

## Introduction

Before proceeding with the installation or operation of an Alderon Custom Control Panel, read all instructions thoroughly, as well as complying with all Federal, State and Local Codes, Regulations and Practices. An Alderon Custom Panel must be installed by qualified personnel familiar with all applicable local electrical and mechanical codes. Refer to the National Electrical Code (NFPA 70). Failure to properly install and test this product can result in personal injury or equipment malfunction.

## Safety Guidelines



1. DISCONNECT ALL ELECTRICAL SERVICE BEFORE WORKING OR HANDLING AN ALDERON CUSTOM CONTROL PANEL.
2. **BEFORE INSTALLING OR WIRING PANEL, CHECK ALL SCREW TERMINALS FOR TIGHTNESS. SHIPPING CAN CAUSE DAMAGE AND/OR LOOSEN THE COMPONENTS. MAKE SURE ALL COMPONENTS ARE DAMAGE FREE AND WIRE TERMINALS ARE TIGHTENED.**
3. DO NOT USE WITH FLAMMABLE OR EXPLOSIVE FLUIDS SUCH AS GASOLINE, FUEL OIL, KEROSENE, ETC. DO NOT USE IN EXPLOSIVE ATMOSPHERES. FLOAT SWITCH, PROBE OR TRANSDUCER SHOULD ONLY BE USED WITH WATER/WASTEWATER.
4. DO NOT HANDLE AN ALDERON CUSTOM CONTROL PANEL WITH WET HANDS OR WHEN STANDING ON A WET OR DAMP SURFACE OR IN WATER.
5. INCOMING VOLTAGE MUST MATCH ALDERON CUSTOM CONTROL PANEL VOLTAGE.
6. TO PREVENT ELECTRICAL SHOCK AND EQUIPMENT MALFUNCTION, USE ONLY WITH A PUMP SUPPLIED WITH A GROUNDING CONDUCTOR AND GROUNDING-TYPE ATTACHMENT PLUG. BE CERTAIN TO CONNECT AN ALDERON CUSTOM CONTROL PANEL TO A PROPERLY GROUNDED, GROUNDING-TYPE RECEPTACLE.
7. NEMA 1 PANELS MUST BE MOUNTED INDOORS. NEMA 3R OR NEMA 4X CAN BE MOUNTED INDOORS OR OUTDOORS.
8. USE CAUTION WITH MODELS USING AN OVERLOAD RELAY. PUMP MOTOR MAY START IMMEDIATELY WHEN OVERLOAD IS RESET.
9. USE ALDERON FLOATS, SENSORS, PROBES OR TRANSDUCERS FOR BEST RESULTS.

## Installation

REFER TO THE INCLUDED ELECTRICAL SCHEMATIC FOR ALL INCOMING POWER CONNECTIONS AND PUMP CONNECTIONS WHICH MAY INCLUDE OPTIONAL FIELD WIRING CONNECTIONS.

Note: Conduit sealant must be used to prevent moisture and gasses from entering the panel. If splicing is required use liquid tight junction box and connectors. Do not mount junction box inside sump or basin. Run control switches in separate conduit from pump and line power.

Recommmendations: For remote alarm notification, an auxiliary alarm, auto dialer or connection to your BAS should be considered. Use the auxiliary contacts provided in this panel.

## Float Switch Installation, Function And Operation

### Float Switch Installation:

The floats must be installed in the basin as shown in (Fig. 1) They must also be connected to the correct terminal blocks in the control panel (See schematic). The floats in (Fig. 1) are shown in their deactivated state. **Note:** Floats activate 5° above horizontal and deactivate 5° below horizontal.

### Hand Mode:

When a HOA switch is placed in “Hand” mode the corresponding pump will be called to run regardless of the float switch position.

### Auto Mode:

**Note:** Pumps will alternate in order after each cycle. **Example:** If liquid rises in the tank, the first float to activate a pump will be the “Lead Float”. The 1st pump (Lead Pump) will start pumping. On the next cycle the “Lead Float” will activate (Pump 2) . On the next cycle the “Lead Float” will activate (Pump 3) etc...

### Step-1:

On Liquid Rise: “Stop Float” activates. Nothing happens  
On Liquid Drop: “Stop Float” deactivates. Pump (s) stop

**Step-2:** Liquid in basin rises until the “Start Float” activates. The Lead Pump starts pumping. and runs until stop float is deactivated. The pumps will alternate after each cycle.

**Step-3:** If the liquid continues to rise the “Lag 1 Float” will activate and the 2nd pump will start pumping. The Lead Pump will still be pumping.

