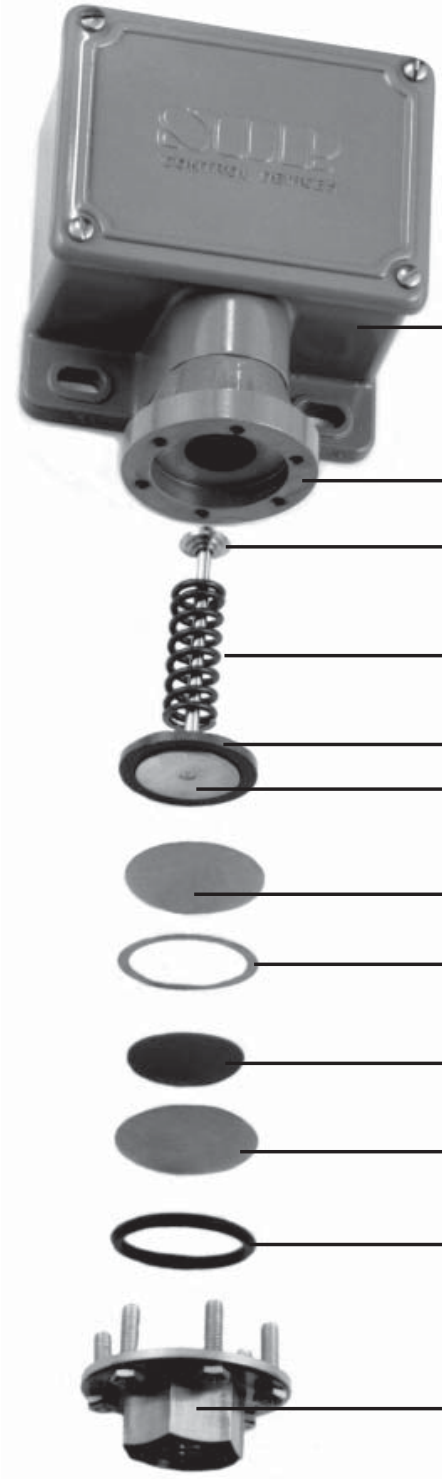
Replacing Standard O-Ring and Diaphragm

General Instructions

Design and specifications are subject to change without notice. For latest revision, go to ***www.sorinc.net***



Threaded Pressure Port (wetted)- Not shown

Carefully read these instructions BEFORE attempting to replace diaphragms. If this procedure is not followed or the same type diaphragm and o-ring is not installed, the warranty is null and void.

None of the metal parts (nor the micro detector) can be replaced, nor can the body be loosened without affecting the factory-adjusted overtravel. Diaphragms and o-rings can usually be replaced without affecting factory adjusted overtravel.

❶ Relieve range spring pressure by unscrewing the adjusting nut all the way toward the detecting element (micro detector). Failure to relieve range spring pressure before disassembly may also damage internal parts.

Failure to relieve range spring pressure may cause personal injury to the diassembler.

❷ Remove the pressure port.

Threaded pressure ports should be removed by placing the housing in a vise and applying a 1-1/8" wrench to the pressure port.
Bolted pressure ports should be removed by placing the housing in a vise and removing the bolts.

❸ Remove all internal parts from the sensing assembly and discard the diaphragms and o-rings. It is not necessary to disassemble the piston assembly.

❹ Thoroughly clean all metal parts in a quick-drying solvent that leaves no residue. Blow completely dry with clean, dry air or gas.

❺ Place the piston assembly back into the body making certain that stepped portion of anti-friction washer engages the spring(s).

❻ Install new o-rings and diaphragms with the body face up. Follow these instructions:

