

- IMPORTANT:** Before disassembly, relieve pressure and drain fluid from the valve and piping to be opened.
- Take proper precautions to protect people and equipment from any residual liquid. Valves may be disassembled in place, that is, without removing the valve body from the pipeline. Take proper precautions.
  - Disassemble the regulator in a clean environment. Prevent any dirt, grit, or fiber from getting onto the sealing surfaces or the moving parts.
  - Do not scratch or damage plastic parts. Use a non-scratching probe such as an orange-wood stick or ball end dental pick (burnisher) to remove and install U-cups and O-rings.
  - Do not use pipe wrenches or vises, use a strap wrench when needed.
  - Refer to the assembly diagrams on the back of this sheet. Some older models may not match the procedures exactly. Adapt and adjust the procedure according to your conditions. Please contact Plast-O-Matic Technical Support if you need help. Refer to the regulator instruction sheet for installation or piping.

**SUGGESTED FASTENER TORQUE (INCH POUNDS)**

PR	Piston	Seat	Top Assy	Bottom
025 or H025	10	HT + 1/4 *	5	
050 or H050	HT	HT + 1/4 *	7	
075 or H075	100	50*	15	
100 or H100	100	50*	15	
150 or H150	100	50*	15	15
200 or H200	100		15	15
300 or H300	100		15	15

HT + 1/4 = Hand tight plus 1/4 turn. For Nm (newton-meters) divide by 9. For PTFE bodies, use half of the given torque. \*Seat torque is shown for non-lubricated seat. Make sure to compress the seat slightly.

**TOOL REQUIREMENT**

PR	PISTON	SEAT	TOP ASSY	BOTTOM
025	#2 PHILLIPS	HAND	5/16 H, #2 Phillips	
050	HAND	HAND	3/8 H, #2 Phillips	
075	3/4 W, 3/4 H	3/4 W, SW	7/16 H X 2	
100	3/4 W, 3/4 H	3/4 W, SW	7/16 H X 2	
150	1 W, 3/4 H	1 W, SW	7/16 H	7/16 H
200	3/4 H, SW		7/16 H	7/16 H
300	3/4 H, 2 7/8 W		7/16 H	7/16 H

H = WRENCH, SOCKET, OR NUTDRIVER (HEX SIZE GIVEN)  
W = OPEN END WRENCH (HEX SIZE GIVEN)  
SW = SPANNER WRENCH (STRAP WRENCH MAY ALSO BE USED IN MANY CASES)

If you have a question about any Plast-O-Matic products, or if you would like help with an application, please call Technical Sales at (973) 256-3000 or please send e-mail to: [info@plastomatic.com](mailto:info@plastomatic.com)

**DISASSEMBLY**

1. Remove the adjusting screw assembly.
2. Unscrew and remove the assembly screws.
3. Remove the spring housing, spring guide, spring, and end cap.
4. Hold the seat assembly and unscrew the piston screw or nut. (for PR050 and PRH050, lift up the rolling diaphragm and unscrew the piston and diaphragm retainer).
5. At this point the shaft is either attached to the seat assembly or the piston. If it is attached to the seat assembly, hold the shaft, unscrew and remove the seat assembly. Pull out the shaft towards the side where the spring was.
6. Disassemble and discard U-cups and O-rings. Clean out grooves with a clean, soft cloth, then replace U-cups & O-rings. Use a ball end probe to position the U-cups if needed. Lubricate lightly if allowed.

**ROLLING DIAPHRAGM INSTALLATION**

1. Turn the diaphragm inside out (the rubberized side out, cloth in.)
2. Fit the piston into the diaphragm (small end first).
3. Insert the shaft screw and pull the diaphragm over the piston to remove any wrinkles. Make sure the holes are centered.
4. Put the diaphragm retainer, and O-ring where required, on the other side.
5. Put the retainer O-ring over the screw and screw the piston to the shaft. Refer to the torque table.

