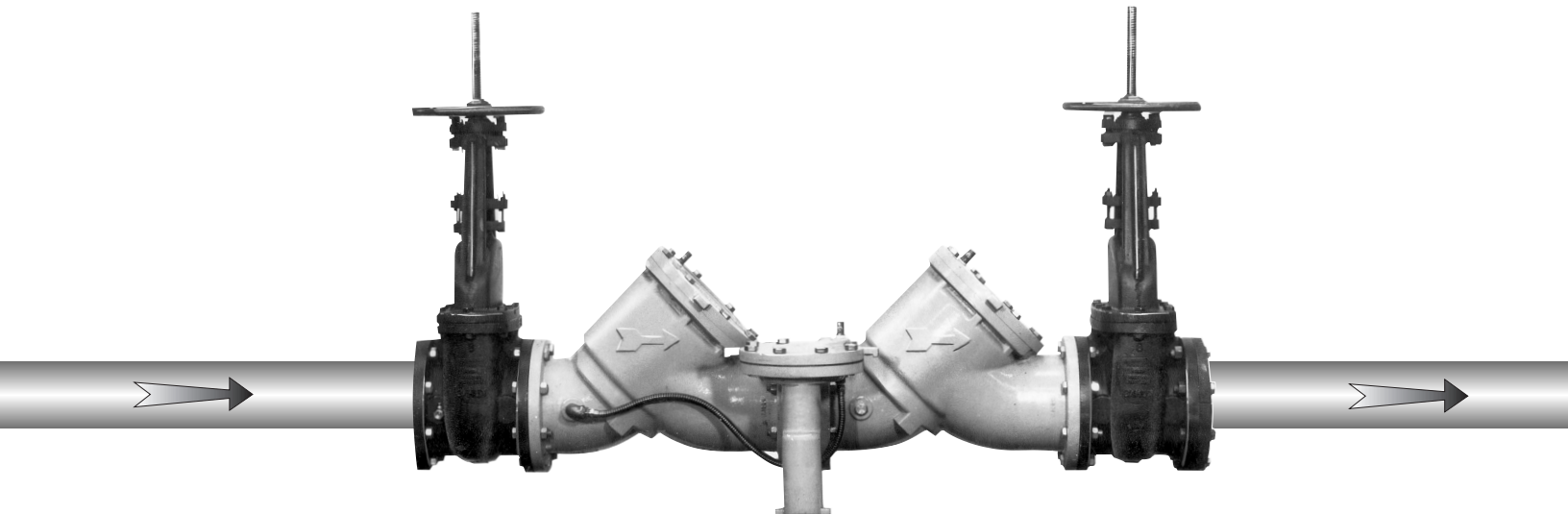


Series 909/909RPDA

Reduced Pressure Zone Assemblies
Reduced Pressure Detector Assemblies

Sizes: 2½" - 10"



Watts 909 OSY shown
Designed for inline servicing

- Installation
- Service
- Repair Kits
- Maintenance

For field testing procedure, send for IS-TK-DL, IS-TK-9A, IS-TK-99E and IS-TK-99D.

For other repair kits and service parts, send for PL-RP-BPD.

For technical assistance, contact your local Watts representative on back page.

IMPORTANT: Inquire with governing authorities for local installation requirements.

NOTE: For *Australia* and *New Zealand*, line strainers should be installed between the upstream shutoff valve and the inlet of the backflow preventer.

Its important that this device be tested periodically in compliance with local codes, but at least once per year or more as service conditions warrant. If installed on a fire sprinkler system, all mechanical checks, such as alarm checks and backflow preventers, should be flow tested and inspected internally in accordance with NFPA 13 and NFPA 25.

CALIFORNIA PROPOSITION 65 WARNING

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. (Installer: California law requires that this warning be given to the consumer.)

For more information: www.wattsind.com/prop65

Limited Warranty: Watts Regulator Company warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge. This shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication or improper installation of the product. **THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** Any implied warranties that are imposed by law are limited in duration to one year.

Some States do not allow limitations on how long an implied warranty lasts, and some States do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from State to State. You should consult applicable state laws to determine your rights.

WATTS[®]
REGULATOR

Basic Installation Instructions

Installation Note:

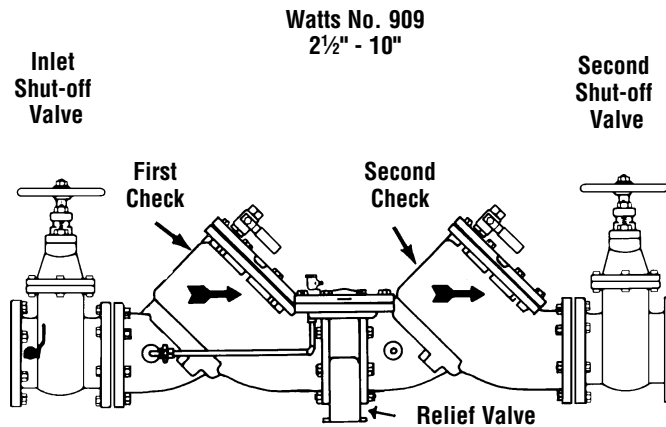
The flange gasket bolts for the gate valves should be retightened during installation as the bolts may have loosened due to storage and shipping.

