Installation and Operating Instructions for Ashcroft® Pressure Volume Controllers, Models AVC-1000 and AVC-3000

INSTALLATION (see figure)

Step 1 –
Install a valve to the vent port on the pressure balance valve assembly.

Step 2 –
Install a valve to the inlet port on the pressure balance valve assembly.

Step 3 –
Install a tee fitting to the rear of the AVC unit.

Step 4 –
Connect a pressure standard, for example a dial gauge or digital indicator to one side of the tee. To the other side of the tee connect the device to be calibrated or tested.

NOTE (Installation) –
All plumbing connections are made to ⅛ NPTF ports.

OPERATION

Step 1 –
Open the pressure balance valve.

Step 2 –
Open the vent valve.

Step 3 –
Turn the control knob to approximately midrange. This will allow for increase and decrease of system pressure. Alternatively, the starting position of the knob may be at the counterclockwise or clockwise stop. This will allow for maximum pressure increase (knob at the counterclockwise stop) or maximum pressure decrease (knob at clockwise stop).

Step 4 –
Close the vent valve.

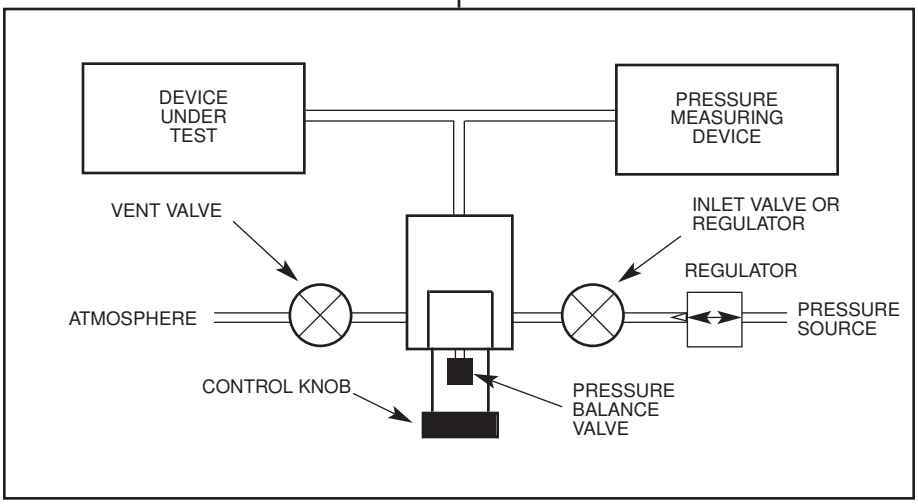
Step 5 –
Open the inlet valve to provide pressure to approximately the desired pressure level.

Step 6 –
When the appropriate pressure has been achieved, close the inlet valve.

Step 7 –
Close pressure balance valve.

Step 8 –
Turn control knob clockwise to increase system pressure or counterclockwise to decrease system pressure.

NOTE (Operation) –
During operation the pressure balance valve will automatically open if the pressure across the piston exceeds safe levels. This is factory set at a nominal pressure differential of 150 psi.



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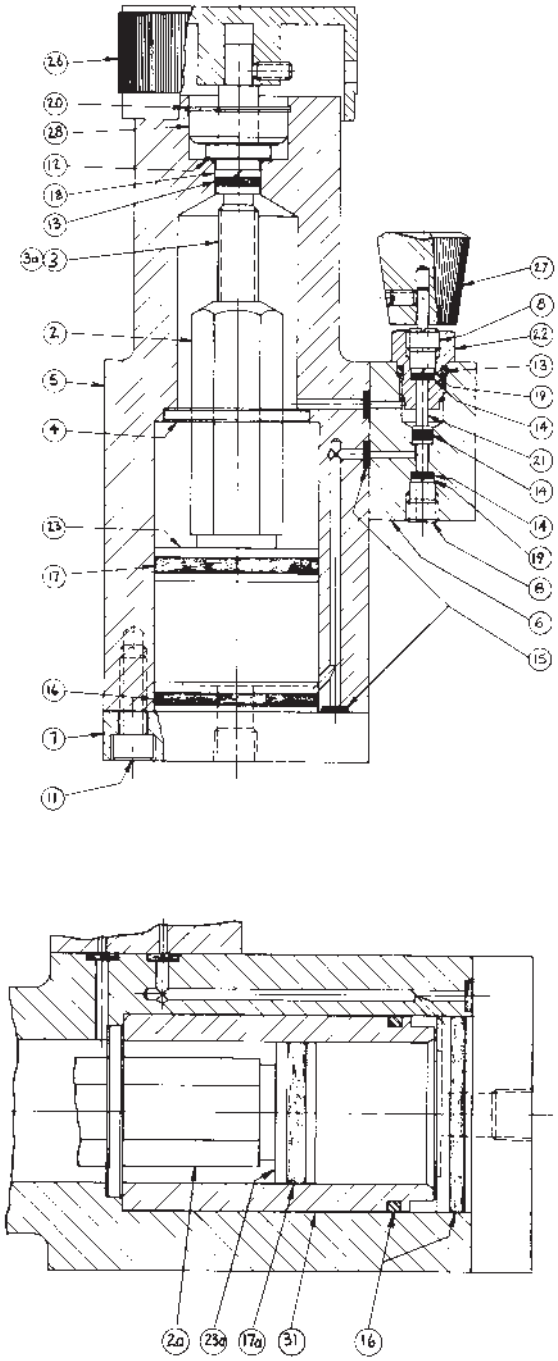
PARTS LIST

ITEM NO.	QTY. PER ASSY.	PART NUMBER	DESCRIPTION
1	1		Final Assembly
2	1	603X002-01	Actuator (1000 psi unit)
2a	1	603X002-02	Actuator (3000 psi unit)
3	1	603X003-01	Lead Screw (1000 psi unit)
3a	1	603X003-02	Lead Screw (3000 psi unit)
4	1	603X004-01	Washer, Actuator
5	1	603X005-01	Body
6	1	603X006-01	Valve Body
7	1	603X007-01	End Cap
8	2	603X008-01	Guide Screw
9	3**	854X050-01	Pipe Plug
10	2**	605X003-09	Socket Head Screw (valve)
11	8	605X004-05	Socket Head Screw
12	1	605X005-01	Washer
13	2	607A001-02	O-Ring
14	3	607X001-04	O-Ring
15	3	607X001-05	O-Ring
16	1*	607X001-06	O-Ring
17	1	607X001-08	O-Ring (1000 psi unit)
17a	1	607X001-07	O-Ring (3000 psi unIt)
18	1	607A002-02	Back-up Ring
19	2	607X002-05	Back-up Ring
20	1	607X006-01	Retaining Ring
21	1	609X005-01	Spool Valve
22	1	609X006-01	Retainer Valve
23	1	614X003-01	Piston (1000 psi unit)
23a	1	614X003-02	Piston (3000 psi unit)
24	1	618X004-01	Label, Valve Control
25	1	618X005-03	Label (1000 psi unit)
25a	1	618X005-04	Label (3000 psi unit)
26	1	619X001-02	Knob, Adjustment
27	1	619X002-01	Knob, Balance Valve
28	1	620X001-01	Bearing, Ball Thrust
29	1**	617X006-01	Mounting Kit, Panel
30	1**	621X001-02	Table Mount Bracket (optional)
31	1	610X002-01	Sleeve (3000 psi unit)



* Quantity is 2 in model AVC-3000.
** Not shown.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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