**REASSEMBLY**

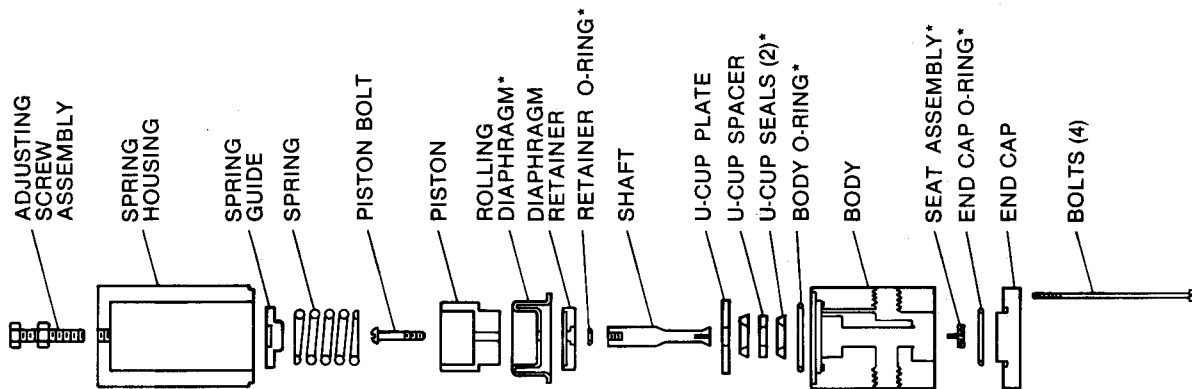
**NOTE:** Inspect all parts for dirt, scratches or damage. Rubber parts should be smooth and not twisted, wrinkled or creased. Make sure U-cups are installed in the direction shown in the figure.

1. Push the shaft into the body. Use a probe to compress U-cups if needed.
2. If the seat has an exposed stud end, apply a drop of thread locker adhesive to the stud, and screw the seat assembly to the shaft firmly by hand. Refer to the torque table.
3. Check the motion of the shaft: push down alternately on the piston and seat. If the shaft moves smoothly up and down, continue.
4. Pull down the outer edge of the diaphragm to touch the body, MAKE SURE THAT THE RUBBER SIDE OF THE ROLLING DIAPHRAGM IS DOWN, AND THE CLOTH SIDE IS VISIBLE.
5. Replace the springs, spring housing, and flange. Be careful that the diaphragm rim is smooth between the spring housing and body.
6. Replace the end cap and O-ring.
7. Replace the screws, nuts, lock washers and so on. Tighten all screws in opposing pairs. Refer to the torque table.
8. Screw the adjusting screw down to approximately the original position.

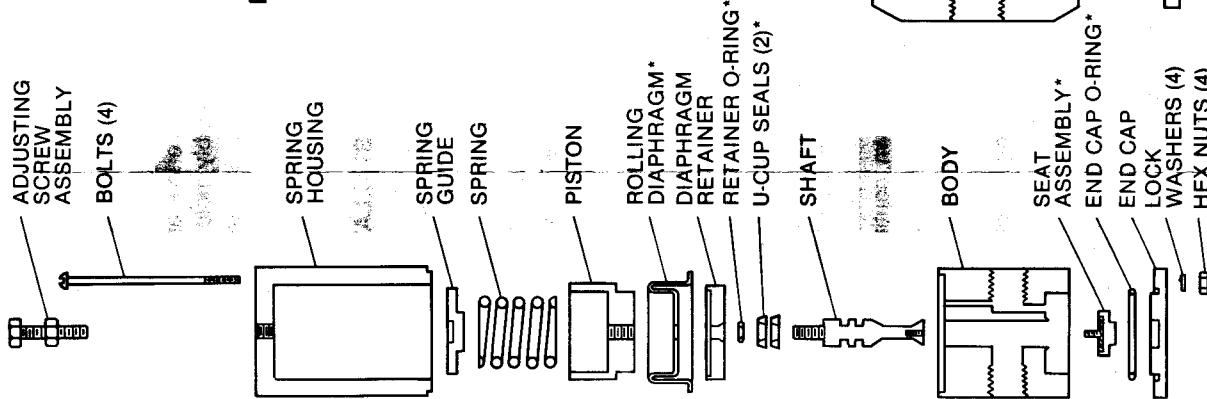


**PLAST-O-MATIC VALVES, INC.**  
1384 Pompton Ave., Cedar Grove NJ 07009 USA  
973-256-3000 FAX: 973-256-4745  
[www.plastomatic.com](http://www.plastomatic.com) • [info@plastomatic.com](mailto:info@plastomatic.com)

