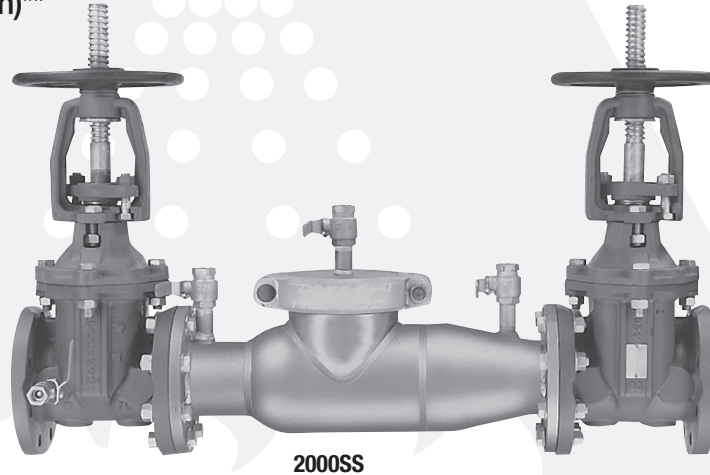


Installation, Maintenance, & Repair Series 2000SS/SE & 3000SS/SE

Double Check Valve Assemblies & Double Check Detector Assemblies

Sizes: 2½" – 6"SS (65 – 150mm)**
6" – 8"SE (150 – 200mm)**



2000SS

⚠ WARNING



Read this Manual **BEFORE** using this equipment.
Failure to read and follow all safety and use information can result in death, serious personal injury, property damage, or damage to the equipment.



Keep this Manual for future reference.

⚠ WARNING

You are required to consult the local building and plumbing codes prior to installation. If the information in this manual is not consistent with local building or plumbing codes, the local codes should be followed. Inquire with governing authorities for additional local requirements.

⚠ WARNING

Need for Periodic Inspection/Maintenance: This product must 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 suppression system, all mechanical checks, such as alarms and backflow preventers, should be flow tested and inspected in accordance with NFPA 13 and/or NFPA 25. All products must be retested once maintenance has been performed. Corrosive water conditions, and/or unauthorized adjustments or repair could render the product ineffective for the service intended. Regular checking and cleaning of the product's internal components helps assure maximum life and proper product function.

NOTICE

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

NOTICE

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

Testing

For field testing procedure, refer to Ames installation sheets IS-A-ATG-1 found on www.amesfirewater.com.

For other repair kits and service parts, refer to our Backflow Prevention Products Repair Kits & Service Parts price list PL-A-RP-BPD found on www.amesfirewater.com.

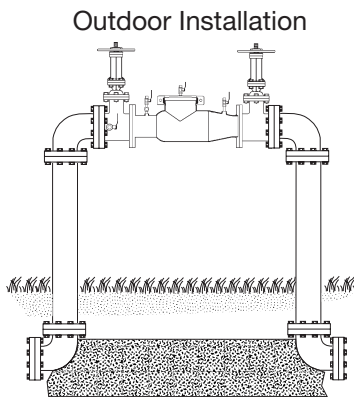
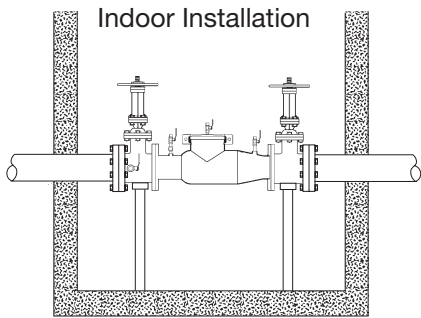
For technical assistance, contact your local Ames representative.

**Metric Dimensions are nominal pipe diameter. This product is produced with ASME/ANSI flanged end connections or DN flanged end connections.

