

## Control Panels / Time dosing

Control panels DO NOT operate the same, it is imperative you understand how your panel works.

The primary differences are:

- During “over ride” float conditions, some panels default back to a demand dose (which defeats the purpose of time dosing) while others enable a secondary timer setting.
- When the “timer on” float drops, some panels finish the current pump “on” cycle, others immediately shut the pump off which can lead to false pump event counter readings.
- Some floats are wired at 120 volts (motor rated) and some at 24 volts (signal rated).
- Some float wiring terminals have a common hot wire, some have a common neutral wire.
- Some panels need a jumper wire installed or removed to operate with or without optional floats.

Following are the schematics and basic panel information for the more common control panels along with instructions to set the timers.

Panels included:

Rhombus manual dial type TD (time dosed)  
Rhombus IFS series  
Rhombus EZ series  
Orenco MVP  
Multi-flo  
Septronics  
Alderon

# SJE-Rhombus® Type TD

Time dosing of a single pump  
if one-wire feed:  
Jumper

\* ON time cut short if Timer Float Drops  
(DT or TD models)

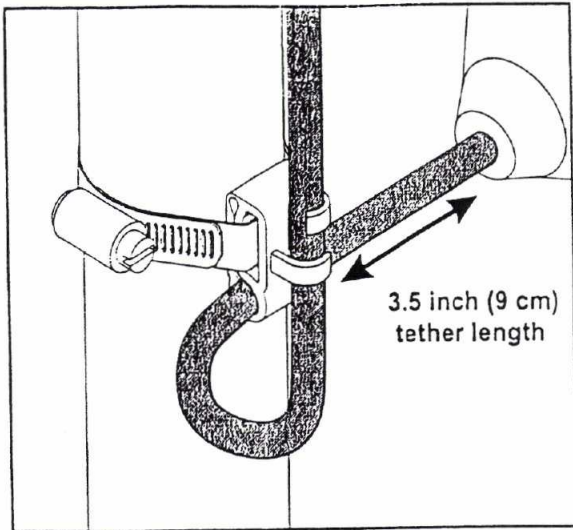


FIGURE 5 - Mounting clamp detail.

Option 4E  
Redundant Off / Alarm Activation  
Wiring Diagram

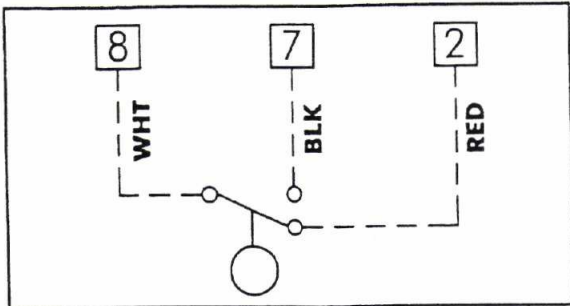


FIGURE 7 -

3 wire float (spdt) to gain low level alarm

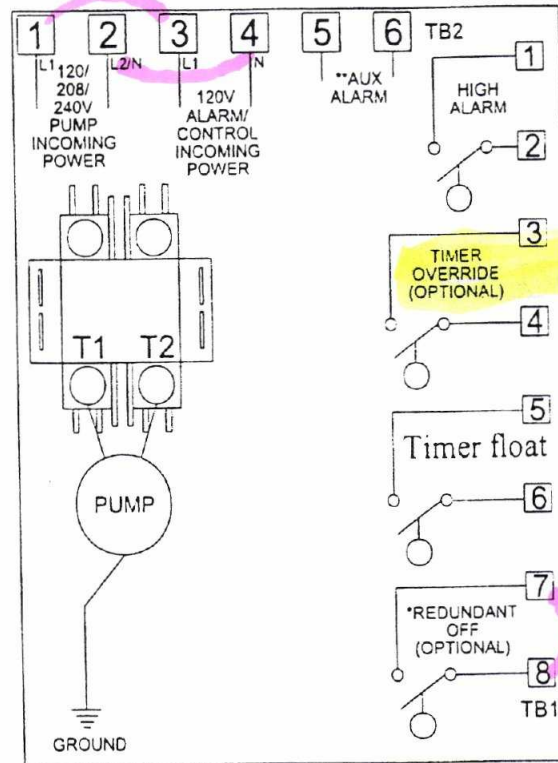


FIGURE 6 -  
TD wiring diagram

→ Demand dose  
or low level cut out  
Jumper wire if no float

## Setting the timer

Remove the timer by clipping the tie strap and pulling it straight out of the socket.

1. Determine the pump "on & off" time and turn the adjustment screw (1) so that the most appropriate range of numbers (usable for both the on and off cycles) is visible in the windows on the dial face.
2. Adjust the off time range selector (2) to the appropriate period (e.g.: minutes).
3. Adjust the outer dial (3) so the green pointer indicates the off time period required. (e.g.: 15)
4. Adjust the on timer range selector (4) to the appropriate period (e.g.: minutes).
5. Adjust the inner dial (5) so the red pointer indicates the on time period required. (e.g.: 5)
6. When setting is complete, place the timer back in the socket.
7. In the example shown, the pump would be off for 15 minutes and then on for 5 minutes. This cycle would continue as long as there was enough liquid in the tank to float the low level cutoff switch.

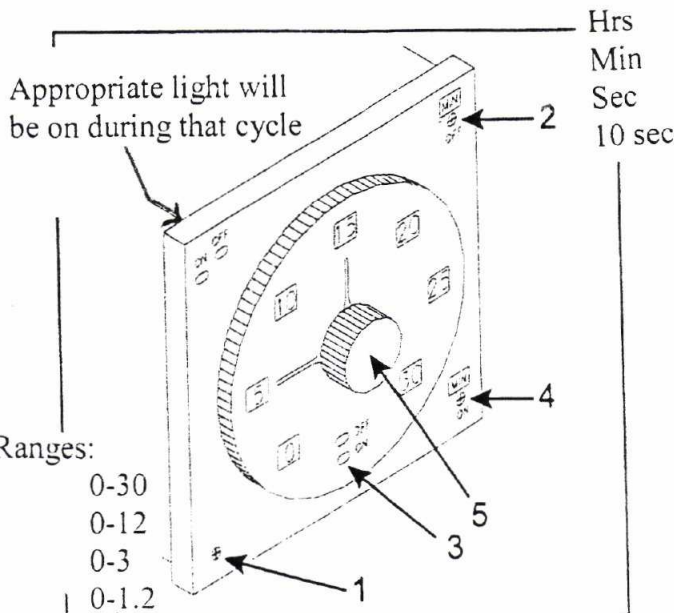


FIGURE 8 - Timer detail

NOTE: "OFF" time is cycled first.

# IFS 1/2

\* ON cycle completes if float drops  
Timer over-ride = Demand dose

CONTROL PANELS

## INSTALLER FRIENDLY SERIES® - IFS Single Phase Simplex (Demand/TD)

Single phase, simplex demand dose or timed dose, float controlled system for pump control and system monitoring.

The IFS simplex control panel is designed to control one 120, 208, 240 VAC single phase pump in water and sewage installations.

The IFS control panel features an easy-to-use touch pad with display on the inner door for programming and system monitoring.

The panel configuration can be easily converted in the field to either a timed dose or demand dose.

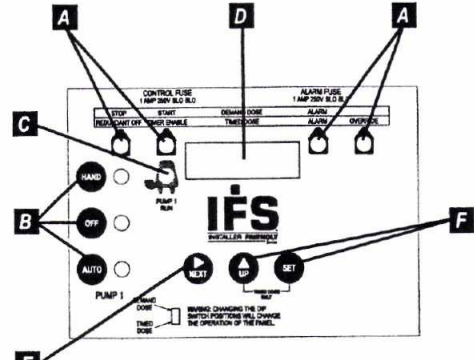
### TOUCH PAD FEATURES

- A. **Float Indicators** illuminate when floats are activated. Alarm will activate if a float operates out of sequence.
- B. **HOA (Hand-Off-Automatic) Buttons** control pump mode with indication. Hand mode defaults to Automatic when stop level or redundant off level is reached.
- C. **Pump Run Indicator** illuminates when pump is called to run.
- D. **LED Display** shows system information including: mode, pump elapsed time (hh:mm), events (cycles), alarm counter, float error count, timed dose override counter (timed dose only), and ON/OFF times (timed dose only).
- E. **NEXT Push Button** toggles display.
- F. **UP and SET Push Buttons** set pump ON/OFF times (timed dose only).

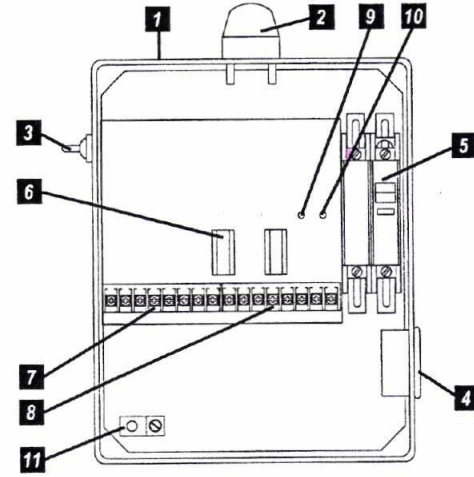
### PANEL COMPONENTS

1. **Enclosure base** measures 10 X 8 X 4 inches (25.4 X 20.32 X 10.16 cm). NEMA 4X (ultraviolet stabilized thermoplastic with removable mounting feet for outdoor or indoor use). **Note:** Options, voltage, and amp range selected may change enclosure size and component layout.
2. **Red Alarm Beacon** provides 360° visual check of alarm condition.
3. **Exterior Alarm Test/Normal/Silence Switch** allows horn and light to be tested and horn to be silenced in an alarm condition. Alarm automatically resets once alarm condition is cleared.
4. **Alarm Horn** provides audio warning of alarm condition (83 to 85 decibel rating).
5. **Circuit Breaker** (optional) provides pump disconnect and branch circuit protection.
6. **Power Relay** controls pump by switching electrical lines. Definite purpose contactor used when pump full load amps are above 15.
7. **Float Connection Terminal Block**
8. **Incoming Control/Alarm Power & Pump Terminal Block**
9. **Control Power Indicator/Fuse** indicator light illuminates if control power is present in panel. Alarm will activate if control fuse is blown.
10. **Alarm Power Indicator/Fuse** indicator light illuminates if alarm power is present in panel.
11. **Ground Lug**

**NOTE:** Schematic/Wiring Diagram and Pump Specification Label are located inside the panel on enclosure cover



Model Shown IFS11W114X8AC (Inner door view)



Model Shown IFS11W114X8AC (Inside view)

Reg. Cdn Pat. & TM Off

### FEATURES

- Entire control system (panel and switches) is UL Listed to meet and/or exceed industry safety standards
- Dual safety certification for the United States and Canada
- Standard package includes:
  - Demand Dose** - three 20' SJE MilliAmpMaster™ control switches
  - Timed Dose** - two 20' SJE MilliAmpMaster™ control switches
- Complete with step-by-step installation instructions
- Three-year limited warranty



# SJE Rhombus

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 www.sjerhombus.com

Floats: OR  
 HLA  
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> unusual switches

SEE INSIDE FOR COMPLETE LISTING OF AVAILABLE OPTIONS



## Operations

The Installer Friendly Series (IFS) control panel uses float switches to continuously monitor and control the liquid level in the tank.

**Hand Operation** - The stop/redundant off float must be raised to put panel in HAND operation. To override the stop/redundant off float, press and hold the HAND button. The pump runs until the HAND button is released. The panel then returns to the AUTO mode. If the stop/redundant off float is raised and the panel is placed in the HAND mode, and left in the HAND mode, the pump continues to run until the stop/redundant off float lowers. The panel then returns to the AUTO mode.

**Off Operation** - The panel is in the OFF mode.

**Auto Operation** - In time dose (t-dose) mode, when the panel is in the AUTO mode, the timer controls pump ON and OFF time as long as the low level float is raised. In demand (d-dose) mode, the stop and start floats control the pump.

**Alarm Count** - Shown on display as "AL-Ct", counts the number of times the alarm is activated. Note. Alarm counter does not include testing operations in the total count. High alarm and floats out of sequence add to count.

**Green Control and Alarm Power Indicators** - (mounted on interior circuit board) Illuminates when control power and alarm power is present. If the control fuse needs replacing, the panel sounds an alarm.

**Display** - Will turn off after one minute of non-use.

**Float Indicators** - Illuminates if the float is raised. If the float is out of sequence, the panel goes into alarm mode and display shows "FE" float error.

**Timer Override Float** - Overrides the OFF time and pump will run for full dose ON time. (timed dose only, optional)

**Float Error Count** - Shown on the display as "FE-Ct". Counts the number of times floats are out of sequence.


**Timer Override Count** - Shown on the display as "tO-Ct". Counts the number of times the timer override float is activated. (timed dose only)


**Time left in "On" time cycle** - Shown on the display as "t-On". Counts down the time left in the "On" cycle. (timed dose only)


**Time left in "Off" time cycle** - Shown on the display as "t-Off". Counts down the time left in the "Off" cycle. (timed dose only)


### Viewing Panel Settings


With control power supplied to panel:


Press  button. The display will show **t-dose** for timed dose applications, or **d-dose** for demand applications.


Press  button. The display will show **Et 1** count in *elapsed time* hh:mm.


Press  button. The display will show **CC 1** count. *Cycle counter*


Press  button. The display will show **Et 2** count (pump 2) in hh:mm. (duplex panels only) *Elapsed time #2*


Press  button. The display will show **CC 2** count (pump 2) (duplex panels only)


Press  button. The display will show **AL-Ct** alarm count. *Alarm count*

Press  button. The display will show **FE-Ct** float error count. *Float error count*

Press  button. The display will show **tO-Ct** timer override count. (timed dose mode only) *Timer override count*


Press  button, The display will flash **On**, then the ON time in hh:mm:ss. (timed dose mode only) *on setting*

Press  button. The display will flash **OFF**, then the OFF time in hh:mm:ss. (timed dose mode only) *off setting*

Press  button. The display will flash either **t-On** or t-Off, then the time left in the ON or OFF cycle. (timed dose mode only) *Time left on current cycle*

### Program Timer On & Off Times


With control power supplied to panel:


Press and hold  button for 3 seconds until **Prog** is displayed.


The display will flash **ON**, then the time in hh:mm:ss.



#### Setting pump ON (follow Section A)


Section A

Press  button to display time in hh:mm:ss.


Press  button until desired digit flashes


Press  button until desired time is achieved.

Repeat process pressing  and  buttons until desired time is reached.

Press  button to save.

#### Setting pump OFF times

Press  button. The display will flash OFF and show the OFF time in hh:mm:ss. Repeat the instructions in Section A to set OFF times.

Press and hold  button for 3 seconds until **run** is displayed.

Timer programming is complete.



1/4

\*ON Cycle completes if Timer Float Drops

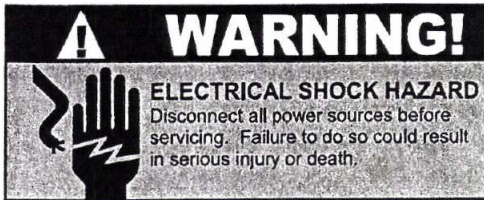
EZ Series™

Timer over-ride = Demand dose

# SJE-Rhombus® Type EZS

Timed or Demand Dose

## Installation Instructions and Operation/Troubleshooting Manual



This control panel must be installed and serviced by a licensed electrician in accordance with the National Electric Code NFPA-70, state and local electrical codes.

All conduit running from the sump or tank to the control panel must be sealed with conduit sealant to prevent moisture or gases from entering the panel. **NEMA 4X enclosures are for indoor or outdoor use**, primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water and hose-directed water. **Cable connectors must be liquid-tight in NEMA 4X enclosures.**

### Installation

The EZ Series™ Type EZS control panels are designed to control single phase pump(s). The controller records pump status, number of cycles, elapsed run time, alarm counter, and float error counts.

#### Mounting the Control Panel

**Note:** The control panel should not be mounted in a location that may be subject to submersion.

1. Determine mounting location for panel. If distance exceeds the length of either the float cables or the pump power cables, splicing will be required. For outdoor or wet installation, we recommend the use of an SJE-Rhombus® liquid-tight junction box with liquid-tight connectors to make required connections. **You must use conduit sealant to prevent moisture or gases from entering the panel.**
2. Mount control panel with mounting devices furnished.
3. Determine conduit entrance locations on control panel. Check local codes and schematic for the number of power circuits required. **(Float cables require separate conduit from power and pump cables.)**

**Note:** Be sure the proper power supply voltage, amperage, and phase meet the requirements of the pump motor(s) being installed. If in doubt, see the pump identification plate for voltage/phase requirements.

