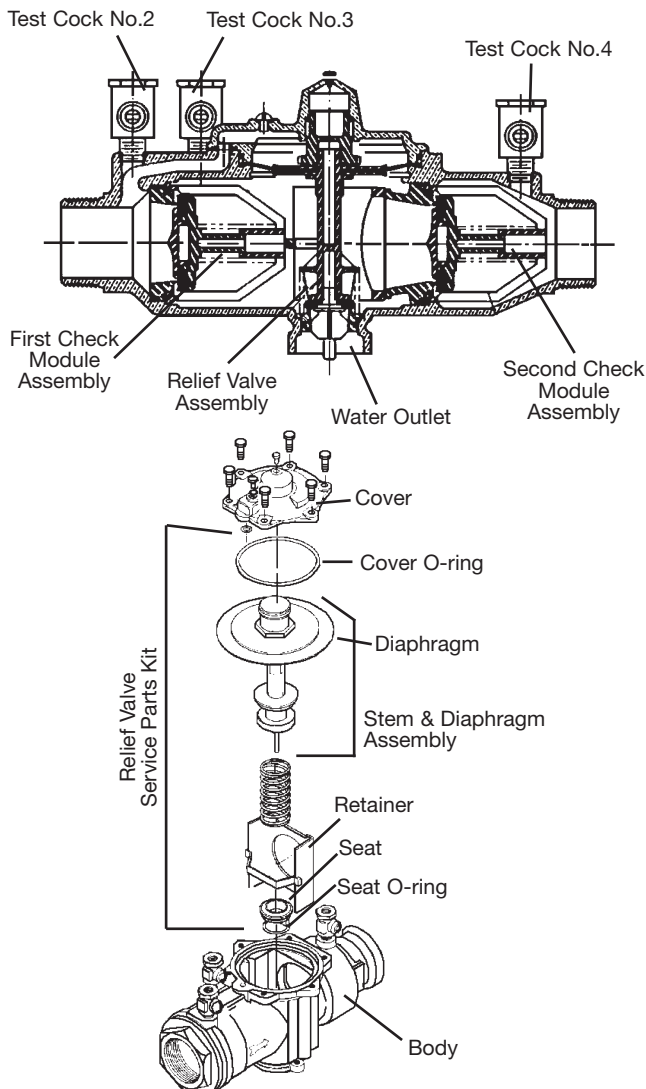


Servicing the Relief Valve

1/4" - 2" (8 - 50mm)

1. Remove the relief valve cover bolts while holding the cover down.
2. Lift the cover straight off. The stem and diaphragm assembly will normally remain with the cover as it is removed. The relief valve spring will be free inside the body at this point.
3. The relief valve seat is located at the bottom of the body bore and can be removed, if necessary, for cleaning. The disc can be cleaned without disassembly of the relief valve module. If it is determined that the relief valve diaphragm and/or disc should be replaced, the relief valve module can be readily disassembled without the use of special tools.
Note: the disc rubber is molded into the disc holder and is supplied as a disc holder assembly.
4. To re-assemble the relief valve, press the seat firmly into place in the body, center the spring on the seat, and insert the cover and relief valve module as a unit straight into the bore. Press down on the cover to assure proper alignment. Insert and tighten bolts.

Caution: If cover will not press flat against body, stem assembly is crooked and damage can result. Re-align stem and cover before bolts are inserted.



Replacement Parts — 1/4" - 2" (8 - 50mm)

When ordering, specify Ordering Code, Kit number and Valve Size.

1/4" - 1" (8 - 25mm)

ORDERING CODE	KIT NO.	SIZE	
Relief Valve Kits:			
		inch	mm
0887294	RK 009 VT	1/4, 3/8, 1/2	8, 10, 15
0887509	RK SS009 VT	1/2	15
0887002	RK 009M2 VT	3/4	20
0887520	RK SS009M2/M3 VT	1/4 - 3/4	8-20
0888524	RK 009M3 VT	3/4	20
0887015	RK 009 VT	3/4 - 1	20-25
0887503	RK SS009 VT	1	25
0887785	RK 009M2 VT	1	25

Kit consists of: Seat, Seat O-ring, Stem & diaphragm assembly, Stem O-ring, Cover O-ring and RV spring.