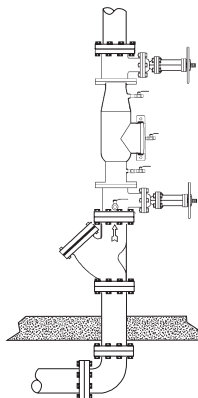


Installation Instructions

1. Before installing any Ames backflow assembly, flush the line thoroughly to remove all debris, chips and other foreign objects. Failure to do so may make the assembly inoperable.
2. The Ames 2000SS and 3000SS may be placed in any position as long as the flow indicator arrow in the assembly is pointed in the direction of water flow, and the local water authority has approved the installation configuration. ASSE (American Society of Sanitary Engineers) has approved these assemblies for either horizontal or vertical installation.
3. Allow sufficient clearance around the installed assembly to conduct testing, servicing, and inspection. Allow a minimum of 12" from the flood level to the bottom of the assembly.
4. If double check or double check detector assembly is installed in a vault or pit, be sure proper drainage is available. If sufficient drainage is not available a cross-connection may occur.
5. If installing on fire protection system, be sure to purge air from fire system. Fill system slowly with all inspectors test valves open.



Vertical Installation



Maintenance Instructions

⚠ WARNING Depressurize valve before servicing.

Removing Cam-Checks

1. Shut down water system and lock out system if possible. Slowly open all ball valves to relieve air and water pressure. Loosen bolts on groove coupler and remove groove coupler and cover plate from valve body.
2. Remove #1 Cam-Check assembly by using your hands to unscrew (turn counterclockwise) Cam-Check and remove through top access port. Do not use Cam Arm as a handle to unscrew Cam-Check. If Cam-Check cannot be loosened by hand, insert a long screwdriver between valve body and Cam-Check (see Figure 3). Slowly apply pressure against the Cam-Check until loosened. Finish unscrewing by hand. Unscrew #2 Cam-Check (turn counterclockwise) by placing a long screwdriver between lugs and applying pressure to loosen #2 Cam-Check. Finish unscrewing by hand.
3. To clean Cam-Check, (except 2 1/2" - 4" (65-100mm) DC check) locate the Cam Arm opening stud on the outlet flange of the valve assembly.

Slide the Cam Arm over the stud with the check threads facing downward (Figure 1). Tighten 1/4" nut on stud to secure cam bar. Slowly pull the assembly outward to open check raising the clapper so that the end of the Cam Arm rests between roller and clapper (Figure 2).

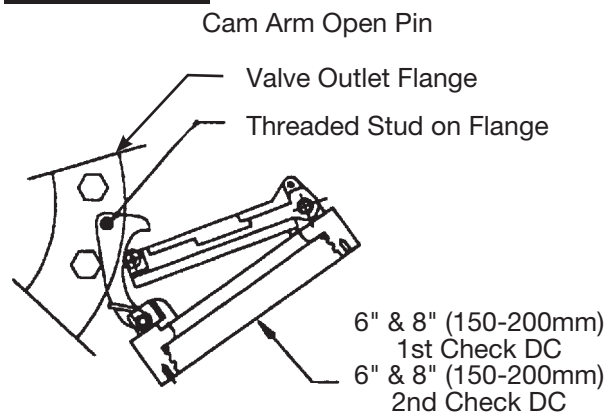
Thoroughly clean the seat area and clapper sealing surfaces of both Cam-Checks. Rinse Cam-Checks and O-rings thoroughly. Inspect seats, clapper sealing surfaces, Cam Arms, and O-rings for damage. If damaged, install a new Cam-Check assembly and/or O-ring.

⚠ WARNING

While the spring mechanism is removed for check servicing, never pull the screwdriver out or off the support notches on the arbors. Doing so may cause bodily injuries. Keep fingers out of seat and clapper area.

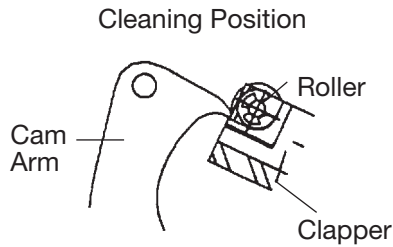
4. Gently close the Cam-Check using the Cam Arm opening stud. Before reinstallation of Cam-Checks thoroughly clean O-ring groove and lubricate O-ring with FDA approved lubricant. Insert and thread #2 Cam-Check first and then #1 Cam-Check. #2 Cam-Check should be tightened by inserting a long screwdriver between lugs to tighten firmly (see Figure 1). Do not over tighten. Tighten #1 Cam-Check firmly by hand only. Replace cover plate, clean groove coupler gasket and groove, replace groove coupler. Close ball valves.