4. Drill proper size holes for type of connectors being used.

**Note:** If using conduit, be sure that it is of adequate size to pull the pump cable(s) through.

5. Attach cable connectors and/or conduit connectors to control panel.

**FOR INSTALLATION REQUIRING A SPLICE, FOLLOW STEPS 6-10; FOR INSTALLATION WITHOUT A SPLICE, GO TO STEP 11.**

6. Determine location for mounting junction box according to local code requirements. **Do not** mount the junction box inside the sump or basin.
7. Mount junction box to proper support.
8. Run conduit to junction box. Drill proper size holes for the type of conduit used.

Warranty void if panel is modified.

Call factory with servicing questions:

**1-800-RHOMBUS**

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# Installation Instructions

- Identify and label each wire before pulling through conduit into control panel and junction box. Make wire splice connections at junction box.
- Firmly tighten all fittings on junction box
- If a junction box is not required, pull cables through conduit into control panel.
- Connect pump wires per wiring diagram or schematic and float wires to the proper terminals as shown on the schematic.
- Connect pump, control, and alarm incoming power conductors to proper position on terminals. See schematic for terminal connections.

**VERIFY CORRECT OPERATION OF CONTROL PANEL AFTER INSTALLATION IS COMPLETE.**

## Installation of Floats

**CAUTION:** If control switch cables are not wired and mounted in the correct order, the pump system will not function properly. Control switches need to run in separate conduit from pump and power lines.

**WARNING:** Turn off all power before installing pump wires in pump chamber. Failure to do so could result in serious or fatal electrical shock.

- Determine your normal operating level and desired float configuration, as illustrated in **Figures 2-5**.
- Mount float switches at appropriate levels. Be sure that floats have free range of motion without touching each other or other equipment in the basin.
- For mounting clamp installation: place the cord into the clamp as shown in **Figure 1**. Locate the clamp at the desired activation level and secure the clamp to the discharge pipe as shown in **Figure 1**.

**NOTE:** Do not install cord under hose clamp.

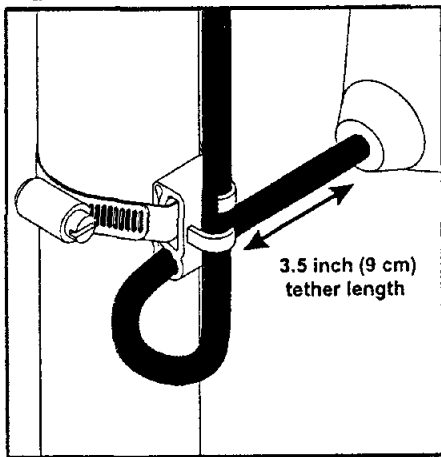
- Tighten the hose clamp using a screwdriver. Over tightening may result in damage to the plastic clamp. Make sure the float cable is not allowed to touch the excess hose clamp band during operation.

**NOTE:** All hose clamp components are made of 18-8 stainless steel material. See your SJE-Rhombus® supplier for replacements.

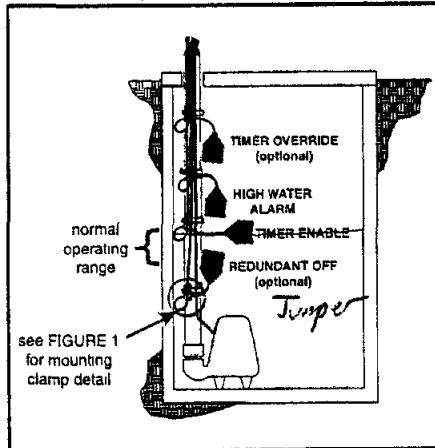
- If using an optional redundant off float, mount slightly below the timer enable float.
- The alarm float can be positioned anywhere that the alarm level is desired.

*Override will run till Timer ON is down*

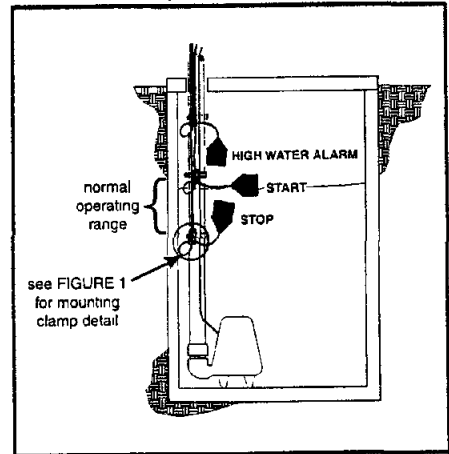
**Figure 1**



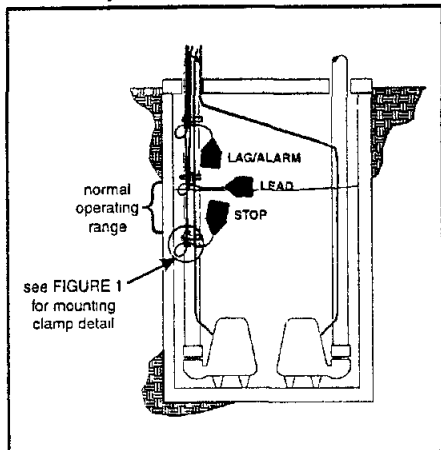
**Figure 2**  
Simplex Timed Dose



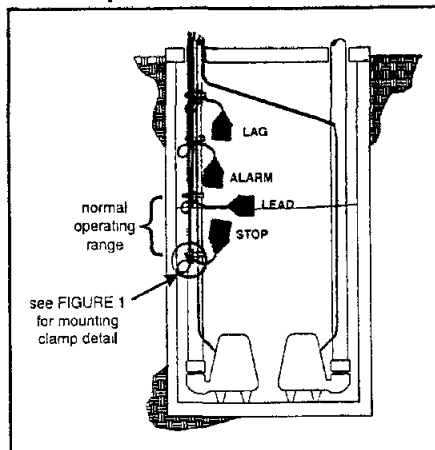
**Figure 3**  
Simplex Demand



**Figure 4**  
Duplex Demand 3 Float



**Figure 5**  
Duplex Demand 4 Float



# Operations

The EZ Series (EZS) control panel uses float switches to continuously monitor and control the liquid level in the tank.

**Hand Operation** - Press and hold the "Push to Run" switch if stop float is OPEN. If stop float is CLOSED, press "Push to Run" switch and the pump will run until stop float opens.

**Off Operation** - Turn control/alarm breaker off to be in Off operation.

**Auto Operation** - In time dose (t-dose) mode the timer controls pump ON and OFF time as long as the timer enable float is raised. In demand (d-dose) mode, the stop and start floats control the pump.

**Alarm Count** - Shown on display as **AL.Ct**, counts the number of times the alarm is activated. Note: Alarm counter does not include testing operations in the total count. High alarm and alarm power loss add to count.

**Green Control and Alarm Power Indicators** - Illuminates when control power and alarm power is present. Alarm light will flash if alarm power is lost.

**Timer Override Float** - Overrides the OFF time and pump will run for full dose ON time. (timed dose only, optional)

**Float Error Count** - Shown on the display as **FE.Ct**. Counts the number of times floats are out of sequence. Alarm horn will sound and alarm light will flash.

**Timer Override Count** - Shown on the display as **EO.Ct**. Counts the number of times the timer override float is activated. (timed dose only)

**Time left in "On" time cycle** - Shown on the display as **t-On**. Counts down the time left in the "On" cycle. (timed dose only)

**Time left in "Off" time cycle** - Shown on the display as **t-Off**. Counts down the time left in the "Off" cycle. (timed dose only)

**Green Pump Run Indicator(s)** - Illuminates when pump(s) are called to run.

## Panel Viewing Panel Settings (Simplex)

With control power supplied to panel:

Press **menu/enter** button to scroll to the desired display screen.

Float Status or Float Error - the display shows **FS** or **FE** then float status. **C=closed O=open** **CC00**

Elapsed Time Count - the display shows **ET.1** then alternates showing hours (hh) then minutes (:mm).

Cycle Count - the display shows **CC.1** then the count

High Level & Power Fail Alarms - the display shows **AL.Ct** then the count.

Float Error Count - the display shows **FE.Ct** then the count

Auxiliary Alarm Input Counts - the display shows **AL1** then the count.

## TIMED DOSE DISPLAY ONLY

Timer Override Count - the display shows **t.O.Ct** then the count.

ON Time - the display flashes **On** then the ON time in mm:ss.

Off Time - the display flashes **Off** then the Off time in hh:mm.

Remaining ON/OFF Times - the display flashes either **t-On** or **t-Off** then the time left in the On cycle (mm:ss) or OFF cycle (hh:mm).

## Programming Panel Setting (Simplex):

With control power supplied to panel:

Press **set/change** button for 3 seconds to enter program mode.

The display will show **ON** time in mm:ss.

Press set/change button to set the pump On time. Use the menu/enter button to select digit desired to change. Use the set/change button to change On time.

Press menu/enter button. The display will show **OFF** time in hh:mm.

Press set/change button to set the pump Off time. Use the menu/enter button to select digit desired to change. Use the set/change button to change Off time.

Note: Setting the **OFF** times to **00:00** turns off timed dose mode and timed dose menu items. The panel will operate in demand mode.

Press set/change button for 3 seconds to return to the view menu.

## Panel Viewing Panel Settings (Duplex)

With control power supplied to panel:

Press menu/enter button to scroll to the desired display screen.

Float Status or Float Error - the display shows **FS** or **FE** then float status. **C=closed O=open**

Pump 1 Elapsed Time Count - the display shows **ET.1** then alternates showing hours (hh) then minutes (:mm).

Pump 1 Cycle Count - the display shows **CC.1** then the count.

Pump 2 Elapsed Time Count - the display shows **ET.2** then alternates showing hours (hh) then minutes (:mm).

Pump 2 Cycle Count - the display shows **CC.2** then the count.



4/4

High Level & Power Fail Alarms - the display shows **ALCT** then the count.

Float Error Count - the display shows **FECT** then the count.

Auxiliary Alarm Input Counts - the display shows **AL1** then the count.

Lag Float Count - the display shows **L.A.Gc** then the count.

### Programming Panel Setting (Duplex)

With control power supplied to panel:

Press set/change button for 3 seconds to enter program mode.

The display will show **ALTY** then either **ALC**, **L-2** or **2-1**.

Press set/change button to set the desired pump sequence.

Press menu/enter button to display **3FLC** or **4FLC**.

Press set/change button to choose **3FLC** or **4FLC**.

Press menu/enter button.

Press set/change button for 3 seconds to return to the view menu.

## Troubleshooting

### Float Controls

1. Check the floats during their entire range of operation. Clean, adjust, replace and repair damaged floats.
2. Measure the float resistance to determine if the float is operating properly.

To measure float resistance:

- a. Isolate the float by disconnecting one or both of the float leads from the float terminals.
- b. Place one ohmmeter lead on one of the float wires, and the other ohmmeter lead on the other float wire.
- c. Set the ohmmeter dial to read ohms and place on the R X 1 scale. With the float in the "off" position, the scale should read infinity (high resistance), if not replace the float.

With the float in the "on" position, the scale should read close to zero, if not replace the float. **Readings may vary depending on the accuracy of the measuring device.**

### Alarm Light

With power on, hold the test/silence switch in the "test" position. The alarm light should turn on. If not, replace the bulb with that of the same type.

### Alarm Horn

With power on, hold the test/silence switch in the "test" position. The alarm horn should turn on. If not, replace the horn with that of the same type.

## SJE-Rhombus® Three-Year Limited Warranty

**SJE-RHOMBUS®** warrants to the original consumer that this product shall be free of manufacturing defects for three years after the date of consumer purchase. During that time period and subject to the conditions set forth below, **SJE-RHOMBUS®** will repair or replace, for the original consumer, any component which proves to be defective due to defective materials or workmanship of **SJE-RHOMBUS®**.

**ELECTRICAL WIRING AND SERVICING OF THIS PRODUCT MUST BE PERFORMED BY A LICENSED ELECTRICIAN.**

**THIS WARRANTY DOES NOT APPLY:** (A) to damage due to lightning or conditions beyond the control of **SJE-RHOMBUS®**, (B) to defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with printed instructions provided, (C) to failures resulting from abuse, misuse, accident, or negligence, (D) to units which are not installed in accordance with applicable local codes, ordinances, or accepted trade practices, and (E) to units repaired and/or modified without prior authorization from **SJE-RHOMBUS®**.

*Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.*

**TO OBTAIN WARRANTY SERVICE:** The consumer shall assume all responsibility and expense for removal, reinstallation, and freight. Any item to be repaired or replaced under this warranty must be returned to **SJE-RHOMBUS®**, or such place as designated by **SJE-RHOMBUS®**.

**ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS ARE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. SJE-RHOMBUS® SHALL NOT, IN ANY MANNER, BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES AS A RESULT OF A BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY.**

1/2

Timer over-ride = Timed setting

# ORENCO MVP Panel

Help → 800-348-9843

Page 1

Time dosing of a single pump

1st screen

```

Pump Cycl CT
  11
ETM (min)
  4
  
```

arrows

```

High Lvl CT
  11
Override CT
  4
  
```

arrows

```

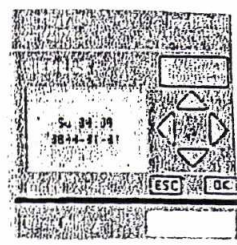
Low Level CT
  11
Timer Flt CT
  4
  
```

arrows

```

Power Faults
  11
Operating Hr
  4
  
```

arrows



arrows

Input screen

```

I:
0.. 123456789
  
```

- 1 = low level float
- 2 = timer float
- 3 = override float
- 4 = High level float
- 5 = push button is pressed

Output screen

```

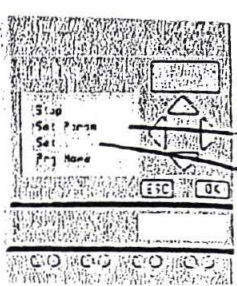
Q:
0.. 123456789
  
```

- 1 = pump
- 2 = alarm light
- 3 = alarm audible

Ignore other screens

"ESC" key

Down arrow, "OK"



- > Various timer settings
- > Date & time settings

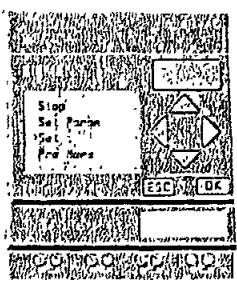
\* ON Time runs for minimum 30 sec factory setting if ON float drops

3/2

# ORENCO MVP Panel

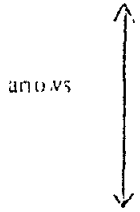
Set.. settings

Set Param settings



- Clock -
- Screen contrast -

- Hi level alarm delay
- Minimum override cycles
- Override ON time
- Override OFF time
- Pump ON time
- Pump Off time