Relief Valve Rubber Parts Kits:

0887295	RK 009 RV	1/4, 3/8, 1/2	8, 10, 15
0887510	RK SS009 RV	1/2	15
0886998	RK 009M2 RV	3/4	20
0887519	RK SS009M2/M3 RV	1/4 - 3/4	8-20
0888523	RK 009M3 RV	3/4	20
0887181	RK 009 RV	3/4 - 1	20-25
0887529	RK SS009 RV	1	25
0887786	RK 009M2 RV	1	25

Kit consists of: Diaphragm, Disc assembly, Stem O-rings, Seat O-ring and Cover O-ring.

Total Rubber Parts Kits:

0887297	RK 009 RT	1/4, 3/8, 1/2	8, 10, 15
0887511	RK SS009 RT	1/2	15
0886999	RK 009M2 RT	3/4	20
0887521	RK SS009M2 RT	3/4	20
0888526	RK 009M3 RT	3/4	20
0888597	RK SS009M3 RT	1/4 - 3/4	8-20
0887182	RK 009 RT	3/4 - 1	20-25
0887530	RK SS009 RT	1	25
0887787	RK 009M2 RT	1	2

Kit consists of: Diaphragm, Two discs, Two disc assemblies, Stem O-rings, Cover O-ring, Two seat O-rings and RV seat O-ring.

Cover Kits:

0887296	RK 009 C	1/4, 3/8, 1/2	8, 10, 15
0887500	RK SS009 C	1/2	15
0887004	RK 009M2 C	3/4	20
0887501	RK SS009M2/M3 C	1/4 - 3/4	8-20
0888525	RK 009M3 C	3/4	20
0887013	RK 009 C	3/4 - 1	20-25
0887502	RK SS009 C	1	25
0887788	RK 009M2 C	1	2

Kit consists of: Cover and Cover O-ring.

1/4" - 2" (32 - 50mm)

ORDERING CODE	KIT NO.	SIZE	
Relief Valve Total Kit:			
		inch	mm
0887307	RK 009M2 VT	1 1/4 - 1 1/2	32-40
0887277	RK 009M1 VT	1 1/4 - 2	32-50
0887016	RK 009 VT	1 1/4 - 2	32-50
0887545	RK 009M2 VT	2	50

Kit consists of: RV assembly, Seat, Seat O-ring, Cover O-ring, Sensing passage O-ring and Upper stem O-ring.

Relief Valve Rubber Parts Kit:

0887306	RK 009M2 RV	1 1/4 - 1 1/2	32-40
0887276	RK 009M1 RV	1 1/4 - 2	32-50
0887184	RK 009 RV	1 1/4 - 2	32-50
0887544	RK 009M2 RV	2	50

Kit consists of: Diaphragm, Seat O-ring, Cover O-ring and Sensing passage O-ring.

Complete Rubber Parts Kit:

0887309	RK 009M2 RT	1 1/4 - 1 1/2	32-40
0887280	RK 009M1 RT	1 1/4 - 2	32-50
0887185	RK 009 RT	1 1/4 - 2	32-50
0887547	RK 009M2 RT	2	50

Kit consists of: Two check assembly O-rings, Two disc assemblies, One cover O-ring, One RV diaphragm, One RV seat O-ring, One sensing passage O-ring, One diaphragm plate O-ring, One RV lower stem O-ring, One RV upper stem O-ring, One RV disc assembly and One bleed screw O-ring.

