

# WATTS

## 909/ LF909/ 909 M1/ LF909M1

### SIZE

3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3", 4", 6", 8", 10"

### DESCRIPTION

Model 909 is a reduced pressure backflow assembly. Production began in 1979. The 3/4"-3" size body is constructed of bronze. In 2010 a LF909 model was produced that utilized a lead free bronze. The 2 1/2"-10" size check body is cast iron with a fused epoxy coating. The 2 1/2" and 3" were available in bronze and cast iron. Watts also has a hot water option available in the 3/4"-2" which is good up to 210° F. This is designated by the letters HW after the model number, e.g.: 909HW. The model M1 was introduced in 1989 in the 3/4"-2" and 4"-10" sizes. The 3/4"-2" size was changed by having the nipple between the body and the shut-off cast into the body instead of being a separate nipple. The repair parts on the 3/4"-2" 909 and 909M1 are the same. The 4"-6" size had a change on the relief valve body. The 909 design had a bronze relief valve body. In the 909M1 modification the relief body was changed to fused epoxy coated cast iron. The relief valve spring assembly was also changed. In the 8"-10" 909M1 sizes there was a change in the relief valve body. The relief valve utilizes the internal parts of the 4"-6" 909 unit. In the 909 M1 series the relief valve rubber repair parts will be the same in 4"-10". The check design will be similar to the 709. The check seats are replaceable and springs are contained when the covers are removed. The 2 1/2"-10" utilized an external relief valve sensing line and the relief valve body can be detached from the check body on these sizes. In 2010 a LF909 model was introduced in all sizes which replaced the internal leaded bronze parts with stainless steel and other lead free bronze materials. The rubber repair kit will fit both versions.

### BASIC REPAIR KIT

The 909 repair kit contains all disc holders, or discs, O-rings, and diaphragm.

<u>SIZE</u>	<u>KIT NO</u>		<u>AIR GAP DRAIN</u>	
	<u>LF909</u> <u>909M1</u>	<u>LF 909</u> <u>909</u>	<u>LF909</u> <u>909</u>	<u>LF909M1</u> <u>909M1</u>
3/4"-1"	LF909-RT075	LF909-RT075	AGC	AGC
1 1/4"-2"	LF909-RT125	LF909-RT125	AGF	AGF
2 1/2"	LF909-RT250	LF909-RT250	AGF	AGF
3"	LF909-RT250	LF909-RT250	AGF	AGF
4"	LF909-RT400	LF909-RT400	AGK	AGK
6"	LF909-RT600	LF909-RT600	AGK	AGK
8"	LF909M1-RT800	LF909-RT800	AGM	AGK
10"	LF909M1-RT001	LF909-RT001	AGM	AGK

### IMPORTANT FEATURES

- ~3/4"-3" bronze body
- ~2 1/2"-10" fused epoxy coated cast iron check body
- ~Contained springs
- ~Replaceable seats
- ~External relief valve sensing line
- ~Relief valve body can be detached
- ~Factory repair information enclosed



## No. 909AG Series

For No. 909 Sizes	Drain Outlet Size	Dimensions		Weight
		A	B	
3/4" and 1"	1"	3 1/4"	4 7/8"	1 1/2 lbs.
1 1/4" thru 2"	2"	4 3/8"	6 3/4"	3 1/4 lbs.

## MATERIALS

Bronze body construction — Model 909 celcon check seats, Model 909HW stainless steel check seats — stainless steel relief valve seats, shafts and flange bolts — durable tight seating, rubber check valve and relief valve assemblies. Bronze body test cocks.