"OK" key to allow setting adjustment  
 arrow keys to make setting changes  
 "OK" key again to accept new settings

up/down arrows to next desired setting. and repeat as prior

"ESC" to return to previous sub-menu

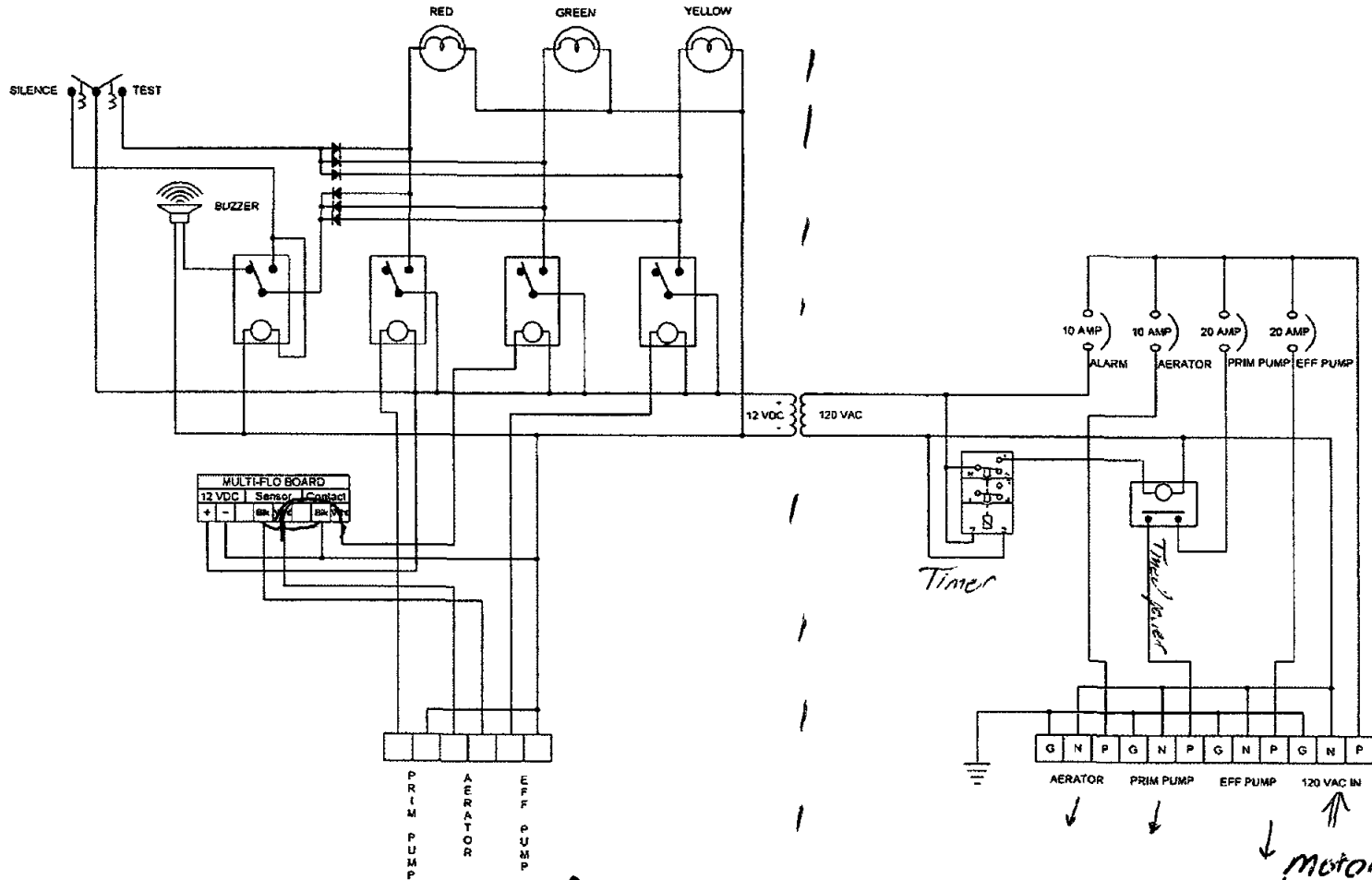
Notes:  
 Push button on front of panel will silence audible alarm.  
 Small black cylinder on bottom of panel is audible alarm, pull wire to disconnect if necessary.  
 Red external alarm light -> flashing = Low level alarm  
 Red external alarm light -> steady = High level alarm  
 If you do not use a low level alarm float, make sure to install a "jumper" at the panel connection

timer format 01:55h = 1 hour and 55 minutes  
 01:55m = 1 minute and 55 seconds  
 01:55s = 1 55 seconds




12V Alarm side

120V power side



HLA Floats

motor rated Floats in series w/pump (piggy back)

				TITLE	
				4080D4B-MF	
SIZE	DATE CODE	DRG NO	REV		
A2		021407RW	2		

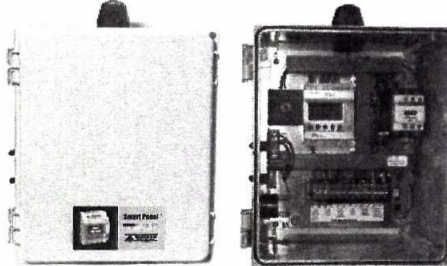
Multi-Flo Control panel

Timer over-ride = Timed setting

# Smart Panels™ - Timed Dose

## Leading Edge Design

Alderon's SMART PANELS™ use innovative programmable controllers that provide complete and accurate monitoring information useful for system designers, installers and maintenance personnel. The Smart Panels™ are easy to use and simple to install. Use Alderon's SMART PANELS™ when complete system monitoring and an affordable price is needed.



## Key Features

- Elapsed Time Meter**  
(Auto mode only)
- Pump Cycle Counter**  
(Auto mode only)
- Timer Override Cycle Counter**
- Alarm Cycle Counter**
- Programmable Timed Doses**  
(Independently adjust pump on and off times)
- Programmable Timer Override**  
(Programmable pump run time when timer override float activated)
- Automatic Simplex Mode**  
(By placing either HOA switch in the off position on a duplex panel)



## Flashing Alarm Indicator

### Basic Features

- Enclosure**  
Thermoplastic for NEMA 1/4X
- HOA Switch**  
Automatic or manual pump control
- Pump Run Indicator**
- Fused Control Disconnect**  
(Provides on/off function)
- Pump Alternation**  
(Duplex only)
- IEC Motor Contactor**
- Field Wiring Terminal Block**
- Terminal Block Field Wiring Label**
- Ground Lug**
- Mechanical Float Switches**  
Patented switching mechanism
- Float Switches Labeled**  
For easy field wiring
- Flashing Alarm Indicator**  
Top mounted beacon (NEMA 4X)  
Door mounted indicator (NEMA 1)
- Alarm Buzzer**  
Loud 100 db warble
- Auto Reset Silence Switch**  
Horn silence
- 3-Year Warranty**
- Industrial Control Panel**  
(UL 508A)



## Timed Dosing Panels

### SINGLE PHASE SIMPLEX Timed Dosing, 2-20 ft Control Switches Included (Add "X" for No Floats)

Pump Volts	Pump Amps	NEMA 4X (Outdoor Enclosure)		NEMA 1 (Indoor Enclosure)	
		With Circuit Breaker	Without Circuit Breaker	With Circuit Breaker	Without Circuit Breaker
120	0-15 FLA	1100	1103	1106	1109
120	16-20 FLA	1101	1104	1107	1110
120	21-30 FLA	1102	1105	1108	1111
120/230	0-15 FLA	1115	1118	1121	1124
120/230	16-20 FLA	1116	1119	1122	1125
120/230	21-30 FLA	1117	1120	1123	1126

### SINGLE PHASE DUPLEX Timed Dosing, 2-20 ft Control Switches Included (Add "X" for No Floats)

Pump Volts	Pump Amps	NEMA 4X (Outdoor Enclosure)		NEMA 1 (Indoor Enclosure)	
		With Circuit Breaker	Without Circuit Breaker	With Circuit Breaker	Without Circuit Breaker
120	0-15 FLA	1300	1303	1306	1309
120	16-20 FLA	1301	1304	1307	1310
120	21-30 FLA	1302	1305	1308	1311
120/230	0-15 FLA	1315	1318	1321	1324
120/230	16-20 FLA	1316	1319	1322	1325
120/230	21-30 FLA	1317	1320	1323	1326

Ordering grid example →

## ORDERING EXAMPLE

Single phase duplex timed dosing panel for pumps 21-30 Amps, 230 VAC, NEMA 4X enclosure, no circuit breakers = Part Number 1320. For no floats = Part Number 1320X

Add Option Codes as required (see back).



Leading Edge Control Products

Alarm Systems

Control Panels

Float Switches

Leak Detection Systems

# Miniature PLC Control Smart Panels™ - Timed Dose

## TIMED DOSING CONTROL PANELS

### SINGLE PHASE TRIPLEX 3-20 ft Control Switches Included (Add "X" for No Floats)

NEMA 4X (Outdoor Enclosure)

Pump Amps	Pump Volts	With Circuit Breaker
0-15 FLA	120	1328
16-20 FLA	120	1329
21-30 FLA	120	1330
0-15 FLA	120/230	1331
16-20 FLA	120/230	1332
21-30 FLA	120/230	1333

### SINGLE PHASE TSDS - TIMED DOSE SIMPLEX & DEMAND SIMPLEX

NEMA 4X (Outdoor Enclosure)

Pump Amps	Pump Volts	With Circuit Breaker
0-15 FLA	120	1335
16-20 FLA	120	1336
21-30 FLA	120	1337
0-15 FLA	120/230	1338
16-20 FLA	120/230	1339
21-30 FLA	120/230	1340

*pretreatment  
2 pump applications*

The Single Phase TSDS control panel includes one time dosing control and one demand pump control. The Time dose control includes two floats, low cut out and high water. Timer override and Redundant off floats are optional. The demand control utilizes two floats. Wide Angle on/off float and a high water alarm float. The high water alarm float in the demand system disables time dose control. The control panel will monitor pump hours and pump starts for each pump.

*Timer ON*

## Key Features

**Elapsed Time Meter**  
(Auto mode only)

**Pump Cycle Counter**  
(Auto mode only)

**Alarm Cycle Counter**

**Lag Delay Timer**  
(Duplex only)

**Automatic Simplex Mode**  
(By placing either HOA switch in the off position on a duplex panel)

**Flashing Alarm Indicator**

### Basic Features

**Enclosure**  
Thermoplastic for NEMA 1/4X

**HOA Switch**  
Automatic or manual pump control

**Pump Run Indicator**

**Fused Control Disconnect**  
(Provides on/off function)

**Pump Alternation**  
(Duplex only)

**IEC Motor Contactor**

**Multi-Tap Transformer**  
(Three phase only)

**Motor Protective Switch**  
(Three phase only)

**Field Wiring Terminal Block**

**Terminal Block Field**  
Wiring label

**Ground Lug**

**Mechanical Float Switches**  
Patented switching mechanism

**Float Switches Labeled**  
For easy field wiring

**Flashing Alarm Indicator**  
Top mounted beacon (NEMA 4X)  
Door mounted indicator (NEMA 1)

**Alarm Buzzer**  
Loud 100 db warble

**Auto Reset Silence Switch**  
Horn silence

**3-Year Warranty**

**Industrial Control Panel**  
(UL 508A)

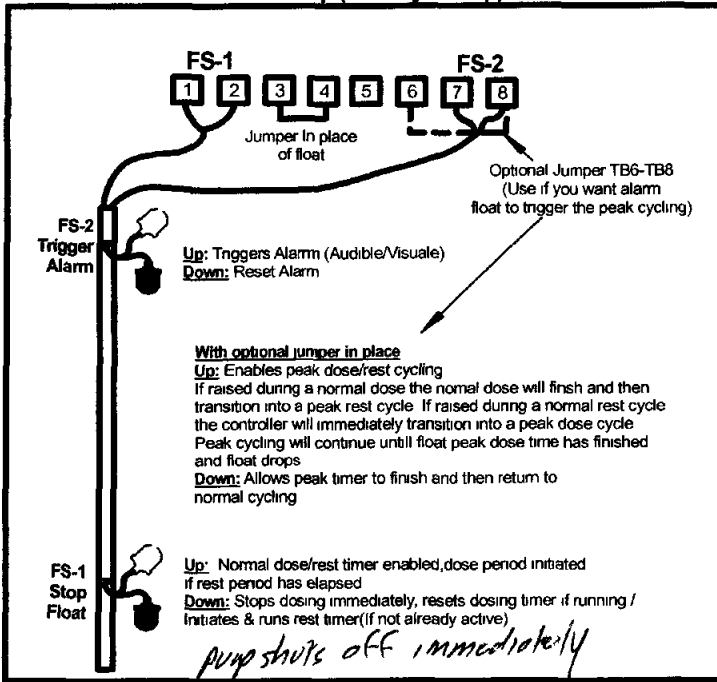


Leading Edge Control Products

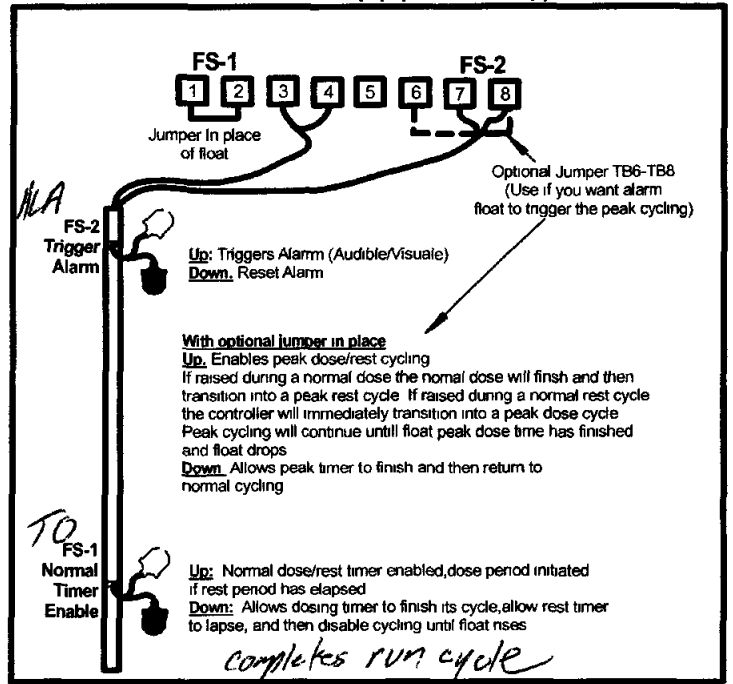
L1064-Rev.B



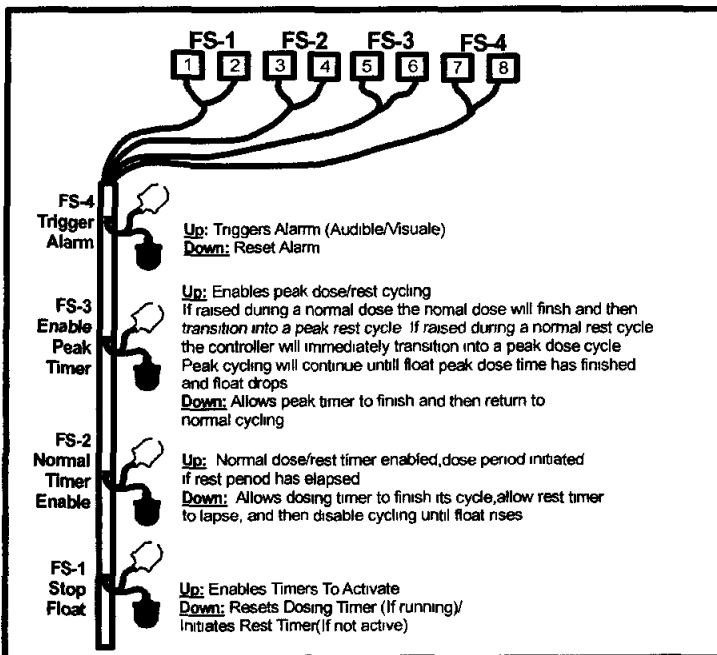
**Diagram#1**  
2 Float Set-up (Factory Set-up)



**Diagram#2**  
2 Float Set-up (Optional Set-up)



**Diagram#3**  
4 Float Set-up



The difference between float set-ups in diagram#1 and diagram#2 is how the pump is shut off after the low float drops. In diagram#1 when the low float drops the pump shuts down immediately. In diagram#2 when the low float drops the dosing cycle is allowed to finish. In either case a jumper wire must be used in place of the unused float. If using all four floats, as shown in diagram#3, the dosing time will be allowed to finish when FS2 drops and FS1 will act as a redundant off. If you choose to, you may place a jumper wire from TB6 to TB8 thereby allowing the alarm float to act as a peak cycle float. ⇒ *HLA activates OR TIMER*

The rest timer will reset any time any time a pump is placed into hand mode. The rest period will have to lapse before a dose period will occur with the exception of a peak float closure.

# Controller Display & Setting

4/5

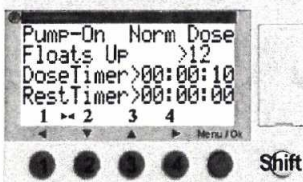
The controller has 4 main display screens. To scroll between screens press buttons 1 or 4. Follow the instructions below for adjusting timers.

## Main Display Screen Shots

Screen Shot#1



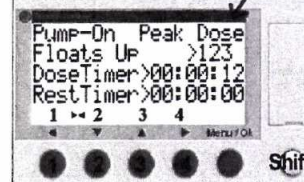
Screen Shot#2



Screen Shot#3



Screen Shot#4



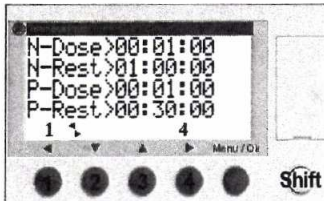
active cycle status

The screen shots above are of the main screen. This screen displays which floats are in the up position, pump running condition, timer values, and which cycle has been initiated. If the screen does not show a dose or rest cycle taking place the controller is either waiting for a float closure. When the screen shows a peak dose has been initiated and the timer value is not changing then the HOA switch need to be placed into auto mode in order to resume dosing.

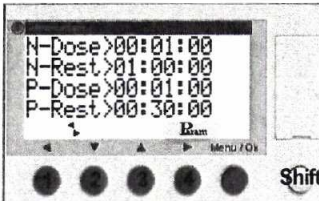
## Timer Settings Display Screen Shots

The timer setting screen below may be scrolled to by pressing either buttons 1 or 4. Caution! Timer values can be adjusted from 00:00:00 to 99:59:59 hours:minutes:seconds, however setting values to low may cause short cycles which may damage equipment. Ensure all timer settings of at least 10seconds.