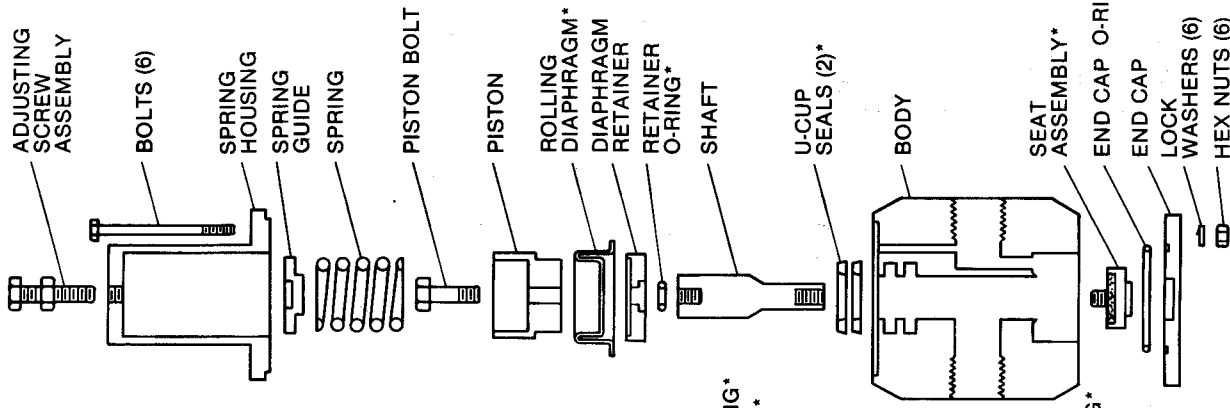
### 1/4" NPT



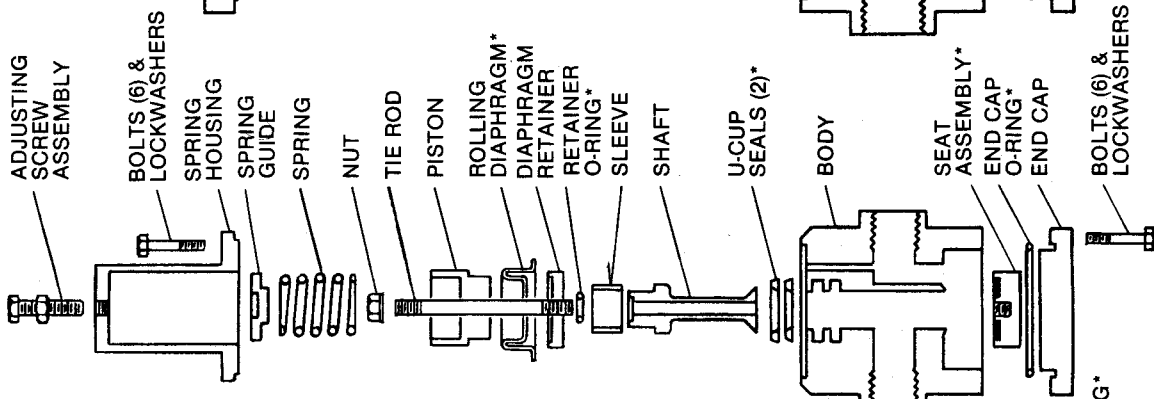
### 1/2" NPT



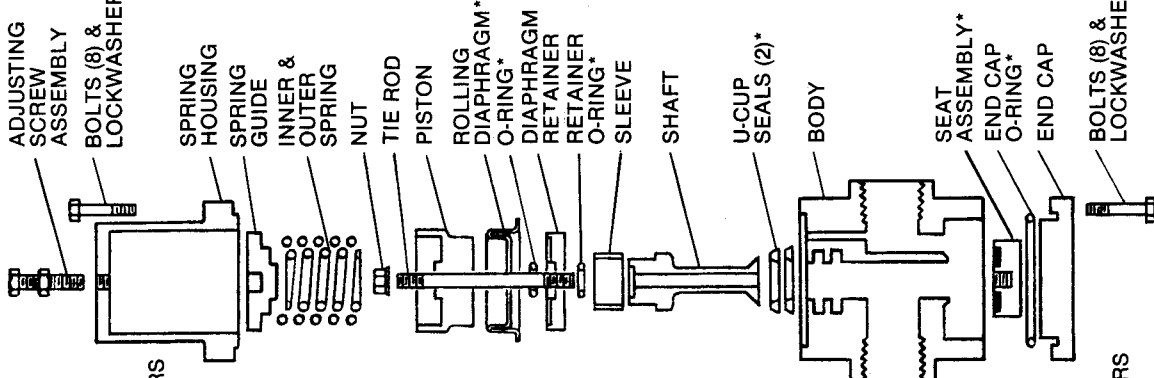
### 3/4", 1", & 1 1/2" NPT



### 2" NPT



### 3" NPT



**\*IMPORTANT: SEAL MATERIAL MUST BE SPECIFIED (VITON, EPDM OR BUNA-N).**

**CAUTION!** Quick shutoffs of downstream equipment or valves or equipment gradually to avoid these shocks. If valves transmits liquid shock waves back to the regulator a valve must be closed quickly it is best to do so with the possibility of damaging it. It is best to close upstream of the regulator.