Figure 1



Maintenance Instructions cont.

Figure 2



Item #	Description
1.	#1 Cam-Check
2.	#2 Cam-Check
3.	#1 Cam-Check O-ring
4.	#2 Cam-Check O-ring
5.	Cover Plate
6.	Ball Valve
7.	Groove Coupler
8.	Groove Coupler Gasket
9.	Ball Valve (Cover)

Figure 3

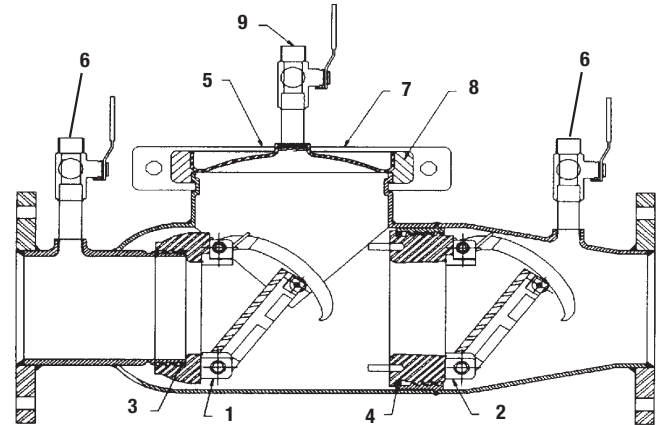
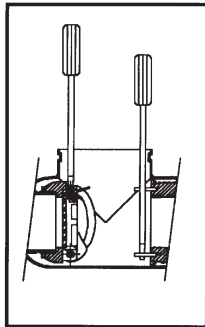
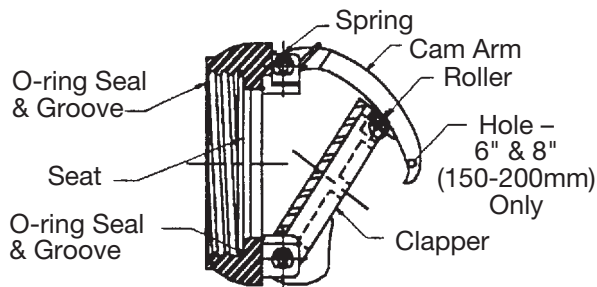


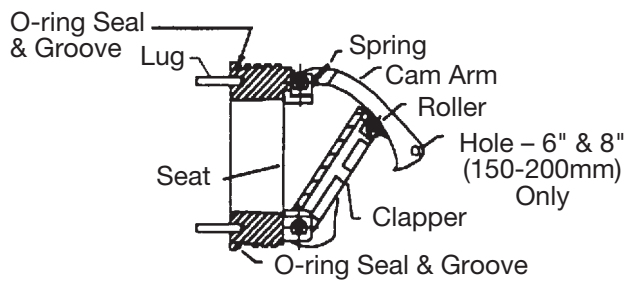
Figure 4

#1 Cam-Check 2 1/2" - 6" (65-150mm)



For repair kits and parts, refer to our Backflow Prevention Products Repair Kits & Service Parts price list PL-A-RP-BPD found on www.amesfirewater.com.

#2 Cam-Check DC & RP



Testing — Double Check Valve Assembly

Test Check Valve No. 1

- Step 1: Ensure shutoff #1 is open, shutoff #2 is closed.
- Step 2: Connect high side hose to test cock #3, low side to test cock #2 and open both test cock #2 and test cock #3.
- Step 3: Open valve C, then open A to bleed air from the high side. Close valve A, then open B to bleed low side. Close valve B.
- Step 4: Connect vent hose loosely to test cock #1. Open valve A to vent air from vent hose. Tighten vent hose at test cock #1, open test cock #1.
- Step 5: Close shutoff #1. Slowly loosen hose at test cock #2 until differential gauge rises to 2psi and retighten hose. If the differential reading does not decrease, record check valves as “tight”.