Cover Kit:

0887308	RK 009M2 C	1 1/4 - 1 1/2	32-40
0887278	RK 009M1 C	1 1/4 - 2	32-50
0887014	RK 009 C	1 1/4 - 2	32-50
0887546	RK 009M2 C	2	5

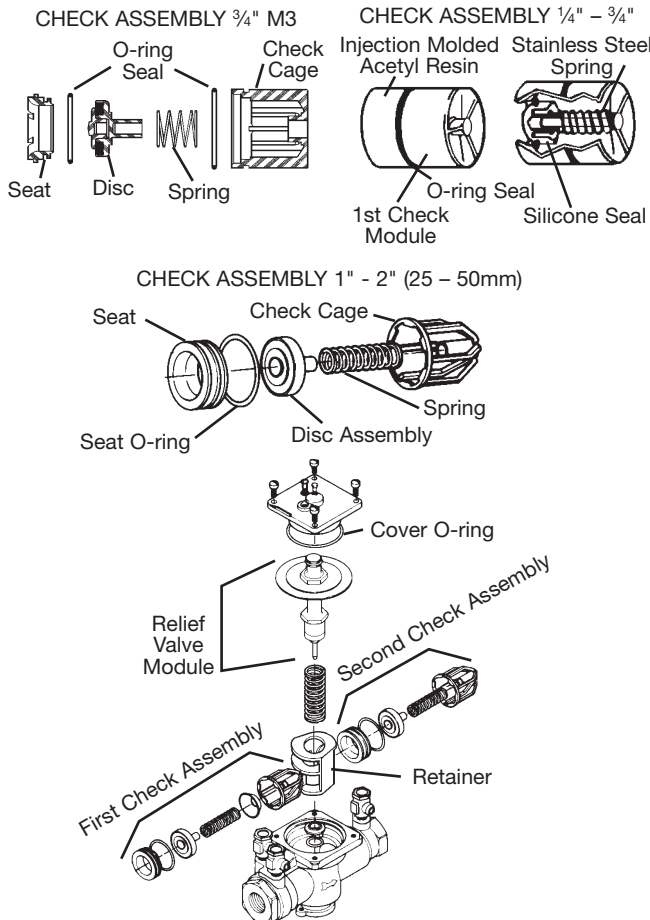
Kit consists of: Cover, Cover O-ring, Sensing passage O-ring, Bleed screw O-ring, Vent hood and Bleed screw.

Servicing First & Second Check Valves

1/4" - 2" (8 - 50mm)

1. Remove the retainer from the body bore. The check valve modules can now be removed from the valve by hand or with a screwdriver. **Note:** The seats and springs of the first and second check modules are not interchangeable. The heavier spring and smaller diameter seat belong with the first check module.
2. The check seats are attached to the cage with a bayonet type locking arrangement. Holding the cage in one hand, push the seat inward and rotate clockwise against the cage. The seat, spring cage, spring and disc assembly are now individual components.

Note: 3/4" M2 modules snap apart.
3. The disc assembly may now be cleaned and re-assembled or, depending on its condition, may be discarded and replaced with a new assembly from the repair kit. O-rings should be cleaned or replaced as necessary and lightly greased with the FDA approved grease. Refer to parts price list, PL-RP-BPD for more information.
4. Re-assemble the check valve modules. Check modules are installed in the valve body with the seat facing the valve inlet. The modules must be securely in place before the retainer can be replaced. On the 3/4" size retainer may have to be tilted slightly into place. Replace relief valve assembly.



Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

Replacement Parts — 1/4" - 2" (8 - 50mm)

When ordering, specify Ordering Code, Kit number and Valve Size.

1/4" - 1" (8 - 25mm)

ORDERING CODE	KIT NO.	SIZE	inch	mm
First Check Kits:				
0887291	RK 009 CK1	1/4, 3/8, 1/2	8, 10, 15	
0887505	RK SS009 CK1	1/2	15	
0887000	RK 009M2 CK1	3/4	20	
0887515	RK SS009M3 CK1	1/4 - 3/4	8-20	
0888520	RK 009M3 CK1	3/4	20	
0887005	RK 009 CK1	3/4 - 1	20-25	
0887009	RK 009 CK1SS	3/4 - 1	20-25	
0887525	RK SS009 CK1	1	25	
0887789	RK 009M2 CK1	1	25	

Kit consists of: Check assembly and Cover O-ring.

