

# MODEL 122 Control Panel

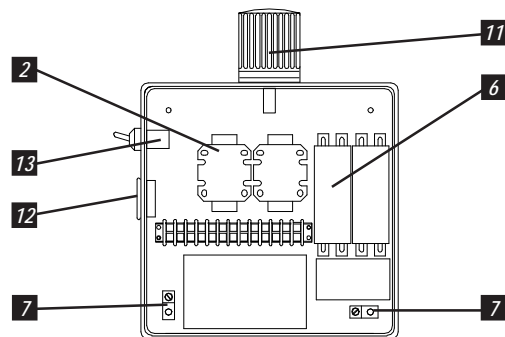
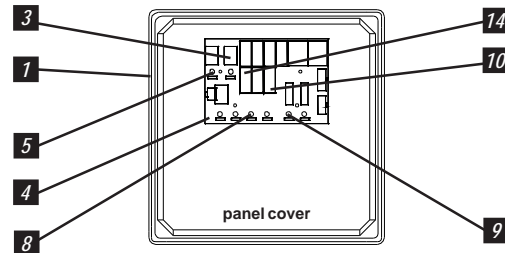
Single phase, duplex alternating pump control with override.

The Model 122 control panel is designed to alternately control two 120, 208, or 240 VAC single phase pumps in water and sewage installations. The alternating action equalizes pump wear. In addition to the alternating pump control, this system provides override control should either pump fail. If an alarm condition occurs, an alarm switch activates the audio/visual alarm system. Common applications include pump chambers, sump pump basins, irrigation systems and lift stations.

## PANEL COMPONENTS

1. **Enclosure** measures 10 X 10 X 6 inches (25.4 X 25.4 X 15.24 cm). Choice of NEMA 1 (steel for indoor use), or NEMA 4X (ultraviolet stabilized thermoplastic with removable mounting feet for outdoor or indoor use). **Note:** Options selected may increase enclosure size and change component layout.
2. **Magnetic Motor Contactors** control pumps by switching electrical lines.
3. **HOA Switches** for manual pump control (mounted on circuit board).
4. **Control Circuit Board** provides pump control and alternation.
5. **Green pump Run Indicator Lights** (mounted on circuit board).
6. **Circuit Breakers** (optional) provide pump disconnect and branch circuit protection.
7. **Ground Lugs**
8. **Float Status Indicator Lights** (mounted on circuit board).
9. **Control and Alarm Power Indicator Lights** (mounted on circuit board)
10. **Auxiliary Alarm Contact**, form C (mounted on circuit board).

**NOTE:** Schematic is located inside the panel on enclosure cover.



Model Shown 1221W114X6A



## STANDARD ALARM PACKAGE

11. **Red Alarm Beacon** provides 360° visual check of alarm condition. **Note:** NEMA 1 style utilizes a door mounted indicator in lieu of a beacon.
12. **Alarm Horn** provides audio warning of alarm condition (83 to 85 decibel rating). **Note:** NEMA 1 style utilizes an internally mounted buzzer in lieu of horn.
13. **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.
14. **Horn Silence Relay** (mounted on circuit board).

**NOTE:** other options available.

## 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 three 20' SJE SignalMaster® control switches
- Complete with step-by-step installation instructions
- Five-year limited warranty

SEE BACKSIDE FOR COMPLETE LISTING OF AVAILABLE OPTIONS.  
SEE PRICE BOOK FOR LIST PRICE.



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122
1
W
1
1
4
H
6A17A

**MODEL 122**

**ALARMPACKAGE**

- 0 = select options or no alarm package
- 1 = alarm package (includes test/normal/silence switch, fuse, red light, & horn)

**ENCLOSURERATING**

- I = Indoor, NEMA 1 (metal)
- W = Weatherproof, NEMA 4X (engineered thermoplastic)

**STARTINGDEVICE**

- 1 = magnetic motor contactor 120/208/240V
- 9 = magnetic motor contactor 120V only

**PUMP FULL LOAD AMPS**

- 0 = 0-7 FLA
- 1 = 7-15 FLA
- 2 = 15-20 FLA
- 3 = 20-30 FLA

**PUMP DISCONNECTS**

- 0 = no pump disconnect
- 4 = circuit breaker 120V (select STARTING DEVICE option 9 above)  
120/208/240V (select STARTING DEVICE option 1 above)

**FLOAT SWITCH APPLICATION**

- H or L = pump down or pump up (select 17 option)
- X = no floats

**OPTIONS** *Listed below*

★
**ENCLOSURE UPSIZE**  
 If you selected one or more of the ★ options, or two ★★ options,  
**add a one-time enclosure upsize fee would apply.**

