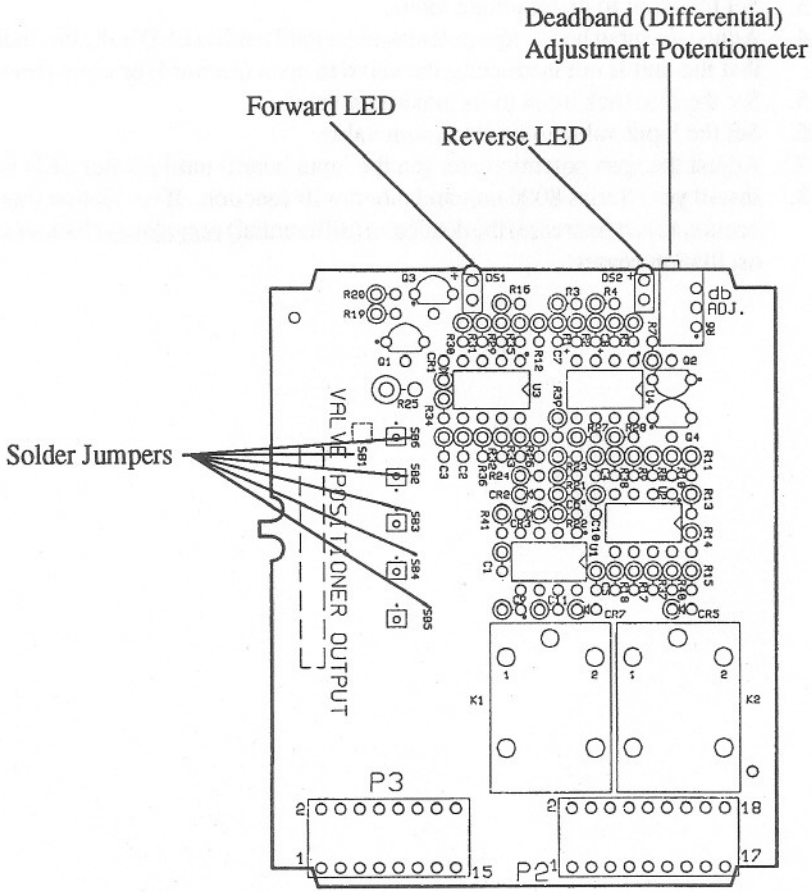
Valve Positioner Output Board Part Locations



Specifications

Feedback: Input Range: 0-1VDC, 1-5VDC, 0-10VDC, 4-20mA
or Potentiometer (slidewire): 100Ω-10kΩ or 10kΩ-100kΩ
Repeatability: ±1% of Span
Stability: 0.05% of Span/°C
Slidewire Excitation Voltage: 3V; 0.5V ±5%, 5mA maximum
Relay Output: 5A (non-inductive), 120VAC, On/Off/On
Indicators: Two LEDs, one lights to indicate Forward (open), the other to indicate Reverse (close).
Overvoltage: $50V_{peak}$, Feedback and Excitation
Deadband (Differential) Range: 0%-30%

For general specifications, see the Series 8000 base manual, which provides general information for the entire series.

Setup Procedure

I. Disassemble the Series 8000 unit as described on page 6 of the main manual.
II. Remove the Valve Positioner Output Board.
III. Determine whether you are using DC feedback input or slidewire feedback input and set the solder jumpers for your input range.
IV. Calibrate the unit as described on page 73-3.
V. Reassemble the unit as described in the main manual, pages 4 to 6.

Setup Instructions

Slidewire Feedback Input

The standard (factory) setting for this board is for any slidewire with a range of 100Ω-10kΩ. The solder jumper settings for this range are:

Closed	Open
SB1	SB2
	SB3
	SB4
	SB5
	SB6

If your slidewire range is 10kΩ-100kΩ, the solder jumper settings are:

Closed	Open
SB2	SB1
SB6	SB3
	SB4
	SB5

VDC Feedback Input

For 0-1VDC inputs:

Closed	Open
SB1	SB2
SB4	SB3
	SB5
	SB6

For 1-5VDC inputs, SB1–SB6 are all open.

For 0-10VDC inputs:

Closed	Open
SB2	SB1
SB5	SB3
	SB4
	SB6

For 4-20mA inputs:

Closed	Open
SB3	SB1
	SB2
	SB4
	SB5
	SB6

Calibration

1. Set the deadband (differential) adjustment potentiometer to minimum by turning it counterclockwise 20 turns.
2. Set the feedback input to its minimum value.
3. Set the input to its minimum value.
4. Adjust the input board zero potentiometer until neither LED is lit (this indicates that the unit is not instructing the valve to open (forward) or close (reverse)).
5. Set the feedback input to its maximum value.
6. Set the input value to its maximum value.
7. Adjust the span potentiometer (on the input board) until neither LED is lit.
8. Install your Series 8000 unit and monitor its function. If oscillation (hunting) occurs, adjust (increase) the deadband (differential) *very slowly* clockwise until oscillation ceases.