

**BE SURE POWER IS DISCONNECTED PRIOR TO INSTALLATION!!  
FOLLOW NATIONAL, STATE AND LOCAL CODES!**

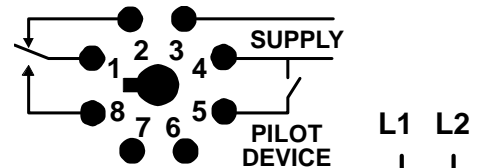
The Model ALT alternating relay is used to alternate between two loads. It is commonly used in duplex pumping applications to balance the runtime of both pumps. The voltage must be specified in the ALT part number—Table 1 identifies all available Model ALTs.

<b>ALT-24-S</b>	20–26VAC, SPDT relay
<b>ALT-24-X</b>	20–26VAC, DPDT relay
<b>ALT-24-S-SW</b>	20–26VAC, SPDT relay w/ manual/automatic switch
<b>ALT-24-X-SW</b>	20–26VAC, DPDT relay, w/ manual/automatic switch
<b>ALT-115-S</b>	95–125VAC, SPDT relay
<b>ALT-115-X</b>	95–125VAC, DPDT relay
<b>ALT-115-S-SW</b>	95–125VAC, SPDT relay, w/ manual/automatic switch
<b>ALT-115-X-SW</b>	95–125VAC, DPDT relay, w/ manual/automatic switch
<b>ALT-230-S</b>	195–250VAC, SPDT relay
<b>ALT-230-X</b>	195–250VAC, DPDT relay
<b>ALT-230-S-SW</b>	195–250VAC, SPDT relay, w/ manual/automatic switch
<b>ALT-230-X-SW</b>	195–250VAC, DPDT relay, w/ manual/automatic switch

**TABLE 1: ALT Model Numbers**

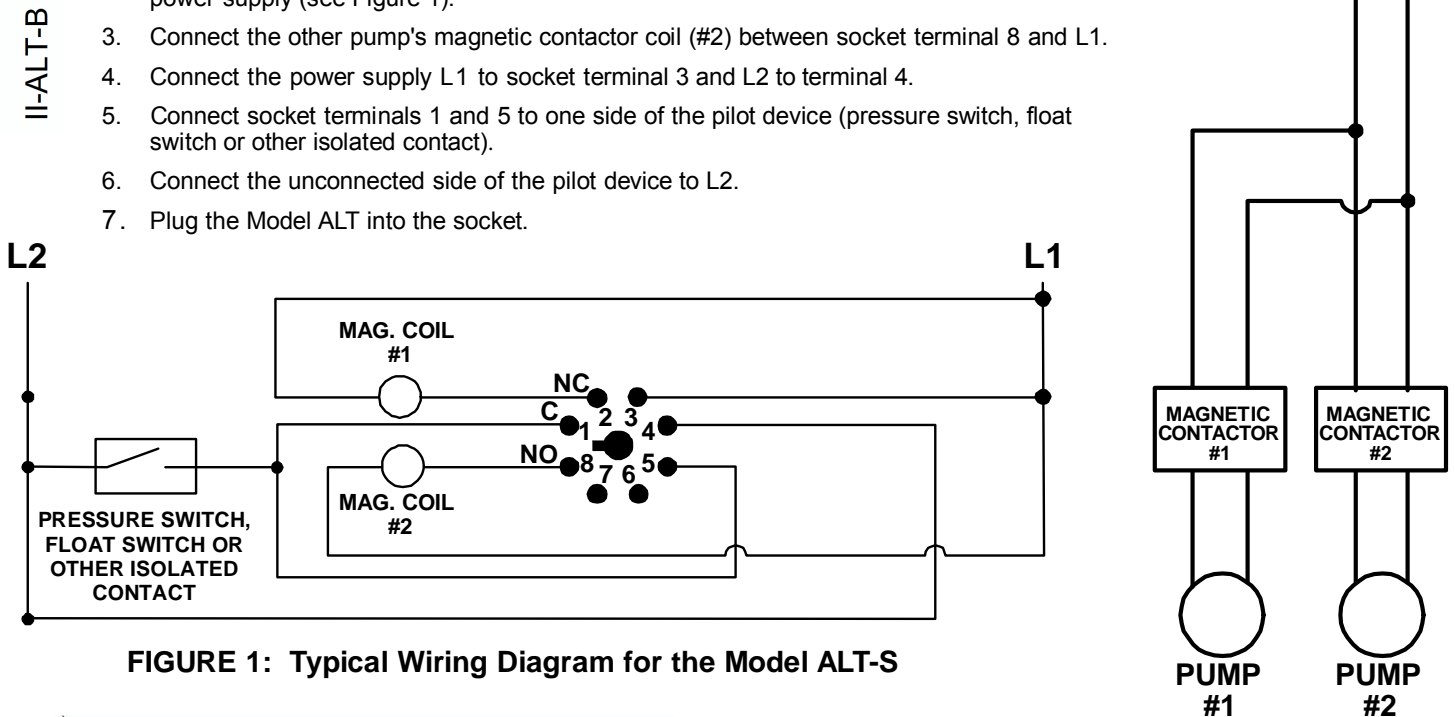
### MODEL ALT-S

The Model ALT-S has a single-pole, double-throw output relay and is used in single high-level float applications. When the float switch opens, the alternating relay changes state forcing the other pump to run the next time the float closes.



