

Model NXT Series

IMPORTANT INSTRUCTIONS

INSTALLATION AND OPERATION CHECKLIST FOR PLACING YOUR WATER CONDITIONERS IN SERVICE

FLEX CONNECTORS:

Flex connectors must be installed on BOTH inlet and outlet connections to the unit.

DIELECTRIC UNIONS:

We strongly recommend the installation of DIELECTRIC UNIONS when connecting any dissimilar metals in order to prevent galvanic corrosion problems.

LOWER DISTRIBUTOR ASSEMBLY:

After receiving your equipment, we strongly recommend inspecting the lower distributor for any damage in shipment. Broken or damaged distributors will result in resin or filter media downstream in the service equipment.

GRAVEL:

Pay particular attention to the instructions in this manual for placing gravel in your water conditioner tank. Improper addition of gravel could result in damage to the lower distributor and loss of resin or media.

TEMPERATURE:

Maximum operating temperature for standard units is 140°F. Should higher temperatures be required, please check with the factory.

PRESSURE:

Maximum operating pressure for standard units is 100 psig. For higher pressures, please contact the factory.

FACE PIPING AND VALVES:

Valve manifolds are factory assembled to leak proof tightness. However, temperature variation with different coefficients of expansion and vibration during shipment may result in leaks requiring tightening during installation.

DRAIN LINE:

Do not reduce the size of the drain line smaller than the line before or after the drain line flow control. A slight fall with atmospheric break is recommended for this line piped to the sump or drain.

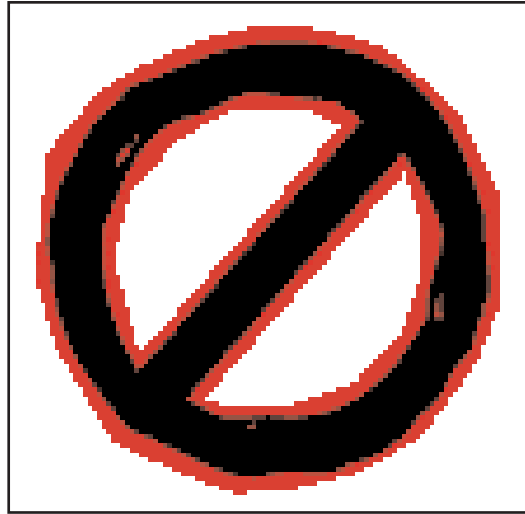
BRINE TANK OVERFLOW:

All brine tanks are provided with an overflow which should be piped or tubed to drain. This must be done to prevent flooding should problems occur during brine tank refill. No liability for flooding is assumed if this overflow is not connected to a drain.

VACUUM BREAKER:

We strongly recommend the installation of a vacuum breaker to avoid possibility of imploding mineral tanks.

WARNING !!!



USE OF THIS EQUIPMENT IN A SYSTEM WITH QUICK OPENING VALVES AND LONG RUNS OF PIPING MAY RESULT IN WATER HAMMER. WATER HAMMER OCCURS WHEN THE SYSTEM WATER IS FLOWING AT A FAST RATE IN PIPING AND IS SUDDENLY SHUT OFF. THE MOMENTUM OF THE WHOLE WATER COLUMN IS TRANSMITTED BACK ALONG THE PIPING THROUGH THE EQUIPMENT AND RESULTS IN A PRESSURE SPIKE WHICH COULD BE AS MUCH AS 10 TIMES THE NORMAL OPERATING PRESSURE. ATS, INC. DESIGNS EQUIPMENT TO OPERATE WITHIN THE STATED PRESSURE RATING AND CANNOT BE HELD RESPONSIBLE FOR FAILURES DUE TO WATER HAMMER. SHOULD WATER HAMMER BE THE CAUSE OF EQUIPMENT FAILURE, ATS'S WARRANTY WILL NOT COVER REPLACEMENT OF THE FAILED EQUIPMENT. IT IS THE CUSTOMER'S RESPONSIBILITY TO CORRECT WATER HAMMER PROBLEMS BY USE OF APPROPRIATE IN-LINE DESURGERS OR OTHER METHODS.

WATER SOFTENER INSTALLATION INSTRUCTIONS

GENERAL:

WATER PRESSURE:

A minimum of 30 pounds of water pressure is required for the valve to regenerate effectively.

ELECTRICAL FACILITIES:

A continuous 115V/60Hz power supply is required. (Other voltages available). Make certain the power supply is always hot and cannot be turned off with another switch.

EXISTING PLUMBING:

Condition of existing plumbing should be free from lime and iron build-up. Piping that is built up heavily with lime and/or iron should be replaced. If piping is clogged with iron, a separate iron filter unit should be installed ahead of the water softener.

LOCATION OF SOFTENER & DRAIN:

The softener should be located close to the drain.

BYPASS VALVES:

Always provide for the installation of a bypass valve.

