

MODEL 123 Control Panel

Single phase, duplex capacitor start/run pump control with override.

Model 123 control panels are designed to alternately control two 120, 208, or 240 VAC single phase pumps requiring external starting components in water and sewage installations. The alternating action equalizes pump wear. In addition to the alternating pump control, these systems provide 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 and lift stations.

PANEL COMPONENTS

1. **Enclosure** measures 16 X 14 X 6 inches (40.64 X 35.56 X 15.24 cm); 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. **IEC Motor Contactors** control pumps by switching electrical lines.
3. **HOA Switches** for manual pump control (mounted on circuit board).
4. **Alternating Circuit Board** provides pump control and alternation (U.S. Patent 5,909,352).
5. **Green pump Run Indicator Lights** (mounted on circuit board).
6. **Incoming Pump Power Terminal Block / Pump Terminal Block**
7. **Circuit Breakers** (optional) provide pump disconnect and branch circuit protection.
8. **Control ON/OFF Switch** (mounted on circuit board).
9. **Ground Lugs**
10. **Float Status Indicator Lights** (mounted on circuit board).
11. **Control / Alarm Power Indicator Light** (mounted on circuit board).
12. **Capacitor Start Modules** - start/run capacitor kits must be ordered separately.

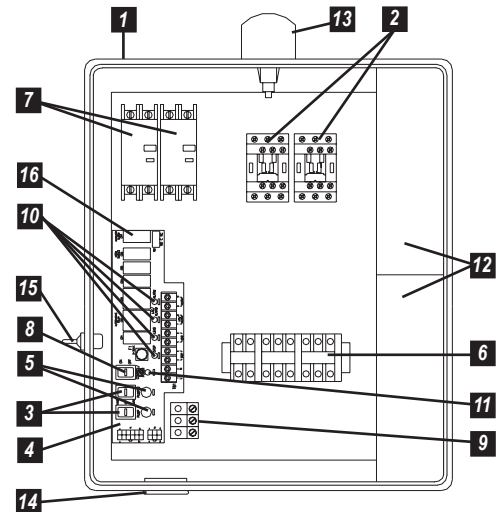
NOTE: Schematic/Wiring Diagram is located inside the panel on enclosure cover.

STANDARD ALARM PACKAGE

13. **Red Alarm Beacon** provides 360° visual check of alarm condition.
14. **Alarm Horn** provides audio warning of alarm condition (83 to 85 decibel rating).
15. **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.
16. **Horn Silence Relay** (mounted on circuit board).

NOTE: other options available.

Model 123 control panels cannot be returned. Please refer to the Product Return section.



Model Shown 1231W124X

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' control switches or EZconnex® float system
- Complete with step-by-step installation instructions
- Five-year limited warranty. This express warranty does not apply to the motor start kit components. SJE-Rhombus will warranty motor start kit components supplied by SJE-Rhombus for one year. SJE-Rhombus makes no warranties of any type with respect to motor start kits supplied by a customer.



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

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MODEL 123

ALARM PACKAGE

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

ENCLOSURE RATING

- W = Weatherproof, NEMA 4X (engineered thermoplastic)

STARTING DEVICE

- 1 = IEC motor contactor 120/208/240V

PUMP FULL LOAD AMPS

- 0 = 0-7 FLA
- 1 = 7-15 FLA
- 2 = 15-20 FLA
- 3 = 20-30 FLA
- 4 = 30-40 FLA

PUMP DISCONNECTS

- 0 = no pump disconnect
- 4 = circuit breaker

FLOAT SWITCH APPLICATION

- H or L = pump down or pump up (select 17 option)
- E = EZconnex® float switch system (select 34 or 35 option)
- X = no floats

OPTIONS Listed below

Start/run capacitor kits must be ordered separately (see option 12 below or call factory).