Watts 2½" - 10" 909

High Capacity Relief Series:

Location and installation Considerations

1. Backflow preventers must be installed in high-visibility locations in order to allow for immediate notice of telltale discharge or other malfunction. This location should also facilitate testing and servicing, and protect against freezing and vandalism.
 2. Installing a backflow preventer in a pit or vault is not recommended. However, if this becomes necessary, Watts highly recommends that a licensed journeyman tradesperson, who is recognized by the authority having jurisdiction, be consulted to ensure that all local codes and required safety provisions are met. An air gap below the relief port must be maintained so as to avoid flooding and submersion of the assembly, which may lead to a cross connection. *Please refer to Figure No. 1 for further information.
 3. A strainer should be installed ahead of the backflow preventer to protect all internal components from unnecessary fouling.
- Caution:** Do not install a strainer ahead of the backflow preventer on seldom-used, emergency water lines (i.e. fire sprinkler lines). The strainer mesh could potentially become clogged with debris present in the water and cause water blockage during an emergency.
4. Normal discharge and nuisance spitting are accommodated by the use of a Watts air gap fitting and a fabricated indirect waste line. Floor drains of the same size **MUST** be provided in case of excessive discharge. *Please refer to Figure No. 1 and Figure No. 2 for further information.
 5. When a 909 Series backflow preventer is installed for dead-end service applications. (i.e. boiler feed lines, cooling tower makeup or other equipment with periodic flow requirements), discharge from the relief vent may occur due to water supply pressure fluctuation during static no-flow conditions. A check valve may be required ahead of the backflow preventer. *Please see "Troubleshooting", Page 7, prior to installation.
 6. The 909 Series backflow preventer is designed so that the critical level of the relief valve is positioned below the first check. This unique feature allows the valve to be installed either vertically ♦(flow direction down) or horizontally.



7. The relief valve module on 2½" - 10" 909 Series assemblies may be turned to discharge to the opposite side. To do so, unbolt the relief valve and turn the relief valve discharge port to the opposite side. Mount the high pressure hose on the opposite. This should be done by a licensed journeyman tradesperson, who is recognized by the authority having jurisdiction and only when space is critical for testing or repair.
8. **ASSEMBLY:** If the backflow preventer is disassembled during installation, it **MUST** be reassembled in its proper order. The gate valve with the test cock is to be mounted on the inlet side of the backflow preventer. The test cock must be on the inlet side of the wedge. Please see above. Failure to reassemble correctly will result in possible water damage due to excessive discharge from the relief port/vent and possible malfunction of the backflow preventer.
9. Installation procedures must comply with all state and local codes and must be completed by a licensed journeyman tradesperson who is recognized by the authority having jurisdiction. Please see Page 3 for specific installation procedures.
10. Prior to installation, thoroughly flush all pipe lines to remove any foreign matter.
11. **START UP at Initial Installation and After Servicing:** The downstream shut-off should be closed. Slowly open upstream shutoff and allow the backflow preventer to fill slowly. Bleed air at each test cock. When backflow preventer is filled, slowly open the downstream shut-off and fill the water supply system. This is necessary to avoid dislodging "O" rings or causing damage to internal components.
12. **TEST:** The 909 Series backflow preventer may be tested by a certified tester at the time of installation in order to ascertain that the assembly is in full working order and may be relied upon to protect the safe drinking water as per applicable standard.

♦ Consult local authorities regarding acceptance of vertical installations.

Figure 1 Series 909 RELIEF VALVE DISCHARGE RATES

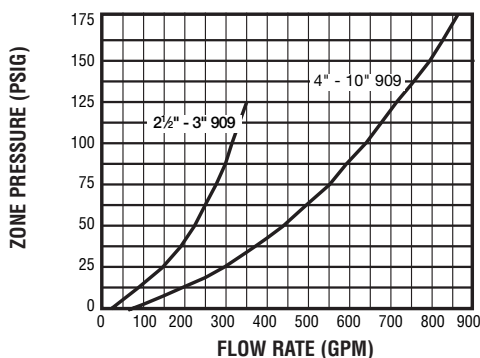


Figure 2

VALVE SIZE	TYPICAL FLOW RATES AS SIZED BY FLOOR DRAIN MANUFACTURERS	DRAIN SIZE
2½"	55 gpm	2
3"	112 gpm	3
4"	170 gpm	4
6", 8", 10"	350 gpm	5

Watts Series 909 Installation Instructions

Sizes 2½" – 10"

Installation

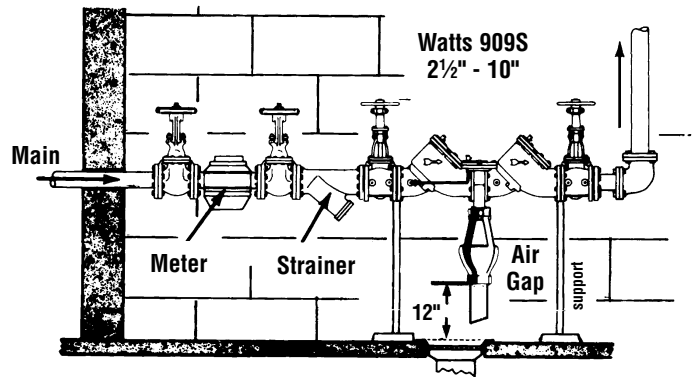
- A. Series 909 should be installed in a horizontal and upright position. This positions the relief valve below the first check valve, enabling the zone to drain through the relief valve outlet. The shutoff valve with the test cock is to be mounted on the inlet side of the backflow preventer. The test cock is on the inlet side of the shutoff valve.
- B. The 909 should always be installed in an accessible location to facilitate testing and servicing. Check the state and local codes to insure that the backflow preventer is installed in compliance, such as the proper height above the ground.
- C. Water discharge from the relief valve should be vented in accordance with code requirements. The relief valve should never be solidly piped into a drainage ditch, sewer or sump. The discharge should be funneled through a Watts air gap fitting piped to a floor drain.
- D. Watts recommends a strainer be installed ahead of Watts 909 Series assemblies to protect the discs from unnecessary fouling.
- E. Backflow preventers should never be placed in pits unless absolutely necessary and then only when and as approved by local codes. Consult your local or state plumbing or health inspector. Watts recommends installation indoors or above ground in an insulated enclosure.

