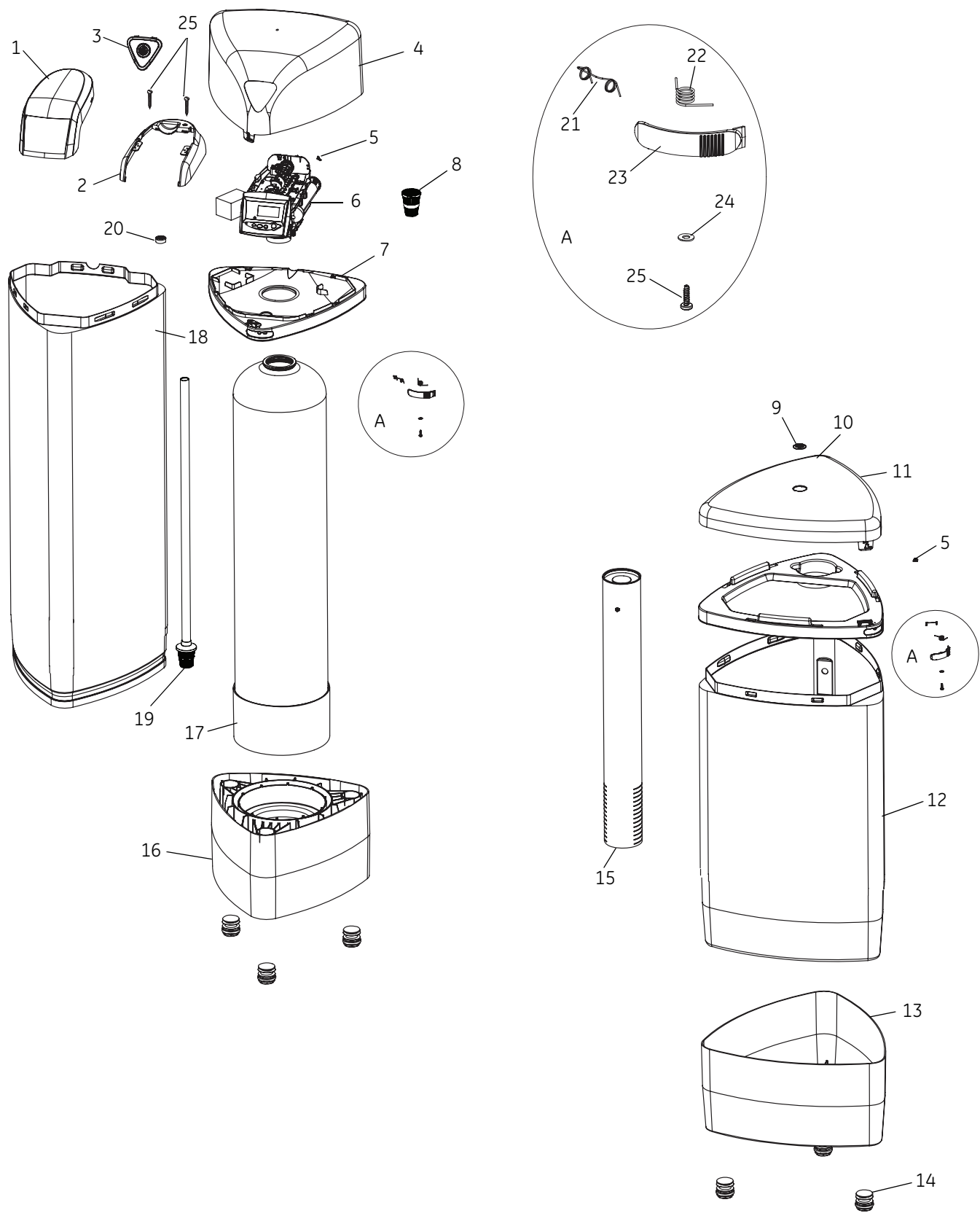
Pro Elite Valve Exploded View & Parts List



