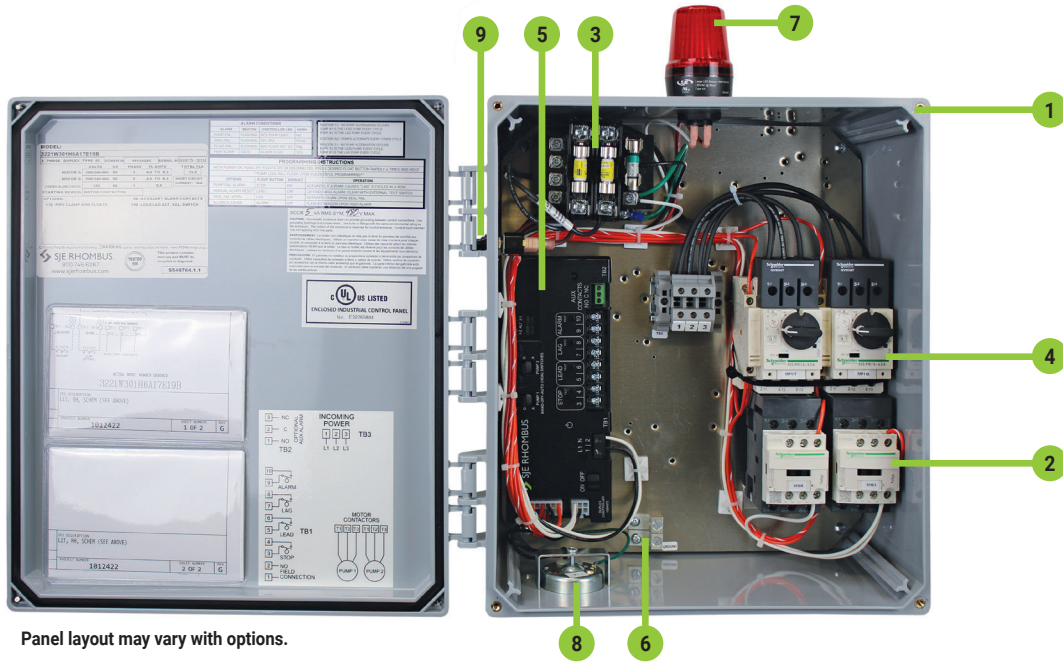


# MODEL 322 CONTROL PANEL

## Three Phase, Duplex Alternating Pump Control with Override



Panel layout may vary with options.

The newly redesigned Model 322 control panel controls two 208/240/480V three phase pumps in water and sewage installations. This panel includes a new innovative duplex controller for pump control, alternation and alarm; including float status LEDs, control/alarm power on/off switch with LED indicator, pump run LEDs, HOA switches, pump lead lag selector switch, auxiliary contacts and more!

The Model 322 control panel features built in lag pump delay time, pump failure detection, and float out of sequence. In addition, there are four user selectable field programmable operations: alarm steady state or flashing; alarm auto reset or manual reset; pump failure notification; and optional seal failure alarm beacon notification or beacon plus horn activation. This panel is available with optional EZconnex® float connection system.

Other features include:

- Touch safe circuit board housing and low voltage 12 VDC float circuits
- Alarm (field programmable to flash)
- Alarm automatic reset (field programmable to manual alarm reset)
- Float out-of-sequence detection
- Pump fail-to-run detection (field programmable to deactivate)
- Controller protected by four auto resettable fuses (control, alarm, pump 1, and pump 2), no fuse replacement
- Three second lag pump delay time, prevents simultaneous pump start-up

## COMPONENTS

1. NEMA 4X (ultraviolet stabilized thermoplastic with removable mounting feet for outdoor or indoor use) enclosure; enclosure measures 14 x 12 x 6 inches (35.56 x 30.48 x 15.24 cm)
2. IEC motor contactors control pumps by switching electrical lines
3. Multi-tap transformer (208/240/480 VAC primary or 600 VAC primary transformer) provides 120 VAC control/alarm voltage
4. Motor protective switches provide adjustable overload, branch circuit protection and pump disconnect
5. Duplex controller provides pump control, alternation and alarm
  - a. HOA switches for manual control Hand/Off/Automatic
  - b. Control power ON/OFF switch
  - c. Power ON green LED indicator
  - d. Float status red LED indicators
  - e. Float push-to-test buttons
  - f. Pump selector switch: Alt, 1-lead 2-lag, 2-lead 1 lag
  - g. Auxiliary alarm contacts Form C
  - h. Terminal block: incoming power
  - i. Terminal block: float switches
  - j. Option: adjustable seal failure circuits and red LED indicators (must select option 5E when ordering)
6. Ground lugs
7. Red LED beacon provides 360° visual check of alarm condition
8. Alarm horn provides audible alarm warning (83 to 85 decibel rating)
9. 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