### LF909 Materials:

Body: Lead Free\* Cast Copper Silicon Alloy

Check Seats: 909 Celcon®

Relief Valve Seats: Stainless Steel 909HW

Test Cocks: Lead Free\* Cast Copper Silicon Alloy

Celcon® is a registered trademark of Celanese, Limited

## PRESSURE-TEMPERATURE

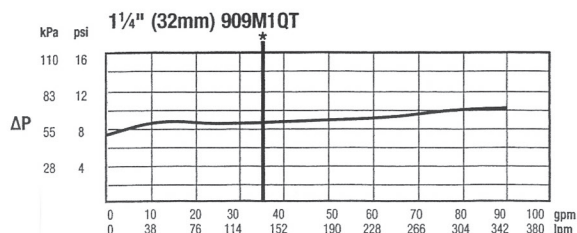
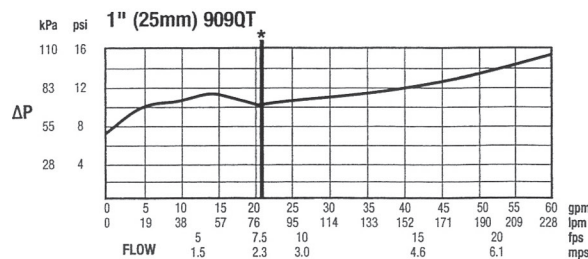
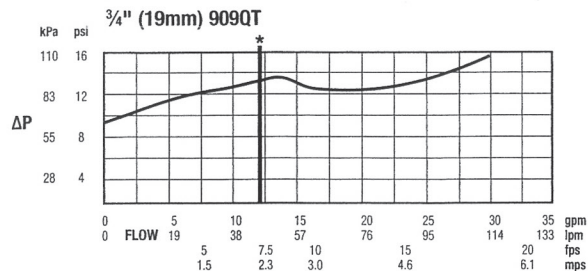
Series 909 suitable for supply pressure up to 175 PSI and water temperatures up to 140°F.

Suffix HW suitable for water temperatures up to 210°F.

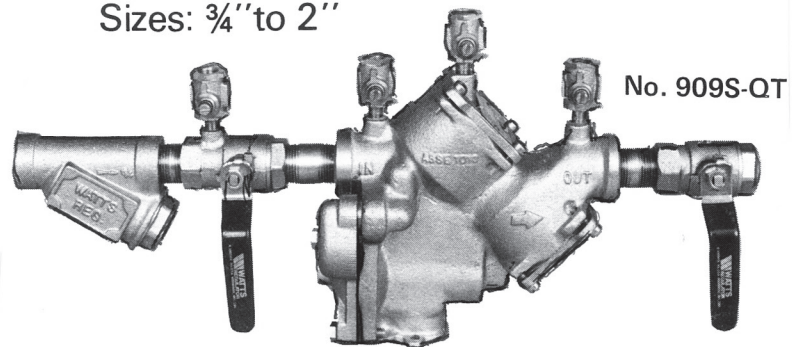
## CONNECTIONS

Sizes 3/4" and 1" have N.P.T. connections. Sizes 1 1/4", 1 1/2" and 2" have screwed end flange connections.

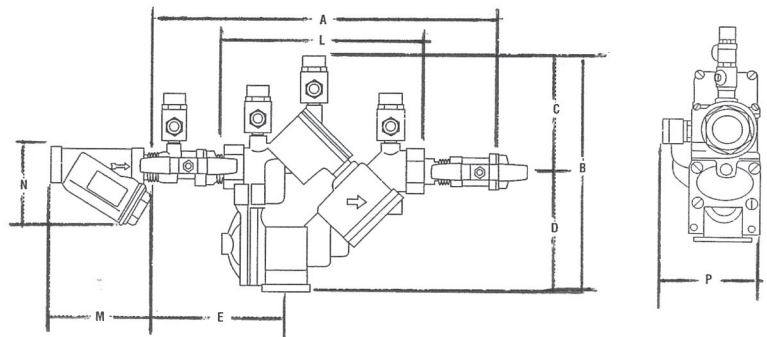
## CAPACITY



## 909 Series Sizes: 3/4" to 2"

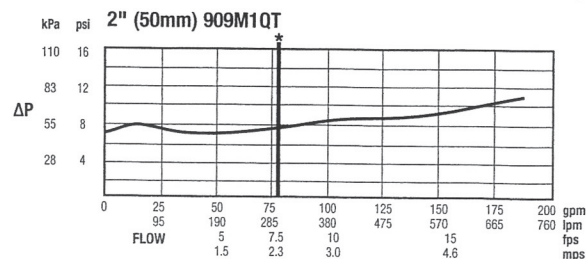
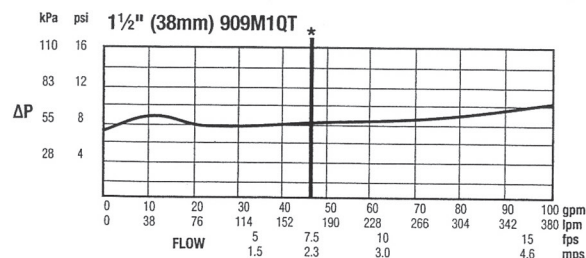


Series 909 provides superior protection in cross connection control for both cold and hot water installations. It is a unique, patented design incorporating the "air-in/water-out" principle, providing substantially improved relief valve discharge performance during the emergency conditions of combined back-siphonage and backpressure with both checks fouled.