### CONNECTIONS (MODEL ALT-S)

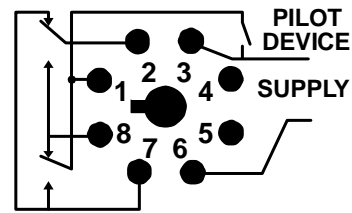
1. Mount the Model OT08 octal socket in a convenient location inside the pump control panel.
2. Connect one of the pump's magnetic contactor coils (#1) between socket terminal 2 and L1 of the power supply (see Figure 1).
3. Connect the other pump's magnetic contactor coil (#2) between socket terminal 8 and L1.
4. Connect the power supply L1 to socket terminal 3 and L2 to terminal 4.
5. Connect socket terminals 1 and 5 to one side of the pilot device (pressure switch, float switch or other isolated contact).
6. Connect the unconnected side of the pilot device to L2.
7. Plug the Model ALT into the socket.



**FIGURE 1: Typical Wiring Diagram for the Model ALT-S**

## MODEL ALT-X

The Model ALT-X has an internal double-pole, double-throw, cross-connected relay and is used in dual high-level float applications. The pumps alternate as in the ALT-S version, but the cross-connected relay configuration allows both pumps to run simultaneously when both the lead and lag floats are closed.



## CONNECTIONS (MODEL ALT-X)

1. Mount the Model OT08 octal socket in a convenient location inside the pump control panel.
2. The control circuit should be separately fused to avoid disabling the control circuit when one pump is disconnected for service.
3. Connect Pump #1's magnetic contactor coil between socket terminal 8 and L2 of the power supply.
4. Connect Pump #2's magnetic contactor coil between socket terminal 7 and L2 of the power supply.
5. Connect the LEAD pilot device, S1 (pressure switch, float switch or other isolated contact), between socket terminals 1 and 3. Each time S1 opens, the relay changes state forcing the other pump to run the next time the float closes.
6. Connect the LAG pilot device, S2, between socket terminals 2 and 3.
7. Connect L2 of the power supply to socket terminal 6 and L1 to terminal 3.
8. Plug the Model ALT into the socket.

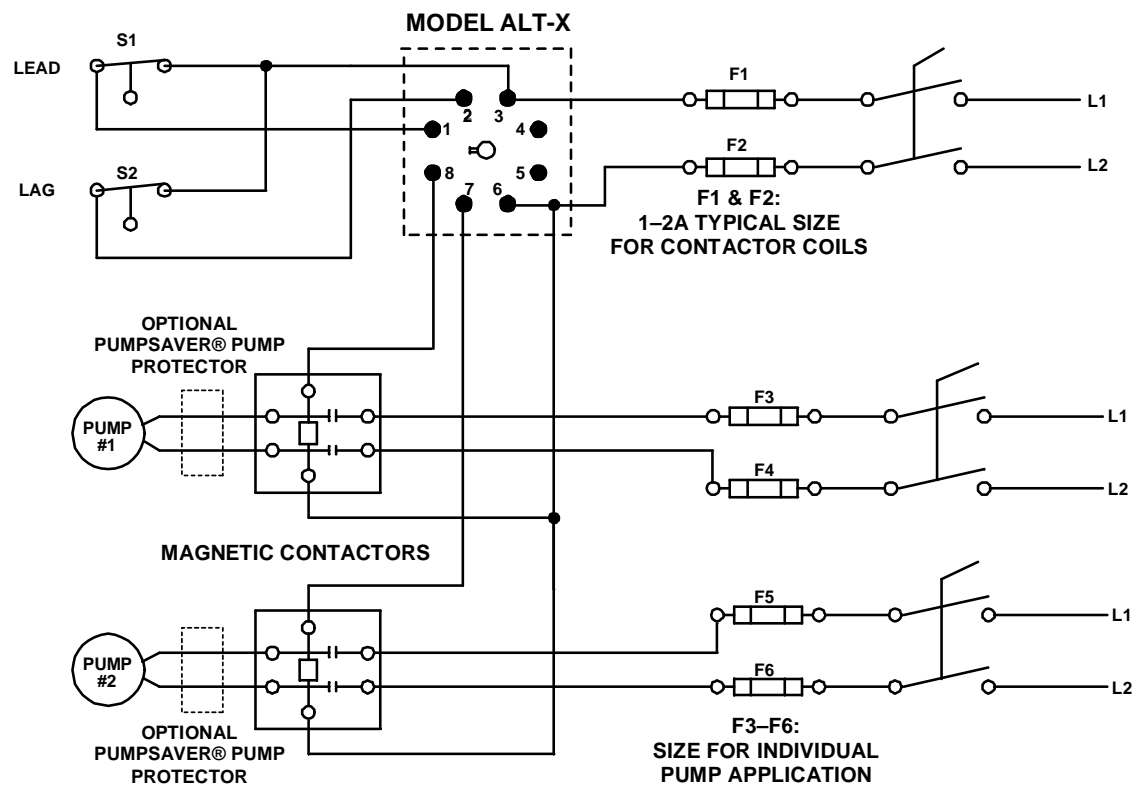


FIGURE 2: Typical Wiring Diagram for the Model ALT-X

## MANUAL/AUTOMATIC SWITCH

The ALT is also available with a built-in switch (-SW option) that can be used to manually force one pump to run every time the float closes. This is useful when a pump has been removed for repair or for test purposes. In the case of the Model ALT-X-SW, the switch essentially forces one pump to be the lead pump, while still allowing the second pump to run if both floats are closed.