CAUTION:

WATER PRESSURE IS NOT TO EXCEED 100 psi, WATER TEMPERATURE IS NOT TO EXCEED 100°F, AND THE UNIT CANNOT BE SUBJECTED TO FREEZING CONDITIONS.

INSTALLING THE SOFTENER

1. Place the mineral tank on a firm and level foundation, preferably concrete, as close to the floor drain as possible. The mineral tank should be level.
2. The riser pipe - distributor assembly has been shipped in the mineral tank. Inspect the assemble to be sure it is not damaged, if so, replace before proceeding. Cover the top of the riser pipe with tape or plastic cap to prevent gravel and resin from getting inside the riser pipes.
3. Center the riser pip - distributor in opening of the mineral tank. Fill the teak about 1/3 full with water. Pour the quantity of gravel (as shown on the specification table) into the mineral tank. Level the gravel.
4. Pour in the quantity of resin (as shown on the specification table) into the mineral tank. Remove the tape or cap from the top of the riser pipe.
5. Lubricate the two O-Rings at the base of the control valve and the tank adapter with a SILICONE based lubricant.

NOTE: THE LARGER O-RING FITS AROUND THE THREADED BASE OF THE CONTROL VALVE. THE SMALLER O-RING FITS AT THE INNER PORT OPENING IN THE CENTER OF THE CONTROL VALVE BASE WHERE THE RISER PIPE IS INSERTED.

Carefully thread the control valve into the threaded opening of the mineral tank. Be sure that the riser pipe goes into the center opening in the base of the control valve.

6. Attach the meter to the control valve, if applicable. Include unions of the mineral tank. Be sure that the riser pipe goes into the center opening in the base of the control valve.
7. Install a system bypass per the enclosed installation drawings, being sure to comply with all state and local plumbing codes.
8. Solder joints at the drain must be done prior to connecting the drain line flow control fitting. Failure to do this could cause interior damage to the flow controller.

Connect the drain port of the control valve to a floor drain. Follow all state and local plumbing codes. There must be a 4" air gap between the end of the drain piping and floor plan. Do not reduce the pipe or tube size of the drain port connection. Make as short a run of drain piping as possible. Do not run the drain line overhead, if necessary consult factory to make proper recommendations.

9. Locate the brine tank near the mineral tank. The brine tank location should be such that it will not interfere with access to the mineral tank or control valve. The brine tank must be placed on a smooth firm foundation.

The brine tank has a factory installed brine well with slot openings at the lower end.

An air check/float assembly has been placed in the brine well and consists of a plastic tube with one or more fingers at the bottom. The fingers contain a small float ball which drops down and closes the tube when all of the brine has been drawn from the brine tank. This action prevents air from being drawn into the mineral tank during the brining cycle.

Connect the brine line tubing from the brine valve port, located on the control valve, to the air check tube in the brine well. The brine line tubing is inserted through a hole in the brine tank located above the brine well.

Connect the overflow elbow, located on the side of the brine tank, with tubing to a floor drain. Do not run this line overhead. It must be lower than the elbow on the side of the brine tank in order to drain properly in an overflow situation. Do not make a direct connection to the floor drain. Be sure to comply with all sanitary codes.

START-UP PROCEDURES:

1. It is recommended to follow these start-up procedures to test the operation functions of the water softener system.
2. Add twelve (12) inches of water to the brine tank with a hose or a bucket.
- 3(a). If applicable, disconnect meter cable from the meter and body end.
- (b). With unit in bypass position, turn on the main water supply. Open a cold soft water tap nearby and let it run a few minutes to purge the system of foreign material (usually solder and air) that may have resulted from the installation. Once clean, close the water tap.
- (c). Advance control valve to the backwash position and remove power. Slowly open hard water inlet valve one quarter turn. Allow unit to backwash until all air has been purged from unit. Close hard water inlet valve and allow unit to stand for approximately 5 minutes. Slowly reopen the inlet one quarter turn and purge any remaining air.
- (d). Restore power and advance control to brine draw. Observe that the water level in brine tank is receding. (It's best to mark the brine well as this is VERY slow process).
- (e). Advance control to rapid rinse. This will demonstrate a very fast flow to drain.
- (f). Advance the control to brine refill. Observe that the brine tank is refilling - again, this is a slow process. Allow unit to advance to service on its own.
4. Refer to the "SET TIME" instructions enclosed and adjust the regeneration cycle timer accordingly. Refer to the specification table for normal cycle times. Connect the meter cable if applicable.
5. Make sure that all electrical connections have been made and that the power has been turned on. It is recommended to use an unswitched 115V/60Hz grounded outlet. Follow local and state electrical codes for proper wiring.
6. See attached sheet "CHECK LIST" to properly cycle the units and put the softener into the service position.
7. Fully open the manual inlet and outlet valves and close the manual bypass valve. The unit is now in service.
8. Be sure that the brine tank is filled with salt at ALL times. Check the brine tank daily to establish a salt refill schedule. The brine tank can be filled with salt at anytime, fill to about six inches from the top of the brine tank. Keeping the salt level above the liquid brine.