ENCLOSURE UPSIZE - If one or more of the ★ options are selected

- | CODE | DESCRIPTION |
|----------------------------|--|
| <input type="checkbox"/> | 1A Red beacon only / no audio |
| <input type="checkbox"/> | 1C Horn only / no visual |
| <input type="checkbox"/> | 3A Alarm flasher |
| <input type="checkbox"/> | 3B Manual alarm reset |
| <input type="checkbox"/> ★ | 4A Redundant off
<i>(select option 4D if floats included)</i> |
| <input type="checkbox"/> | 4B Red redundant off indicator & alarm
<i>(must select 4A also)</i> |
| <input type="checkbox"/> | 4D Redundant off float <i>(must select 4A & 17 option)</i> |
| <input type="checkbox"/> ★ | 5A Thermal cutout/heat sensor auto reset
<i>(for pumps with thermal switch leads)</i> |
| <input type="checkbox"/> ★ | 5 E Seal fail circuit and indicator (2 wire) |
| <input type="checkbox"/> | 6A Auxiliary alarm contact, form C |
| <input type="checkbox"/> ★ | 8A Elapsed time meter |
| <input type="checkbox"/> ★ | 8C Event (cycle) counter |
| <input type="checkbox"/> | 9_A Pump overload
specify amperage after number 9 followed
by letter "A". Example: 912A = 12 amp pump. |
| <input type="checkbox"/> | 0-30 FLA |
| <input type="checkbox"/> | 30-40 FLA |
| <input type="checkbox"/> | 10E Lockable latch |
| <input type="checkbox"/> ★ | 10F Lightning arrester
<i>(must select pump circuit breakers)</i> |
| <input type="checkbox"/> | 10K Anti-condensation heater |
| <input type="checkbox"/> | 11C NEMA 1 alarm panel <i>(must select option 6A)</i> |
| <input type="checkbox"/> | 11D NEMA 4X alarm panel <i>(must select option 6A)</i> |
| <input type="checkbox"/> | 12B Customer supplied motor start components,
mounted in enclosure by SJE-Rhombus |
| <input type="checkbox"/> | 12C Motor start component, mounted and supplied
by SJE-Rhombus |
| <input type="checkbox"/> ★ | 14B Main disconnect <i>(rotary style, mounted through door,
non-fused, padlockable in the OFF-position, door
interlock in the ON-position)</i>
<i>(must select pump circuit breakers)</i> |
| <input type="checkbox"/> ★ | 0-20 FLA |
| <input type="checkbox"/> ★ | 20-80 FLA |

- | CODE | DESCRIPTION |
|--------------------------|---|
| <input type="checkbox"/> | 16A 10' cord in lieu of 20' <i>(per float)</i> |
| <input type="checkbox"/> | 16B 15' cord in lieu of 20' <i>(per float)</i> |
| <input type="checkbox"/> | 16C 30' cord in lieu of 20' <i>(per float)</i> |
| <input type="checkbox"/> | 16D 40' cord in lieu of 20' <i>(per float)</i> |
| <input type="checkbox"/> | 17A SJE SignalMaster® / pipe clamp ● <i>(per float)</i> |
| <input type="checkbox"/> | 17B SJE SignalMaster® / externally weighted ● <i>(per float)</i> |
| <input type="checkbox"/> | 17C Sensor Float® / internally weighted ▲ <i>(per float)</i> |
| <input type="checkbox"/> | 17D Sensor Float® / externally weighted ▲ <i>(per float)</i> |
| <input type="checkbox"/> | 17E Sensor Float® Mini / pipe clamp ▲ <i>(per float)</i> |
| <input type="checkbox"/> | 17F Sensor Float® Mini / externally weighted ▲ <i>(per float)</i> |
| <input type="checkbox"/> | 17J Sensor Float® / pipe clamp ▲ <i>(per float)</i> |
| <input type="checkbox"/> | 19B Lead lag selector switch |
| <input type="checkbox"/> | 19F Fourth float to separate alarm 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 |
| <input type="checkbox"/> | 34D EZconnex® 4-Port, 25', w/10' floats (3) /pipe clamp,
sealing plug * |
| <input type="checkbox"/> | 34E EZconnex® 4-Port, 50', w/10' floats (3) /pipe clamp,
sealing plug * |
| <input type="checkbox"/> | 34G EZconnex® 4-Port, 25', w/20' floats (3) /pipe clamp,
sealing plug * |
| <input type="checkbox"/> | 34H EZconnex® 4-Port, 50', w/20' floats (3) /pipe clamp,
sealing plug * |
| <input type="checkbox"/> | 35D EZconnex® 4-Port, 25', w/10' floats (4) /pipe clamp * |
| <input type="checkbox"/> | 35E EZconnex® 4-Port, 50', w/10' floats (4) /pipe clamp * |
| <input type="checkbox"/> | 35G EZconnex® 4-Port, 25', w/20' floats (4) /pipe clamp * |
| <input type="checkbox"/> | 35H EZconnex® 4-Port, 50', w/20' floats (4) /pipe clamp * |

● Mechanically-activated ▲ Mercury-activated * EZconnex® mechanically-activated, narrow angle float switches with quick release connections.