

# INSTALLATION INSTRUCTIONS

Revision C2  
Rapid City, SD, USA, 02/2010

**PumpSaver®**  
ELECTRONIC PUMP  
CONTROL & PROTECTION

## MODEL ALT-XXX-1-SW



II-ALT-XXX-1-SW-B



[www.SymCom.com](http://www.SymCom.com)  
...your electronic control & protection specialists

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## **DANGER!**



**HAZARDOUS VOLTAGES MAY BE PRESENT DURING INSTALLATION.**

**Electrical shock can cause death or serious injury.**

**Installation should be done by qualified personnel following all national, state and local electrical codes.**



**BE SURE POWER IS DISCONNECTED PRIOR TO INSTALLATION!  
FOLLOW NATIONAL, STATE AND LOCAL CODES.  
READ THESE INSTRUCTIONS ENTIRELY BEFORE INSTALLATION.**

SymCom's PumpSaver® Model ALT-XXX-1-SW is designed to alternate between two loads. It is commonly used in duplex pumping applications to balance the run time of two pumps (loads). The voltage designation must be specified in the part number.

The ALT-XXX-1-SW gives the user the option to allow the unit to automatically select the load, to balance the run time of the two loads, or to manually select Load 1 or Load 2. This gives the user the option to force one load to be the lead at all times when one load has been removed for maintenance or repair.

An additional feature is the ability to output to two remote indicator lights.

### **CONNECTIONS**

1. The ALT-XXX-1-SW requires an 11-pin socket part number OT11 (sold separately).
2. Mount the PumpSaver® socket in a convenient location in or near the pump control panel. If the location is wet or dusty, it should be mounted in a NEMA 4 or 12 enclosure.

**NOTE:** The ALT-XXX-1-SW can be connected in many different ways using many different switching devices. The following is a typical configuration for alternating between two pumps and two indicator lights. See Figure 2 for a typical wiring diagram showing the following connections.

3. Connect one pump's magnetic contactor coils (M1) between socket terminal 11 and L2 of the power supply.
4. Connect the other pump's magnetic contactor coil (M2) between socket terminal 9 and L2 of the power supply.
5. Connect the indicator light for M1 (LT1) between socket terminal 3 and L2 of the power supply.
6. Connect the indicator light for M2 (LT2) between socket terminal 1 and L2 of the power supply.
7. Connect the power supply L2 to socket terminal 8 and power supply L1 to socket terminal 4.
8. Connect the control switch device between the power supply L1 and the socket terminals 10, 2, and 6.
9. Plug the Model ALT-XXX-1-SW into the socket.

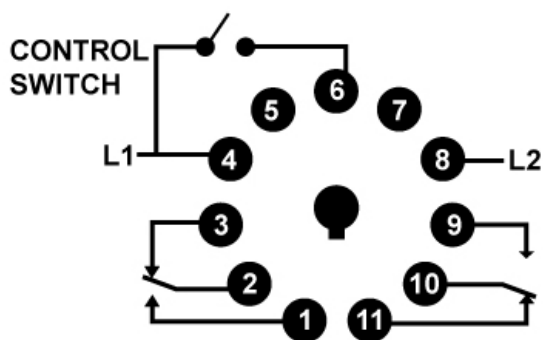


Figure 1: Pin-out Diagram

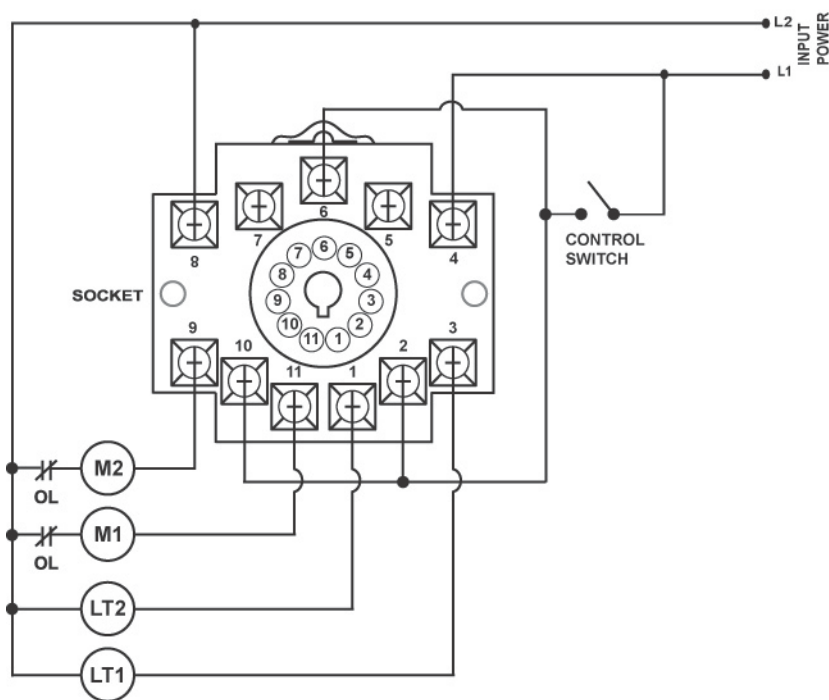
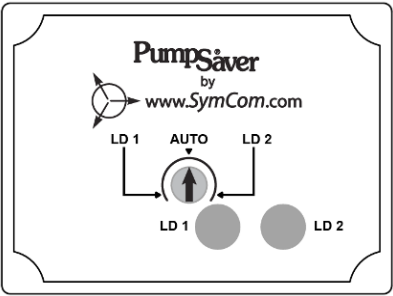


Figure 2: Typical Pump Control Wiring Diagram

**SETTINGS**



**Figure 3: User-Selectable Options**

The unit itself has one adjustable setting for load selection. Any additional configurations must be set by connections to user-selected external switches.