Start Up

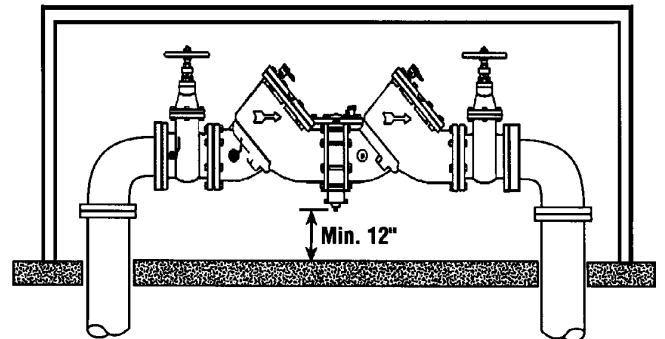
- F. The downstream shutoff should be closed. Open upstream slowly, fill the valve and bleed the air through Test cock 2, 3 and 4. When valve is filled, open the downstream shutoff slowly and fill the water supply system. This is necessary to avoid water hammer or shock damage.
- G. The installation of a Watts air gap with the drain line terminating above a floor drain will handle any normal discharge or nuisance spitting through the relief valve. However, floor drain size may need to be designed to prevent water damage caused by a catastrophic failure condition. Do not reduce the size of the drain line from the air gap fitting.
- H. Two or more smaller size valves can be piped in parallel (when approved) to serve a larger supply pipe main. This type of installation is employed where increased capacity is needed beyond that provided by a single valve and permits testing or servicing of an individual valve without shutting down the complete line.

The number of assemblies used in parallel should be determined by the engineer's judgement based on the operating conditions of a specific installation.

Indoors



Above Ground



Now available, WattsBox Insulated Enclosures, for more information, send for ES-WB.

Parallel

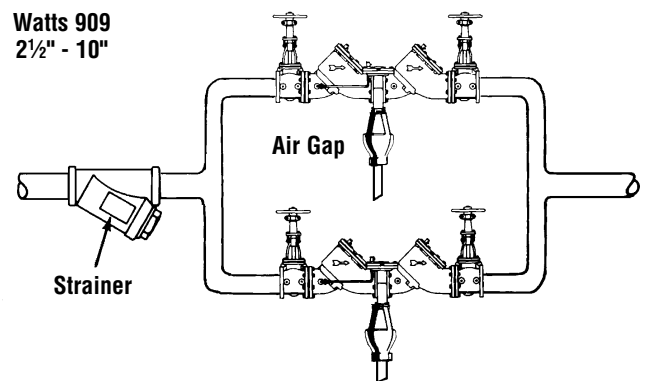


TABLE ONE - CAPACITY REQUIRED FOR SYSTEM

50 gpm	100 gpm	150 gpm	200 gpm	250 gpm	350 gpm	450 gpm	640 gpm	1000 gpm	2000 gpm	3000 gpm	5000 gpm
Two ¾" Devices	Two 1" Devices	Two 1¼" Devices	Two 1½" Devices	Two 1½" Devices	Two 2" Devices	Two 2½" Devices	Two 3" Devices	Two 4" Devices	Two 6" Devices	Two 8" Devices	Two 10" Devices

Table shows total capacity provided with dual valve installations of various sizes.

Test Procedure for Reduced Pressure Zone Backflow Preventers

The following Test Procedure is one of several that is recognized throughout the United States for verification of the functioning of backflow preventers.

The following procedure is not a specific recommendation. The Watts series of test kits are capable of performing any of the recognized backflow test procedures.

- A. Open TC #4 and flush test cocks Nos. 1, 2, and 3 on BF assembly, then close TC #4.
- B. Turn tester on (before connecting hoses). Tester must read all zeros. Close VA and VB.

Test No. 1 - Relief Valve

1. Install high side hose between TC #2 and tester connection A.
2. Install low side hose between TC #3 and tester connection B.
3. Open VB then TC #3. Now open VA then TC #2 slowly. Close VA then VB.
4. Close #2 shutoff valve.
5. Observe the apparent first check valve differential pressure (A - B).
6. Install bypass hose between VA and VB. Open VB and bleed air by loosening hose connection at VA. Tighten hose connection and close VB.

Push - Print Head (wait) then Push - Start Test

7. Open VA, then slowly open VB (no more than 1/4 turn). When relief valve drips, push the "hold" button for 2 seconds. Record reading (must be 2 psid or more).

Push - Stop Test

8. Close VA and VB.

Test No. 2 - Test No. 2 Check Valve

9. Install bypass hose between VA and TC #4. Open VA, then bleed air by loosening hose connection at TC #4. Tighten hose connection. Close VA.

Push - Start Test

10. Open VB to reestablish pressure within the "zone". Close VB.
11. Open VA then TC #4. If relief valve does not drip, record second check valve as "closed tight".