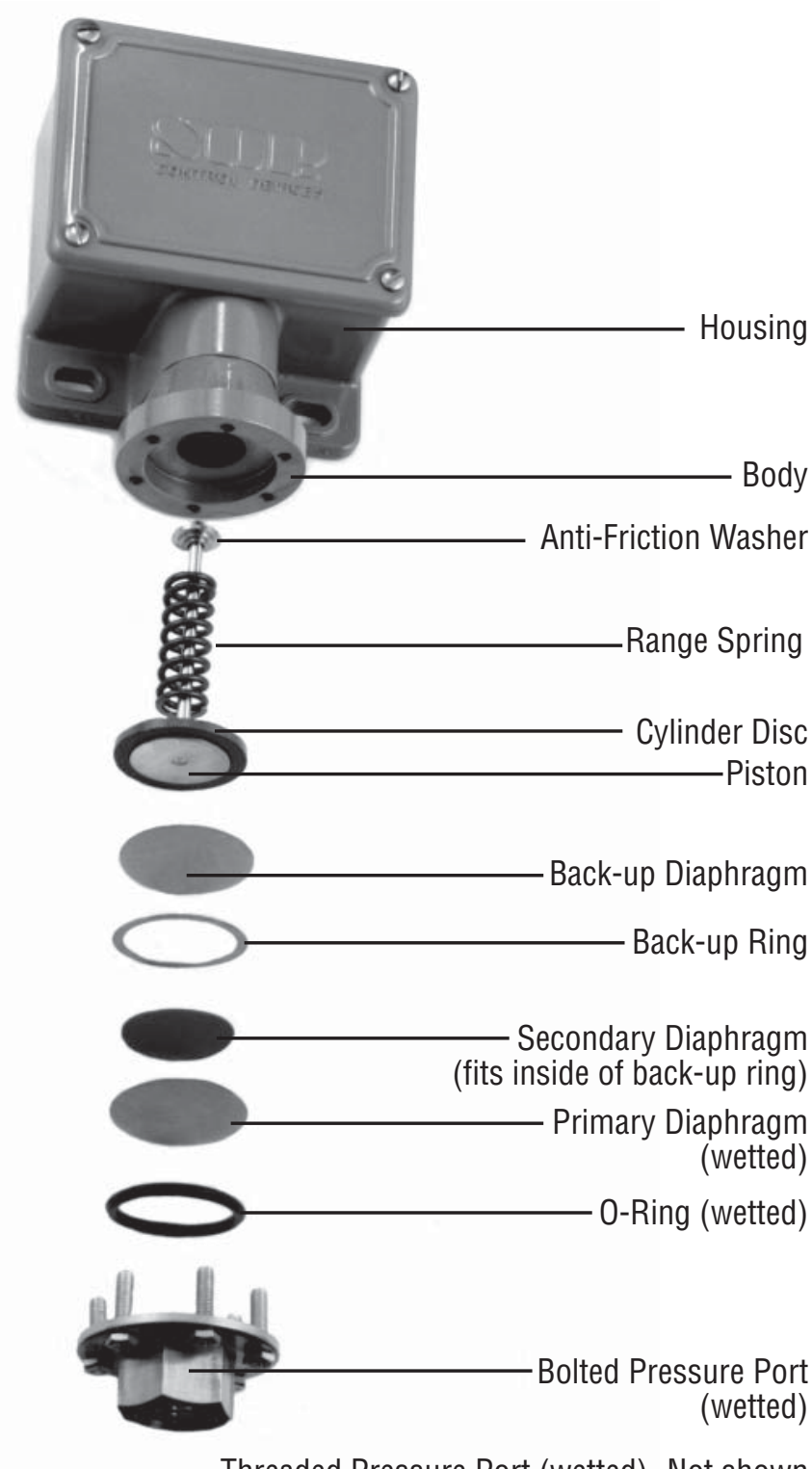
a. Place the back-up diaphragm against the piston. Depending on the piston size and the diaphragm option, the back-up diaphragm may be one or more diaphragms of transparent material.
b. Install the metal back-up ring on the back-up diaphragm. Center the grey secondary diaphragm inside the ring. (Note: N6, R1, S1, S2 and Y1 diaphragm systems will not have these parts.)
c. Lay the primary diaphragm over the back-up diaphragms. The primary diaphragm may be black, transparent or metallic, depending on the diaphragm option.
d. Place the o-ring over the primary diaphragm.

❼ Reassemble the pressure port.

For threaded pressure ports, spread a drop of lightweight lubricant on the face of the pressure port that seats against the o-ring. Tighten the port to the body with 70 – 80 ft/lbs of torque.

For bolted pressure ports, tighten the bolts with 70 – 80 in./lbs of torque (25 – 30 in./lbs with the SB option).

❽ Recalibrate the detector by screwing the adjusting nut inward. Follow the calibration procedure from the general instructions that were supplied with the instrument.



Threaded Pressure Port (wetted)- Not shown

This table lists primary diaphragms and o-rings, both of which are exposed to process media, and should be checked for compatibility prior to installation.

O-Ring (Wetted)	**Diaphragm** (Wetted Primary)	**Designator**	**O-Ring** (Wetted)	**Diaphragm** (Wetted Primary)	**Designator**
Viton	Monel	**A4**	Viton	TCP Teflon-Coated Polyimide	**N1**
Kalrez		**A6**	Buna-N		**N3**
Viton	Hastelloy-B	**H4**			**N4**
Kalrez		**H6**	Kalrez		**N5**
Viton	Hastelloy-C	**J4**		Kalrez	**N6**
Kalrez		**J6**	EPR	TCP Teflon-Coated Polyimide	**N7**
Viton	Carpenter-20	**L4**	Aflas		**N8**
Kalrez		**L6**	Buna-N	Buna-N	**P1**
Viton GLT	316 L SS	**M1**	Neoprene	Neoprene	**R1**
Buna-N		**M2**	Viton	Viton	**S1**
Viton		**M4**	Viton GLT		**S2**
Neoprene		**M5**	Buna-N	Tantalum	**W2**
Kalrez		**M7**	Viton		**W4**
Aflas		**M8**	Neoprene		**W5**
EPR		**M9**	Kalrez		**W6**
			EPR	EPR	**Y1**