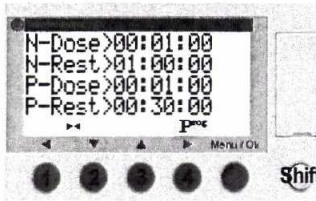
Screen Shot#5



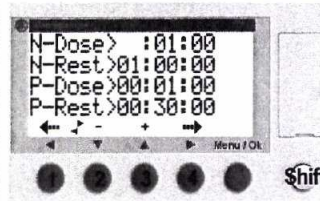
Screen Shot#6



Screen Shot#7



Screen Shot#8



Step1: Press & hold down the shift key. The word **Parm** should appear.

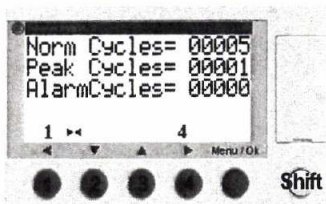
Step2: While holding down the shift key, press button 4 once then release the shift key. The word **Prog** should flash.

Step3: Use buttons 1 or 4 to scroll between settings and use buttons 2 or 3 to adjust the value of the setting. When finished adjusting timers to your specifications, press the Menu/Ok button to implement and save the values

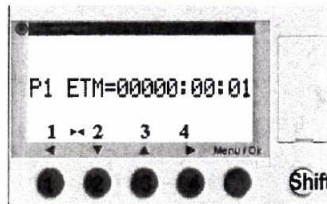
## History Display Screen Shots

The history screen shots may be scrolled to by pressing button 1 or 4. These values are resettable or will automatically roll over after a value greater than 32750. To reset the values on screen#9 press and hold buttons 2&3 for five seconds Note: this will reset all counters on the screen to zero. To reset the pump elapsed run timer in screen#10 press and hold buttons 2&3 for five seconds.

Screen Shot#9



Screen Shot#10



Smart IQ

RO Float Jumper  
Breaker-ON  
Toggle-ON

N- normal setting  
P- peak setting

enable programming  
buttons to move cursor  
buttons to change value

menu/ok to accept settings

see next page for current models

2017+ version

## Changing Controller Values

5/5

First, scroll to a **Value Screen** you want to change by pressing the (A) **button**, and then follow these next 4 steps. \*Note: Only blinking values While Highlighted can be changed.

**Step 1:** use the (+) or (-) **buttons** to move the blinking boxes over the value you want to change.

**Step 2:** Press (OK) **button** to select the value, the boxes should disappear and the value should now flash.

**Step 3:** Use the (+) or (-) **buttons** to adjust the value.

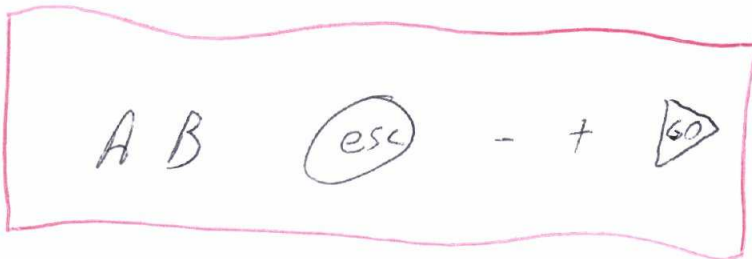
**Step 4:** Press the (OK) **button** to save the change.

**Repeat steps 1-4** until each value is set to your satisfaction you now can return to the home screen by pressing (ESC) **button**, or by advancing with the (A) **button**.

Also verify Time Dosing is enabled on that screen

Timed = 0  
Demand = 1

new  
p/c



power + pump wiring connections have no NEUTRAL Terminal, you have to piggy back wires - dumb



# Controller Display

The controller has 18 display screens. To scroll between the screens press the A or B buttons.

(ESC) Button always goes back to the main screen

(B) Button goes back to previous screen

This screen shows the pump total lapsed time and the total pump cycles

This screen shows the total high and low level alarms

This screen allows you to change time off/on setting for a normal dose condition when FS2 is activated

*Timer Float*

This screen allows you to change override time off/on setting for a peak dose condition when FS3 is activated

*override Float*

This screen allows you to allow you to set how long you want to controller to stay in override once the FS3 is activated

This screen shows the total cycle counts for override and time cycles

This screen allows you to change the high level alarm delay when FS4 is activated \*for time dose mode only

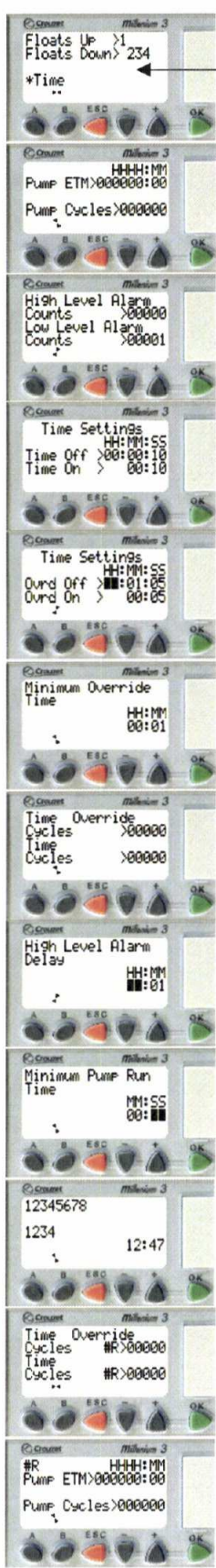
*High level Float*

This screen allows you to change the minimum pump run time when FS3 is activated \*for demand dose mode only

This screen shows the input and outputs that are on or off. Top 1-8 are inputs, bottom 1-4 are outputs

This screen shows the pump total elapsed time and pump cycles \*#R indicates the values on the screen can be reset by holding the silence button for 10 seconds

This screen shows the total of override and normal time cycles \*#R indicates the values on the screen can be reset by holding the silence button for 10 seconds



Main Screen

This screen shows the total high and low alarms \*#R indicates the values on the screen can be reset by pressing and holding the silence button for 10 seconds



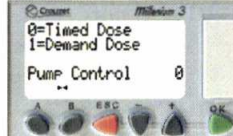
This screen shows the totals for power loss faults and hours the unit has been in service



This screen shows the totals for power loss faults and hours the unit has been in service \*#R indicates the values on the screen can be reset by pressing and holding the silence button for 10 seconds



This screen allows you to change the controller from time dose to demand dose.



This screen displays the date and time of when the last high level alarm occurred.



This screen allows you to enable or disable the low level alarm, It also lets you enable a time of day you don't want to pump to run. (See parameter menu) for clock settings. Press and hold (-) button for low alarm enable/disable. Press and hold (+) button



### Setting the Adjustable Timers / Count Values

To adjust the timer or count values follow steps 1-5.

Step 1: Scroll to screen #3 by pressing button (A).

Step 2: Use the (+) or (-) buttons to move the blinking boxes over the value you want to change.

Step 3: Press the (OK) button

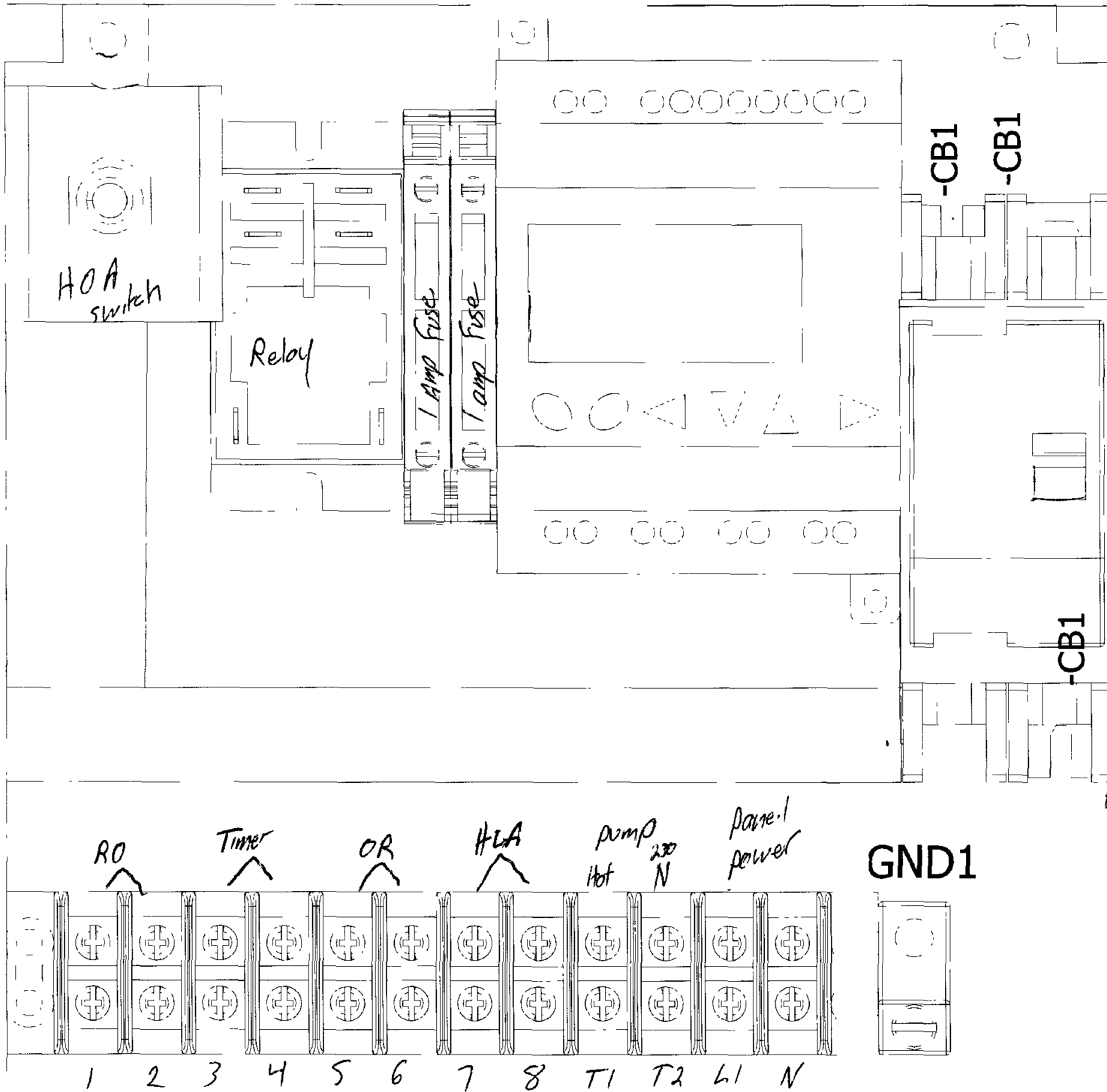
Step 4: Use the (+) or (-) buttons to adjust the value.

Step 5: Press the (OK) button to save the change.

Step 6: Press the (ESC) button to return back to the home screen.

# PLC1

# Enclosure legend



Device tag	Descr
DIN1	Din Rail, Steel, Low
FU1	Block, Terminal, Fuse, SE
FU2	Block, Terminal, Fuse, SE
WD1	Duct, Wire, 0.5" x 1.5", W
PLC1	Relay, Smart, Czt, 8/4, 12
BP1	10x8 Mounting Panel Wid
PR1	Relay, SE, Power, 2P NO,
DIN2	Din Rail, Steel, Low
TBS1	Block, Terminal, 12P, 15A
.1	Bracket, Switch, 1 Hole
SW1	100133 Switch, Toggle, S
GND1	Lug, Ground
CB1	Circuit Breaker, SQD, 2P
CB1	Circuit Breaker, SqD, M B
CB1	Circuit Breaker, SqD, M B

*A Incoming pump power connections ?*

*L1  
L2/N*



# Power Post™ Control Panel

Pump Connection Center | Timed or Demand Dose, Integrated Alarm  
 15 Amp, 120/240VAC | PPCP Series (Models: PPRS-0001 and PPRS-0002)  
 Alderon Industries™ | Patent Pending



## QUICK START GUIDE

*Need pass code  
 To set → see 3.0*

03/20/2022 Rev06\_PPCP\_Power Post Control Panel July 7, 2021 3:21 PM

*Timer override = Timed dosing 1/5*

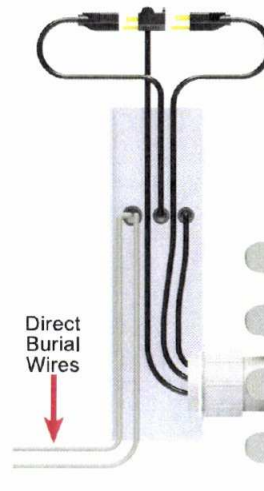
## Safety Guidelines



# WARNING

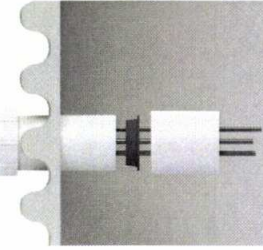
Before proceeding with the installation or operation of this product, read all instructions thoroughly, as well as complying with all federal, state and local codes, regulations, and practices. This product must be installed by qualified personnel familiar with all applicable local electrical and mechanical 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.

## Step 1: Install Post



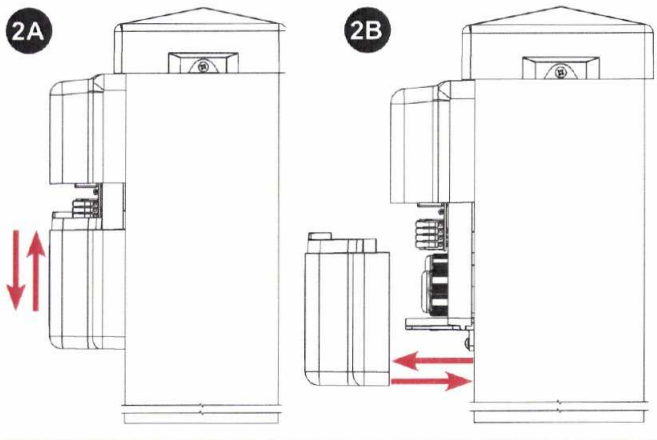
Determine location for the post in the ground near a tank and drill access holes for the float switch cables using the customer supplied conduit/fittings or Alderon's riser connection kit. Route the cables through access holes and wire as described in step 5. Run the direct burial power wires underneath the bottom of the post as shown in the diagram.

Note: Seal all conduits to prevent moisture and gases from entering the post per local codes.



## Step 2: Remove / Install Bottom Cover

Remove the bottom enclosure cover screw, slide directly downward until the sound chamber is cleared (2A) and pull directly away (2B). To install, line up the bottom enclosure cover with the grooves (2B), then slide directly upward (2A) until it meets the top of the enclosure so the screw hole is lined up and replace the screw at the bottom of the enclosure.



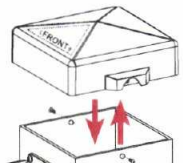
## Step 3: Remove / Install Post Cap

Remove Post Cap:

- 1) Remove Screws and Lift Cap Upwards

Install Post Cap:

- 1) Position text FRONT (with arrows) Forward
- 3) Align Fastener Holes
- 4) Fasten Screws to Secure Cap to Post



## Step 4: Installing Wire into WAGO

Before making wire connections and terminations, carefully read this step for proper functions of both types of WAGO connectors.

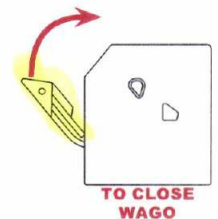
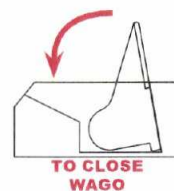
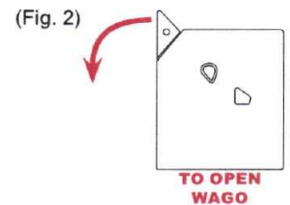
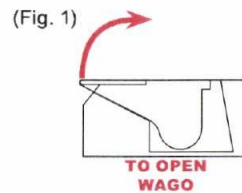
**WARNING:** Improper use of the connectors will cause damage, DO NOT use mechanical tools to open or close, hand usage only.

### Wire Termination - Splice Connector WAGO (Fig. 1):

- 1) Lift tab(s) upward.
- 2) Insert wire(s) into slot.
- 3) Press tab(s) downward.
- 4) Make sure wire(s) are secured.

### Wire Connection - Quick Snap Terminal WAGO (Fig. 2):

- 1) Press tab(s) outward. **DO NOT open past 40° angle**
- 2) Insert wire(s) into slot.
- 3) Press tab(s) inward.
- 4) Make sure wire(s) are secured.



