

eKon Controller Startup Guide

CAUTION – These steps involve working with high voltage equipment.

CONTROL PANEL POWER UP

- 1) Be sure the Disconnect Switch is in the OFF Position.
- 2) Open the Controller door
 - a. Release the 2 door hasps with a screwdriver.
 - b. The disconnect switch is locked to the extension rod inside the door. To release the lock, insert a pen (or small pointed tool) into the hole on the underside of the disconnect switch handle and push.
 - c. Pull door open while pushing the defeat button, to release the door.
- 3) Inspect all components, to see no components or wires have come loose, is damaged or looks out of place.
- 4) Check to see if there are metal shavings from where the electrician drilled the power feed holes in the controller cabinet. They are sometimes careless in not covering the components in the controller, and metal shavings can enter the drives, or other components. That can cause catastrophic failure when powered up.
- 5) Close the door. (You may need to use a long screwdriver to get the disconnect switch rod to line up with the handle cone on the inside of the door.)
- 6) Tell the building electrician or manager to turn on the power to the pump system controller. (stand back away from the unit to prevent electrocution if there is a major problem or failure when power is applied.)
- 7) Re-open the door, using the steps in 2 above.
- 8) Using a volt meter, check all legs of power coming into the TOP (inlet) side of the disconnect switch. Record the values in the startup report. For 3 phase power, record 1-2, 1-3, 2-3 voltages. Be sure the voltage matches the voltage on the label inside the door or on the submittal package.
- 9) Close the door so that the disconnect switch latches with the extension rod.
- 10) Turn on the power to the controller with the disconnect switch.
- 11) Re-open the door, using the steps in 2 above.
- 12) Turn on the control circuit circuit breaker on the top left corner. Wait until the Touch screen on the door boots up and appears.
- 13) Turn on the 2 drive circuit breakers.
- 14) Close the door.

PRESSURIZE THE BUILDING

- 15) Check with the building operator/engineer to see that it OK to begin to pressurize the building with water.
- 16) On the touch screen, there may be initial alarms as the panel powers up. Acknowledge those alarm and silence the horn.
- 17) Go to the HOME screen. Set the SETPOINT PRESSURE to the desired pressure, according to the submittal package or ask the building engineer what PSI they would like to maintain.
- 18) Go to the PUMPS Screen. We will start with Pump 1.
- 19) To the right of the HAND button is a HZ value. Touch that value. A keyboard screen will appear. Set the HZ value to 2 HZ.
- 20) Hit the HAND button to turn on the pump. Check the back of the motor enclosure to insure the pump is rotating CLOCKWISE. If not, turn off all power and then change the rotation direction by reversing 2 of the motor leads on the OUTPUT side of the drive (not the INPUT side).
- 21) Repeat this for Pump 2, then turn off Pump 2.
- 22) Starting with Pump 1, Change the HAND HZ to 20. Turn on the pump. Listen for any pump motor noise. Watch the pressure in the building begin to go up. Have the building engineer bleed any air on the top floors by flushing toilets and opening sinks or valves.
- 23) When the pressure has stabilized, increase the HAND HZ by 5 HZ increments, having other personnel check for leaks and reporting on pressure in the building. ***It is important to slowly increase the pressure in the building, while checking to see that it is not over-pressurized, to prevent damage from any leaks that may occur.*** Keep increasing the HZ until the desired building pressure is achieved.
- 24) Turn off Pump 1 and repeat the steps for Pump 2 until the building pressure is at the desired pressure.
- 25) Put Pump 2 into the AUTO position. Watch it operate to see that it maintains the Setpoint Pressure.
- 26) Put Pump 1 into the AUTO position.
- 27) Go to the MENU screen and to the SENSOGUARD screen to check that all health indicators are GREEN.
- 28) Hit the LOGIN button and log in to the system, using the Distributor Login information.
- 29) Go to the Distributor Menu
 - a. SET DATE/TIME - set the date and time.
 - b. PRESSURE SETTINGS – set the pressure to the customer’s desired pressure.
- 30) Go to the ALARMS screen and see that all alarms are acknowledged.
- 31) Log OFF
- 32) Turn off the disconnect switch and count to 10. Turn on the disconnect switch. See that the system boots back up and re-pressurizes the building.
- 33) Watch the system for a while, to see that it maintains system pressure, shuts off during no-flow situations, and is reacting normally.
- 34) Fill out the STARTUP REPORT and send to the factory.