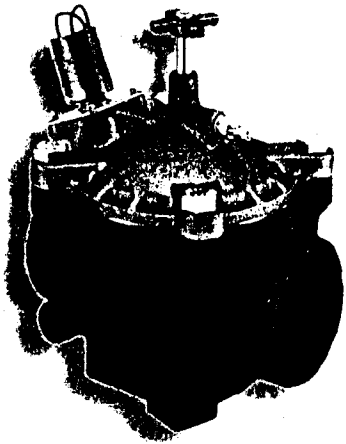


GRISWOLD 2000 SERIES-NORMALLY CLOSED VALVES



2000 SOLENOID VALVE

Applications:

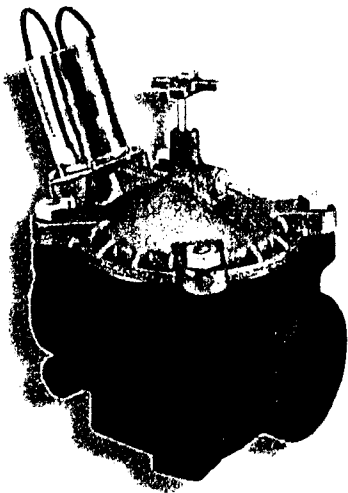
- On - Off solenoid valve
- General purpose master valve

Technical Features:

- Voltage operating range - 17-40 VAC
- Low current requirement - 0.40 A at 24 VAC

Options:

- Epoxy-fused coating
- British standard pipe threads (BSPT)
- 12 VDC latching solenoid



2030 SOLENOID VALVE

Applications:

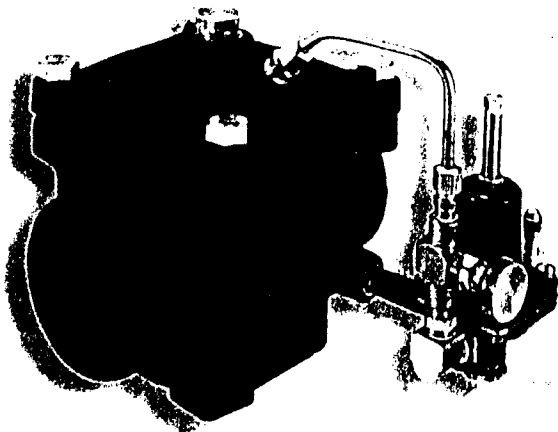
- Long wire runs
- Lightning prone areas
- Simultaneous valve operation

Technical Features:

- Low wattage solenoid - lightning protected
- Voltage operating range - 16-40 VAC
- Low current requirement - 0.10 A at 24 VAC

Options:

- Epoxy-fused coating
- British standard pipe threads (BSPT)
- 12 VDC latching solenoid



2280 PRESSURE REDUCING VALVE

Applications:

- Manual master valve for pressure reducing control
- Sub-main control in elevation change areas
- Pump discharge control

Technical Features:

- Inlet pressure up to 300 psi
- Regulating range - 5 to 125 psi
- Schraeder valve for pressure measurement

Options:

- Epoxy-fused coating
- British standard pipe threads (BSPT)
- Permanently installed pressure gauge

NORMALLY CLOSED SOLENOID

CONTROL VALVE MODELS: DWS, GP, 2000 & 2030

INSTALLATION & OPERATION INSTRUCTIONS

The Griswold Models DWS, GP, 2000, and 2030 are equipped with (1) a solenoid control pilot, (2) an on-off manual bleed valve, and (3) a multi-function flow stem, all located on the valve cover.

These valves are normally closed. Opening the manual bleed screw or energizing the solenoid opens the valve. The valve delivers full supply pressure to downstream when open, unless throttled by the flow stem.