| Item | Part Number | Description | Qty. | Item | Part Number | Description | Qty. |
|------|-------------|--|------|------|--------------|--|------|
| 1 | 3022430 | Demand Control | 1 | 13 | Not Included | Adapter Kit, Multiple Options | 1 |
| 2 | 1244651 | Valve Assembly w/o Flow Controls | 1 | 14 | | Injector Options: | 1 |
| 3 | 1235338 | Top Plate, Valve | 1 | | 1035734 | "J" Injector, Lt Blue 10-inch tank | 1 |
| 4 | 1234170 | Screw, Top Plate | 18 | | 1035735 | "K" Injector, Pink 12-inch tank | 1 |
| 5 | 1235339 | Valve Disc Spring, Valve | 1 | 15 | 1000269 | Injector Cap with O-Ring | 1 |
| 6 | 1235352 | Cam Valve, Black | 1 | 16 | 1243511 | Refill Ball & Cone Type Flow Controller | 1 |
| 7 | 4000584 | Cover, Pro Elite Lt. Gray | 1 | 17 | 1035622 | Tank Ring | 1 |
| * | 4000585 | Skirt, Pro Elite Lt. Gray | 1 | 18 | 1010154 | O-Ring, Tank | 1 |
| 8 | 1000811 | Transformer, 120 VAC, 60 z, N. American Plug | 1 | 19 | 1010428 | O-Ring, Riser Tube | 1 |
| 9 | 3019221 | Motor/Optical Cable | 1 | 20 | 1040930 | 1265 Bypass, Valve | 1 |
| 10 | 1000226 | Screen/Cap Assembly w/O-Ring | 1 | 21 | 1264271 | 10" Drain Line Flow Control | 1 |
| 11 | | Drain Control Assembly: | 1 | | 1264402 | 12" Drain Line Flow Control | 1 |
| | 1000212 | No. 10 (2.7 gpm; 10.2 Lpm) | | 22 | 4001129 | Brine Fitting | 1 |
| | 1000213 | No. 12 (3.9 gpm; 14.8 Lpm) | | 23 | 1002449 | Valve Drain Connection Fitting, Elbow, 3/4 NPT x 1/2 Hose (Tubing) | 1 |
| 12 | 1030502 | Ball, Flow Restrictor | | * | 1041174 | Valve Disc Kit | 1 |