Test No. 3 - Test No. 1 Check Valve

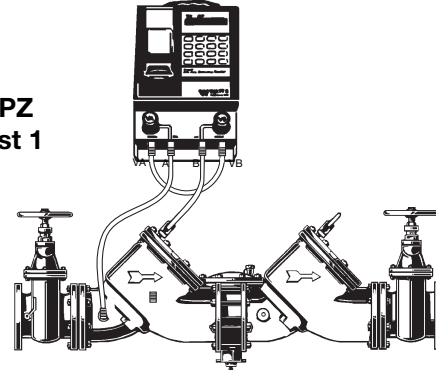
12. Open VB to reestablish first check valve differential pressure. Close VB. Record pressure differential.

Stop Test (Push Stop Test twice)

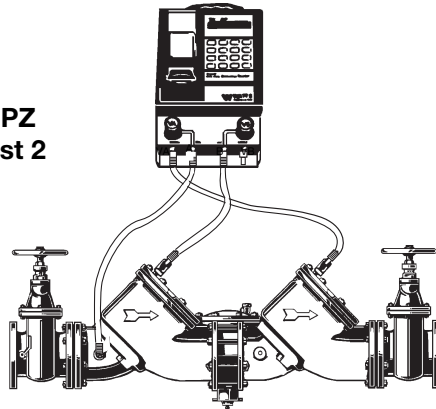
13. Close test cocks and remove tester, return assembly to normal operating condition.

Watts TK-DP

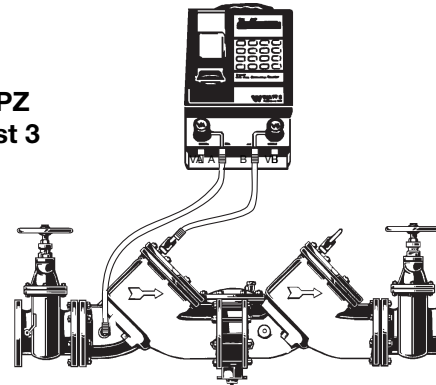
RPZ Test 1



RPZ Test 2



RPZ Test 3



For complete testing information, send for IS-TK-9A or IS-TK-DP/DL.

Replacement Water Meters for 2 1/2" - 10" Series 909RPDA, 990RPDA and 992RPDA.

ORDERING CODE	VALVE SERIES	SIZE	DESCRIPTION
0835561	909RPDA/990RPDA/992RPDA	2 1/2" - 10"	D709BA203-GPM-B (registers in gallons)
1203010	909RPDA/990RPDA/992RPDA	2 1/2" - 10"	D709BB203-CFM-B (registers in cubic feet)

CFM AND GPM Outside Reader Kit

0899022	909RPDA/990RPDA/992RPDA	2 1/2" - 10"	ROM DC/RP CFM-B
0899023	909RPDA/990RPDA/992RPDA	2 1/2" - 10"	ROM DC/RP GPM-B

Water Meter



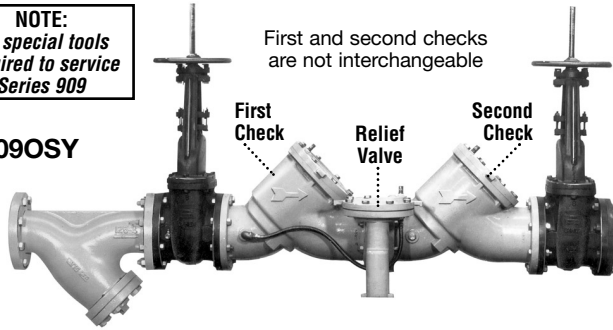
Outside Reader



Servicing First and Second Checks 2½" - 10"

NOTE:
No special tools
required to service
Series 909

909OSY



First and second checks
are not interchangeable

First Check

Relief Valve

Second Check

909 Repair Kits 2½" - 10"

ORDERING CODE	KIT NO.	SIZE
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First Check Kits:

0887210	RK 909 CK1	2½" - 3"
0887212	RK 909 CK1	4"
0887213	RK 909 CK1	6"
0887214	RK 909 CK1	8"
0887215	RK 909 CK1	10"

Second Check Kits:

0887211	RK 909 CK2	2½" - 3"
0887216	RK 909 CK2	4"
0887217	RK 909 CK2	6"
0887218	RK 909 CK2	8"
0887219	RK 909 CK2	10"

Kits include: Disc & Spring assembly, Cover O-ring and lubricant.

First Check Rubber Parts Kits:

0887220	RK 909 RC1	2½" - 3"
0887221	RK 909 RC1	4"
0887223	RK 909 RC1	6"
0887224	RK 909 RC1	8"
0887225	RK 909 RC1	10"

Second Check Rubber Parts Kits:

0887226	RK 909 RC2	2½" - 3"
0887227	RK 909 RC2	4"
0887228	RK 909 RC2	6"
0887229	RK 909 RC2	8"
0887230	RK 909 RC2	10"

Kits include: Lower Stem O-ring (6" only), Check disc, Cover O-ring, and lubricant.

Seat Kits for Checks:

0887730	RK 909 S	2½" - 3"
0887731	RK 909 S	4"
0887732	RK 909 S	6"
0887733	RK 909 S	8"
0887734	RK 909 S	10"

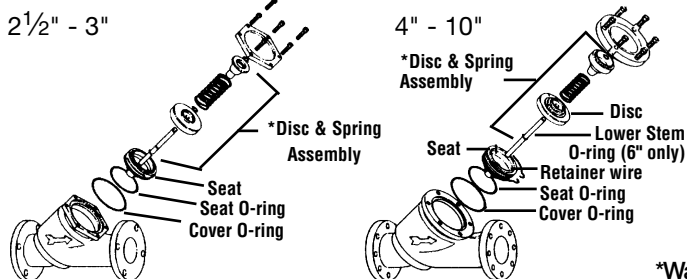
Kits include: Seat, Seat O-ring, Cover O-ring, Retainer wire and lubricant.