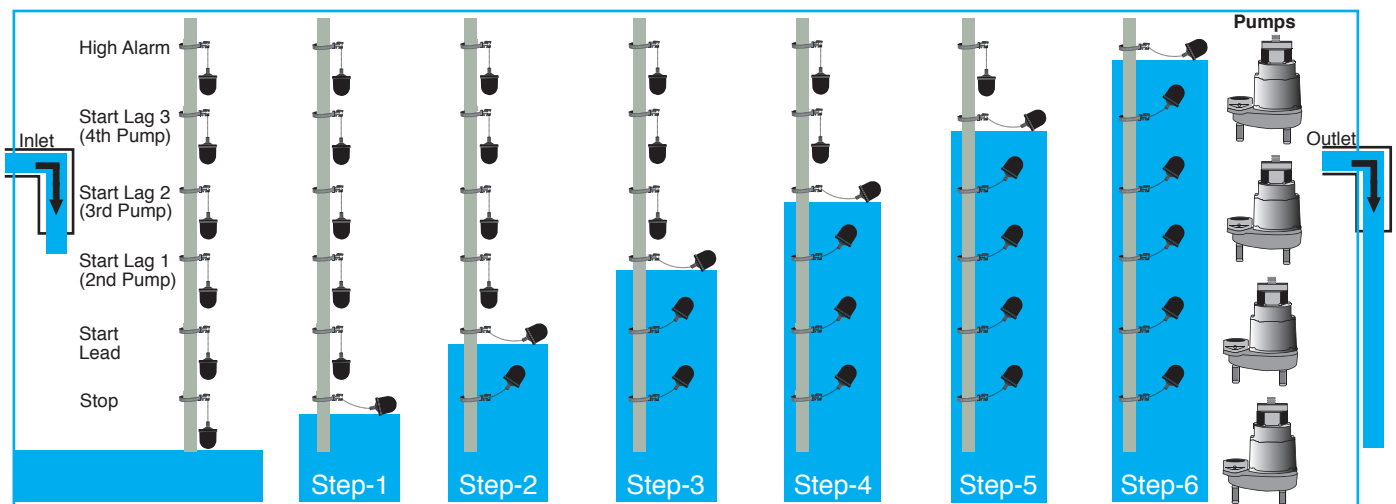
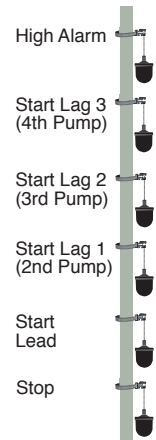
**Step-4:** If the liquid continues to rise the “Lag 2 Float” will activate and the 3rd pump will start pumping. The Lead Pump and Lag 1 Pump will still be pumping.

**Step-5:** If the liquid continues to rise the “Lag 3 Float” will activate and the 4th pump will start pumping. The Lead Pump, Lag 1 Pump & the Lag 2 Pump will still be pumping.

**Step-6:** If the liquid continues to rise the “High Alarm Float” will activate and the Alarm Buzzer and Alarm Beacon will be activated. The Lead Pump, Lag 1 Pump, Lag 2 & Lag 3 Pump will still be pumping.

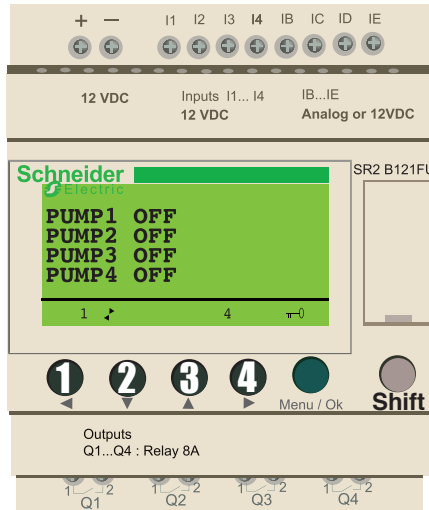
**Note:** If High Alarm float is activated, even if no other float is activated or operational, all pumps will run.

(Fig. 1)

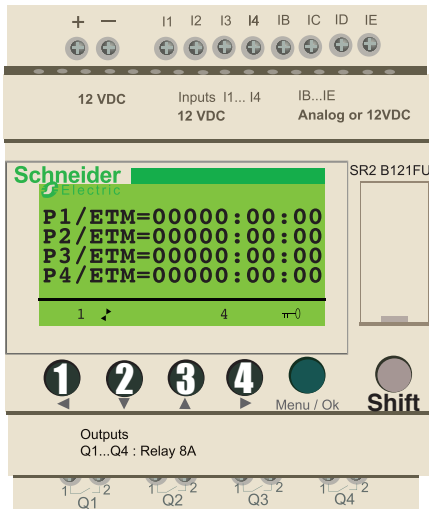


## Navigating Through Screens

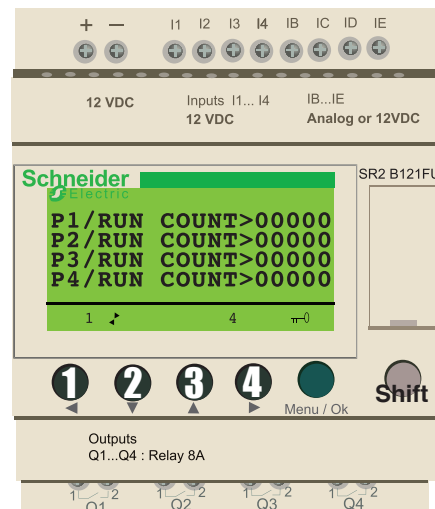
To navigate through the screens shown below press button 4 to advance through the screens. To return to the HOME screen press button 1, or press button 4 until you scroll back to the HOME screen.



**HOME SCREEN**



**ETM HISTORY SCREEN**



**COUNT HISTORY SCREEN**