



Models ES-25-RFCA/RFCW and Larger

How to Fill and Startup Your Drinking Water Chiller

Required tools: digital volt/amperage meter, screwdrivers (both straight and phillips head), adjustable wrenches, service valve wrench, 7/16" nut driver, wire cutters, flashlight. *See the piping and electrical schematic for reference in the manual.*

FILL

1. Install threaded plug located in the front control panel on the re-circulating pump with plumber's tape.
2. Install all filter cartridges including the spun polypropylene pre-filter and carbon block purifier into the stainless steel housings. All housings should be hand tight. **Do not over tighten with wrench.**
3. Install the UV light bulb and quartz sleeve as per the instructions in the manual. **Do not over tighten compression nut.**
4. Open the air vent on the front of the control panel if available.
5. Close main supply, inlet and outlet service valves at the phosphate feeder.
6. Fill the phosphate feeder with crystals to the fill line as per the instructions in the manual.
7. Open all inlet service valves and close all outlet service valves to filter/purifier housings.
8. Open main make-up water service valve and start filling first pre-filter housing by pushing the red button on the top to vent air or air release valve after filter.
9. Continue to open the outlet service valves for each filter/purifier housing one at a time and push red button or air release valve to vent air.
10. Open main supply valve at the phosphate feeder and fill the tank until water comes out the tank air vent. The tank is now full.
11. Open the bypass valve and all inlet and outlet service valves at the recirculation pump, UV sterilizer and phosphate feeder.
12. Turn on the main switch on the control panel to manual which will start the pump and recirculate water from supply to return piping around the storage tank.
13. After waiting 5 minutes for instruments to recalibrate, make sure all the indicator lights on the control panel are green. If the UV sterilizer is red, refer to the UV sensor adjustment instructions in the manual. If the filter/change light is red, adjust the DPS switch setting with small screwdriver.
14. If the loop piping is ready to be filled, open the supply and return service valves and close bypass valve half way to send water through the loop. Measure the amp draw on the pump starter and close the bypass valve accordingly so the pump amp draw is not overloaded.
15. Bleed air from the recirculation loop at the farthest bubbler or via a drain valve in the loop piping.

STARTUP

1. Remove front panel exposing the refrigeration compartment.
2. Open and backseat every refrigeration valve.
3. Install refrigeration control fuse provided in electrical box.
4. Turn on unit via manual on/off switch.
5. Check voltage on incoming power supply and ensure it matches the unit tag on the inside of the electrical box.
6. If the unit is set up for 3-phase electrical: check to ensure pump rotation matches arrows on the pump housing. If not, locate and reverse appropriate pump leads in the electrical box.
7. Balance system using bypass valve and measuring the pump amp draw [there should be a maximum 5°F [2.8°C] difference between the cold water discharge and the return line].
8. Check thermostat set point on the digital controller [should be factory set at 45°F [7.2°C].
9. Check low temp cutout set point on the digital controller [should be factory set at 40°F [4.4°C].
10. In order to equalize the refrigerant pressures within the system, remove the cover from the dual pressure switch, then depress and hold the manual trip until unit runs on it's own (should be no more than 10 seconds).
11. After about 20 minutes of running, check the amp draw on each component and be sure it is below the maximum amperage indicated on the unit tag.
12. Visually check refrigerant sight glass for any abnormalities (sight glass should be clear and green).
13. While the unit is running, raise the low temperature cutout set point until the unit shuts off.
14. Reset both the thermostat and the low temperature cut out set points to initial degree setting.
15. Replace caps on all valve stems, and reinstall cabinet panels.

If this a water cooled chiller (Model RFCW), confirm condenser water in and water out are connected.

The startup of the chiller refrigeration cycle should be performed by an authorized Filtrine service agent.

