

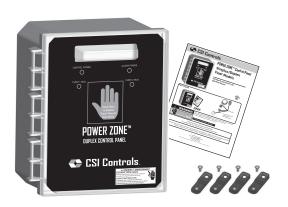


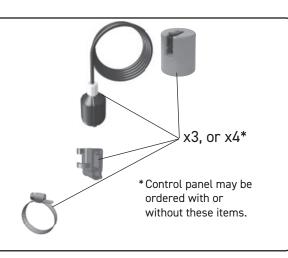
POWER ZONE™ Control Panel Simplex/Duplex Float Models

Installation Instructions and Operation Manual



Parts included







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.

UL Type 4X enclosures are for indoor or outdoor use.

Warranty void if panel is modified.

CSI Controls® offers a three-year limited warranty. For complete terms and conditions, please visit www.csicontrols.com.

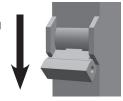
Products returned must be cleaned, sanitized, or decontaminated as necessary prior to shipment to ensure that employees will not be exposed to health hazards in handling said material. All applicable laws and regulations shall apply.

For technical support: email: techsupport@sjeinc.com phone: 800-746-6287 www.csicontrols.com

Installing the Float Switches
The Power Zone™ Single Phase control panel operates with three or four float switches.

A WARNING!

Ensure all power is turned OFF before installing floats in tank. Failure to do so could result in serious or fatal shock.



A CAUTION!

If the floats are not properly mounted and connected in the correct order, the pumps will not function properly.

Floats require free range of motion.

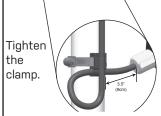
3-Float Installation



4-Float Installation



Note: Speed-E Connection System shown in above installations.

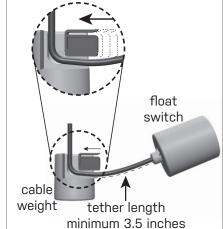


Hose clamp is 18-8 stainless steel. Contact your CSI Controls supplier for replacements.

Make sure hose clamp band does not interfere with float operation.

Do not install cord under hose clamp.

Replace product immediately if switch, cable weight or cable is damaged or cracked



Mounting the Control Panel

Mount control panel with supplied mounting feet.

NOTE

If the distance to the control panel exceeds the length of the float switch cords or the pump power cord, splicing in a liquid-tight junction box will be required. For outdoor or wet installation, we recommend a CSI Controls, UL Type 4X junction box.

Wiring the control panel

1 Determine conduit entrance locations on control panel as shown. Check local codes and schematic on the inside cover of the panel for the number of power circuits required.

A CAUTION!

Be sure the pump power voltage and phase are the same as the pump motor being installed.

Use of separate pump and control/alarm power sources is recommended.

- 2 Connect the following wires to the proper terminal positions:
 - · incoming power for each pump circuit
 - incoming power for control/alarm circuit
 - pump 1
 - pump 2 (Duplex)
 - · float switches

You must use conduit sealant to prevent moisture or gases from entering the panel.

Type 4X conduit must be used to maintain a Type 4X rating of the control panel.

3 Verify correct operation of control panel after installation is complete.

Operations

The Power Zone™ 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 or until "Push to Run" switch is pressed again.

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

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

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

Controller Navigation and Setup

Viewing or Changing Parameters:

Press the Menu/Enter button to advance to the next menu.

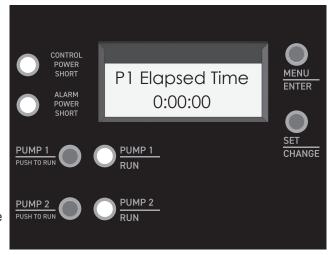
Press and hold the Menu/Enter button for 3 seconds to access setting Menus.

Press Set/Change button to access Setting Menus and to edit/view parameters/function.

After 60 seconds of no activity in the Settings Menu the controller will go back to Main Display Menus.

Simplex Models: The panel operation is factory set to Demand Dose control. To activate Time Dose control, the Pump Off Time needs to be set.

Simplex Float Model									
Display Main Menu	Navigation								
P1 Elapsed Time 0000:00:00 (hh:mm:ss) P1 Cycle Count 0 to 9999 Field Timer 00:00 (mm:ss or hh:mm) Override Count 0 to 9999	Press Menu/Enter to advance Menus in Display Main Menu: To access Settings Menu press and hold Menu/Enter for 3 seconds								
High Level Count 0 to 9999									
Settings Menus									
Level Control Options Menu Float Status Menu Time Dose Options Menu	Press Menu/Enter to advance Setting Menus: Press Set/Change to access Sub Menus & edit								
Level Control Options Menu	Default Setting in Bold								
Low Level Alarm	Off , Alarm Light Only, Light & Audible								
Number of Floats	3 Float System, 4 Float System								
Ovrd. Flt Order (requires 4 float)	Overid. Below H.L., Above H.L.								
Float Fail Alarm	Off, Alarm Light Only, Light & Audible								
P1 E.T.M. Reset	Set/Chg to Reset, Reset P1 E.T.M.								
P1 C.C. Reset	Set/Chg to Reset, Reset P1 C.C.								
Ovrd Count Reset	Set/Chg to Reset, Reset Ovrd Count								
Float Status Menu	Condition								
Red. Off Float	Open/Closed								
Pump Off Float	Open/Closed/Failed								
Pump On Float	Open/Closed/Failed								
Timer Ovrd Flt	Open/Closed/Failed								
High Level Float	Open/Closed/Failed								
Time Dose Options Menu	Default Setting in Bold								
Pump On Time	05:00 (mm:ss)								
Pump Off Time	00:00 (hh:mm) activates TD Control								
Override On Time	05:00 (mm:ss)								
Ovrd. Off Time	00:30 (hh:mm) Off, Alarm Light Only, Light & Audible								
Override Alarm									
H.L Time Delay	00:02 (mm:ss)								