* Not Shown on Drawing

Conditioner Tank and Regenerant Tank Assembly Exploded View & Parts List



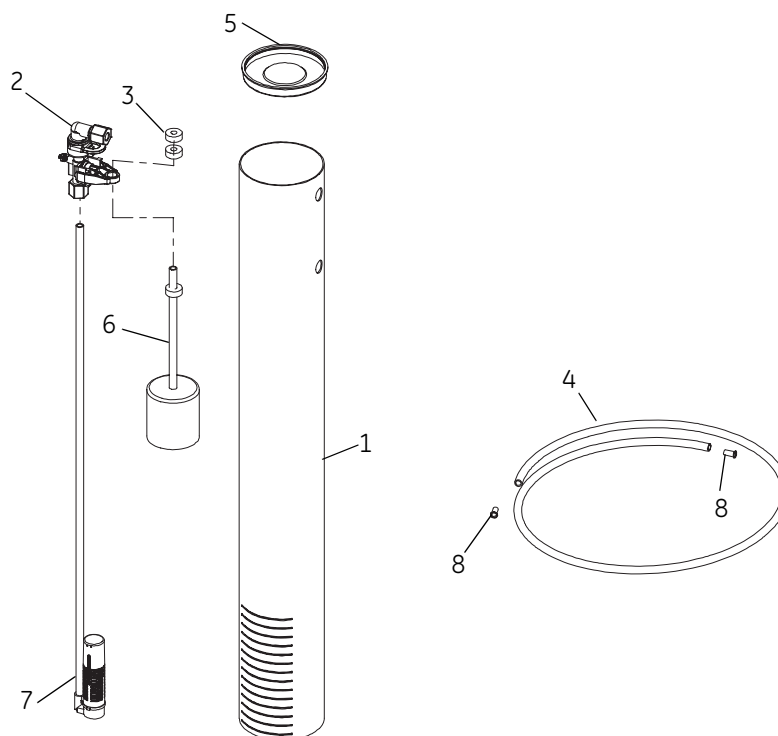
| Item | Part Number | Description | Qty. | Item | Part Number | Description | Qty. |
|------|-------------|---|------|------|-------------|---|------|
| 1 | 4000584 | Cover, 268/762 Valve | 1 | 15 | CH15675 | Brine Tube Assembly | 1 |
| 2 | 4000585 | Shield, Decorative, Performa Logix Valve | 1 | 16 | 4000354 | Base, Resin Jacket, Pro Elite | 1 |
| 3 | 4000586 | Assembly, Cover Plate with Labels | 1 | 17 | CH20093 | Tank Assembly 12 x 48 | 1 |
| 4 | 4000351 | Cover, Jacket, Resin Tank, Pro Elite | 1 | | CH20529 | Tank Assembly 10 x 44 | 1 |
| 5 | 4000458 | Bracket, Lift Spring, Double Torsion, Pro Elite | 2 | 18 | 4000356 | Jacket, Resin Tank, Pro Elite | 1 |
| 6 | 4000521 | 268 Logix Valve W/762 Cont. 10" Tank | 1 | 19 | 4000988 | Lower Distributor Assembly 10x44 Tank" | 1 |
| | 4000522 | 268 Logix Valve w/762 Cont. 12" Tank | 1 | | 4000987 | Lower Distributor Assembly 12x48 Tank" | 1 |
| 7 | 4000352 | Collar, Jacket, Resin Tank, Pro Elite | 1 | 20 | 1239647 | Bushing All Fit, Adjustable | 1 |
| 8 | 4000562 | Distributor, Basket, Upper | 1 | 21 | 4000357 | Spring, Double Torsion | 2 |
| 9 | 4000407 | Button, GE Logo, 1.4" | 1 | 22 | 4000359 | Spring, Torsion | 2 |
| 10 | 4000347 | Cover, Brine Tank, Pro Elite | 1 | 23 | 4000358 | Latch, Cover, Pro Elite | 2 |
| 11 | 4000348 | Collar, Brine Tank, Pro Elite | 1 | 24 | 1396149 | Washer Stainless Steel | 2 |
| 12 | 4000349 | Tank, Brine, Pro Elite | 1 | 25 | 1234170 | Screw, #8-18 x 9/16, Type 25 | 4 |
| 13 | 4000350 | Base, Brine Tank, Pro Elite | 1 | * | 4000871 | Valve Brine Connection Fitting, Female Elbow, 3/8 NPT x 3/8 NPT | 1 |
| 14 | 4000409 | Kit, Feet, Set of 6, Leveling, Pro Elite | N/A | | | | |

*Not Shown

Kits

| Part Number | Description | Qty. |
|-------------|--|------|
| 4000893 | Assembly, Cover, Resin Tank Includes Item Numbers 3, 4 and 5 | 1 |
| 4000892 | Assembly, Cover, Brine Tank Includes Item Numbers 5, 9 and 10 | 1 |

Brine Well Assembly Exploded View & Parts List CH15675



| Item | Part Number | Description | Qty. |
|--|-------------|--|------|
| 1 | CH15013-1 | Brine Well w/Slots | 1 |
| 2 | CH15062 | Safety Brine Valve | 1 |
| 3 | CH15070 | Grommet | 2 |
| 4 | CH16371-60 | Tubing, 3/8" x 60" Long | 1 |
| 5 | CH15024 | Cap, Brine Well 4" Dia. (Caplug STP -4) | 1 |
| 6 | CH15064-1 | Brine Float w/One Grommet (As Purchased) | 1 |
| 7 | CH15063-1 | Air Check Assembly | 1 |
| 8 | BR10332 | Tubing Insert, Brass | 2 |
| 9* | CH20774 | Overflow Fitting Assembly | 1 |
| | CH15031-1 | Overflow Elbow | 1 |
| | CH15031-2 | Overflow Nut | 1 |
| | CH16331 | Gasket | 1 |
| | CH20731-1 | Polypro Washer | 1 |
| *Items included, but not shown - Shipped in a plastic bag along with Brine Well Assembly | | | |