Total Rubber Parts Kits:

0887750	RK 909 RT	2½" - 3"
0887751	RK 909 RT	4"
0887752	RK 909 RT	6"
0887753	RK 909 RT	8"
0887754	RK 909 RT	10"
0887761	RK 909M1 RT	8"
0887762	RK 909M1 RT	10"

Kits include: Lower Stem O-ring (6" only), Check disc, Cover O-ring, Sleeve O-ring, Piston O-ring, RV disc assembly, Diaphragm, Piston seal and Lubricant.

When ordering specify EDP number, Kit Number and Valve Size.



1. Remove the hatch cover bolts. NOTE: The 909 is designed so that when the bolts are backed off ½", all the spring load is released from the cover and retained by the check module. CAUTION: Be sure to verify this before removing all the bolts.
2. Lift the check valve module straight out taking care not to hit and damage the seating.
3. The seat ring may be removed and replaced by pulling out the two wire retainers on sizes 4" - 10" while on sizes 2½" - 3", one quarter turn twist removes seat. The wire retainers are 10" long. One is drawn out clockwise and the other is drawn out counterclockwise.
4. With the retainer wires removed, the seat ring can be lifted straight up and removed.
5. **CAUTION:** The check valve spring is in compression. The spring load is captured by the two spring retainers and the stem. The spring retainers are not to be removed for servicing. If there is a need to replace the spring, spring retainer or stem, an assembled module must be obtained from the factory. These modules are not interchangeable, be sure to replace the first check with a first check module and the second check with a second check module.
6. To replace the disc on sizes 2½" - 4" simply remove the retaining nut or for sizes 6" - 10" remove the allen head socket screws. Reverse this procedure to install the new disc.

909RPDA Repair Kits 2½" - 10"

ORDERING CODE	KIT NO.	SIZE
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First Check Kits:

0887239	RK 909RPDA CK1	2½" - 3"
0887240	RK 909RPDA CK1	4"
0887241	RK 909RPDA CK1	6"
0887242	RK 909RPDA CK1	8"
0887243	RK 909RPDA CK1	10"

Second Check Kits:

0887244	RK 909RPDA CK2	2½" - 3"
0887245	RK 909RPDA CK2	4"
0887246	RK 909RPDA CK2	6"
0887247	RK 909RPDA CK2	8"
0887248	RK 909RPDA CK2	10"

Kits include: Disc & Spring assembly, Cover O-ring and lubricant.

First Check Rubber Parts Kits:

0887249	RK 909RPDA RC1	2½" - 3"
0887250	RK 909RPDA RC1	4"
0887251	RK 909RPDA RC1	6"
0887252	RK 909RPDA RC1	8"
0887253	RK 909RPDA RC1	10"

Second Check Rubber Parts Kits:

0887254	RK 909RPDA RC2	2½" - 3"
0887255	RK 909RPDA RC2	4"
0887256	RK 909RPDA RC2	6"
0887257	RK 909RPDA RC2	8"
0887258	RK 909RPDA RC2	10"

Kits include: Lower Stem O-ring (6" only), Check disc, Cover O-ring, and lubricant.

Seat Kits for Checks:

0887735	RK 909RPDA S	2½" - 3"
0887736	RK 909RPDA S	4"
0887737	RK 909RPDA S	6"
0887738	RK 909RPDA S	8"
0887739	RK 909RPDA S	10"

Kits include: Seat, Seat O-ring, Cover O-ring, Retainer wire and lubricant.

Total Rubber Parts Kits:

0887756	RK 909RPDA RT	2½" - 3"
0887757	RK 909RPDA RT	4"
0887758	RK 909RPDA RT	6"
0887759	RK 909RPDA RT	8"
0887760	RK 909RPDA RT	10"
0887764	RK 909RPDAM1 RT	8"
0887765	RK 909RPDAM1 RT	10"

Kits include: Lower Stem O-ring (6" only), Check disc, Cover O-ring, Sleeve O-ring, Piston O-ring, RV disc assembly, Diaphragm, Piston seal and Lubricant.

For further details contact your technical sales representative, see back page.

***Warning: Spring assembly is factory assembled. DO NOT DISASSEMBLE**

Servicing the Relief Valve 2½" - 10"

1. Remove the relief valve cover bolts. Note the 909 is designed so that when the bolts are backed off ½" all the relief valve spring load is retained by the bottom plug spring module.
CAUTION: Be sure to verify this before removing all the bolts.
2. Remove the cover and diaphragm. The relief valve piston assembly can be lifted straight up and out.
3. Replace the wiper seal and piston o-ring and apply grease to the o-ring.
4. To replace the relief valve disc, hold the upper guide fin and unscrew the diaphragm pressure plate. It may be necessary to lightly tap the cast webs and the pressure plate to loosen. Replace with a new disc holder assembly and o-ring. Note: the disc rubber is molded into the disc holder and is supplied as a disc holder assembly.
5. Removal of the bottom plug and spring assembly. During normal field service there is no need to remove the bottom plug spring assembly other than inspection. It can be removed by simply unscrewing with a large pipe wrench.

CAUTION: The spring as retained on the bottom plug is highly loaded. NO attempt should be made in the field to remove the spring. For replacement, a complete bottom plug assembly must be obtained from the factory.