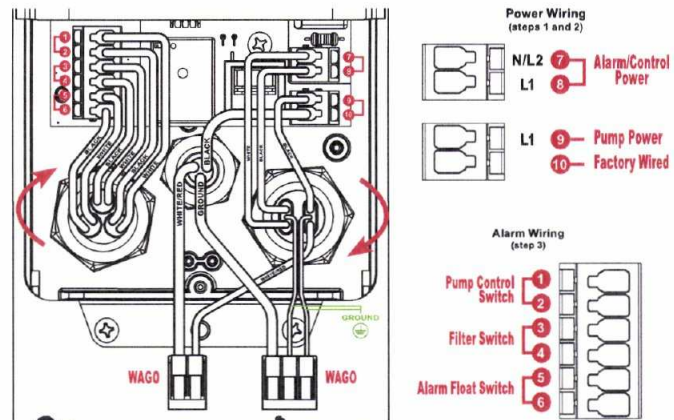


# Step 5: Wiring and Piggyback Plug Connections

The wiring diagram shows 10 terminals on the quick snap terminal blocks that consists of five pairs of connections. Make sure to read and review the connector examples on page 7 for proper installation prior to wiring.

Note: The quick snap terminal blocks, are herein referred to as "terminal" for instruction purposes. The installation example shown is for 120VAC, for 240VAC installation the neutral (N) wire would be replaced by line connection (L2) and white wire would include a red band to indicate the wire is hot.

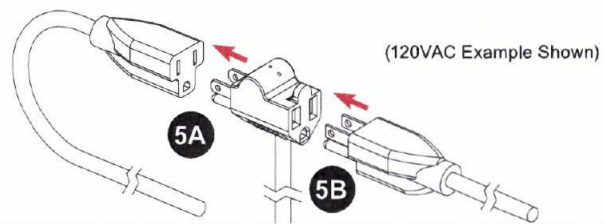
- 1) The first cable grip, starting at the right, has a cable grip divider allowing for two power sources to be brought into the enclosure. The right side of the cable grip is used for the pump power (attached in series). The line wire is connected to terminal 9 and neutral wire is terminated by the two-position Wago connector. The left side of the cable grip is used for the alarm/control power, which is connected to terminals 7 and 8. Terminal 7 is the neutral (N) connection and terminal 8 is the line connection (L1). The pump and alarm/control power ground wires are terminated using the three-position Wago connector. After bringing in the cables, firmly tighten the cable grip by twisting clockwise until securely fastened.
- 2) The female receptacle comes pre-installed in the middle cable grip. The line wire is connected to terminal 10, neutral wire is terminated by the two-position Wago connector, and ground wire is terminated by the three-position Wago connector.
- 3) The third cable grip has cable grip dividers allowing for three sensor connections. The pump control float switch is connected to terminals 1 and 2. The filter switch is connected to terminals 3 and 4. The high level alarm float switch is connected to terminals 5 and 6. After bringing in the cables, firmly tighten the cable grip by twisting clockwise until securely fastened.
- 4) NEVER leave ground wire(s) exposed, use provided Wago connector for wire termination.



*Bigger view on next page*

### OPTIONAL PIGGYBACK PLUG CONNECTIONS

- 1) Plug the male end of the piggyback plug on the in-line pump switch power cable into the pre-installed female power receptacle inside the post (5A).
- 2) Plug the male end of the pump power cable into the female end of the piggyback plug on the in-line pump switch power cable (5B) from #1.



# Step 6: Testing and Backfill

Make sure all steps of the installation and wiring process is completed and there is power to the product.

### 1) TEST ALARM LEDs and BUZZER

Press the test/silence pushbutton, lifetime pump run event counter statistic should display, then alarm LEDs should illuminate while cycling between red, green, blue, and off. The OLED screen should display a TESTING (COLOR) event for respective LEDs after event statistic is displayed. Last, the buzzer should annunciate and OLED screen should display a TESTING BUZZER event.

### 2) TEST ALARM FLOAT SWITCH

Activate the alarm float switch, the red LEDs should illuminate, flashing and the buzzer should annunciate. The OLED screen should display a HIGH LEVEL ALARM event.

### 3) TEST ALARM SILENCE

Press the test/silence pushbutton on the front of the enclosure while the alarm float switch is activated. The red LEDs should keep flashing and the buzzer should silence.

### 4) TEST FILTER SWITCH

Activate the filter switch, the amber LEDs should illuminate, flashing and the buzzer should annunciate. The OLED screen should display a FILTER ALARM event.

### 5) TEST PUMP AND CONTROL/IN-LINE PUMP FLOAT SWITCH

Make sure the tank has water to perform the testing. Activate the control/in-line pump float switch, the blue LEDs should illuminate and the OLED screen should display a PUMP RUN event and the pump amps are displayed.

### 6) RECOMMENDED SYSTEM SETTINGS

Alderon™ recommends changing the factory settings for: high amp level, extended pump run time, and gallons per minute.

### 7) TEST WEEKLY

To ensure the product is functioning properly, test once a week.

**BACKFILL:** After installation and testing, backfill with dirt/soil.

# Menu System - Main Menu

### MAIN MENU - System Normal

From SYSTEM NORMAL screen, press the MENU button to access main menu and HAND/OFF AUTO will appear. Pressing MENU button from a blank screen will also access the main menu.



### 1.0 | MAIN MENU - HOA Pump Mode

From HAND/OFF AUTO screen, press right arrow key for menu to view system override options. Press down arrow key to the RESETBLE HISTORY screen.



*Hold menu to run*

### 2.0 | MAIN MENU - Resettable History

From the RESETBLE HISTORY screen, press right arrow key for menu. Press down arrow key to the SETTINGS screen.



### 3.0 | MAIN MENU - Settings

From the SETTINGS screen, press right arrow key for menu to enter password and program system settings. Press down arrow key to the LIFETIME HISTORY screen.



### 4.0 | MAIN MENU - Lifetime History

From the LIFETIME HISTORY screen, press right arrow key for menu. Press down arrow key to the MODEL / FIRMWARE screen.



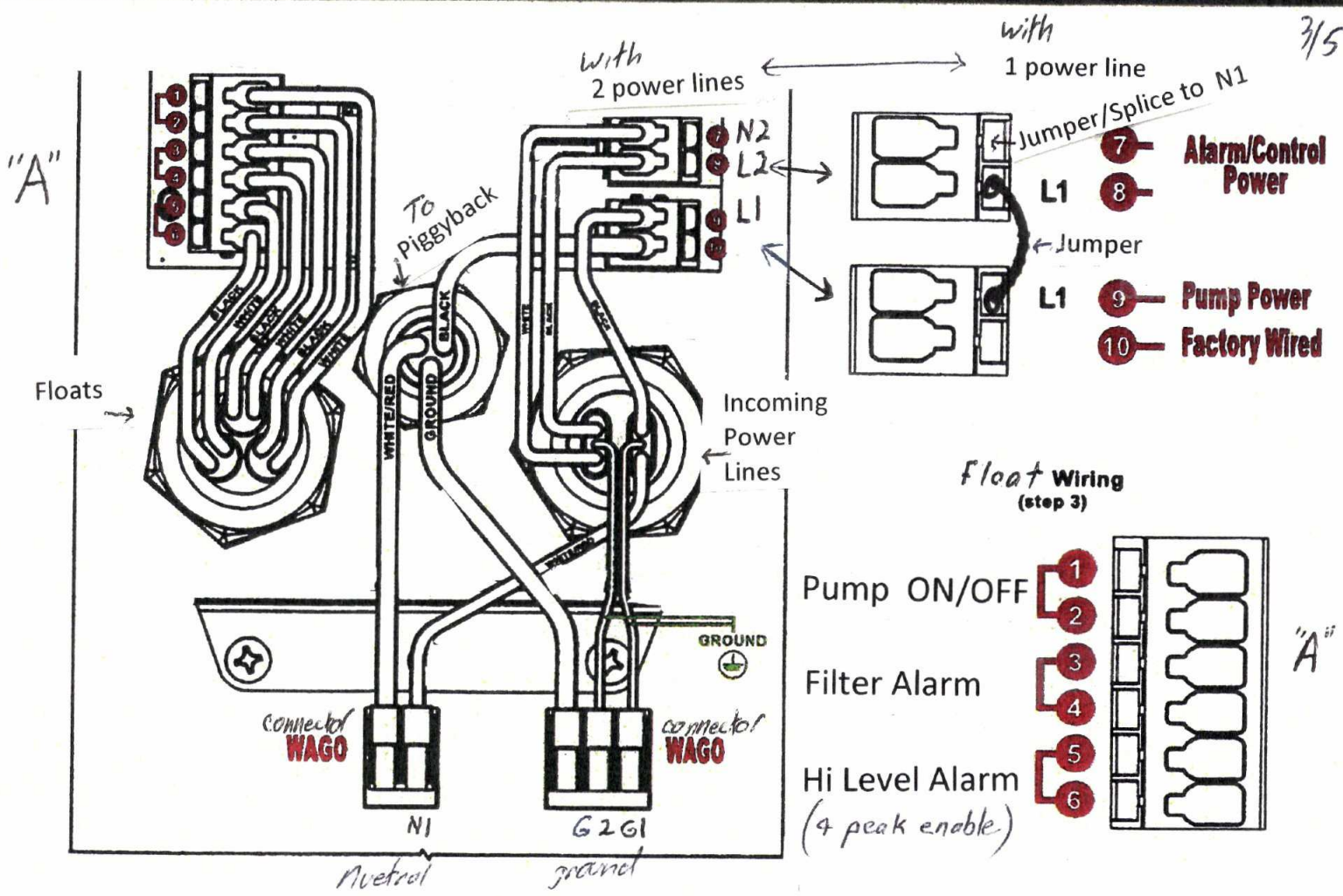
### 5.0 | MAIN MENU - Model/Firmware

From the MODEL/FIRMWARE screen, press down arrow key to bring you back to the HAND/OFF AUTO screen.



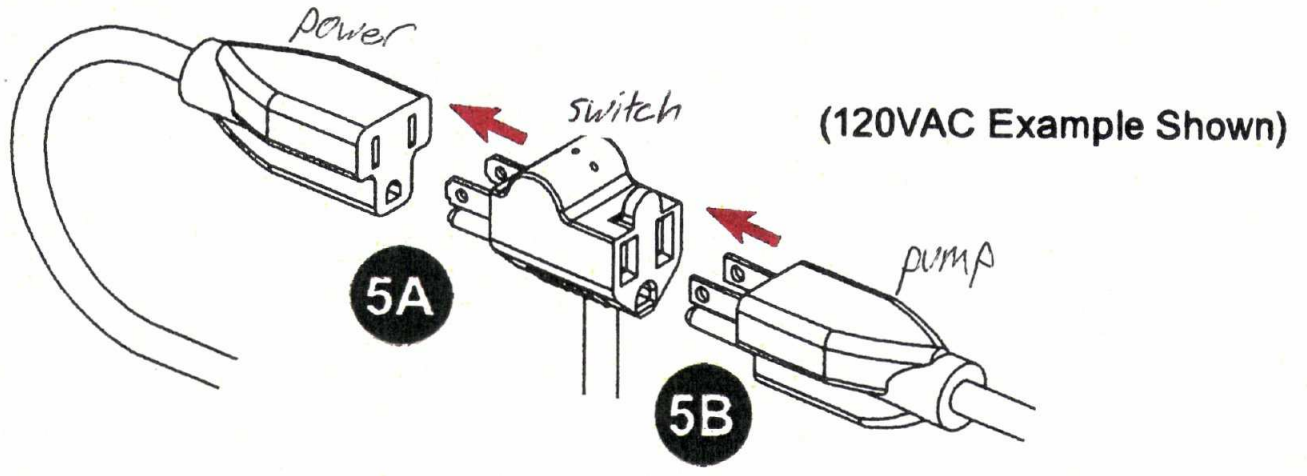
Note: The down arrow key will cycle through the menu options until a specific option is selected using the right arrow key.





**OPTIONAL PIGGYBACK PLUG CONNECTIONS** *and follow menu setting 3.9*

- 1) Plug the male end of the piggyback plug on the in-line pump switch power cable into the pre-installed female power receptacle inside the post (5A).
- 2) Plug the male end of the pump power cable into the female end of the piggyback plug on the in-line pump switch power cable (5B) from #1.





## 2.0 | Main Menu - Resettable History

From the **RESETTABLE HISTORY** screen, press right arrow key to access the menu for event statistics and then press down arrow key for the available events within this menu.

- 2.1 Pump Run Stats
- 2.2 Extended Pump Run Stats
- 2.3 High Amp Stats
- 2.4 Pump Float Stats
- 2.5 Relay Stats
- 2.6 Dose On Stats\*
- 2.7 Peak On Stats\*
- 2.8 High Level Alarm Stats
- 2.9 Filter Alarm Stats
- 2.10 Pump Fail Stats
- 2.11 Relay Fail Stats
- 2.12 System Fail Stats\*\*
- 2.13 Power Loss Stats

Press right arrow key for the individual stats of each event type listed above and data stored in the system. Each resettable history event stat has a clear history function. The non-volatile memory allows all settings and statistics to be retained during power outages.

Note: The down arrow key will cycle through all the resettable history menu options until a specific option is selected using the right arrow key as displayed on the screen. Press the left arrow key to exit from any screen. Press the test/silence pushbutton to exit the menu system.

(\*) Indicates Timed Dosing only  
 (\*\*) Indicates Demand Dosing only



## 3.0 | Main Menu - Settings Part I

Right arrow key from SETTINGS screen for menu, down arrow key to scroll.

- 3.1 Password (factory set to 1919)
  - i. Password 0000 will appear on the screen
  - ii. Up or down arrow, increase/decrease selected digit
  - iii. Right arrow, moves cursor to the right (blinking)
  - iv. Press MENU to accept password; press left arrow to exit
  - vi. Incorrect entry will exit user to the settings menu

Note: To change password, use up/down arrows until password screen reappears, then enter numeric values between 0000-9999, press MENU to save.

- 3.2 Normal LED Setting (factory set to LED On)
  - i. Normally LED Off?, press MENU to turn LED off
  - ii. Normally LED On?, press MENU to turn LED on
- 3.3 Pump Run LED Setting (factory set to LED On)
  - i. Pump Run LED Off?, press MENU to turn LED off
  - ii. Pump Run LED On?, press MENU to turn LED on
- 3.4 Silence Time Setting (factory set to 24 hours)
  - i. The current setting will appear on the screen
  - ii. Up or down arrow, increase/decrease selected digit
  - iii. Right arrow, moves cursor to the right (blinking)
  - iv. Press MENU to save changes; press left arrow to exit
- 3.5 Extended Pump Run Time Setting (factory set to 30 minutes)
  - i. The current setting will appear on the screen
  - ii. Up or down arrow, increase/decrease selected digit
  - iii. Right arrow, moves cursor to the right (blinking)
  - iv. Press MENU to save changes; press left arrow to exit
- 3.6 High Amp Level Setting (factory set to 15 Amps)
  - i. The current setting will appear on the screen
  - ii. Up or down arrow, increase/decrease selected digit
  - iii. Right arrow, moves cursor to the right (blinking)
  - iv. Press MENU to save changes; press left arrow to exit
- 3.7 Gallons Per Minute Setting (factory set to Zero) - *no statistics displayed*
  - i. The current setting will appear on the screen
  - ii. Up or down arrow, increase/decrease selected digit
  - iii. Right arrow, moves cursor to the right (blinking)
  - iv. Press MENU to save changes; press left arrow to exit

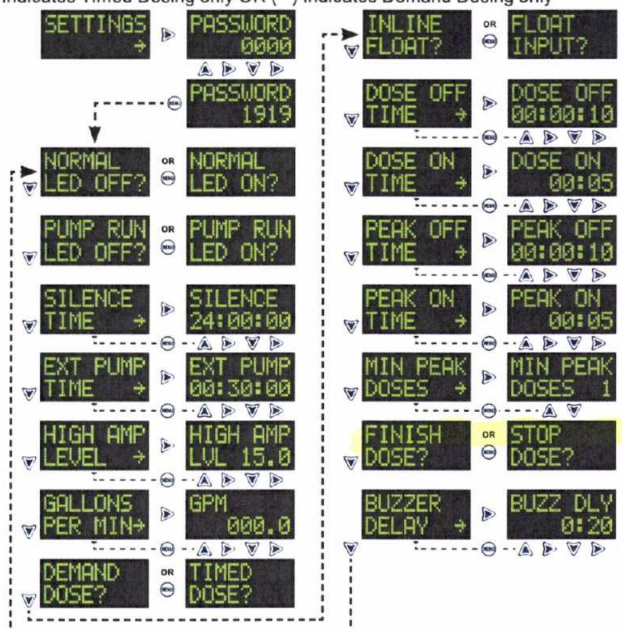
## 3.0 | Main Menu - Settings Part II

Right arrow key from SETTINGS screen for menu, down arrow key to scroll.