CODE DESCRIPTION	CODE DESCRIPTION
<input type="checkbox"/> 1A Red beacon only / no audio <i>(must select "0" for alarm package)</i>	<input type="checkbox"/> ★★ 10K Anti-condensation heater
<input type="checkbox"/> 1C Horn only / no visual <i>(must select "0" for alarm package)</i>	<input type="checkbox"/> 11C NEMA 1 alarm panel
<input type="checkbox"/> ★★ 3A Alarm flasher	<input type="checkbox"/> 11D NEMA 4X alarm panel
<input type="checkbox"/> ★ 3B Manual alarm reset	<input type="checkbox"/> ★ 14B Main disconnect ( <i>rotary style, mounted through door, non-fused</i> ) <i>(must select circuit breaker)</i>
<input type="checkbox"/> ★ 4A Redundant off <i>(select Option 4D if floats included)</i>	★ <input type="checkbox"/> 0-20 FLA (total of both pumps)
<input type="checkbox"/> 4B Red redundant off indicator & alarm <i>(must select Option 4A also)</i>	★ <input type="checkbox"/> 20-60 FLA (total of both pumps)
<input type="checkbox"/> 4D Redundant off float <i>(must select 4A option) (select 17 option)</i>	<input type="checkbox"/> 16A 10' cord in lieu of 20' <i>(per float)</i>
<input type="checkbox"/> ★ 5A Thermal cutout/heat sensor auto reset <i>(for pumps w/thermal switch leads)</i>	<input type="checkbox"/> 16B 15' cord in lieu of 20' <i>(per float)</i>
<input type="checkbox"/> ★ 5E Seal failure circuit & red indicator (2 wire)	<input type="checkbox"/> 16C 30' cord in lieu of 20' <i>(per float)</i>
<input checked="" type="checkbox"/> 6A Auxiliary alarm contact, form C <i>(included as standard)</i>	<input type="checkbox"/> 16D 40' cord in lieu of 20' <i>(per float)</i>
<input type="checkbox"/> ★ 8A Elapsed time meter	<input checked="" type="checkbox"/> 17A SJE SignalMaster® / pipe clamp ● <i>(per float)</i>
<input type="checkbox"/> ★ 8C Event (cycle) counter	<input type="checkbox"/> 17B SJE SignalMaster® / externally weighted ● <i>(per float)</i>
<input type="checkbox"/> ★ 9_A Pump overload specify amperage after number 9 followed by letter "A". Example: 912A = 12 amp pump.	<input type="checkbox"/> 17C Sensor Float® / internally weighted ▲ <i>(per float)</i>
★ <input type="checkbox"/> 0-25 FLA	<input type="checkbox"/> 17D Sensor Float® / externally weighted ▲ <i>(per float)</i>
★ <input type="checkbox"/> 25-30 FLA	<input type="checkbox"/> 17E Sensor Float® Mini / pipe clamp ▲ <i>(per float)</i>
<input type="checkbox"/> 10E Lockable latch - NEMA 2X	<input type="checkbox"/> 17F Sensor Float® Mini / externally weighted ▲ <i>(per float)</i>
<input type="checkbox"/> 10E Lockable latch - NEMA 1	<input type="checkbox"/> 17J Sensor Float® / pipe clamp ▲ <i>(per float)</i>
<input type="checkbox"/> ★ 10F Lightning arrestor <i>(select pump circuit breaker)</i>	<input type="checkbox"/> 19B Lead lag selector switch
	<input type="checkbox"/> 19F Fourth float to separate alarm function from lag
	<input type="checkbox"/> 19T TOA (Test/Off/Automatic) switches and pump run lights through door mounted
	<input type="checkbox"/> 19U HOA (Hand/Off/Automatic) switches and pump run lights through door mounted
	<input type="checkbox"/> 19X Door mounted pump run indicator
	● Mechanically-activated    ▲ Mercury-activated

**If additional features are required, call the factory for a quote on an Engineered Custom control panel.**

**SAMPLE**

MODEL 122 1 W 9 0 4 H 6A 8AC 17A

Alarm Package ————

Enclosure Rating ————

Starting Device ————

Pump Full Load Amps ————

Pump Disconnect ————

Float Switch Application ————

Options: Auxiliary alarm contact, form C, ————

Elapsed time meter, event (cycle) counter,  
SJE SignalMaster® / pipe clamp

# SJE SIGNALMASTER® Control Switch

Mechanically-activated, narrow-angle float switch designed to activate pump control panels and alarms.

This narrow-angle sensing device is used to accurately monitor liquid levels in:

- potable water
- water
- sewage applications

The SJE SignalMaster® control switch is not sensitive to rotation.

## Normally Open Model (high level)

The control switch turns on (closes) when the float tips slightly **above** horizontal signaling a high level, and turns off (opens) when the float drops slightly below horizontal.

## Normally Closed Model (low level)

The control switch turns on (closes) when the float tips slightly **below** horizontal signaling a low level, and turns off (opens) when the float tips slightly above horizontal.



## FEATURES

- Passed NSF Standard 61 protocol by an approved Water Quality Association laboratory.
- Mechanically-activated, snap action contacts.
- High impact, corrosion resistant, polypropylene float housing.
- Not sensitive to rotation.
- Control differential of 1.5 inches (4 cm) above or below horizontal.
- Yellow colored cap for easy identification of normally open control switch.
- White colored cap for easy identification of normally closed control switch.
- UL Listed for use in water and sewage.
- CSA Certified.
- Three-year limited warranty.



## OPTIONS

This switch is available:

- CE certified unit available upon request.
- for normally open (high level) applications ~~or normally closed (low level) applications.~~
- in standard cable lengths of ~~40, 45, 20, or 30~~ feet and 3, 5, 6, or 10 meters (longer lengths available)
- with two mounting options that allow for flexibility in installation:

→ **Mounting Clamp:** for applications where the switch can be attached to a discharge pipe or similar mounting device.

~~**Externally Weighted:** for applications where the switch can be suspended from above.~~

## SPECIFICATIONS

**CABLE:** flexible 18 gauge, 2 conductor (UL, CSA) SJOW, water-resistant (CPE)

**FLOAT:** 2.74 inch diameter x 4.83 inch long (7.0 x 12.3 cm) high impact, corrosion resistant, polypropylene housing for use in sewage and water up to 140°F (60°C)

**MAXIMUM WATER DEPTH:** 30 feet (9 meters), 13 psi (90 kPa)

**ELECTRICAL:** 5 amp, 125/250 VAC, 50/60 Hz

**NOTE:** This switch is not recommended for controlling:

- electric loads less than 100 milliamps, 12 VAC
- non-arcing electric loads

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