Second Check Kits:

0887292	RK 009 CK2	1/4, 3/8, 1/2	8, 10, 15	
0887506	RK SS009 CK2	1/2	15	
0887001	RK 009M2 CK2	3/4	20	
0887516	RK SS009M3 CK2	1/4 - 3/4	8, 10, 15	
0888521	RK 009M3 CK2	3/4	15	
0887007	RK 009 CK2	3/4 - 1	15-25	
0887011	RK 009 CK2SS	3/4 - 1	15-25	
0887526	RK SS009 CK2	1	25	
0887790	RK 009M2 CK2	1	25	

Kit consists of: Check assembly and Cover O-ring.

Check Rubber Parts:

0887293	RK 009 RC3	1/4, 3/8, 1/2	8, 10, 15	
0887003	RK 009M2 RC3	3/4	20	
0888522	RK 009M3 RC3	3/4	20	
0887507	RK SS009 RC1	1/2	15	
0887517	RK SS009M2 RC1	3/4	20	
0888595	RK SS009M3 RC1	1/4 - 3/4	8-20	
0887017	RK 009 RC1	3/4 - 1	20-25	
0887527	RK SS009 RC1	1	25	
0887791	RK 009M2 RC1	1	25	
0887508	RK SS009 RC2	1/2	15	
0887518	RK SS009M2 RC2	3/4	20	
0888596	RK SS009M3 RC2	1/4 - 3/4	8-20	
0887180	RK 009 RC2	3/4 - 1	20-25	
0887528	RK SS009 RC2	1	25	
0887792	RK 009M2 RC2	1	25	

Kit consists of: Disc, Cover O-ring and Seat O-ring.

Retainers:

1047053	99AB47	1/4, 3/8, 1/2	8, 10, 15	
1047394	99BA47	M2-M3	3/4	20
1047001	99FA47		1/4 - 2	32-50
1047001	99FA47	M1, 2" M2	1/4 - 2	32-50
1047401	99EA47	M2	1/4 - 1/2	32-40

1 1/4" - 2" (32 - 50mm)

ORDERING CODE	KIT NO.	SIZE	inch	mm
First Check Kit:				
0887300	RK 009M2 CK1	1 1/4 - 1 1/2	32-40	
0887270	RK 009M1 CK1	1 1/4 - 2	32-50	
0887006	RK 009 CK1	1 1/4 - 2	32-50	
0887010	RK 009 CK1SS	1 1/4 - 2	32-50	
0887272	RK 009 M1 CK1SS	1 1/4 - 2	32-50	
0887540	RK 009M2 CK1	2	50	

Kit consists of: First check assembly, Cover O-ring and Sensing passage O-ring.

Second Check Kit:

0887301	RK 009M2 CK2	1 1/4 - 1 1/2	32-40	
0887271	RK 009M1 CK2	1 1/4 - 2	32-50	
0887008	RK 009 CK2	1 1/4 - 2	32-50	
0887012	RK 009 CK2SS	1 1/4 - 2	32-50	
0887273	RK 009 M1 CK2SS	1 1/4 - 2	32-50	
0887541	RK 009M2 CK2	2	50	

Kit consists of: Second check assembly, Cover O-ring and Sensing passage O-ring.

First Check Rubber Parts Kit:

0887304	RK 009M2 RC1	1 1/4 - 1 1/2	32-40	
0887274	RK 009M1 RC1	1 1/4 - 2	32-50	
0887018	RK 009 RC1	1 1/4 - 2	32-50	
0887542	RK 009M2 RC1	2	50	

Kit consists of: First check assembly O-ring, Disc holder assembly, Cover O-ring and Sensing passage O-ring.

Second Check Rubber Parts Kit:

0887305	RK 009M2 RC2	1 1/4 - 1 1/2	32-40	
0887275	RK 009M1 RC2	1 1/4 - 2	32-50	
0887183	RK 009 RC2	1 1/4 - 2	32-50	
0887543	RK 009M2 RC2	2	50	

Kit consists of: Second check assembly O-ring, Disc holder assembly, Cover O-ring and Sensing passage O-ring.