MVP-SSF PTRO/RO Operation

Orenco's Most Versatile Panel (MVP) line of control panels includes an easy-to-use programmable logic unit that incorporates many timing and logic functions. The units have built in screens which show the time and date, digital input status, digital output status, analog input status (3 screens), analog output status, memory flag status and an ESC + Cursor key status. (The analog input status, analog output status, memory flag status and ESC + Cursor key status screens are not used in this application.) Additionally, the following system data screens have been included in your panel:

System Data Screens:	Description:
1. T Pump CT & ETM	Septic tank pump cycle counter at top of screen and pump run time in minutes beneath
2. F Pump CT & ETM	Sand filter pump cycle counter at top of screen and pump run time in minutes beneath
3. T HLA CT & T OVR CT	Septic tank high level alarm counter at top of screen and override cycle counter beneath
4. T LLA CT	Septic tank low level alarm counter
5. F HLA CT & LLA CT	Sand filter high level alarm counter at top of screen and low level alarm counter beneath
6. Power Faults & Operating Hr	Power fault counter at top of screen and operating hours beneath

To move between screens, use the four arrow keys. The screens are accessed as shown below:
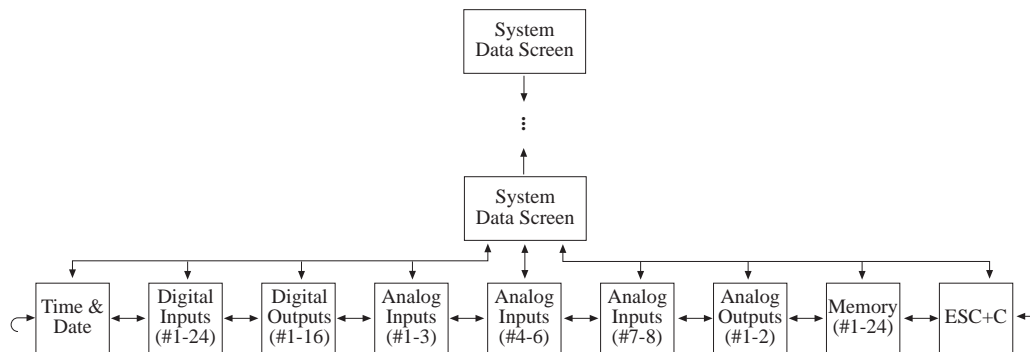
Input and Output Screens: The unit will activate various inputs and outputs as it operates (please refer to the Liquid Crystal Display screens shown below). Knowing what conditions cause the inputs and outputs to activate can be a helpful installation and troubleshooting tool. The following inputs and outputs have been used with your control panel:

Input Functions:	Activation Conditions:
1. Septic Redundant Off & Low Level Alarm Float	Float in up position
2. Septic Timer On & Off Float	Float in up position
3. Septic Override Timer On & Off Float	Float in up position
4. Septic High Level Alarm Float	Float in up position
5. Sand Redundant Off & Low Level Alarm Float	Float in up position
6. Sand Pump Off Float	Float in up position
7. Sand Pump On Float	Float in up position
8. Sand High Level Alarm Float	Float in up position
9. Push To Silence	Pushbutton is pressed

Output Functions:	Activation Conditions:
1. Septic Tank Pump	Septic Tank pump is activated
2. Septic Tank Level Alarm Light	Septic Tank Level Alarm condition exists
3. Sand Filter Pump	Sand Filter pump is activated
4. Sand Filter Level Alarm Light	Sand Filter Level Alarm condition exists
5. Audible Alarm	Audible Alarm is activated

Inputs 1-9 ——

Inputs 10-19 ——

Inputs 20-24 ——

Activated Input/Output

—— **Outputs 1-9**

—— **Outputs 10-16**

Input Screen   Output Screen
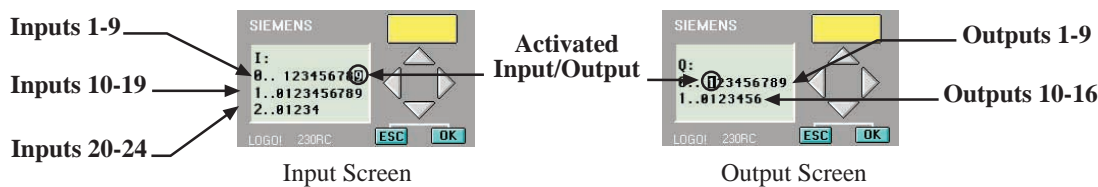
Your control panel can perform the float functions listed on the following page. Depending on the number of floats for your application, some functions may be omitted or combined.

Septic Tank High Level Alarm: This float activates the septic tank alarm light (steady) and audible alarm when lifted for longer than the high level alarm delay. The audible alarm may be silenced by pressing the illuminated PUSH TO SILENCE button on the front of the control panel. The alarm light (steady) will remain on until the float is lowered, and the audible alarm will reactivate in 12 hours if condition is not corrected.

Septic Tank Override Timer On & Off: This float activates the override timer function when lifted for more than 2 seconds. This timer function controls the pump cycles during high flow conditions. The override timer function will remain active until at least the set minimum number of override cycles have been completed and the float has lowered. When the override timer function has been completed, normal timer operation will resume.

Septic Tank Timer On & Off: This float activates the septic tank timer function when lifted. The timer will be activated while the float is up and will be deactivated 30 seconds after the float is lowered. This timer function controls the septic tank pump cycles during normal flow conditions. Note: The timer will start with its off cycle.

Septic Tank Redundant Off & Low Level Alarm: This float turns off the septic tank pump when lowered for more than 2 seconds. This float is a secondary off float which will operate if the septic tank Timer On & Off float fails. Pumping will be disabled in both the automatic and manual modes. This float also activates the septic tank alarm light (flashing) and audible alarm. The audible alarm may be silenced by pressing the illuminated PUSH TO SILENCE button on the front of the control panel. The alarm light will remain flashing until the float is raised. If the alarm condition is not corrected in 12 hours, the audible alarm will be reactivated.

Sand Filter High Level Alarm: This float activates the sand filter alarm light (steady) and audible alarm when lifted for longer than the high level alarm delay. The audible alarm may be silenced by pressing the illuminated PUSH TO SILENCE button on the front of the control panel. The alarm light will remain flashing until the float is lowered, and the audible alarm will reactivate in 12 hours if condition is not corrected. Note: A high level condition in the sand filter will disable the septic tank pump in automatic.

Sand Filter Pump On: This float activates the pump when lifted. The pump will run for the minimum run time or until the pump off float (if used) is lowered.

Sand Filter Pump Off: This float turns off the pump when lowered if the minimum run time has elapsed.

Sand Filter Redundant Off & Low Level Alarm: This float turns off the sand filter pump when lowered for more than 2 seconds. This float is a secondary off float which will operate if the Pump Off float fails. Pumping will be disabled in both the automatic and manual modes. This float also activates the sand filter alarm light (flashing) and audible alarm. The audible alarm may be silenced by pressing the illuminated PUSH TO SILENCE button on the front of the control panel. The alarm light will remain flashing until the float is raised, and the audible alarm will reactivate in 12 hours if the condition is not corrected.