For further details contact your technical sales representative, see back page.

909 Repair Kits 2½" - 10"

ORDERING CODE	KIT NO.	SIZE
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Relief Valve Rubber Parts

0887231	RK 909 RV	2½" - 3"
0887232	RK 909 RV	4" - 6"
0887233	RK 909 RV	8" - 10"
0887234	*RK 909M1 RV	4" - 10"

Kits include: Sleeve o-ring, Seat o-ring, Piston o-ring, Stem o-ring, RV disc assembly, Diaphragm, Piston seal, Bottom plug o-ring and lubricant

Relief Valve Total

0887235	RK 909 VT	2½" - 3"
0887236	RK 909 VT	4" - 6"
0887237	RK 909 VT	8" - 10"
0887238	*RK 909M1 VT	4" - 10"

Kits include: Adapter o-ring, Diaphragm, Disc & piston assembly, Seat, Seat o-ring and lubricant. (4" - 10" M1 includes bottom plug & spring assembly.)

Cover Kits

0887740	RK 909 C	2½" - 3"
0887741	RK 909 C	4"
0887742	RK 909 C	6"
0887743	RK 909 C	8"
0887744	RK 909 C	10"

Kits include: Cover, Cover o-ring and lubricant.

909RPDA Repair Kits 2½" - 10"

Relief Valve Rubber Parts

0887263	RK 909RPDA RV	2½" - 3"
0887264	RK 909RPDA RV	4" - 6"
0887265	RK 909RPDA RV	8" - 10"
0887266	*RK 909RPDAM1 RV	4" - 10"

Kits include: Sleeve o-ring, Seat o-ring, Piston o-ring, Stem o-ring, RV disc assembly, Diaphragm, Piston seal, Bottom plug o-ring and lubricant

Relief Valve Total

0887259	RK 909RPDA VT	2½" - 3"
0887260	RK 909RPDA VT	4" - 6"
0887261	RK 909RPDA VT	8" - 10"
0887262	*RK 909RPDAM1 VT	4" - 10"

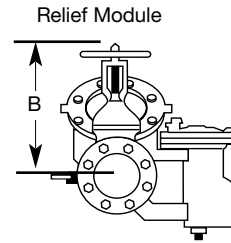
Kits include: Adapter o-ring, Diaphragm, Disc & piston assembly, Seat, Seat o-ring and lubricant. (4" - 10" M1 includes bottom plug & spring assembly.)

Cover Kits

0887745	RK 909RPDA C	2½" - 3"
0887746	RK 909RPDA C	4"
0887747	RK 909RPDA C	6"
0887748	RK 909RPDA C	8"
0887749	RK 909RPDA C	10"

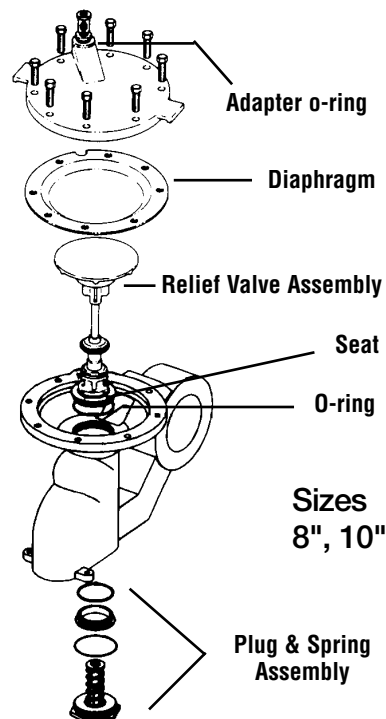
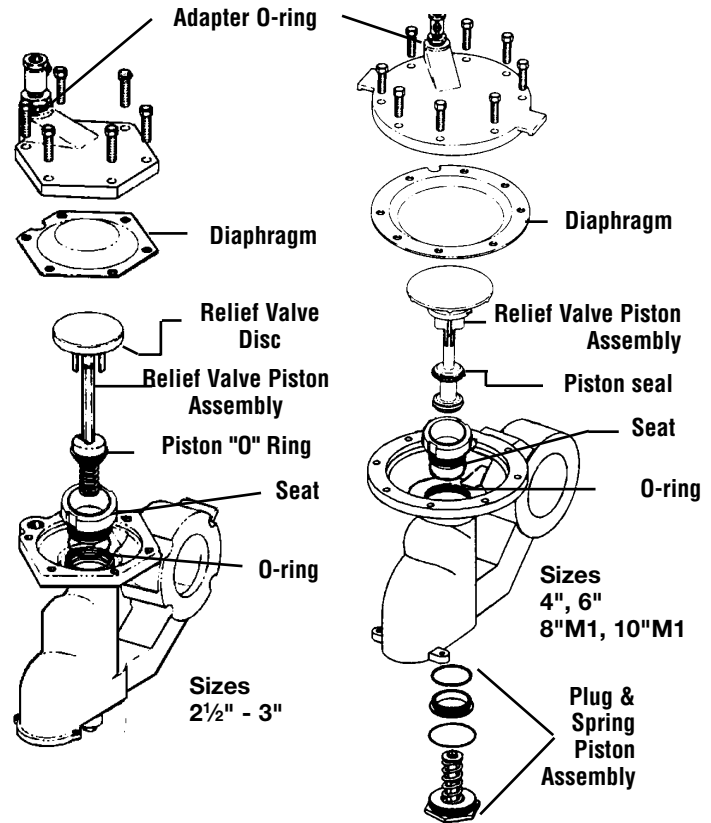
Kits include: Cover, Cover o-ring and lubricant.

