Single phase, duplex alternating pump control with intrinsically safe circuits.

The Model 124 control panel is designed to control two 120/208/240 VAC single phase pumps for applications requiring intrinsically safe float circuits. The controller is provided with a pump selector switch that can be set to alternate the pumps to equalize wear or to call either pump to activate first with the other pump to activate in lag condition. If an alarm occurs, the alarm activates the audible-visual system. The alarm conditions include: high water, float out-of-sequence, pump fail-to-run, seal failure (optional). Common applications include pump chambers, lift stations, or other installations classified as hazardous locations requiring intrinsically safe circuits.

**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. **Intrinsically Safe Module** limits the amount of energy to switches preventing ignition of flammable gasses.

3. **IEC Motor Contactors** (optional) provide pump disconnect and branch circuit protection.

4. **Adjustable Overloads** (optional) provide thermal overload protection for pump.

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. **Input Power Terminal Block**

7. **Ground Lugs**

**STANDARD ALARM PACKAGE**


10. **Alarm Horn** provides audible alarm warning (83 to 85 decibel rating).

11. **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:** other options available.

Model 124 control panels cannot be returned. Please refer to the Product Return section.

**FEATURES**

- Industrial control panel is UL-698A Listed relating to hazardous locations with intrinsically safe circuit extensions
- Touch safe circuit board housing and low voltage 12 VDC float circuits
- Constant alarm (field programmable to flash)
- Alarm automatic reset (field programmable to manual alarm reset)
- Float out-of-sequence detection with automatic float reassignment
- Pump fail-to-run detection (field programmable to deactivate)
- Controller protected by four auto resettable fuses, no fuse replacement
- Three second lag pump delay time, prevents simultaneous pump start-up
- Standard package includes three 20’ control switches or EZconnex® float system
- 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.
MODEL 124

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 = 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
- 4 = 30-40 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 option 17)
- E = EZconnex® float switch system (select 34 or 35 option)
- X = no floats

OPTIONS
- Enclosure Upsize: $159.00

**Mechanically-activated**  ▲ Mercury-activated

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

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<table>
<thead>
<tr>
<th>CODE</th>
<th>DESCRIPTION</th>
<th>LIST PRICE</th>
</tr>
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<tbody>
<tr>
<td>1A</td>
<td>Red beacon only / no audio</td>
<td>$21.00</td>
</tr>
<tr>
<td>1C</td>
<td>Horn only / no visual</td>
<td>$21.00</td>
</tr>
<tr>
<td>3A</td>
<td>Manual alarm reset (factory programmed)</td>
<td>$35.00</td>
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<tr>
<td>3B</td>
<td>Redundant off</td>
<td>$35.00</td>
</tr>
<tr>
<td>4A</td>
<td>Redundant off indicator &amp; alarm</td>
<td>$64.00</td>
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<tr>
<td>5A</td>
<td>Thermal cutout/heat sensor auto reset</td>
<td>$84.00</td>
</tr>
<tr>
<td>5M</td>
<td>Seal fail alarm activation</td>
<td>$35.00</td>
</tr>
<tr>
<td>6A</td>
<td>Auxiliary alarm contact, Form C</td>
<td>$0.00</td>
</tr>
<tr>
<td>6G</td>
<td>Auxiliary contact, seal fail, normally open</td>
<td>$0.00</td>
</tr>
<tr>
<td>8A</td>
<td>Elapsed time meter</td>
<td>$117.00</td>
</tr>
<tr>
<td>8C</td>
<td>Event (cycle) counter</td>
<td>$95.00</td>
</tr>
<tr>
<td>9A</td>
<td>Overload protection specify amperage after number 9 followed by letter &quot;A&quot; (ex. 912A = 12 amp pump)</td>
<td>$127.00</td>
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<tr>
<td>10A</td>
<td>Clear inner swing-out door w/dead front (lights and switches mounted on inner door)</td>
<td>$201.00</td>
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<tr>
<td>10E</td>
<td>Lockable latch (must select pump circuit breaker)</td>
<td>$42.00</td>
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<tr>
<td>10F</td>
<td>Lightning arrester</td>
<td>$244.00</td>
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<td>10K</td>
<td>Anti-condensation heater</td>
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<tr>
<td>11C</td>
<td>NEMA 1 alarm panel</td>
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<tr>
<td>11D</td>
<td>NEMA 4X alarm panel</td>
<td>$315.00</td>
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**List Price**

- Motor start components (supplied by customer, mounted by SJE Rhombus) | $482.00 |
- Motor start components (Call Factory) (supplied and mounted by SJE Rhombus) | $121.00 |
- Main disconnect (rotary style, mounted through door, non-fused, padlockable in the OFF-position, door interlock in the ON-position) (must select circuit breaker) | $323.00 |
- 0-20 FLA (total of both pumps) | $366.00 |
- 20-80 FLA (total of both pumps) | $366.00 |
- 10' cord in lieu of 20' (per float) | $2.00 |
- 15' cord in lieu of 20' (per float) | $2.00 |
- 30' cord in lieu of 20' (per float) | $5.00 |
- 40' cord in lieu of 20' (per float) | $15.00 |
- Sensor Float® / internally weighted ▲ (per float) | $5.00 |
- Sensor Float® / externally weighted ▲ (per float) | $11.00 |
- MilliAmpMaster™/ pipe clamp ▲ (per float) | $362.00 |
- TOA (Test/Off/Automatic) switches and pump run lights through door mounted | $343.00 |
- HOA (Hand/Off/Automatic) switches and pump run lights through door mounted | $343.00 |
- Door mounted pump run indicator | $159.00 |
- EZconnex® 4-Port, 25', w/10' floats (3) /pipe clamp, sealing plug ▲ | $343.00 |
- EZconnex® 4-Port, 50', w/10' floats (3) /pipe clamp, sealing plug ▲ | $388.00 |
- EZconnex® 4-Port, 25', w/20' floats (3) /pipe clamp, sealing plug ▲ | $362.00 |
- EZconnex® 4-Port, 50', w/20' floats (3) /pipe clamp, sealing plug ▲ | $405.00 |
- EZconnex® 4-Port, 25', w/20' floats (4) /pipe clamp, sealing plug ▲ | $450.00 |

**Total Options**

- Enclosure Upsize | $81.00
- Total Options: $127.00
- Base | $2,671.00

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