Test Check Valve No. 2

- Step 1: Move the high side hose to test cock #4, low side to test cock #3 and open both test cock #3 and test cock #4. Remove vent hose from test cock #1, open shutoff #1.
- Step 2: Open valve C, then open valve A to bleed air from the high side. Close valve A, then open valve B to bleed low side. Close valve B.
- Step 3: Connect vent hose loosely to test cock #1. Open valve A to vent air from the vent hose. Tighten vent hose at test cock #1, open test cock #1.
- Step 4: Close shutoff #1, then slowly loosen hose at test cock #3 until differential gauge rises to 2psi and retighten hose. If the differential reading does not decrease, record check as tight. Remove all hoses and restore valve to original working condition.

NOTICE

The assembly will fail both the first and second check valve tests above, if shutoff #2 leaks excessively. To test for a leaky #2 shutoff, use the following procedure.

Test for Leaky No. 2 Shutoff

- Step 1: Connect the high side to test cock #1, low side to test cock #4. Open test cock #1 and test cock #4. Close shutoffs #1 and #2.
- Step 2: Close valve C. Open valve A, then open valve B ½ turn, loosen hose at test cock #4 to remove air. Retighten hose.
- Step 3: If the differential gauge rises above 0, there is excessive leakage at shutoff #2 and it must be replaced to test the assembly.

Product information is subject to change without notice and supersedes all previous publications.

Ball Type Test Valves

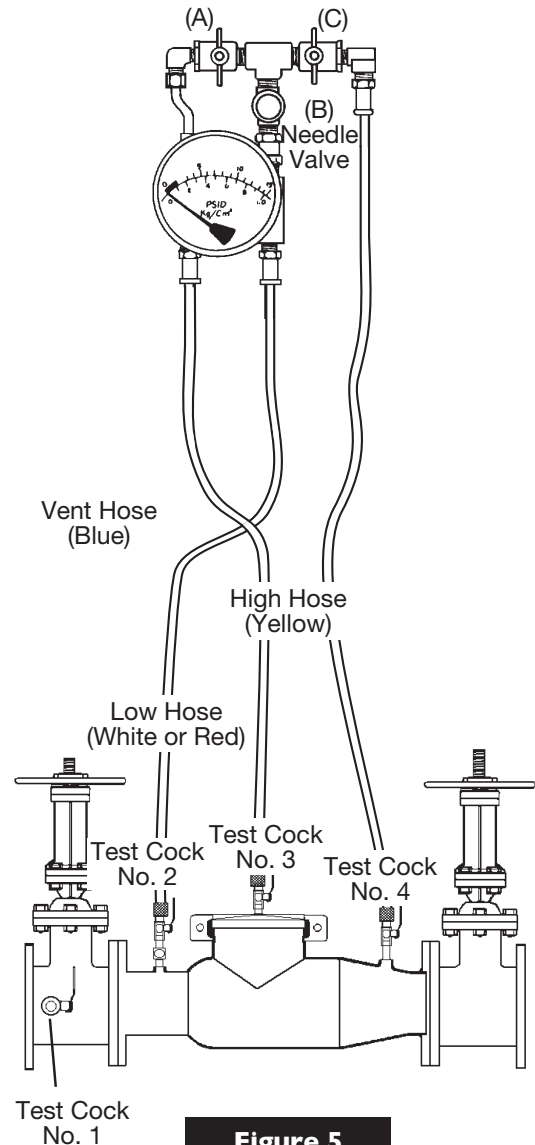


Figure 5

Limited Warranty: Ames Fire & Waterworks (the “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.

THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE COMPANY WITH RESPECT TO THE PRODUCT. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE COMPANY HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedy described in the first paragraph of this warranty 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, improper installation or improper maintenance or alteration of the product.

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. **SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL SHIPMENT.**

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information: www.watts.com/prop65



www.amesfirewater.com

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