*M1 = Cast iron relief valve.



Clearance Required for Servicing

	A	B
2½-3	10"	11"
4	15"	14"
6	15"	16"
8	23"	21"
10	25"	21"



Trouble Shooting Guide - Backflow Preventers

Problem	Cause	Solution	
A. Valve spits periodically from the vent	A.1 Fluctuating supply pressure.	A.1 Install a soft seated check valve immediately upstream of the device. (Watts ¾" - 2" No. 601 bronze valve.)	
	A.2 Fluctuating downstream pressure	A.2 Install a soft seated check valve downstream of the device close as possible to the shutoff valve. (Watts ¾" - 2" No. 601 bronze valve.)	
	B. Valve drips continually from the vent	B.1 Fouled first check	B.1 Flush valve. If flushing does not resolve problem, disassemble valve and clean or replace the first check.
		B.2 Damage or fouled relief valve seat.	B.2 Clean or replace the relief valve seat.
		B.3 Relief valve piston O-ring not free to move due to pipe scale, dirt or build up of mineral deposits.	B.3 Clean, grease or replace the piston O-ring.
		B.4 Excessive back pressure, freezing, or water hammer has distorted the second check.	B.4 Eliminate source of excessive backpressure or water hammer in the system downstream of the device. Use Watts No. 601 to dampen out backpressure and No. 15 to eliminate water hammer. Replace defective second check assembly. In case of freezing; thaw, disassemble and inspect internal components. Replace as necessary.
B.5 Electrolysis or relief valve seat or first check seats.	B.5 Replace relief valve seat or inlet cover. Install dielectric unions (Watts series 3001 through 3006). Electrically ground the piping system and/or electrically isolate the device with plastic pipe immediately upstream and downstream of the device.		
B.6 Valve improperly reassembled.	B.6 If valve is disassembled during installation, caution must be exercised to install check springs in their proper location.		
C. Valve exhibits high pressure drop.	C.1 Fouled strainer.	C.1 Clean strainer element or replace.	
	C.2 Valve too small for flows encountered.	C.2 Install proper size device based upon flow requirements.	
D. No water flows downstream of valve.	D. Valve installed backwards.	D. Install valve in accordance with flow direction arrow.	
	E. Valve does not test properly	E.1 Follow manufacturer's test procedure	E.1, E.2 Clean or replace gate valve with full port ball valves or resilient wedge shutoff valves.
E.2 Leaky downstream gate valve.			
F. Valve quickly and repeatedly fouls following servicing.	F. Debris in pipe line is too fine to be trapped by strainer.	F. Install finer mesh strainer element in the strainer.	
	G. Winterization of backflow preventers.	G. Electric heat-tape wrap closely together around valve body. Build a small shelter around the valve with a large light bulb installed and left on at all times. If supply line is not used during the winter, removal of the complete body is the best. This would create an air gap to eliminate any possible backflow.	

For Technical Assistance Call Your Authorized Watts Agent.