Suffix HC - Fire Hydrant Fittings dimension "A" = 23 3/4" (603mm)  
909

SIZE (DN)	DIMENSIONS										STRAINER DIMENSIONS			WEIGHT							
	A		B		C		D		E		L		P		M		N		lbs	kg	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm		
3/4	20	143	365	8 1/4	222	4	102	4 1/4	121	6 3/4	171	7 1/8	186	3 1/8	98	3 1/8	81	2 3/4	70	14	6
1	25	153	391	8 3/4	222	4	102	4 1/4	121	7	178	7 1/8	186	3 1/8	98	3 1/8	95	3	76	15	7
1 1/4	32	183	470	11 1/8	295	5 1/2	140	6 1/2	165	7 1/2	191	10 1/8	264	5 1/4	133	4 1/8	113	3 1/2	89	40	18
1 1/2	40	19	483	11 1/8	295	5 1/2	140	6 1/2	165	7 1/2	191	10 1/8	264	5 1/4	133	4 1/8	124	4	102	40	18
2	50	19 1/2	495	11 1/8	295	5 1/2	140	6 1/2	165	7 3/4	197	10 1/8	264	5 1/4	133	5 1/8	151	5	127	40	18



# Series 909

## Reduced Pressure Zone Assemblies

Sizes: 2½" – 10" (65–250mm)

### Materials

Check Valve Bodies: FDA epoxy coated cast iron or bronze

Seats: bronze

Trim: stainless steel

Relief Valve Body: 2½"-3" (60-80mm) bronze

4"-10" (100-250mm) FDA epoxy coated cast iron

Test Cocks: bronze body ball valve

### Pressure – Temperature

Temperature Range: 33°F-110°F (5°C-43°C) continuous,  
140°F (60°C) intermittent

Maximum Working Pressure: 175psi (12.06 bar)

### LF909 Materials:

Check Valve Bodies: FDA epoxy coated cast iron

Seats: Stainless steel

Trim: Stainless steel

Relief Valve Body: 2½"-3" (60-80mm) Lead Free\* cast copper silicon alloy

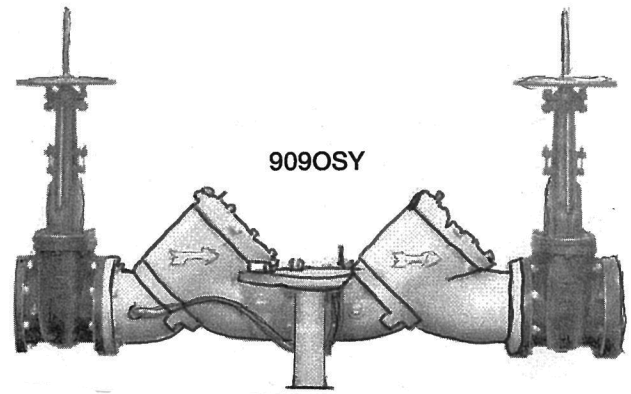
4"-10" (100-250mm) FDA epoxy coated cast iron

Test Cocks: Lead Free\* copper silicon alloy

### Air Gap Dimensions

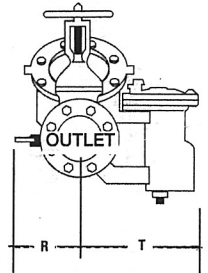
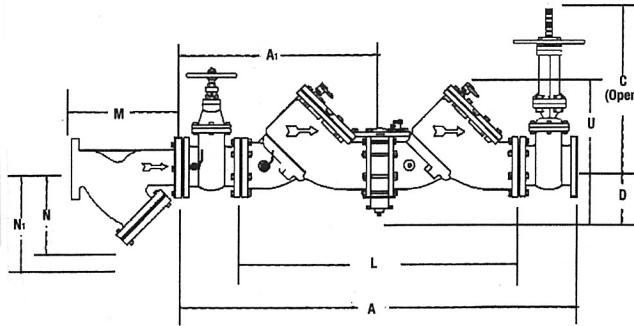
When installing a drain line on Series 909 backflow preventers that are installed horizontally, use 909 AG series air gaps.