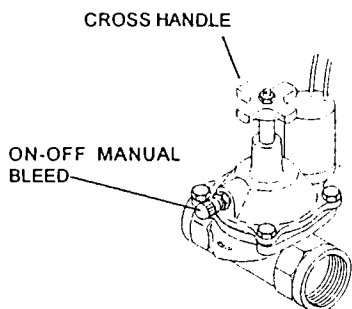
Loosen the bleed screw to open the valve manually. The valve will open. Water will continually discharge from the bleed valve while it is open. Tightening the bleed valve will cause the valve to close.

Turn the flow stem (cross handle) on the cover clockwise one or two turns if the valve takes too long to close. Repeat this procedure until proper closing time has been achieved.

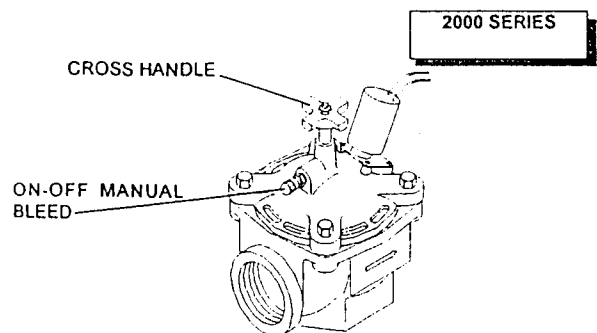
Do not screw the flow stem in too far because this flow stem also throttles the valve by limiting the internal stroke of the diaphragm assembly.

Turning the flow stem in (clockwise) will reduce downstream pressure and in the extreme position shut the valve off.

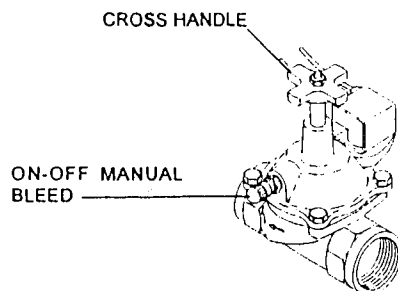
Screw the flow stem in and out a few times and then activate the valve if particles in the water clog the internal control port of the valve.



DWS SERIES



2000 SERIES



GP SERIES



2803 Barranca Parkway, P.O. Box 19612, Irvine, CA 92714
(714) 559-6000, FAX: (714) 559-6088

F-2515A

GRISWOLD 2000 SERIES VALVES

Installation Data

Griswold 2000 series remote-control valves can be installed below ground level at any convenient location in the irrigation system. To provide easy access for manually operating the valve or adjusting the closing speed or downstream pressure, install the valve in a valve box. Valve dimensions are given in Table A.

Multiple valves connected to a single clock-controller station should be wired in parallel. Tables B and C list the required wire size as a function of both distance and number of valves.

Another factor to consider is the pressure loss. The optimum size pressure reducing valve may or may not be the same as the pipe size. First estimate the gallons per minute (GPM) that must flow through the valve. Then subtract the desired downstream pressure from the minimum upstream pressure loss caused by the pressure regulation function should be less than this figure. Table D indicates the minimum-size valve you can select for a given flow rate.

A. Dimensions (Inches): Model 2000, 2030 Valves*; 2230, 2280 Valves**; 2250, 2285 Valves***

Size NPT/BSP	Length	Height	Overall Dimensions (Inches) Width*	Width**	Width***	Flow Range (GPM)
1"	4.5	6.8	4.0	8.0	10.0	0.01 - 60
1 1/4"	4.5	6.8	4.0	8.0	10.0	0.01 - 70
1 1/2"	5.5	8.3	4.8	9.5	10.0	0.01 - 100
2"	7.5	9.5	6.0	10.0	12.0	0.01 - 200
2 1/2"	7.5	9.5	6.0	10.0	12.0	0.01 - 300
3"	8.5	10.5	6.0	10.5	12.5	0.01 - 400

B. Distance (Feet) vs. Wire Size: Model 2000 Valves

No. of Valves	18 Gauge Wires	16 Gauge Wires	14 Gauge Wires	12 Gauge Wires	10 Gauge Wires
1	1,500	2,400	3,800	6,000	9,600
2	750	1,220	1,900	3,000	4,800
3	250	407	633	1,000	1,600
4	63	102	158	250	400

