

Single Phase Duplex Type 126

SJE Rhombus®

Installation Instructions and Operation/Troubleshooting Manual

PN 1011393D 07/21



WARNING!



ELECTRICAL SHOCK HAZARD

Disconnect all power sources before servicing. Failure to do so could result in serious injury or death.

This control panel must be installed and serviced by a licensed electrician in accordance with the National Electric Code NFPA-70, state and local electrical codes.

All conduit running from the well to the control panel must be sealed with conduit sealant to prevent moisture from entering the panel. **NEMA 1 enclosures are for indoor use**, primarily to provide a degree of protection against contact with enclosed equipment. Cable connectors are not required to be liquid-tight in NEMA 1 enclosures. **Do not use NEMA1 enclosures if subjected to rain, splashing water, or hose-directed water.** **NEMA 4X enclosures are for indoor or outdoor use**, primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water and hose-directed water. **Cable connectors must be liquid-tight in NEMA 4X enclosures.**

Installation

Most Type 126 panels are designed to operate with two pressure switches for performing the pump stop/start, and lag pump start functions.

Installation of Pressure Switches

CAUTION: If pressure switches are not wired in the correct order, the pump system will not function properly.

WARNING: Turn off all power before installing pressure switches. Failure to do so could result in serious or fatal electrical shock.

1. Install pressure switches per manufacturer's guidelines.
2. Label pressure switch cables for specific operation (stop/start and lag)

Mounting the Control Panel

1. Determine mounting location for panel. If distance exceeds the length of the pump power cables, splicing will be required. For outdoor or wet installation, we recommend the use of an SJE Rhombus® NEMA 4X junction box with liquid-tight connectors to make required connections. **You must use conduit sealant to prevent moisture from entering the junction box.**
2. Mount the control panel with mounting flanges furnished.
3. Determine conduit entrance locations on control panel. Check local codes and schematic for the number of power circuits required.

NOTE: Be sure the incoming power, voltage, amperage, and phase meet the requirements of the pump motors being installed. If in doubt, see the pump identification plate for electrical requirements.

Manufactured by:



SJE RHOMBUS.

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techsupport@sjerhombus.com
www.sjerhombus.com

Technical Support Hours:
Monday - Friday, 7 A.M. to 6 P.M. Central Time

Installation Instructions

4. Drill proper size holes for type of connectors being used.

NOTE: If using conduit, be sure that it is of adequate size to pull the pump and switch cables through. **You must use conduit sealant to prevent moisture from entering the panel.**

5. Attach cable connectors and/or conduit connectors to control panel.

**FOR INSTALLATION WITHOUT A SPLICE,
GO TO STEP 10; FOR INSTALLATION
REQUIRING A SPLICE, FOLLOW STEPS 6-9.**

6. Determine location for mounting junction box according to state and local code requirements. Mount the junction box to proper support.

7. Run conduit to junction box. Drill proper size holes for the type of conduit used. Attach connectors to junction box.

8. Identify and label each wire before pulling through conduit into control panel and junction box. Make wire splice connections at junction box.

9. Firmly tighten all fittings on junction box.

10. If a junction box is not required, pull cables through conduit into control panel.

11. Connect pump wires, incoming power wires, and pressure switches per the field wiring diagram.

**VERIFY CORRECT OPERATION OF CONTROL
PANEL AFTER INSTALLATION IS COMPLETE.**

NOTE: Upon initial start-up, place one of the Hand-Off-Automatic switches in the "OFF" position to prevent the panel from automatically going into a lag condition. Once the system is pressurized, return all switches to Automatic positions.

Operations

SJE Rhombus® Type 126 panels are designed to operate with two pressure switches for pump sequencing. The pressure switch functions are pump stop/start and lag pump start.

As the pressure drops and the "stop/start" pressure switch closes, pump one will act as the lead pump and start. If the pressure continues to drop and the "lag" pressure switch closes, pump two will act as the lag pump and start. Pumps one and two will remain active until the "stop/start" and "lag" pressure switches open.

When both pumps have stopped running, the alternator will switch to pump two as the lead pump in the next sequence.

HOA Switch

A Hand-Off-Automatic switch is provided for each pump. In the Hand mode the pump will turn on unless other safety features are employed. In the Automatic mode the pump will turn on from commands by the pressure switches.

Pump Run Lights

Each pump has a run light. The run light will be ON in either the hand or the automatic mode when the pump is called to run.

NOTE: Some options ordered may not be included in this manual.

For information regarding the
operations of options not listed here
or servicing questions,
please call an SJE Rhombus®
customer service technician at
1-800-RHOMBUS
(1-800-746-6287)

Warranty void if panel is modified.

Troubleshooting



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Alternating Device

The alternation can be sequenced by making jumper wires simulate pressure switch operation. If the alternator fails during testing, replace with same type. Consult factory at **1-800-RHOMBUS** (1-800-746-6287) when in doubt about testing procedures or results.

Pressure Switch

Refer to pressure switch manufacturer for their troubleshooting instructions.

Fuses

Check the continuity of the fuse. Pull the fuse out of the fuse block. With the ohmmeter on the R X 1 scale, measure resistance. A reading of infinity indicates a blown fuse and must be replaced. Replace fuse with same type, voltage, and amp rating.

Indicator Lights

If defective, replace all indicator pilot lights with same type.

Magnetic Contactor (optional)

Contacts - Check the contacts for severely burnt or welded contacts. The contactor arm should move freely.

Coil - Measure the coil by disconnecting one of the coil leads. Measure the coil resistance by setting the ohmmeter on the R X 1 scale. A defective coil will read zero or infinity, indicating a short or opened coil respectively. If contactor is defective, replace with same type.

NOTE: Readings may vary slightly depending on the length of wire and accuracy of the measuring device.

SJE Rhombus® Five-Year Limited Warranty

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For complete terms and conditions, please visit www.sjerhombus.com.

NOTICE!

Products returned must be cleaned, sanitized, or decontaminated as necessary prior to shipment to ensure that employees will not be exposed to health hazards in handling said material. All applicable laws and regulations shall apply.

NOTES: _____



Technical Support: +1 800-746-6287

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