			Telephone #	Fax #
	HEADQUARTERS: Watts Regulator Company	815 Chestnut St., North Andover, MA 01845-6098 U.S.A.	978 688-1811	978 794-1848
North East	Vernon Bitzer Associates, Inc.	980 Thomas Drive, Warminster, PA 18974	215 443-7500	215 443-7573
	Edwards, Platt & Deely, Inc.	271 Royal Ave., Hawthorne, NJ 07506	973 427-2898	973 427-4246
	Edwards, Platt & Deely, Inc.	368 Wyandanch Ave., North Babylon, NY 11703	631 253-0600	631 253-0303
	J. B. O'Connor Company, Inc.	P.O. Box 12927, Pittsburgh, PA 15241	724 745-5300	724 745-7420
	The Joyce Agency, Inc.	8442 Alban Rd., Springfield, VA 22150	703 866-3111	703 866-2332
	W. P. Haney Co., Inc.	51 Norfolk Ave., South Easton, MA 02375	508 238-2030	508 238-8353
	WMS Sales, Inc. (Main office)	9580 County Rd., Clarence Center, NY 14032	716 741-9575	716 741-4810
South East	Billingsley & Associates, Inc.	2728 Crestview Ave., Kenner, LA 70062-4989	504 602-8100	504 602-8106
	Billingsley & Associates, Inc.	478 Cheyenne Lane, Madison, MS 39110	601 856-7565	601 856-8390
	Francisco J. Ortiz & Co., Inc.	Charlyn Industrial Pk., Road 190 KM1.9 - Lot #8, Carolina, Puerto Rico 00983	787 769-0085	787 750-5120
	Mid-America Marketing, Inc.	2776 B.M. Montgomery St., Birmingham, AL 35209	205 879-3469	205 870-5027
	Mid-America Marketing, Inc.	1364 Foster Avenue, Nashville, TN 37210	615 259-9944	615 259-5111
	Mid-America Marketing, Inc.	5466 Old Hwy. 78, Memphis, TN 38118	901 795-0045	901 795-0394
	RMI	Glenfield Bus. Ctr., 2535 Mechanicsville Tpk., Richmond, VA 23223	804 643-7355	804 643-7380
	Smith & Stevenson Co., Inc.	4935 Chastain Ave., Charlotte, NC 28217	704 525-3388	704 525-6749
	Spotswood Associates, Inc.	6235 Atlantic Blvd., Norcross, GA 30071	770 447-1227	770 263-6899
	Target Marketing Enterprises, Inc.	118 West Grant St., Building M, Orlando, FL 32806	407 245-7838	407 245-7833
South Central	Hugh M. Cunningham, Inc.	13755 Benchmark, Dallas, TX 75234	972 888-3800	972 888-3838
	Mack McClain & Associates	11132 South Towne Square, Suite 202, St. Louis, MO 63123	314 894-8188	314 894-8388
	Mack McClain & Associates, Inc.	1537 Ohio St., Des Moines, IA 50314	515 288-0184	515 288-5049
	Mack McClain & Associates, Inc.	15090 West 116th St., Olathe, KS 66062	913 339-6677	913 339-9518
	Pro-Spec, Inc.	P.O. Box 472226, Tulsa, OK 74147-2226	918 461-0066	918 461-0105
North Central	Aspinall Associates, Inc.	6840 Hillsdale Court, Indianapolis, IN 46250	317 849-5757	317 845-7967
	Associated Independent Marketing	1606 Commerce Dr., Sun Prairie, WI 53590	608 837-5005	608 837-2368
	Dave Watson Associates	1325 West Beecher, Adrian, MI 49221	517 263-8988	517 263-2328
	Disney-McLane-Woodcock, Inc.	428 McGregor Ave., Cincinnati, OH 45206	800 542-1682	877 476-1682
	Disney-McLane-Woodcock, Inc.	17610 S. Waterloo Rd., Cleveland, OH 44119	216 486-1010	216 486-2860
	Mid-Continent Marketing Services Ltd.	1724 Armitage Ct., Addison, IL 60101	630 953-1211	630 953-1067
South West	Delco Sales, Inc.	1930 Raymer Ave., Fullerton, CA 92833	714 888-2444	714 888-2448
	Phoenix Marketing, Ltd.	2416 Candelaria N.E., Albuquerque, NM 87107	505 883-7100	505 883-7101
	P I R Sales, Inc.	3050 North San Marcos Place, Chandler, AZ 85225	480 892-6000	480 892-6096
	Preferred Sales	31177 Wiegman Road, Hayward, CA 94544	510 487-9755	510 476-1595
North West	Delco Sales, Inc.	111 Sand Island Access Rd., Unit I-10, Honolulu, HI 96819	808 842-7900	808 842-9625
	Fanning & Associates, Inc.	6765 Franklin St., Denver, CO 80229-7111	303 289-4191	303 286-9069
	Hollabaugh Brothers & Associates	6915 South 194th St., Kent, WA 98032	253 867-5040	253 867-5055
	Hollabaugh Brothers & Associates	3028 S.E. 17th Ave., Portland, OR 97202	503 238-0313	503 235-2824
	R. E. Fitzpatrick Sales, Inc.	4109 West Nike Dr. (8250 South), West Jordan, UT 84088	801 282-0700	801 282-0600
	Soderholm & Associates, Inc.	7150 143rd Ave. N.W., Anoka, MN 55303	763 427-9635	763 427-5665
CANADA	Watts Industries (Canada) Inc. (Watts Regulator Co. Division)	5435 North Service Road, Burlington, Ontario L7L 5H7	905 332-4090	905 332-7068
	GTA Sales Team	Greater Toronto Area	888 208-8927	888 479-2887
	Hydro-Mechanical Sales, Ltd.	3700 Joseph Howe Dr., Ste. 1 Halifax, Nova Scotia B3L 4H7	902 443-2274	902 443-2275
	Hydro-Mechanical Sales, Ltd.	297 Collishaw St., Ste. 7 (shipping) Moncton, New Brunswick E1C 9R2	506 859-1107	506 859-2424
	Hydro-Mechanical Sales, Ltd.	85 Tolt Rd., St. Phillips, Newfoundland A1B 3M7	709 895-0090	709 895-0091
	Le Groupe B.G.T., Inc.	2800 Rue Dalton Ste. 3, Ste-Foy, Quebec G1P 3S4	418 657-2800	418 657-2700
	Le Groupe B.G.T., Inc.	140 Rue Merizzi, Ville St. Laurent, Quebec H4T 1S4	514 341-9010	514 341-4464
	Walmar Mechanical Sales	24 Gurdwara Rd., Nepean, Ontario K2E 8B5	613 225-9774	613 225-0673
	Mar-Win Agencies, Ltd.	1123 Empress St., Winnipeg, Manitoba R3E 3H1	204 775-8194	204 786-8016
	Palser Enterprises, Ltd.	1885 Blue Heron Dr., #4, London, Ontario N6H 5L9	519 471-9382	519 471-1049
	Northern Mechanical Sales	P.O. Box 280 (mailing) 163 Pine St. (shipping), Garson, Ontario P3L 1S6	705 693-2715	705 693-4394
	RAM Mechanical Marketing	441 Quebec St., Regina, Saskatchewan S4R 1K8	306 525-1986	306 525-0809
	RAM Mechanical Marketing	2615-B Wentz Avenue, Saskatoon, Saskatchewan S7K 5J1	306 244-6622	306 244-0807
	Con-Cur West Marketing, Inc.	#109-42 Fawcett Rd., Coquitlam, British Columbia V3K 6X9	604 540-5088	604 540-5084
	D.C. Sales, Ltd.	10-6130 4th St. S.E., Calgary, Alberta T2H 2A6	403 253-6808	403 259-8331
D.C. Sales, Ltd.	11420 142 Street, Edmonton, Alberta T5M 1V1	780 496-9495	780 496-9621	
0306	EXPORT Hdqtrs.: Watts Regulator Co.	815 Chestnut St., North Andover, MA 01845-6098 U.S.A.	978 688-1811	978 794-1848