- 3.8 Dose Setting (factory set to Timed Dosing)
  - i. Demand Dose?, press MENU for Demand Dose
  - ii. Timed Dose?, press MENU for Timed Dose
- 3.9 Float Setting\*\* (factory set to Float Input) - *at terminals 1-2*
  - i. In-line Float?, press MENU for In-line Float
  - ii. Float Input?, press MENU for Float Input
- 3.10 Dose Off Time Setting\* (factory set to 10 seconds)
  - i. The current setting will appear on the screen
  - ii. Up or down arrow, increase/decrease selected digit
  - iii. Right arrow, moves cursor to the right (blinking)
  - iv. Press MENU to save changes; press left arrow to exit
- 3.11 Dose On Time Setting\* (factory set to 5 seconds)
  - i. The current setting will appear on the screen
  - ii. Up or down arrow, increase/decrease selected digit
  - iii. Right arrow, moves cursor to the right (blinking)
  - iv. Press MENU to save changes; press left arrow to exit
- 3.12 Peak Off Time Setting\* (factory set to 10 seconds)
  - i. The current setting will appear on the screen
  - ii. Up or down arrow, increase/decrease selected digit
  - iii. Right arrow, moves cursor to the right (blinking)
  - iv. Press MENU to save changes; press left arrow to exit
- 3.13 Peak On Time Setting\* (factory set to 5 seconds)
  - i. The current setting will appear on the screen
  - ii. Up or down arrow, increase/decrease selected digit
  - iii. Right arrow, moves cursor to the right (blinking)
  - iv. Press MENU to save changes; press left arrow to exit
- 3.14 Minimum Peak Dose Cycles Setting\* (factory set to 1)
  - i. The current setting will appear on the screen
  - ii. Up or down arrow, increase/decrease selected digit
  - iii. Right arrow, moves cursor to the right (blinking)
  - iv. Press MENU to save changes; press left arrow to exit

- 3.15 End Dose Setting\* (factory set to Stop Dose)
  - i. Finish Dose?, press MENU for Finish Dose
  - ii. Stop Dose?, press MENU for Stop Dose
- 3.16 Buzzer Delay\* (factory set to 20 seconds)
  - i. The current setting will appear on the screen
  - ii. Up or down arrow, increase/decrease selected digit
  - iii. Right arrow, moves cursor to the right (blinking)
  - iv. Press MENU to save changes; press left arrow to exit

(\*) Indicates Timed Dosing only OR (\*\*) Indicates Demand Dosing only



**CAUTION:** Alderon™ recommends changing factory settings to customize the system per application for desired operation.



*non-resettable*

### 4.0 | Main Menu - Lifetime History

From the LIFETIME HISTORY screen, press right arrow key to access the menu for event statistics and then press down arrow key for the available events within this menu.

- 4.1 Pump Run Stats
- 4.2 Extended Pump Run Stats
- 4.3 High Amp Stats
- 4.4 Pump Float Stats
- 4.5 Relay Stats
- 4.6 Dose On Stats\*
- 4.7 Peak On Stats\*
- 4.8 High Level Alarm Stats
- 4.9 Filter Alarm Stats
- 4.10 Pump Fail Stats
- 4.11 Relay Fail Stats
- 4.12 System Fail Stats\*\*
- 4.13 Power Loss Stats

Press right arrow key for the individual stats of each event type listed above and data stored in the system. The lifetime statistics are non-resettable and are displayed in Title Case format for visual separation from the resettable statistics, which are displayed in UPPERCASE format. The non-volatile memory allows all settings and statistics to be retained during power outages.

Note: The down arrow key will cycle through all the lifetime history menu options until a specific option is selected using the right arrow key as displayed on the screen. Press the left arrow key to exit from any screen. Press the test/silence pushbutton to exit the menu system.

(\*) Indicates Timed Dosing only  
 (\*\*) Indicates Demand Dosing only



### Included with Product

- (1) Power Post™; junction box and cable grips pre-installed on post
- (1) Pre-installed, female, 15A, pump power receptacle (120VAC or 240VAC, voltage depends on model/part number)
- (2) Wago connectors

### Customer Support

**Online**  
 alderonind.com

**Email**  
 info@alderonind.com



**QR Code**  
 Scan code for full product details

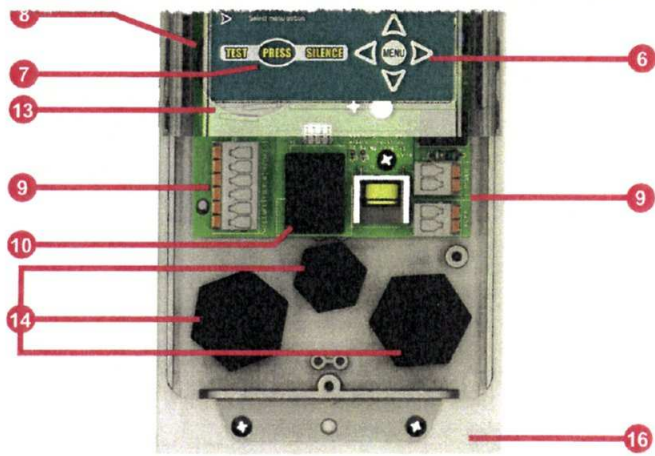
### Specifications

- Pump Power:** 120VAC or 240VAC, 15A, 60Hz (voltage depends on model/part number)
- Alarm Power:** 120VAC, 60Hz (240VAC available, consult factory)
- Power Consumption:** 14 Watts maximum (alarm condition)
- Certifications:** FCC Part 15 (US/Canada), CSA (US/Canada)
- Enclosure:** Outdoor, rated Type 3R

**FCC Part 15:** NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: increase the separation between the equipment and receiver, connect the equipment into an outlet on a circuit different from that to which the receiver is connected, consult the dealer or an experienced radio/TV technician for help. Caution: changes / modifications not approved by Alderon Industries could void the user's authority to operate the equipment.

### Power Post™ Control Panel | Timed or Demand Dose - System Functions and Event Displays

ENCLOSURE LED INDICATOR	SYSTEM FUNCTION DISPLAYED TEXT	DESCRIPTION OF SYSTEM FUNCTION
Green Continuous	SYSTEM NORMAL	System is Normal
Blue Continuous	PUMP RUN or DOSE ON	Pump is Running Normal during Pump Run, Normal Dose On, and Peak Dose On Events
Red/Blue Alternating	EXT PUMP ALARM	Alarm - Pump is Running Continuously; Check Pump Float or Broken Pipe
Purple/Blue Alternating	HIGH AMP ALARM	Alarm - Pump is Drawing High Amps; Check Pump and Pump Blockages
Purple Flashing	PUMP FAILURE	Alarm - Pump is NOT Drawing Amps; Check Pump Float and Pump, Press Menu to Clear Fault
Purple/Red Alternating	PUMP FAILURE/HIGH LVL ALARM	Pump is NOT Drawing Amps/Tank if Full; Check Pump Float and Pump, Press Menu to Clear Fault
Red Flashing	HIGH LVL ALARM	Tank is at High Level; Check Pump Float and Pump
Amber Flashing	FILTER ALARM	Filter needs Cleaning; Check Effluent Filter
White/Cyan Alternating	FLOAT FAILURE	Pump Control Float is NOT Activated, High Level Float is Activated; Check Float Switches
Red Flashing	SYSTEM FAILURE	Extended Pump Run Event is Active for 20 Minutes or Length of Time Setting (whichever is greater)
White/Cyan Alternating	UI ERROR (event not displayed)	Faceplate or OLED Screen Not Connected to Circuit Board; Check Ribbon for Proper Connection



- 7 **Test/Silence Pushbutton** - Quick access to lifetime pump run event counter statistic, test or silence the alarm, or exit the menu system
- 8 **Alarm Buzzer** - Annunciates to indicate an alarm event
- 9 **Quick Snap Terminal Blocks** - Fast and easy connections for system wiring
- 10 **Control Relay** - Controls current through pump circuit and is removable, ideal for systems with high usage environments
- 11 **Vented Post Cap** - Allows airflow, prevents build up of gases/condensation inside post
- 12 **QR Code (not shown)** - Scan for additional product information (alderonind.com)
- 13 **Sound Chamber** - Maximum buzzer output, protects from water intrusion
- 14 **Cable Grips** - Pre-installed for easy installation
- 15 **Pump Power Receptacle (not shown)** - Pre-installed, female, 15A, available in either 120VAC or 240VAC (voltage depends on model/part number)
- 16 **Post** - Provides wire routing access for system power, pump power, float switch, and sensor cables while protecting from water intrusion

### Model Number Nomenclature

**PPCP1315A2**

1 2 3 4 5 6

- 1 Base Model (Power Post™ Control Panel)
- 2 Pump Voltage (120VAC Pump)
- 3 Alarm Options (15' Alarm Float, 15' Filter Switch)
- 4 Pump Control Float Options (15' Wide Angle)
- 5 In-Line Pump Switch Options (15A, 15' Wide Angle)
- 6 Riser Kit Options (2.5" Riser Connection Kit)

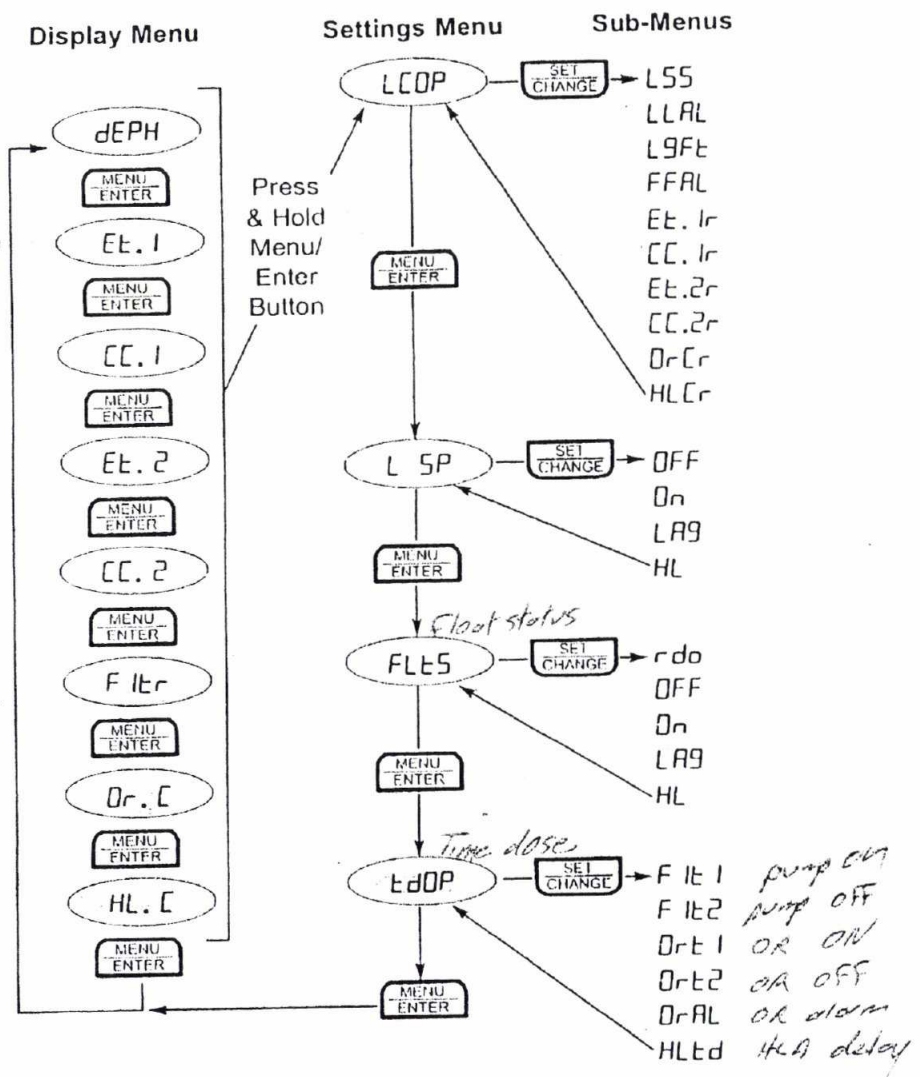
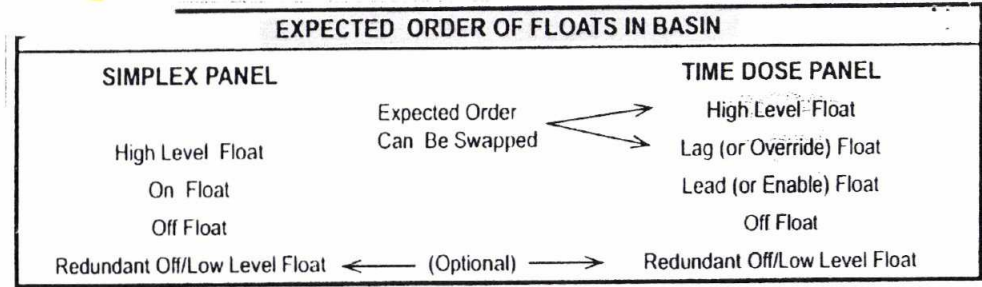


Timer over-ride = Timed setting

1/2

# Septronics<sup>®</sup>, Inc.

## Complete Menu Structure



Code	Setting Description	Display	Comments
dEPH			Pressure Panels Only
			Press Menu/Enter to access next menu field
Et. #	Elapsed Time, # is Pump Number 1 or 2	Total Elapsed Run Time on Corresponding Pump	Max Time: 9999 Hrs. Press Set/Change button to alternate Hours, Minutes, Seconds
			Press Menu/Enter to access next menu field
CC. #	Cycle Counter, # is Pump Number 1 or 2	No. of Cycles on Corresponding Pump	Max Value: 9999
			Press Menu/Enter to access next menu field
F ltr	Field 1 Timer	Counts down time remaining in current cycle. Counts "Pump(s) On Time" in MM:SS. Counts "Pump(s) Off Time" in HH:MM	Time Dose Panels Only
			Press Menu/Enter to access next menu field
LP. C	Lag Pump Counter	Counts Lag Pump Run	Duplex Panel Only (Max. Value: 9999)
Dr. C	Override Counter	Counts System Overrides	Time Dose Panel Only (Max Value: 9999)
			Press Menu/Enter to access next menu field
HL. C	High Level Counter	Counts number of times system reached High Level Point	Max. Value: 9999
			Press Menu/Enter to access next menu field

# LCOP

3/2

# tdOP

Code	Setting Description	Display	Comments	Options
L55	Lead Pump Selection (Duplex Panels Only)	Alternates "L55" and Current Value	Press Set/Change button to select options	0 = Alternate Lead Pumps* 1 = Pump 1 Always Leads 2 = Pump 2 Always Leads
Press Menu/Enter to access next menu field				
LLAL	Low Level Alarm	Alternates "LLAL" and Current Value	Press Set/Change button to select options	0 = Low Level Alarm Off* 1 = Flash Alarm Light Only 2 = Flash Alarm Light & Sound Audible
Press Menu/Enter to access next menu field				
4FLT	3 or 4 Float System (Duplex Panels Only)	Alternates "LLAL" and Current Value	Press Set/Change button to select options	0 = 3 Float System 1 = 4 Float System
Press Menu/Enter to access next menu field				
OrFt	On Float/Override Float Order (Time Dose Only)	Alternates "L9Ft" and Current Value	Press Set/Change button to select options	0 = Lag Float Hung Below High Level Float* 1 = High Level Float is Hung Below Lag Float
Press Menu/Enter to access next menu field				
FFAL	Float Failure Alarm	Alternates "FFAL" and Current Value	Press Set/Change button to select options	0 = Float Failure Alarm Off* 1 = Flash Alarm Light Only 2 = Flash Alarm Light & Sound Audible
Press Menu/Enter to access next menu field				
Et-1r	Elapsed Time Pump 1 Reset	Alternates "Et-1r" and "0"	Press Set/Change button to select options	0 = Do Not Reset Pump 1 Elapsed Time 1 = Reset Pump 1 Elapsed Time to 0
Press Menu/Enter to access next menu field				
CC-1r	Cycle count Pump 1 Reset	Alternates "CC-1r" and "0"	Press Set/Change button to select options	0 = Do Not Reset Pump 1 Cycle Count 1 = Reset Pump 1 Cycle Count to 0
Press Menu/Enter to access next menu field				
Et-2r	Elapsed Time Pump 2 Reset	Alternates "Et-2r" and "0"	Press Set/Change button to select options	0 = Do Not Reset Pump 2 Elapsed Time 1 = Reset Pump 2 Elapsed Time to 0
Press Menu/Enter to access next menu field				
CC-2r	Cycle Count Pump 2 Reset	Alternates "CC-2r" and "0"	Press Set/Change button to select options	0 = Do Not Reset Pump 2 Cycle Count 1 = Reset Pump 2 Cycle Count to 0
Press Menu/Enter to access next menu field				
Or-Cr	Override Count Reset (Time Dose Only)	Alternates "LPCr" and "0"	Press Set/Change button to select options	0 = Do Not Reset Pump Counter 1 = Reset Pump Counter to 0
Press Menu/Enter to access next menu field				
HLCr	High Level Count Reset	Alternates "HLCr" and "0"	Press Set/Change button to select options	0 = Do Not Reset High Level Counter 1 = Reset High Level Counter to 0

