SINGER P/N: JO178A

Pressure Regulating Valves
for Water

General Information
Body of bronze with internal parts of brass, stainless steel and engineered thermoplastics. The balanced single seat regulator mechanism is direct acting via a fabric reinforced diaphragm. A serviceable strainer screen is built in, and has a mesh opening of .032". A back pressure bypass allows for themal expansion in hot water heaters, etc. With cartridge insert containing all working parts. D05 Series not suitable for steam service.

Specifications

Max. Inlet psi	400 psi
Reduced Pressure Range	15-150 psi
Max. Reducing Ratio	10:1
Min. Differential (inlet to outlet)	14 psi
Max. Temperature.....	Water 180° F (82° C)
Sizes Available	3/4"

Connections
Threaded female NPT inlet and outlet.
In addition, both ends are threaded externally for union connections, threaded or sweat. Union kits available (K05U series).

Installation
1. Flush system clear of sediment or debris. Then close off supply valve (and downstream isolating valve if any).
2. Install valve with arrow on body in direction of flow. Valve can be mounted in any position.

NOTE: Always remove tailpiece from pressure regulating valve before soldering tailpiece to pipe.

3. Valve is factory set to deliver static outlet pressure of 60 psi.
4. To change the outlet pressure, install a pressure gauge down stream of the valve. (MT194B114 Pressure gauges with a standard hose bib connection are available).
5. Loosen lock-nut (No. 2 in figure 1) by turning counter-clockwise two turns. Turn adjusting bolt (No.1) counter-clockwise to reduce set pressure. Supply shut-off valve (No. 1 in fig. 2) should be closed and a downstream faucet (No. 2 in fig. 2) should be open during this operation. The open downstream faucet relieves the static pressure in the line
6. Close off all down stream valves or faucets and open the supply valve slowly. Turn the adjusting bolt (No.3 in fig. 2) clockwise until the pressure gauge indicates the desired outlet pressure (under no flow conditions).
7. Re-open a downstream valve. During flow there will normally be a pressure falloff of 3 to 15 psi depending on the amount of flow.

Cartridge Replacement
The working parts of the D05, including the diaphragm, valve seat and disc are all contained in a replaceable cartridge (No. 5 in fig. 4) (see accessories for order information).
1. To replace the regulating mechanism (cartridge) shut off the supply valve and open a downstream faucet to relieve the system pressure.
2. Remove the bonnet (as shown in fig. 5) and washer (No. 4 in fig. 4).
3. Extract the cartridge using two screwdrivers as levers (see fig. 6).
4. Clean the screen which surrounds the lower part of the cartridge and place on a new cartridge.
5. Check that the two o-rings (No. 1 and 2 in fig. 3) are positioned properly inside the body. Then reinsert the new cartridge, taking care not to scratch the sides.
6. Place washer (No. 4 in fig. 4) on top of cartridge with inner lip upwards, then replace the spring, spring cup and bonnet.
7. Readjust the outlet pressure, following steps 4 - 7 under Installation.

NOTE: Do not use teflon sealing tape or other sealants on bonnet threads.

To Clean Strainer
Follow Cartridge replacement instructions above, re-using same cartridge.



Dimensions

Size	L	H	h
3/4"	4 3/16"	4 7/16"	1 3/8"

Capacities for water service - Standard Range

Valve Size	Reduced Pressure fall off PSI	Differential Pressure between inlet and outlet (PSI) 25 GPM	25 Ft./sec.	50 GPM	50 ft./sec.	75 GPM	75 ft./sec.	100 or more GPM	100 or more ft./sec.
3/4"	6 10 15	6.5 11.0 16.0		7.5 12.0 17.0		8.0 13.0 18.5		8.5 14.0 20.0	

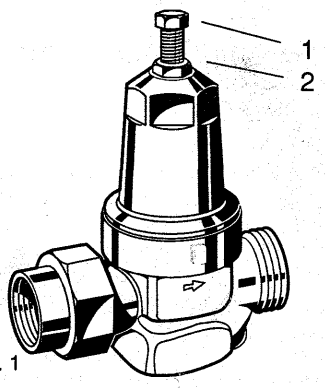


fig. 1

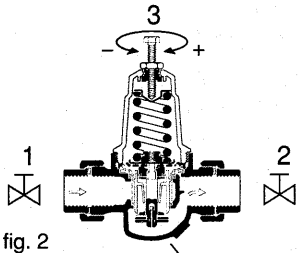


fig. 2

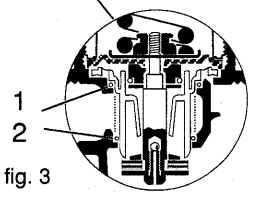


fig. 3

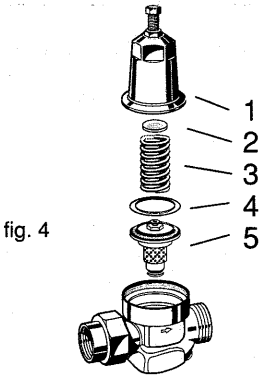
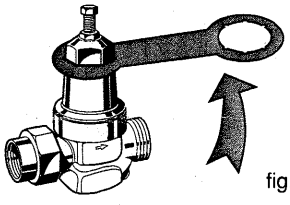
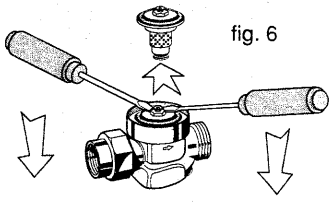


fig. 4


fig. 5


fig. 6

Honeywell
Braukmann