Calculations based on 150 PSI Water Pressure and minimum 105 VAC input to programmer

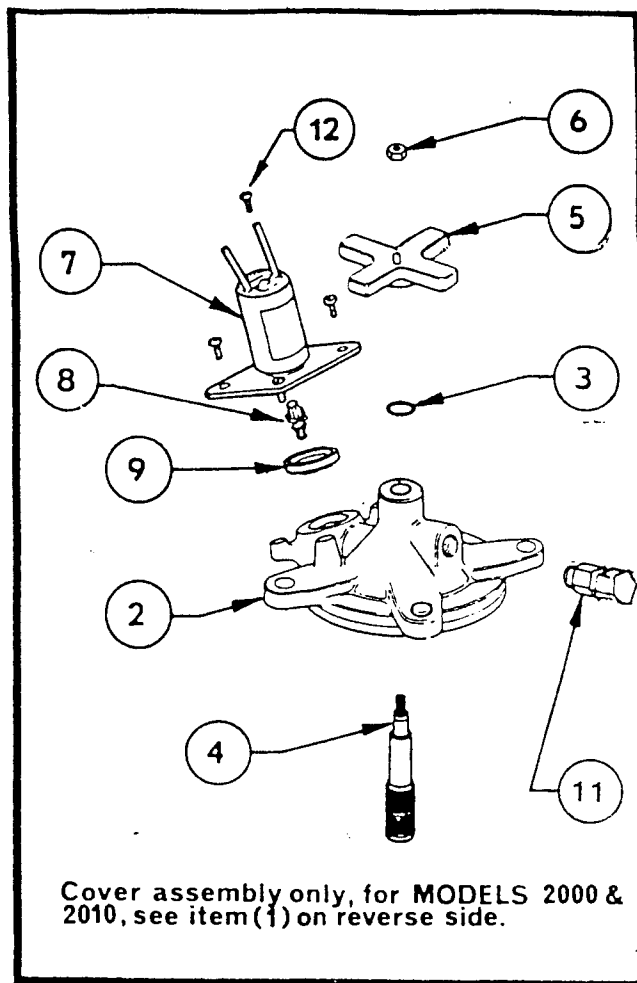
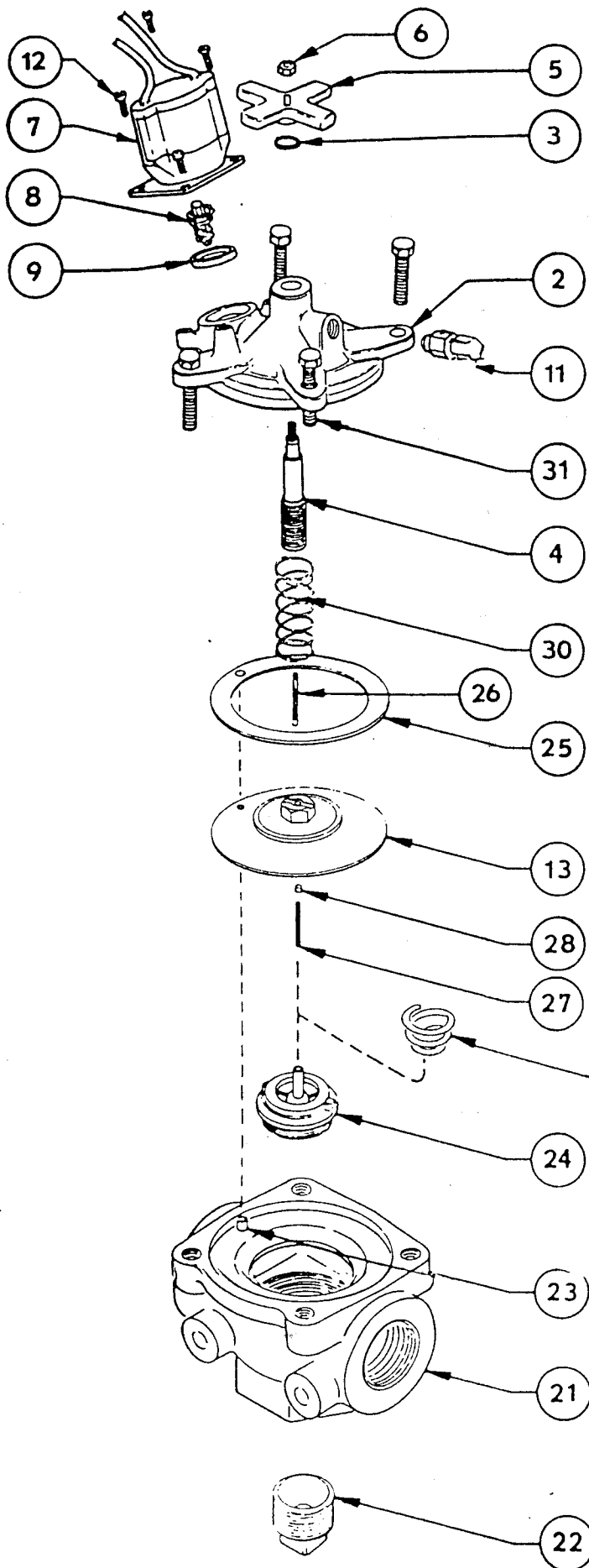
C. Distance (Feet) vs. Wire Size: All Other Valves