Dup	lex Float Model						
Display Main Menu	Navigation						
P1 Elapsed Time 0000:00 (hh:mm:ss) P1 Cycle Count 0 to 9999 P2 Elapsed Time 0000:00 (hh:mm:ss) P2 Cycle Count 0 to 9999 Lag Pump Count 0 to 9999 High Level Count 0 to 9999	Press Menu/Enter to advance Menus in Display Main Menu: To access Settings Menu press and hold Menu/Enter for 3 seconds						
Settings Menus							
Level Control Options Menu Float Status Menu	Press Menu/Enter to advance Setting Menus: Press Set/Change to access Sub Menus & edit						
Level Control Options Menu	Default Setting in Bold						
Lead Selection	Alternate , Pump #1 is Lead, Pump #2 is Lead						
Low Level Alarm	Off , Alarm Light Only, Light & Audible						
Number of Floats	4 Float System, 3 Float System						
Float Order	Lag Below H.L., Above H.L.						
Float Fail Alarm	Off , Alarm Light Only, Light & Audible						
P1 E.T.M. Reset	Set/Chg to Reset, Reset P1 E.T.M.						
P1 C.C. Reset	Set/Chg to Reset, Reset P1 C.C.						
P2 E.T.M. Reset	Set/Chg to Reset, Reset P2 E.T.M.						
P2 C.C. Reset	Set/Chg to Reset, Reset P2 C.C.						
Lag Count Reset	Set/Chg to Reset, Reset Lag Count						
H.L. Count Reset	Set/Chg to Reset, Reset H.L. Count						
Float Status Menu	Condition						
Red. Off Float	Open/Closed						
Pumps Off Float	Open/Closed/Failed						
Lead Pump On Float	Open/Closed/Failed						
Lag Pump On Flt	Open/Closed/Failed						
High Level Float	Open/Closed/Failed						

Field Wiring Connections

Terminal Strip with All Available Options

Note: This is only a sample, please follow the specific connection instructions located inside your panel.

L1	L2	N	G	1 2	3	4	4 N	G	5	6	N	G	7	8	9	10	11	12	13	14	15	16	17	18	+	-	S	
L1,	L2,	& N		115/2	115/230 VAC Pump Power																							
1				115 \	115 VAC Alarm Power																							
2				115 \	115 VAC Control Power																							
3 8	4			Pum	Pump 1 Mtr.																							
N				For 1	For 115 Volt Pump Connection																							
5 8	6			Pum	Pump 2 Mtr																							
N				For 1	For 115 Volt Pump Connection																							
7 8	8			Redu	Redundant Off Float																							
98	10			Off F	Off Float																							
11 8	ì 12			Lead	Lead On Float																							
13	& 14			Lag	Lag On Float																							
15	& 16			Aları	Alarm Float																							
17	G 18			Aux.	Aux. Alarm Contact																							
+				Exci	Excitation Voltage 4-20mA Level Transmitter																							
_				Sign	Signal Input for 4-20mA Level Transmitter																							
S				Shie	hield for 4-20mA Level Transmitter Cable																							

Note: Terminal strips will differ between Power Zone[™] models and options. Your panel may be missing some of these terminal strip numbers. However, this example shows all possible field wiring connections.

Troubleshooting										
Alarm Light Flash Pattern	Audible Alarm Pattern	Alarm Description	Other Indications							
2 per second		High Level	Aux. Contact Closed							
1 every 4 sec.	1 every 4 sec.	Control Power Short	Control Power Light Off Control Power Short Light On							
1 every 4 sec.	None	Alarm Power Short	Alarm Power Light Off Alarm Power Short Light On							
1 every 4 sec.	None	Alarm Power Fail	Alarm Power Light Off Alarm Power Short Light Off							
2 every 4 sec.	2 every 4 sec. (if enabled)	Timer Override Warning								
3 every 4 sec.	3 every 4 sec. (if enabled)	Float Failure	"Failed" in Float Status Menu							
5 every 4 sec.	2 every 4 sec. (if enabled)	Low Level								