Troubleshooting

Demand Control – Error Codes & Check Salt Light

| Problem | Possible Cause | Solution |
|---------------------|--|--|
| ERR 1 is displayed. | Program settings have been corrupted. | Press any key and reprogram Level I settings. |
| ERR 2 is displayed. | The control is not a "North American" 60 Hz model. | Install 60 Hz Demand control. |
| ERR 3 is displayed. | Control does not know the position of the camshaft. Camshaft should be rotating to find Home position. | Wait for two minutes for the control to return to Home position. The hourglass should be flashing on the display indicating the motor is running. |
| | Camshaft is not turning during ERR 3 display. | <p>Check that motor is connected. Verify that motor wire harness is connected to motor and control module.</p> <p>Verify that optical sensor is connected and in place.</p> <p>Verify that motor gear has engaged cam gear.</p> <p>If everything is connected, try replacing in this order:</p> <ol style="list-style-type: none"> 1. Wire harness, motor, optical sensor assembly 2. Control |
| | Camshaft is turning more than five minutes to find Home position: | <p>Verify that optical sensor is in place and connected to wire.</p> <p>Verify that camshaft is connected appropriately.</p> <p>Verify that no dirt or rubbish is clogging any of the cam slots.</p> <p>If motor continues to rotate indefinitely, replace the following components in this order:</p> <ol style="list-style-type: none"> 1. Wire harness, motor, optical sensor assembly 2. Control |

System Troubleshooting

| Problem | Possible Cause | Solution |
|---|---|--|
| Regenerant tank overflow. | <ul style="list-style-type: none"> a. Uncontrolled refill flow rate. b. Air Leak in regenerant line to air check. c. Drain control clogged with resin or other debris. | <ul style="list-style-type: none"> a. Remove refill flow control to clean ball and seat. b. Check all connections in regenerant line for leaks. c. Clean drain control. |
| Flowing or dripping water at drain or regenerant line after regeneration. | <ul style="list-style-type: none"> a. Valve stem return spring weak. b. Debris is preventing valve disc from closing. | <ul style="list-style-type: none"> a. Replace spring. (Contact dealer). b. Remove debris. |
| Hard water leakage after regeneration. | <ul style="list-style-type: none"> a. Improper regeneration. b. Leaking of external bypass valve. c. O-Ring around riser pipe damaged. d. System capacity too low due to incorrect resin volume setting | <ul style="list-style-type: none"> a. Repeat regeneration after making certain correct regenerant dosage was set. b. Replace bypass valve. (Contact dealer). c. Replace O-ring. d. Reset control and program resin volume to correct setting. |
| Control will not draw regenerant. | <ul style="list-style-type: none"> a. Low water pressure. b. Restricted drain line. c. Injector plugged. d. Injector defective. e. Valve disc 2 and/or 3 not closed. f. Air check valve prematurely closed. | <ul style="list-style-type: none"> a. Make correct setting according to instructions. b. Remove restriction. c. Clean injector and screen. d. Replace injector and cap. (Contact dealer). e. Remove foreign matter from disc and check disc for closing by pushing in on stem. Replace if needed. (Contact dealer). f. Put control momentarily into brine refill. Replace or repair air check if needed. (Contact dealer). |
| Control will not regenerate automatically. | <ul style="list-style-type: none"> a. AC adapter or motor not connected. b. Defective motor. | <ul style="list-style-type: none"> a. Connect power. b. Replace motor. (Contact dealer). |
| Control regenerates at wrong time of day. | Control set incorrectly. | Correct the time setting according to instructions. |
| Intermittent or irregular regenerant draw. | <ul style="list-style-type: none"> a. Low water pressure. b. Defective injector. | <ul style="list-style-type: none"> a. Set pump to maintain 20 psi at conditioner. b. Replace injector (Contact dealer). |
| No conditioned water after regeneration. | <ul style="list-style-type: none"> a. No regenerant in regenerant tank. b. Injector plugged. | <ul style="list-style-type: none"> a. Add regenerant to regenerant tank. b. Clean injector and screen (Contact dealer). |
| Backwashes or purges at excessively low or high rate. | <ul style="list-style-type: none"> a. Incorrect drain controller used. b. Foreign matter affecting valve operation. | <ul style="list-style-type: none"> a. Replace with correct size control (Contact dealer). b. Remove drain controller and clean ball and seat. |
| Run out of conditioned water between regenerations. | <ul style="list-style-type: none"> a. Improper regeneration. b. Incorrect resin volume setting. | <ul style="list-style-type: none"> a. Repeat regeneration, b. Reset control and program resin volume to correct setting. |

Pentair Residential Filtration, LLC

5730 North Glen Park Road
Milwaukee, WI 53209-4454
USA
(262) 238-4400 Phone
(262) 238-4402 Fax



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Filtration, LLC, Glendale, WI