No. of Valves	18 Gauge Wire	16 Gauge Wire	14 Gauge Wire
1	7,000	11,000	17,000
2	3,500	5,500	8,500
3	2,300	3,600	5,500
4	1,750	2,700	4,200
5	1,400	2,200	3,400
6	1,160	1,800	2,800

D. Pressure Loss (in PSI) at Various Flow Rates (minimum flow rate: .01 GPM)

Size	Flow Pattern		Flow Rate (GPM)																															
			10	15	20	25	30	35	40	45	50	55	60	65	70	80	90	100	120	140	160	180	200	225	250	275	300	325	350	375	400			
1"	Straight	P R E S S U R E L O S S	1.0	1.24	2.2	3.4	5.0	6.7	8.8	11.1	13.7	16.6	19.7																					
	Angle		1.7	2.7	3.9	5.2	6.8	8.7	10.7	12.9	15.4	In this range:																						
1 1/4"	Straight		1.5	2.3	3.3	4.5	5.8	7.4	9.1	11.0	13.1	15.3	17.8	consult with factory																				
	Angle		1.3	2.0	2.8	3.9	5.1	6.4	7.9	9.6	11.4	13.3	15.5																					
1 1/2"	Straight		1.3	1.8	2.4	3.0	3.7	4.5	5.0	5.4	6.3	9.5	12.0	14.8																				
	Angle		1.5	1.9	2.4	3.0	3.6	4.3	5.9	6.8	7.6	9.7	11.9																					
2"	Straight		Use 1 psi drop	1.8	1.8	2.4	3.0	3.7	5.3	7.3	9.5	12.0	14.8																					
	Angle		in this range	1.3	1.5	2.0	2.5	3.1	4.5	6.1	7.9	10.0	12.3																					
2 1/2"	Straight		1.0	1.2	1.5	1.9	2.4	3.4	4.6	6.1	7.7	9.5	12.0	14.8	17.9	21.3																		
	Angle		1.2	1.6	1.9	2.8	3.8	4.9	6.3	7.7	9.8	12.0	14.6	17.4																				
3"	Straight		1.2	1.5	2.1	2.8	3.7	4.7	5.8	7.3	9.1	11.0	13.1	15.3	17.8	20.4	23.2																	
	Angle		1.0	1.2	1.7	2.3	3.0	3.8	4.7	6.0	7.4	8.9	10.6	12.5	14.5	16.6	18.9																	





MODELS 2030, 2050, 2060, & 2080;
for cover assemblies only, see items (1) on
reverse side.