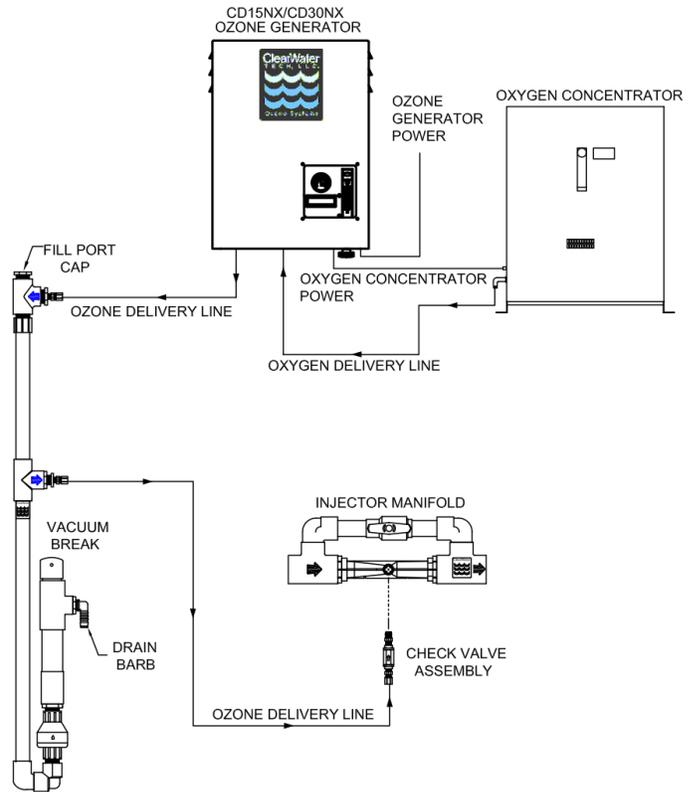


Apex VII and VIII Quick Installation Guide

Product Description

The ClearWater Tech, LLC. Apex Packages are complete and fully integrated for easy installation. The Apex VII and VIII both use Pressure Swing Absorption (PSA) oxygen technology for maximum ozone output efficiency, a variable output Ozone Generator with an LCD display, a positive atmospheric Vacuum Break for water back flow prevention, and Injector Manifold with Check Valve Assembly for mass transfer of ozone in solution.

Specification Chart				
System	Ozone Generator	Ozone Output	Vacuum / Pressure	System Control
Apex VII	CD15nx	15.0g/h @ 7.5 SCFH 5% by weight	-3 to -8inHg / 10PSI	Vacuum & Pressure Switch
Apex VIII	CD30nx	30.0g/h @ 15 SCFH 5% by weight	-3 to -8inHg / 10PSI	Vacuum & Pressure Switch



Quick Install

- Step 1:** Unpack and placement. Mount ozone generator and peripheral equipment to a suitable flat vertical surface.
- Step 2:** Install the side stream booster pump, if so required. The booster pump will require separate dedicated power.
- Step 3:** Install the Injector Manifold and thread the Check Valve Assembly onto the Venturi. To prepare for start-up close the by-pass valve half way. This will create vacuum at the injector as soon as water is flowing through the injector manifold.
- Step 4:** Install the contact vessel and off-gas vent (if so equipped).
- Step 5:** Apply separate power to the oxygen concentrator and set the air flow to 15 SCFH prior to connecting delivery line to the ozone generator. **NOTE: The SCFH flow meter on the oxygen concentrator will reduce in flow rate after connecting the oxygen delivery line.**
- Step 6:** Remove the ½ inch conduit knockout located at the bottom of the ozone generator and install the ½ inch strain relief fitting and lock-nut (located in the parts back), into the exposed conduit knockout hole.
- Step 7:** Cut the plug off from the oxygen concentrator cord, and feed the cord into the strain relief, and tighten strain relief fitting.
- Step 8:** Terminate the oxygen concentrator wires to the terminal strip located inside the ozone generator, as instructed by the terminal strip diagram, located on the inside of the ozone generator cover. **NOTE: The oxygen concentrator must be rated for the same voltage that will be applied to the ozone generator.**
- Step 9:** An external 4-20mA control signal may be used to control ozone output. See the detail installation steps of this procedure in the ozone generator manual.
- Step 10:** Connect the Teflon® ozone delivery line; from the ozone generator to the vacuum break, then from the vacuum break to the injector manifold check valve assembly.
- Step 11:** Remove Vacuum Break Fill Port Cap. Fill the Vacuum Break with water through fill port until the water spills out of the drain barb. Replace fill port cap.
- Step 12:** Apply main power to the ozone generator. Switch the main power switch of the ozone generator to the 'ON' position (if not already done so).
- Step 13:** Apply main power to the main circulation booster pump and/or side stream booster pump to initiate water flow.
- Step 14:** Make final adjustments to the to by-pass valve on the injection manifold to insure a vacuum is present. Adjust the backpressure needle valve (located at the bottom of the ozone generator) till the pressure gauge (located on the front view window of the ozone generator) achieves 10 PSI. **Note: The LCD screen located on the front of the ozone generator will read "No Vacuum" and/or "No Pressure" until adequate levels are achieved. See Specification Chart above for the parameter settings.**
- Step 15:** To adjust the ozone output manually, use the two programming buttons located at the bottom of the ozone generator. Holding down the left button will reduce ozone output and the right button will increase the ozone output. **Note: For further programming and control see the ozone generator manual.**



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