To let the unit automatically select the load to be activated next, set the dial to “AUTO”. Turn the dial to the selected load to allow only that specific load to be activated. This de-activates the other load if it is currently activated. This allows one pump to be taken out of the circuit for repair or replacement.

**⚡ DANGER!**

Lock-out power to the ALT-XXX-1-SW before attempting to repair or replace wiring or loads

**⚡**

**OPERATION**

Apply power to the system. Indicator lights on the unit will show which load is currently active. Output to the corresponding remote light will also be activated.

When set to “AUTO”, the active load will continue to run until the control switch is opened. Each time the control switch is opened, the output contacts will switch to activate the opposite load and light the next time the control switch closes.

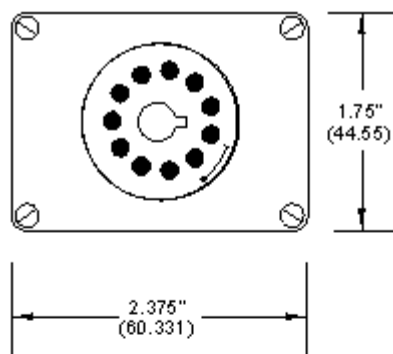
INDICATOR LIGHTS	STATUS
LD1 ON	LOAD 1 ACTIVE
LD2 ON	LOAD 2 ACTIVE

**Table 1: Diagnostic Indicator Lights**

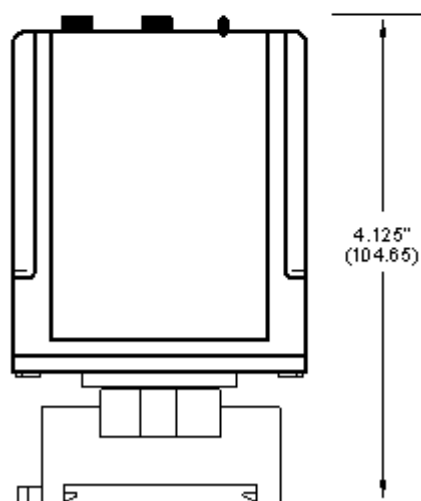
## TROUBLESHOOTING

SYMPTOM	LIGHT PATTERN	SOLUTION
Device is not functional	<b>NO LIGHTS ON</b>	Measure the line voltage. If the voltage is below the minimum listed in the Specification Table, the PumpSaver® does not have enough power to operate its internal electronics. If the voltages are correct, call SymCom at (800) 843-8848 or (605) 348-5580.
Only one load runs when the control switch closes. Device does not alternate between the two loads.	<b>ONE LIGHT ON</b>	Check the adjustment knob setting on the ALT-XXX-1-SW to make sure it is set to the AUTO position.
Neither load runs.	<b>ONE LIGHT ON</b>	Check the control switch to make sure it is closing properly. Check wiring between ALT-XXX-1-SW and motor controls.

## DIMENSIONS



**BOTTOM**



**SIDE  
WITH OT 11\* SOCKET**

\*Use of the OT11-PC or RB11-PC octal socket, manufactured by Custom Connector Corp., is required for the MotorSaver to qualify as a UL Listed device. The OT11-PC is 35mm DIN rail compatible.

**PUMPSAVER® ALT-XXX-1-SW SPECIFICATIONS**

<b>Functional Characteristics</b>	
Debounce Time Delay	1 second
<b>Input Characteristics</b>	
Line Supply Voltage	
ALT-100-1-SW	95-120VAC
ALT-200-1-SW	190-240VAC
Frequency	50/60Hz
<b>Output Characteristics</b>	
Output Contact Rating	
Pilot Duty	480VA @ 240VAC
General Purpose	10A @ 240VAC
<b>General Characteristics</b>	
Environmental	
Ambient Operating Temperature <sup>1</sup>	-40° to 70°C (-40° to 158°F)
Relative Humidity	10-95%, non-condensing per IEC 68-2-3
Maximum Input Power	5 W
Standards Passed	
Electrostatic Discharge (ESD)	IEC 61000-4-2, Level 3, 6kV contact, 8kV air
Radio Frequency Immunity, Radiated	150 MHz, 10V/m
Fast Transient Burst	IEC 61000-4-4, Level 3, 3.5kV input power and controls
Surge Immunity	
IEC	IEC 61000-4-5, Level 3, 4kV line-to-line; Level 4, 4kV line-to-ground
ANSI/IEEE	C62.41 Surge and Ring Wave Compliance to a level of 6kV line-to-line
Hi-Potential Test	Meets UL508 (2 x rated V +1000 V for 1 minute)
Safety Marks	
UL listed (OT11 octal socket required)	UL508 (File #E68520)
CE	IEC 60947-6-2
Dimensions	2.330" H x 2.375" W x 4.125" D (with socket)
Weight	9 oz
Enclosure	Polycarbonate
Mounting Method	Plugs into OT11 Socket; can be mounted to DIN rail or surface mount
Wire Gauge	12-22 AWG Solid or Stranded
Terminal Torque for P/N OT11 Socket	12 in. – lb

<sup>1</sup> The ambient air temperature is the air temperature directly surrounding the product.

For warranty information, please see **Terms and Conditions** at  
[www.symcom.com](http://www.symcom.com)

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our complete product listing!*

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