Code	Setting Description	Display	Comments	Options
Fit1	Field 1 Time 1 (Pump Enable Time)	Alternates "Fit1" and Current Value [Minutes Seconds]	Press Set/Change button to select time [Default 05:00]	Set from 00 00 to 99 59 (Press Menu/Enter to move between the time fields)
Note: Pump will be enabled to run once level reaches the "On" setpoint. If level reaches the "Pump Off" setpoint before time expires, Pump Disable time automatically begins.				
Press Menu/Enter to access next menu field				
Fit2	Field 1 Time 2 (Pump Disable Time)	Alternates "Fit2" and Current Value [Hours Minutes]	Press Set/Change button to select time [Default 01 00]	Set from 00 00 to 99 59 (Press Menu/Enter to move between the time fields)
Note: Amount of time designated between "Pump Run" cycles. If the level reaches the override (Lag) setpoint, the pump will run - regardless of "Pump Disable" time. To Disable Time Dose operation, set field to "00 00"				
Press Menu/Enter to access next menu field				
Ort1	"Override Pump On" Time (Time pump runs when override setpoint is reached)	Alternates "Ort1" and Current Value [Minutes Seconds]	Press Set/Change button to select time [Default: 05 00]	Set from 00 00 to 99 59 (Press Menu/Enter to move between the time fields) Set field to "00 00" to Disable
Press Menu/Enter to access next menu field				
Ort2	"Override Pump Off" Time (Time pump waits after override cycle)	Alternates "Ort2" and Current Value [Hours Minutes]	Press Set/Change button to select time	Set from 00 00 to 99 59 (Press Menu/Enter to move between the time fields) Set field to "00 00" to Disable
Press Menu/Enter to access next menu field				
OrAL	Override Alarm Turns on during Override Pump Cycle- Clears when "Override Off" time is complete	Alternates "OrAL" and Current Value	[Indicates to end user to reduce water usage] Press Set/Change button to change field	0 = Override Alarm Off (Default) 1 = Flash Alarm Light Only 2 = Flash Alarm Light & Sound Audible
Press Menu/Enter to access next menu field				
HLtd	High Level Time Delay	Alternates "HLtd" and Current Value [Minutes:Seconds]	[Alarm delays to the "set" time. When fluid level exceeds High Level set point for the "set time" without interruption, the alarm sounds.] Press Set/Change button to select time	Set from 00 00 to 99 59 (Press Menu/Enter to move between the time fields) [Default 00 00]
Press Menu/Enter to access next menu field				

Pump ON

Pump OFF

Or ON

Or OFF

Or 1 or 2

HLtd Delay



## CHOICE SEPTRONICS (CS) PANELS

Engineered so you can make a better choice when you consider a Panel for your next Panel Project

### SIMPLEX • DUPLEX FLOAT SYSTEM SPECIFICATIONS

- Voltage: 120 VAC/230 VAC
  - Duplex: Includes Alternator & Lag Pump Delay
  - Audible Alarm: "Touch to Silence/Test" Circuitry
  - Flashing Red Alarm LED's
  - Maximum Pump Section Voltage:
    - 2 HP • 115V • 24 FLA
    - 5 HP • 230V • 28 FLA
  - Voltage to Floats: 120V AC
  - Voltage to Pump Relays: 12V DC
  - Auxiliary Alarm Contact Rating: 5 amp 120V AC
  - Controller Temperature Range:
    - 40°F (-40°C) to +185°F (+85°C)
  - Humidity: 95% Non-condensing
  - Weight: 6.0 lbs.
- Enclosure:
    - 10.0" x 8.0" x 5.0" UL Type 4X
    - Hinged Door w/ Lockable Latch
  - Overall Dimensions:
    - 12.0" x 10.5" x 7.5" w/ Mounting Feet
  - Fuses: Thermal Fuse Limiting
    - Max Current when Shorted: • 3 A
    - Trip Current: 0.1 A
  - Indicator Lights
    - Control Power • Pump Run • Alarm Power
  - Terminal Torque Ratings:
    - Large: 35 inch lbs. • Small: 12 inch lbs.
  - Control Switches: 15' Cord • No Plug
  - cULus 508 Listed

INDUSTRIAL CONTROL EQUIPMENT



Patent # 7,075,443 B1 Other Patents Pending

**Septronics<sup>®</sup>, Inc.**

602 E. Union Street • Oconomowoc, WI 53066

# "Choice Septronics" Panel Users Manual

Simplex • Duplex • Timed Dosing • Float Systems

120V SIMPLEX  
with  
PEDESTAL OPTION



120V DUPLEX

**Septronics<sup>®</sup>, Inc.**

602 E. Union Street • Oconomowoc, WI 53066

Ph: 888.565.8908 • Fax: 262.567.9532 • Web: [www.septronicsinc.com](http://www.septronicsinc.com)



**WHY YOU WANT A "CHOICE SEPTRONICS" (CS) PANEL**

- Compact NEMA UL Type 4X Enclosures are attractive
- Watertight features are enhanced
  - Light domes are a molded portion of unit
  - Horn is audible from the interior of unit
- Decrease Liability
  - External Silence Pad so user can easily silence alarm
  - Locking Latch keeps live power confined to qualified personnel only
- LED's used instead of limited life bulbs
- Neat, clean hook-up inside panel
- Easy to set options with indicator LED's for many of the features available
- Greater value in a smaller unit with enhanced features
  - Elapsed Time Meter
  - Cycle Counter
  - Circuit Breakers
  - Durable Relays
  - Solid Terminal Strip
  - Flashing Red Alarm LED's on Unit Front
  - Pedestal Mount Optional

**PANEL FEATURES**

**Zero Crossing**

"Zero Crossing" reduces relay contact damage by managing high inrush modes. "Zero Crossing" engages the relay contacts near the point on the AC sine wave where the voltage crosses zero. This maximizes relay life when controlling inductive or capacitive loads, thus increasing the load capability of the relay.

**Audible Alarm Circuitry/ External Silence Pad**

- Test Audible Alarm by touching "Silence Pad" two times with your entire hand.
- Silence the Audible Alarm by touching your entire hand to the "Silence Pad".

**Hand Run Buttons**

"Push-to-Run" (HAND) buttons for the motor outputs are located on the circuit board below the power short indicators. The "HAND" pushbuttons toggle their respective outputs off and on each time they are engaged under normal operation. To protect the pumps should the sump go below the "Pump(s) Off" level, the HAND pushbuttons revert to momentary contact. They *must be held down* to maintain their respective output. This is a safety feature that keeps the pumps from running dry.

**Panel Features (continued)**

**Fuse Trip Indicators**

Control & Alarm Power Short (Blown Fuse) Lights are located to the left of the digital display. If a Control or Alarm Power overload occurs, an indicator lights up and the corresponding "Power Light" for that circuit on the front door will be "Off". This indicates that the "automatic reset" fuse(s) has been tripped. When the short (overload) is removed, the fuse automatically resets. Normal operation continues. If a "Power" light is off and a "Power Short" light is not lit, that circuit is NOT receiving power.

**Elapsed Time Meters**

Elapsed Time Meters are a standard feature.

- Cycle through display menu by pressing "MENU/ENTER" button.
- Elapsed Time is identified by "E t . 1" for Pump 1 and "E t . 2" for Pump 2 (Duplex Panel only).
- Once this field is reached, the information will alternate between identifier "E t . 1" or "E t . 2" and the total elapsed hour run time for that pump.
- Press SET/CHANGE button to view *minutes and seconds*.

**Cycle Counters**

Cycle Counters are a standard feature.

- Cycle through display menu by pressing "MENU/ENTER" button.
- Cycle Counts are identified by "CC . 1" for Pump 1 and "CC . 2" for Pump 2 (Duplex Panel only).
- Once this field is reached, the information will alternate between identifier "CC . 1" or "CC . 2" and the total number of cycles the corresponding pump has run.

**ALARMS • FLASH CODES**

ALARM	LED FLASH	Audible FLash	Other Indication
High Level	2 per second	2 per second	Aux. Contact Closed
Low Level	1 every 2 second	Chirp every second	X
Float Fail	2 every other second	2 every other second	Fail indicated in "FL t 5" menu
Timer Override	1 every 4 second	1 every 4 second	X
Alarm Power Fail	1 every 4 second	X	Power Short OFF Power Light OFF
Alarm Power Short	1 every 4 second	X	Power Short ON Power Light OFF
Control Power Short	1 every 4 second	2 every other second	Control Short ON Control Light OFF



**Panel Features (continued)**

**Auxiliary Contact Option**

This option is an unfused dry contact rated for 120V AC, 5 Amps maximum. If a panel has this option, it will include terminal blocks 17 & 18.

**Alternation and Lag Delay on Duplex Controllers**

Level settings are labeled LEAD and LAG because there is a built in alternator in the controller. The alternator cycles which pump is the "Lead Pump" after each "Pump Run" cycle, however, a "Permanent Lead Pump" can be assigned in the LCOP menu. The non-adjustable delay causes the "Lag Pump" to wait ten seconds before turning on after the "Lead Pump" has turned on. This is useful during a power outage when the liquid level may reach the "Lag Pump" setting. The "Lead Pump" will turn on when power is restored. The "Lag Pump" will turn on ten seconds later.

**Redundant Off/Low Level Float Option**

The "Redundant Off" float option reassures that the pump(s) will not run dry.

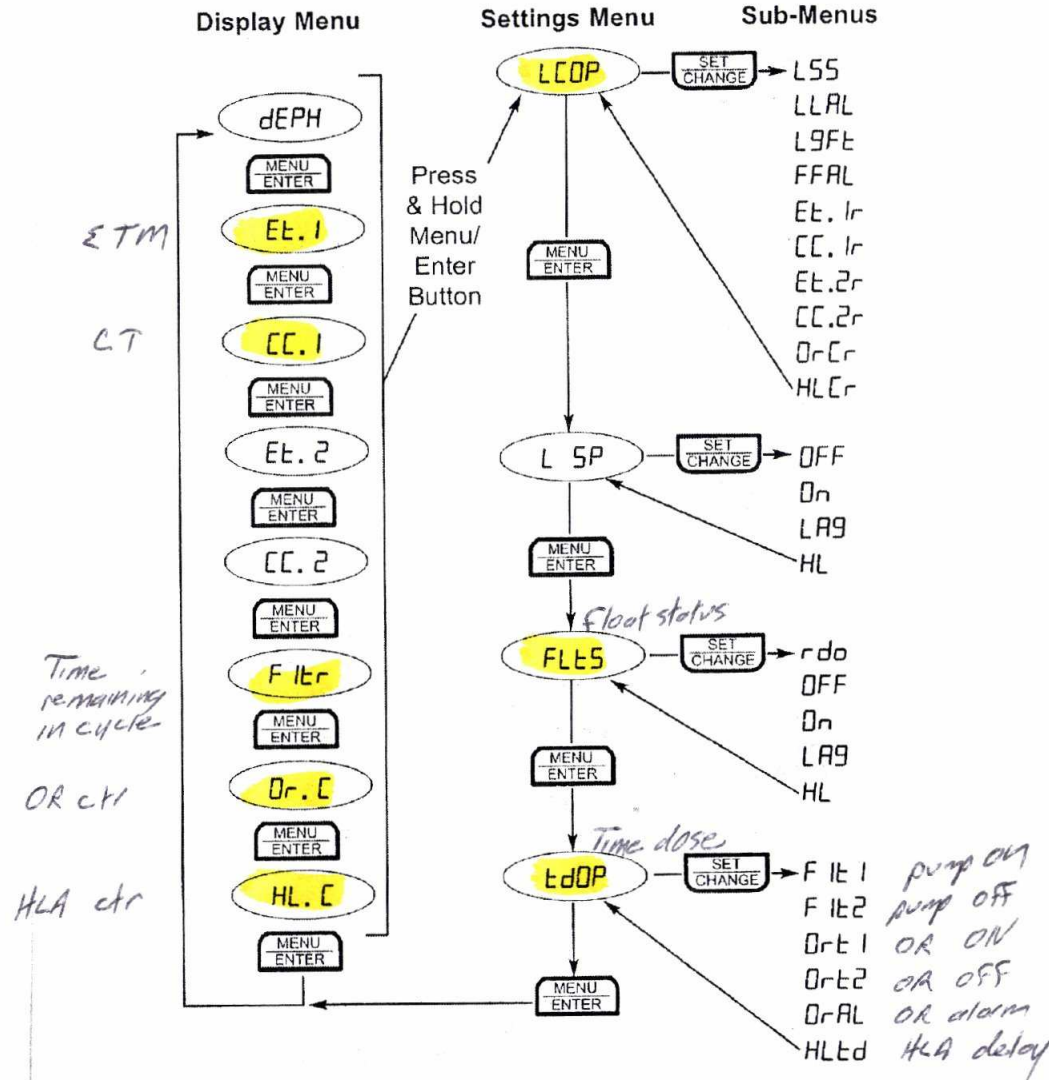
- Connect a Normally Open Float Switch to Terminals 7 & 8.  
When the float is in the open position the pumps will not be able to run except by using the HAND buttons in momentary contact mode.  
This will also trigger a "Low Level Alarm" if that program feature is enabled.
- If you do not use this feature, place a jumper wire across Terminals 7 & 8.

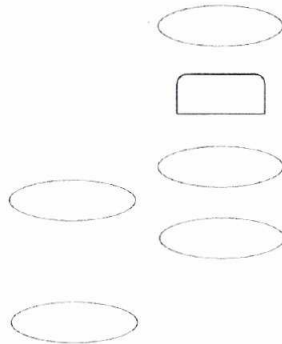
**Float Failure Routine**

This routine looks for a float to change its state from "Open" to "Closed" and assumes that a changing state indicates that the float is working. The routine then looks at the state of the other floats to see if they are "Open" or "Closed" as expected. If a float is not in the expected state, the routine marks that float as "FAILED". The failure of the float clears if its state changes or its power is cycled and the problem is corrected. The float failure can optionally cause an alarm (see Alarm/Flash Codes) and the "FFAL" menu setting for more details. On a Duplex Panel or Time Dose Panel, the expected order for the "High Level" float and the "Lag" or "Timer Override" float can be swapped. See "L9Ft" setting for a Duplex Panel or "DrFt" for a Time Dose Panel. Floats MUST be hung in the correct order in basin.

EXPECTED ORDER OF FLOATS IN BASIN	
<b>SIMPLEX PANEL</b>	<b>TIME DOSE PANEL</b>
High Level Float	High Level Float
On Float	Lag (or Override) Float
Off Float	Lead (or Enable) Float
Redundant Off/Low Level Float	Off Float
	Redundant Off/Low Level Float (Optional)

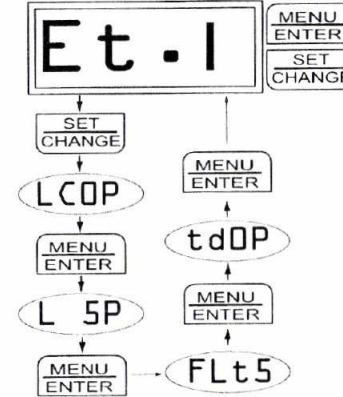
**Complete Menu Structure**





4/7

Enter Advanced Programming:  
Press Menu/Enter button to change between fields.