Iron Body Model No.	Ordering Code	Series/Sizes	DIMENSIONS			WEIGHT	
			A in. mm	B in. mm	C in. mm	lbs	kgs
909AG-F	0881378	1¼" – 3" 009/909 1¼" – 2" 009 M1 2" 009 M2	4¾ 111	6¾ 171	2 51	3.25	1.47
909AG-K	0881385	4" – 6" 909 8" – 10" 909 M1	6¾ 162	9¾ 244	3 76	6.25	2.83
909AG-M	0881387	8" – 10" 909	7¾ 187	11¼ 286	4 102	15.50	7.03



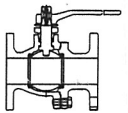
909OSY

### Dimensions – Weights



Quarter-turn (QT) Valve

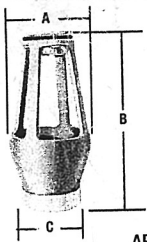
Watts G-4000 Series  
Ball Valves  
Send for F-64000



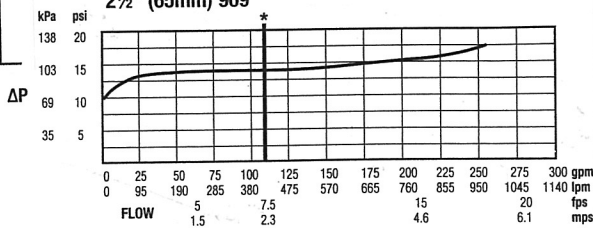
NOTE: Relief valve section is reversible, therefore, can be on either side and is furnished standardly as shown.

SIZE (DN)		DIMENSIONS																WEIGHT									
		A		A1		C clearance for check (OSY)* (NRS)		D		L		U		R		R (QT)		T		NRS		OSY		QT			
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.		
2½	65	41¼	1048	20¾	524	16¾	416	9¾	238	5¼	133	26¾	663	11	279	4	102	16	406	9½	230	195	88.4	198	89.8	182	82.6
3	80	42¼	1073	21¼	540	18¾	479	10¼	260	5¼	133	26¾	663	11	279	5	127	16	406	9½	230	225	102	230	104	190	86
4	100	55¼	1400	27¾	702	22¾	578	12¾	310	6	152	37	940	14	356	6	152	19¾	502	14¾	365	455	206	470	213	352	160
6	150	65½	1664	32¾	832	30¾	765	16	406	6	152	44¼	1130	16	406	11	279	26	660	14¾	365	718	326	798	362	762	346
8	200	78¾	2000	39¾	1000	37¾	959	19¾	506	9¾	248	55¼	1403	21	533	11¼	286	11¼	286	19¾	489	1350	612	1456	660	2286	1037
10	250	93¾	2378	46¾	1190	45¾	1162	23¾	605	9¾	248	67¾	1711	21	533	12¼	318	12¼	318	21	533	2160	980	2230	1011	3716	1685

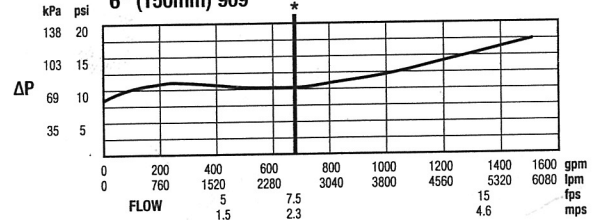
\*UL, FM approved backflow preventers must include UL/FM approved OSY gate valves.



