# **MODEL 112 Control Panel**

#### Single phase, simplex motor contactor control.

The Model 112 control panel provides a reliable means of controlling one 120, 208, or 240 VAC single phase pump in pump chambers, sump pump basins, irrigation systems and lift stations. Two control switches activate a magnetic motor contactor to turn the pump on and off. If an alarm condition occurs, an additional alarm switch activates the audio/visual alarm system.

# PANEL COMPONENTS

- Enclosure measures 8 x 8 x 4 inches (20.32 X 20.32 X 10.16 cm). Choice of NEMA 1 (steel for indoor use), or NEMA 4X (ultraviolet stabilized thermoplastic with removable mounting feet for outdoor or indoor use).
  - \* Options selected may increase enclosure size and change component layout.
- 2. Magnetic Motor Contactor controls pump by switching electrical lines.
- 3. HOA Switch for manual pump control (mounted on circuit board).
- 4. Green Pump Run Indicator Light (mounted on circuit board).
- 5. Float Switch Terminal Block (mounted on circuit board).
- 6. Alarm and Control Fuses (mounted on circuit board).
- 7. Alarm and Control Power Indicators (mounted on circuit board).
- 8. Ground Lug
- Circuit Breaker (optional) provides pump disconnect and branch circuit protection.

### STANDARD ALARM PACKAGE

- Red Alarm Beacon provides 360° visual check of alarm condition.
   Note: NEMA 1 style utilizes a door mounted indicator in lieu of a beacon.
- **11. Alarm Horn** provides audio warning of alarm condition (83 to 85 decibel rating).

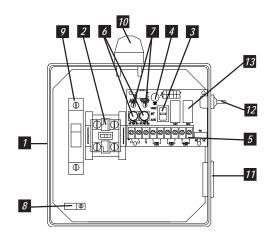
**Note:** NEMA 1 style utilizes an internally mounted buzzer in lieu of horn.

- 12. 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 has been cleared.
- 13. 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



Model Shown 1121W914X





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112 1 W 1	1 4 H 6A17A
MODEL 112	
ALARMPACKAGE	
0 = select options or no alarm package 1 = alarm package (includes test/normal/silence switch, fuse, re	ed light, horn & float)
ENCLOSURERATING —	
I = Indoor, NEMA 1 (metal) W = Weatherproof, NEMA 4X (engineered thermoplastic)	
STARTING DEVICE———————————————————————————————————	
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 al	hove)
120/208/240V (select STARTING DEVICE of	
FLOAT SWITCH APPLICATION  H or L = pump down or pump up (select 17 option)	
X = no floats	
WITH alarm package WITHOUT alarm package	
OPTIONS Listed below—	
	or more of the ★ options, or one ★★ option, e upsize fee would apply.
CODE DESCRIPTION	
1A Red beacon only / no audio (must select 1E if floats included)	CODE DESCRIPTION 11C NEMA 1 alarm panel (must select option 6A)
1C Horn only / no visual (must select 1E if floats included)	11D NEMA 4X alarm panel (must select option 6A)
1E Alarm float	<b>k</b> ★14B Main disconnect (rotary style, mounted through door, non-fused)  ★ □ 0-20 FLA
	t★ 20-30 FLA 15A Control / alarm circuit breaker
★ 4A Redundant off (select option 4D if floats included)	16A 10' cord in lieu of 20' (per float) 16B 15' cord in lieu of 20' (per float)
★ 4B Red redundant off indicator & alarm	16C 30' cord in lieu of 20' (per float)
(must select 4A also)  4D Redundant off float	16D 40' cord in lieu of 20' (per float) 17A SJE SignalMaster® / mounting strap ● (per float)
(select 4A option) (select 17 option)  ★ 5A Thermal cutout/heat sensor auto	17B SJE SignalMaster® / externally weighted ● (per float) 17C Sensor Float® / internally weighted ▲ (per float)
reset (for pumps w/thermal switch leads)  ★★5E Seal failure circuit & red indicator (2 wire)	17D Sensor Float <sup>®</sup> / externally weighted ▲ (per float)
6A Auxiliary alarm contact, form C	17E Sensor Float <sup>®</sup> Mini / pipe clamp ▲ (per float) 17F Sensor Float <sup>®</sup> Mini / externally weighted ▲ (per float)
★ 8A Elapsed time meter  ★ 8C Event (cycle) counter	17J Sensor Float <sup>®</sup> / pipe clamp ▲ (per float) 19T TOA (Test/Off/Automatic) switch and pump run light through
★★9_A Pump overload  specify amperage after number 9 followed by letter "A".	door mounted 19U HOA (Hand/Off/Automatic) switch and pump run light through
Example: 912A = 12 amp pump.	door mounted
★★ 0-25 FLA	19X Door mounted pump run indicator 21A SJE PumpMaster® in lieu of on/off switches ●
10E Lockable latch - NEMA 4X 10E Lockable latch - NEMA 1	21B SJE PumpMaster® Plus in lieu of on/off switches   21C Super Single® in lieu of on/off switches ▲
★10F Lightning arrestor (select pump circuit breaker)  ★10K Anti-condensation heater	21D Double Float® in lieu of on/off switches ▲
If additional features are required, call the factory for a quote on an Engineered Custom control panel.  ■ Mercury-activated	
SAMPLE	
MODEL 112 1 W 9 1 4	H 3A 8A 17A
Alarm Package	T T
Starting Device —	
Pump Full Load Amps — Pump Disconnect — Pump Dis	
Float Switch Application ————————————————————————————————————	<u> </u>
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
- White colored cap for easy identification of normally closed control switch.
- UL Listed for use in water and sewage.
- CSA Certified.







### **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 10, 15, 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.



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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