**Note:** Options may increase enclosure size and/or change enclosure features/component layout.

**Note:** Schematic/Wiring Diagram and Pump Specification Label are located inside the panel.



**MODEL 322 - Three phase, duplex alternating pump control with override.**

<b>322</b> CONTROL PANEL	<b>ALARM PACKAGE</b>	<b>W</b> ENCLOSURE RATING	<b>PUMP FULL LOAD AMPS</b>	<b>FLOAT SWITCH APPLICATION</b>	<b>6A19B</b> OPTIONS (LISTED BELOW)
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<b>CONTROL PANEL</b>	✓	322	Three Phase Duplex (includes Options 6A and 19B as standard)	
<b>ALARM PACKAGE</b>		0	Select Options or No Alarm Package	
		1	Alarm Package (includes test/normal/silence switch, red light, & horn)	
<b>ENCLOSURE RATING</b>	✓	W	Weatherproof, NEMA 4X (engineered thermoplastic)	
<b>PUMP FULL LOAD AMPS</b>	208/240/480V		600V	
		001	1.0 - 1.6 FLA	005 1.0 - 1.6 FLA
		101	1.6 - 2.5 FLA	105 1.6 - 2.5 FLA
		201	2.5 - 4.0 FLA	205 2.5 - 4.0 FLA
		301	4.0 - 6.3 FLA	305 4.0 - 6.3 FLA
		401	6.0 - 10.0 FLA	405 6.0 - 10.0 FLA
		511	9.0 - 14.0 FLA	515 9.0 - 14.0 FLA
		611	13.0 - 18.0 FLA	615 13.0 - 18.0 FLA
		621	17.0 - 23.0 FLA	625 17.0 - 23.0 FLA
		701	20.0 - 25.0 FLA	705 20.0 - 25.0 FLA
<b>FLOAT SWITCH APPLICATION</b>		H	Floats - Pump Down (select Option 17 below)	
		L	Floats - Pump Up (select Option 17 below)	
		E	EZconnex® Float Switch System (select Option 34 or 35 below)	
		X	No Floats	

**PRICING WORKSHEET**

Model 322 Base Price	_____
Alarm Package	_____
Enclosure Rating	_____
Pump Full Load Amps	_____
Float Switch Application	_____
Total Options	_____
Enclosure Upsize	_____
<b>TOTAL LIST PRICE</b>	_____

**ENCLOSURE UPSIZE**  
If you selected one or more of the ♦ options, add a one-time charge for enclosure upsize.

OPTIONS	DESCRIPTION	OPTIONS	DESCRIPTION	
1A	Red Beacon Only / No Audio	16A	10' Cord in Lieu of 20' Cord (per float)	
1C	Horn Only / No Visual	16B	15' Cord in Lieu of 20' Cord (per float)	
3A	Alarm Flasher (Factory Programmed)	16C	30' Cord in Lieu of 20' Cord (per float)	
3B	Manual Alarm Reset (Factory Programmed)	16D	40' Cord in Lieu of 20' Cord (per float)	
4A ♦	Redundant Off (must also select Option 4D if floats are required)	17C	Sensor Float® / Internally Weighted (per Float) - Mercury	
4B	Red Redundant Off Indicator & Alarm (must also select Option 4A)	17D	Sensor Float® / Externally Weighted (per Float) - Mercury	
4D	Redundant Off Float (must also select Option 4A and Option 17)	17E	Sensor Float® Mini / Pipe Clamp (per Float) - Mercury	
5A ♦	Thermal Cutout/Heat Sensor Auto Reset (for pumps with thermal switch leads)	17F	Sensor Float® Mini / Externally Weighted (per Float) - Mercury	
5E ♦	Seal Failure Circuit & Red Indicator (2 wire)	17G	SJE MilliAmpMaster™ / Pipe Clamp (per Float) - Mechanical	
✓ 6A	<b>Auxiliary Alarm Contact, Form C (included as standard)</b>	17H	SJE MilliAmpMaster™ / Externally Weighted (per Float) - Mechanical	
8A	Elapsed Time Meter	17J	Sensor Float® / Pipe Clamp (per Float) - Mercury	
8C ♦	Event (Cycle) Counter	✓ 19B	<b>Lead Lag Selector Switch (included as standard)</b>	
10A	Clear Inner Swing-Out Door with Dead Front (lights and switches mounted on inner door) <b>PANELS ORDERED WITH THIS OPTION CANNOT BE RETURNED</b>	19F	Fourth Float to Separate Alarm Function from Lag	
10E	Lockable Latch	19T	TOA (Test/Off/Automatic) Switches and Pump Run Lights Through Door Mounted	
10G	Lightning Arrestor	19U	HOA (Hand/Off/Automatic) Switches and Pump Run Lights Through Door Mounted	
10K	Anti-condensation Heater	19X	Door Mounted Pump Run Indicator	
11C	Additional NEMA 1 Remote Alarm Panel	34D ■	EZconnex® 4-Port, 25', with 10' Floats (3) / Pipe Clamp, Sealing Plug	
11D	Additional NEMA 4X Remote Alarm Panel	34E ■	EZconnex® 4-Port, 50', with 10' Floats (3) / Pipe Clamp, Sealing Plug	
14B ♦	Main Disconnect (rotary style, mounted through door, non-fused, padlockable in the OFF position, door interlock in the ON-position)	0-10 FLA (total of both pumps)	34G ■	EZconnex® 4-Port, 25', with 20' Floats (3) / Pipe Clamp, Sealing Plug
		10-20 FLA (total of both pumps)	34H ■	EZconnex® 4-Port, 50', with 20' Floats (3) / Pipe Clamp, Sealing Plug
		20-50 FLA (total of both pumps)	35D ■	EZconnex® 4-Port, 25', with 10' Floats (4) / Pipe Clamp
			35E ■	EZconnex® 4-Port, 50', with 10' Floats (4) / Pipe Clamp
			35G ■	EZconnex® 4-Port, 25', with 20' Floats (4) / Pipe Clamp
		35H ■	EZconnex® 4-Port, 50', with 20' Floats (4) / Pipe Clamp	

■ EZconnex® mechanically-activated, narrow angle float switches with quick release connections

Three Phase