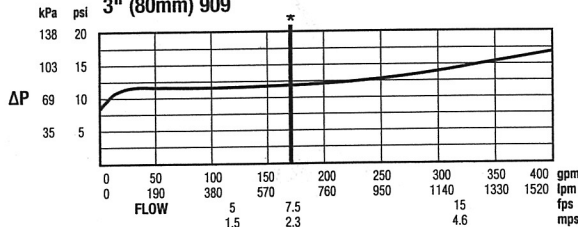
2½" (65mm) 909



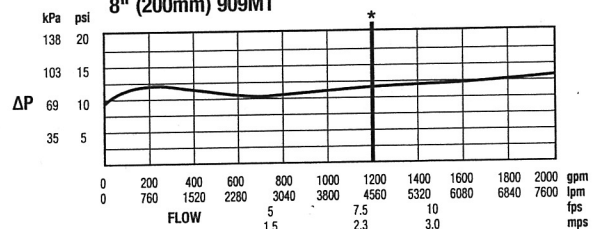
6" (150mm) 909



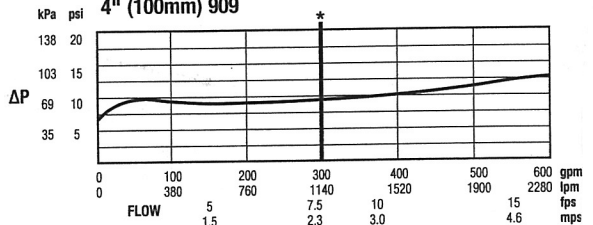
3" (80mm) 909



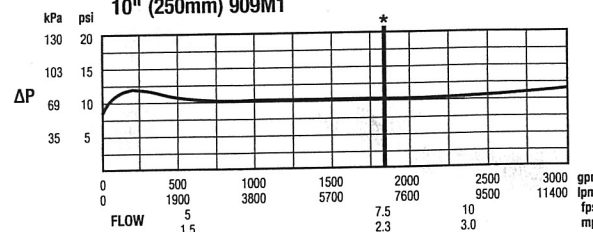
8" (200mm) 909M1



4" (100mm) 909



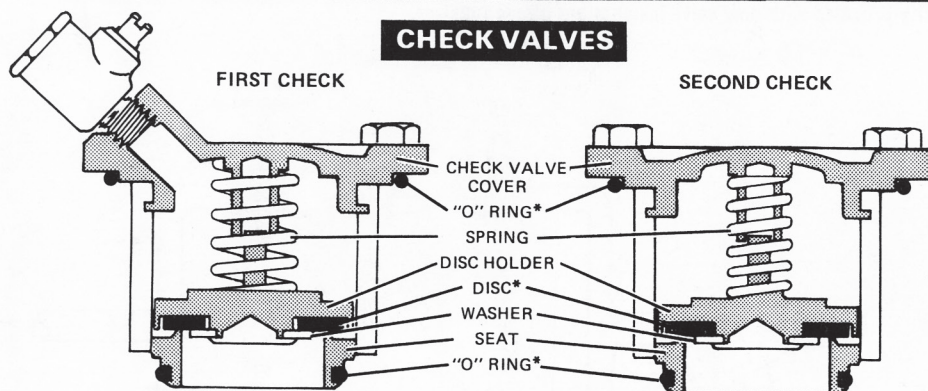
10" (250mm) 909M1



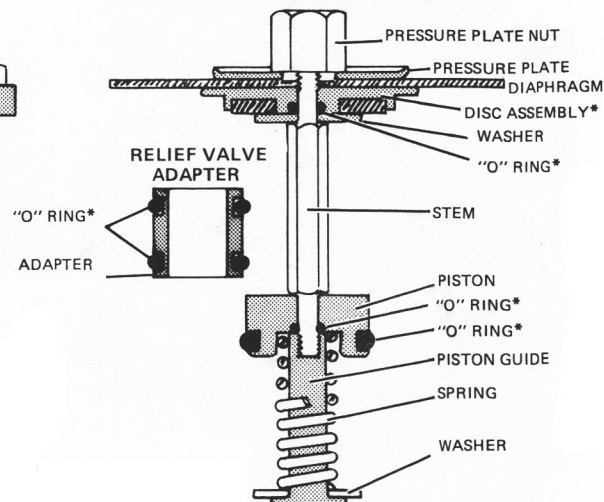


