MVP-SSF PTRO/PTRO 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

Sand filter pump cycle counter at top of screen and pump run time in 2. F Pump CT & ETM minutes beneath

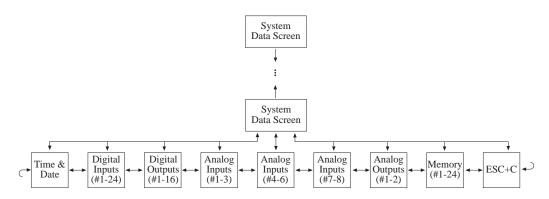
3. T HLA CT & T OVR CT Septic tank high level alarm counter at top of screen and override cycle

counter beneath 4. T LLA CT Septic tank low level alarm counter

5. F HLA CT & F OVR CT Sand filter high level alarm counter at top of screen and override cycle 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:



Digital Input and Digital 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:

- 1. Septic Redundant Off & Low Level Alarm Float
- 2. Septic Timer On & Off Float
- 3. Septic Override Timer On & Off Float
- 4. Septic High Level Alarm Float
- 5. Sand Redundant Off & Low Level Alarm Float
- 6. Sand Timer On & Off Float
- 7. Sand Override Timer On & Off Float
- 8. Sand High Level Alarm Float
- 9. Push To Silence

Output Functions:

- 1. Septic Tank Pump
- 2. Septic Tank Level Alarm Light
- 3. Sand Filter Pump
- 4. Sand Filter Level Alarm Light
- 5. Audible Alarm

Activation Conditions:

Float in up position

Pushbutton is pressed

Activation Conditions:

Septic Tank pump is activated

Septic Tank Level Alarm condition exists

Sand Filter pump is activated

Sand Filter Level Alarm condition exists

Audible Alarm is activated



814 AIRWAY AVENUE

SUTHERLIN, OREGON

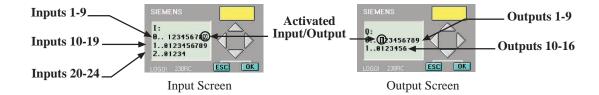
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Your control panel can perform the float functions listed on the following page. Depending on the number of floats for your application, some functions may be omitted or combined.

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 has 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 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 has been completed and the float has lowered. When the override timer function has been completed, normal timer operation will resume.

Sand Filter Timer On & Off: This float activates the sand filter 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.

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 sand filter Timer On & 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. If the alarm condition is not corrected in 12 hours, the audible alarm will be reactivated.