Code	Setting Description	Display	Comments
dEPH			Pressure Panels Only
Press Menu/Enter to access next menu field			
Et. #	Elapsed Time, # is Pump Number 1 or 2	Total Elapsed Run Time on Corresponding Pump	Max Time: 9999 Hrs. Press Set/Change button to alternate Hours., Minutes, Seconds
Press Menu/Enter to access next menu field			
CC. #	Cycle Counter, # is Pump Number 1 or 2	No. of Cycles on Corresponding Pump	Max Value: 9999
Press Menu/Enter to access next menu field			
Fl tr	Field 1 Timer	Counts down time remaining in current cycle. Counts "Pump(s) On Time" in MM:SS. Counts "Pump(s) Off Time" in HH:MM	Time Dose Panels Only
Press Menu/Enter to access next menu field			
LP. C	Lag Pump Counter	Counts Lag Pump Run	Duplex Panel Only (Max. Value: 9999)
Or. C	Override Counter	Counts System Overrides	Time Dose Panel Only (Max Value: 9999)
Press Menu/Enter to access next menu field			
HL. C	High Level Counter	Counts number of times system reached High Level Point	Max. Value: 9999
Press Menu/Enter to access next menu field			

menu enter  
↕

Code	Setting Description	Display	Comments
LCOP	Level Controls Option	LCOP	Press Set/Change button to select menu
Press Menu/Enter to access next menu field			
L 5P		L 5P	Pressure Panels Only
Press Menu/Enter to access next menu field			
FLt5	Float Status	FLt5	Press Set/Change button to select menu
Press Menu/Enter to access next menu field			
tdOP	Time Dose Options	tdOP	Press Set/Change button to select menu
Press Menu/Enter to access next menu field			

Note: Your panel may not have ALL fields shown. This shows all possible options.

Note: Your panel may not have ALL fields shown. This shows all possible options.

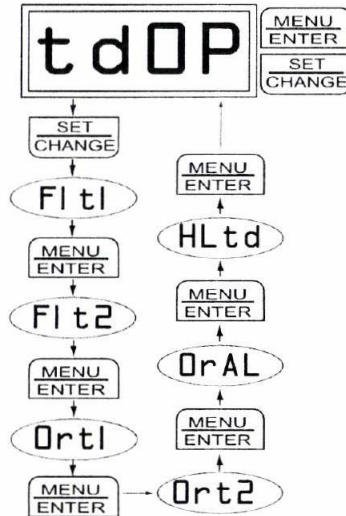




**Time Dose Menu (Time Dose Panels Only)**

Note: This menu is located in Advanced Programming. Your panel may not have ALL fields shown. This shows all possible options.

Enter Advanced Programming:  
 Press & Hold Menu/Enter button 3 seconds. "LCDP" will appear first.  
 Press Set/Change to enter this submenu.



6/7

**Time Dose Menu (continued)**

Code	Setting Description	Display	Comments	Options
Flt1	Field 1 Time 1 (Pump Enable Time)	Alternates "Flt1" and Current Value [Minutes:Seconds]	Press Set/Change button to select time [Default: 05:00]	Set from 00:00 to 99:59 (Press Menu/Enter to move between the time fields)
Note: Pump will be enabled to run once level reaches the "On" setpoint. If level reaches the "Pump Off" setpoint before time expires, Pump Disable time automatically begins.				
Press Menu/Enter to access next menu field				
Flt2	Field 1 Time 2 (Pump Disable Time)	Alternates "Flt2" and Current Value [Hours:Minutes]	Press Set/Change button to select time [Default: 01:00]	Set from 00:00 to 99:59 (Press Menu/Enter to move between the time fields)
Note: Amount of time designated between "Pump Run" cycles. If the level reaches the override (Lag) setpoint, the pump will run – regardless of "Pump Disable" time. To Disable Time Dose operation, set field to "00:00".				
Press Menu/Enter to access next menu field				
Ortl	"Override Pump On" Time (Time pump runs when override setpoint is reached)	Alternates "Ortl" and Current Value [Minutes:Seconds]	Press Set/Change button to select time [Default: 05:00]	Set from 00:00 to 99:59 (Press Menu/Enter to move between the time fields) Set field to "00:00" to Disable
Press Menu/Enter to access next menu field				
Ort2	"Override Pump Off" Time (Time pump waits after override cycle)	Alternates "Ort2" and Current Value [Hours:Minutes]	Press Set/Change button to select time	Set from 00:00 to 99:59 (Press Menu/Enter to move between the time fields) Set field to "00:00" to Disable
Press Menu/Enter to access next menu field				
OrAL	Override Alarm Turns on during Override Pump Cycle– Clears when "Override Off" time is complete	Alternates "OrAL" and Current Value	[Indicates to end user to reduce water usage] Press Set/Change button to change field	0 = Override Alarm Off (Default) 1 = Flash Alarm Light Only 2 = Flash Alarm Light & Sound Audible
Press Menu/Enter to access next menu field				
HLtd	High Level Time Delay	Alternates "HLtd" and Current Value [Minutes:Seconds]	[Alarm delays to the "set" time. When fluid level exceeds High Level set point for the "set time" without interruption, the alarm sounds.] Press Set/Change button to select time	Set from 00:00 to 99:59 (Press Menu/Enter to move between the time fields) [Default: 00:00]
Press Menu/Enter to access next menu field				

pump ON

pump OFF

o.r. ON

o.r. OFF

o.r. alarm

HLA Delay



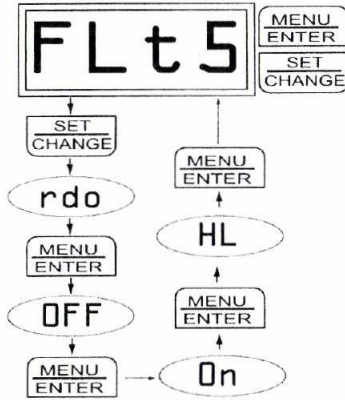
**Float Status Menu**

*Note: This menu is located in Advanced Programming. Your panel may not have ALL fields shown. This shows all possible options.*

Enter Advanced Programming:  
Press & Hold Menu/Enter button 3 seconds. "LCDP" will appear first.  
Press Set/Change to enter this submenu.

**FLOAT STATUS READINGS**

- **OPen** –Circuit is Open
- **CLsd** – Circuit is Closed
- **FAL** – Float Failed



Code	Setting Description	Display	Comments	Options
rdo	Redundant Off Float Status	Alternates "rdo" and Current Status		View Only - No Options
Press Menu/Enter to access next menu field				
OFF	Pump(s) Off Float Status	Alternates "OFF" and Current Status		View Only - No Options
Press Menu/Enter to access next menu field				
On	Pump 1 On Float Status	Alternates "On" and Current Status		View Only - No Options
Press Menu/Enter to access next menu field				
HL	High Level Alarm Float Status	Alternates "HL" and Current Status		View Only - No Options
Press Menu/Enter to access next menu field				

**Field Wiring Connections**

**Terminal Strip With All Available Options**

Terminal Strips differ between various Septronics models and the options included with those models. Your panel may not contain some of these terminal strip numbers. This example shows all possible field wiring connections.

**NOTE: This is only a sample.**

Please follow the specific connections instructions located inside your panel.

L1	L2	N	G	1	2	3	4	N	G	5	6	N	G	7	8	9	10	11	12	13	14	15	16	17	18
----	----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----

Code	Description
L1 • L2 • N	115V/230V AC Pump Power
1	115V AC Alarm Power
2	115V AC Control Power
3 • 4	Pump 1 Motor
N	For 115V Pump Connection
5 • 6	Pump 2 Motor
N	For 115V Pump Connection
7 • 8	Redundant Off • Redundant On & High Level
9 • 10	Off
11 • 12	Lead On
13 • 14	Lag On
15 • 16	Alarm
17 • 18	Auxiliary Alarm Contact

**Determine Your Septronics Model:**

**Duplex**

- 006121 — 120V
- 006231 — 230V

**Timed Dosing**

- 007121 — 120V
- 007231 — 230V

**Simplex**

- 008121 — 120V
- 008231 — 230V

**OPTIONS: Pedestal Mounted Panels • 3" Cord Seals**

1/2

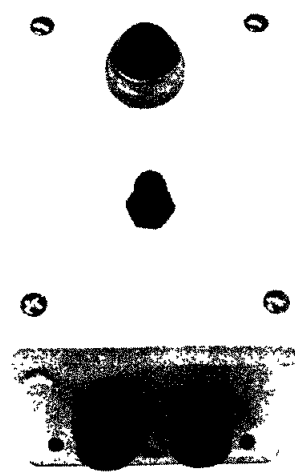


# anchor scientific inc.

Box 378, Long Lake, MN 55356  
952-473-7115 · FAX 952-473-6002 · www.anchorscientific.com

## ANCHOR ALARMS & ALARMPAK

Series 1000-1 & 1000-4  
2000-1 & 2000-4  
Form 1000-C

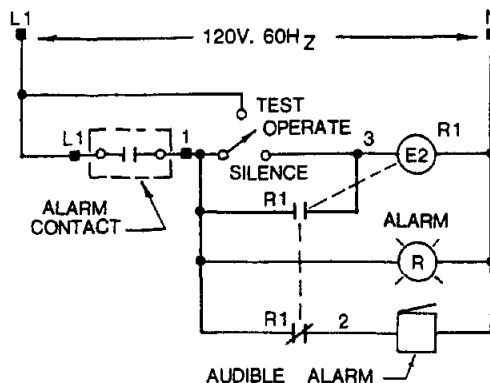


### \*ANCHOR ALARM Series 1000-1 & 1000-4

Anchor Alarm monitors equipment malfunction and failure, liquid level changes, temperature changes or other conditions which are triggered by an electrical pilot duty contact. The units are housed in a hinged, corrosion resistant, Noryl box for indoor (Series 1000-1), or outdoor use (Series 1000-4). An audible alarm is provided, along with a Test/Silence Switch. A light is mounted to the panel door and remains lit for as long as an alarm condition persists. The relay, buzzer, and terminal strip mount to a printed circuit board, to which the power and electrical pilot duty device are wired. Mounting ears are provided, as well as two tapped entrance holes and their appropriate liquid tight connectors. Series 1000-1 alarms are equipped with a plug-in power cord.

Dimensions:	L	x	W	x	D	Specifications.
Enclosure	6-9/16		4-5/8		3-3/4	-80 db. @ 10 feet .16 Buzzer
Mounting	6-1/32		3-1/32			-SPDT relay, 10 A. @ 115 VAC.

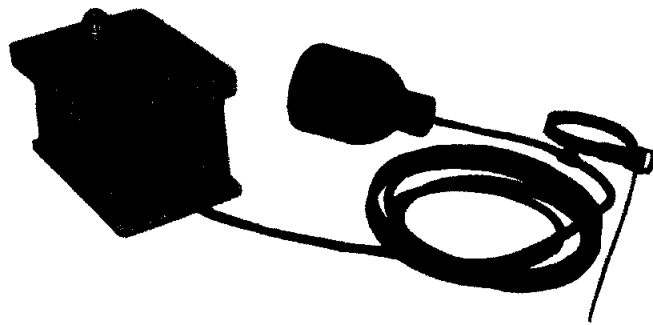
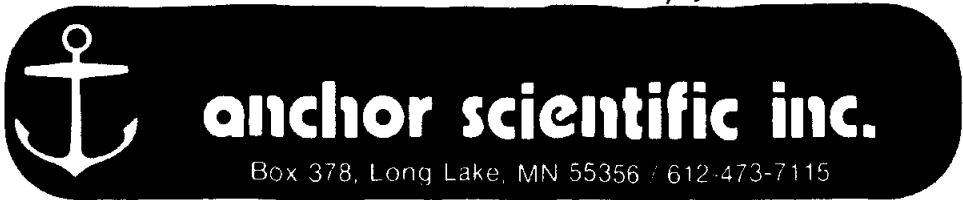
ORDERING INFORMATION: Specify Series 1000-1 for indoor use; specify Series 1000-4 for outdoor use.



\*Series 1000-4 pictured above.



2/2



**\*ANCHOR ALARMPAK Series 2000-1 & 2000-4**

Anchor Alarmpak is a warning device for signaling a high or low level alarm in a pumping system.

An Anchor Scientific Roto-Float acts as the sensor. It comes with a standard 20 feet of cable, normally open or normally closed contacts, and is available in two mounting configurations — Suspended, (S type), or Pipe-mounted, (P type). Longer cable lengths are available upon request. A watertight connector is furnished for direct wiring of the Roto-Float to the Alarmpak panel. Mini-Floats can also be furnished, upon request.

The alarm panel itself sounds a buzzer in response to a high or low level condition. A Test/Silence Switch silences the audible alarm while the door mounted panel light remains illuminated for as long as the alarm condition persists. The enclosure is available for indoor or outdoor use. (Series 2000-1 and 2000-4, respectively).

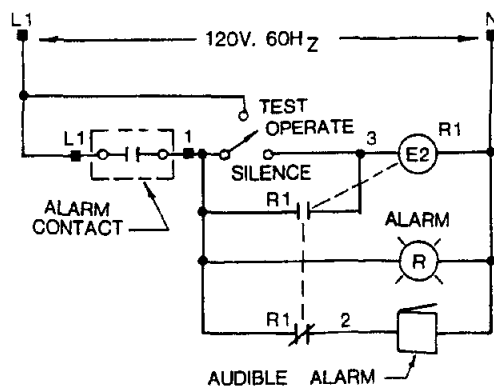
Dimensions: L x W x D  
Enclosure 6-9/16 4-5/8 3-3/4  
Mounting 6-1/32

Specifications:  
— 80 db @ 10 feet 16 Buzzer  
— SPDT Relay 12 Amps @ 115 V.A.C.  
— Mercury Switch rated 4.5 Amps 115 V.A.C.

ORDERING INFORMATION. 1. Designate the Series. 2. Specify indoor enclosure, -1, or outdoor enclosure, -4. 3. Indicate type of Roto-Float, 'S' for suspended, 'P' for pipe-mounted. 4. Indicate length of cable required, 20 feet for pipe-mounted. 5. Specify type of contact needed, NO for normally open, NC for normally closed

Example. 1-Series 2000-4 with S20NO Roto-Float

Alarm	Outdoor	Suspended, 20'
Buzzer	Box	Cable, Normally Open Contact



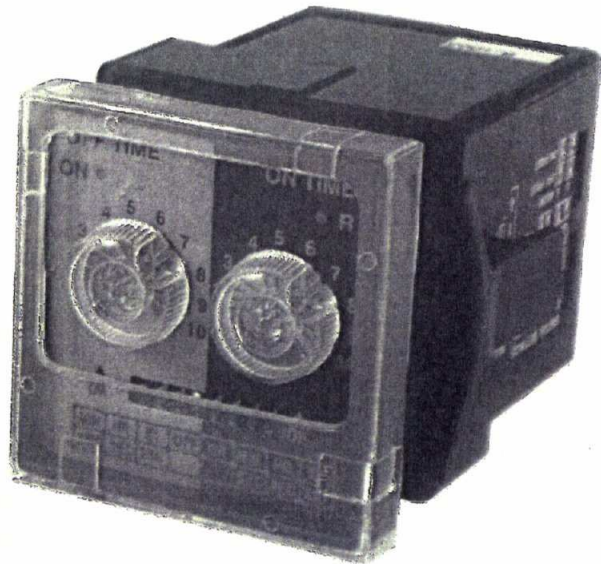
\*Series 2000-4 w PM20NO Mini-Float pictured above.

# Anchor Scientific

LED lights for: POWER - ON cycle - OFF cycle

ON time cut short if Timer ON float drops

Choice of cycling through ON or OFF time first  
(septics always do OFF time first)



## 1/16 DIN Flip-Flop Timer

### DIP SWITCH SETTINGS

Dip switch settings for time unit selection

OFF TIME			ON TIME				
units	SWITCH SETTING			units	SWITCH SETTING		
	Sw1	Sw2	Sw3		Sw6	Sw7	Sw8
1 sec	OFF	OFF	ON	1 SEC	OFF	OFF	ON
1 min	ON	OFF	ON	1 MIN	ON	OFF	ON
1 hr	OFF	ON	ON	1 HR	OFF	ON	ON
10 sec	OFF	OFF	OFF	10 SEC	OFF	OFF	OFF
10 min	ON	OFF	OFF	10 MIN	ON	OFF	OFF
10 hr	OFF	ON	OFF	10 HR	OFF	ON	OFF

Dip switch settings for mode selection

Mode	Sw4	Sw5
OFF First	ON	OFF
ON First	OFF	ON

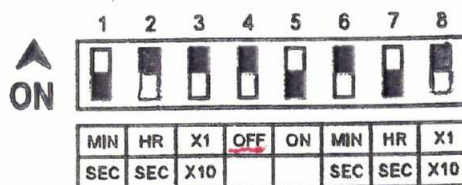
(Cycle through ON or OFF time first)

Standard Septic switch setting example:

OFF time units: HR (hours)

ON time units: MIN (minutes)

Mode: cycle through OFF time first



Dip switch Up = ON  
Down = OFF