# 3/4" - 2" Replacement Parts

## CHECK VALVES

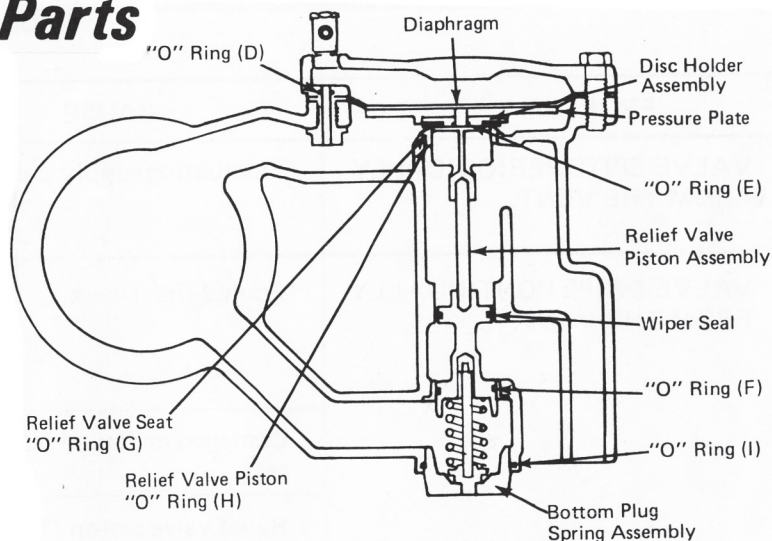
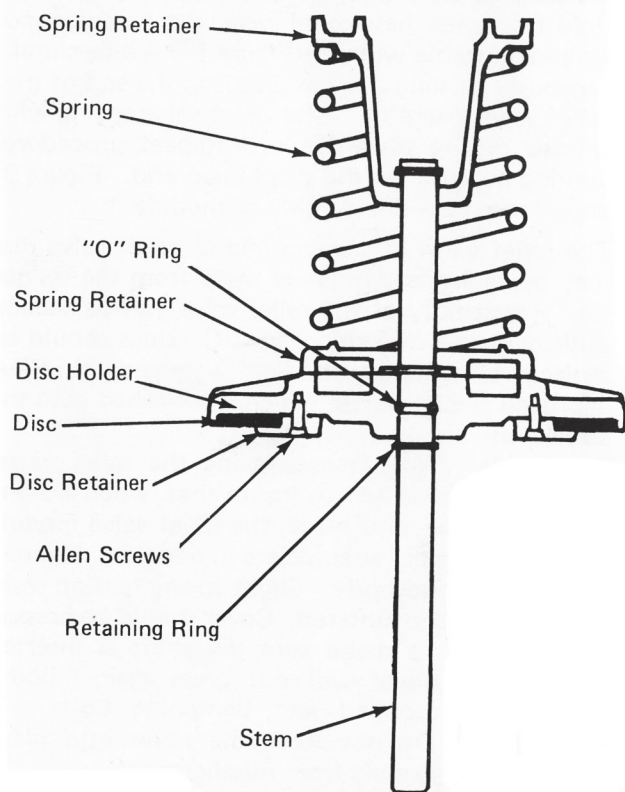


## RELIEF VALVE ASSEMBLY



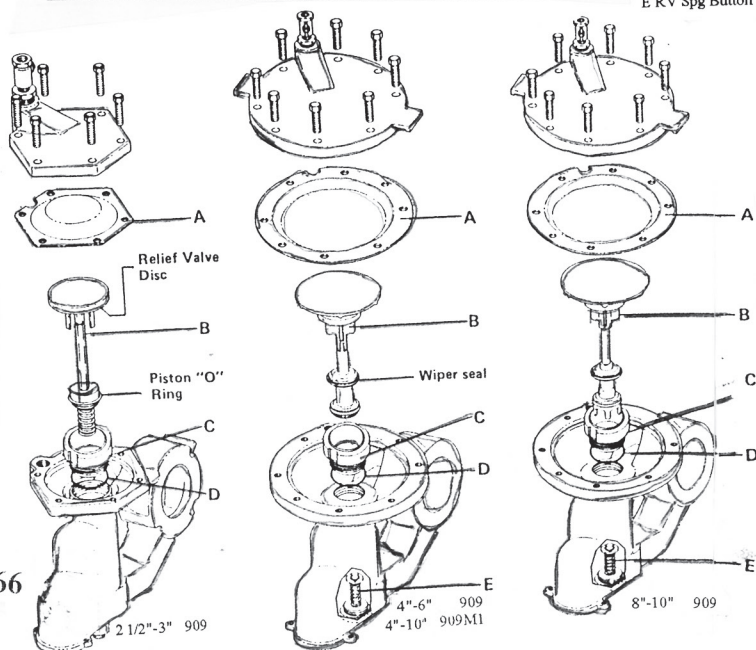
# 2 1/2" - 10" Replacement Parts

## CHECK MODULE ASSEMBLY



## RELIEF VALVE PISTON ASSEMBLY

- A Diaphragm
- B RV Stem
- C RV Seat
- D RV Seat O'rg
- E RV Spg Button



## BOTTOM PLUG SPRING ASSEMBLY 4-10"

