



Valparaiso City Utilities

205 Billings Street
Valparaiso, Indiana 46383-3699

"Water is our Most Valuable Natural Resource"

HOME IRRIGATION SAFETY

Don't let your Irrigation System contaminate the water you drink....

BACKFLOW PREVENTION ALTERNATIVES FOR HOME IRRIGATION SYSTEMS

Irrigation Systems make watering lawns and gardens easier and save time, BUT water that may be contaminated by weed killers and/or fertilizers can be backsiphoned (backflow) into your drinking water. Irrigation systems not protected by approved backflow prevention assemblies could endanger the health of a household, neighborhood or community.

ALL IRRIGATION SYSTEMS....new or existing....MUST BE EQUIPPED with an approved backflow prevention assembly. Only property installed, state-approved backflow prevention assemblies meet the plumbing code and provide health protection for your family and neighbors. Your local water utility can give you a free list of state-approved assemblies and certified testers.

TWO TYPES OF BACKFLOW PREVENTION ASSEMBLIES

<p>1. PRESSURE VACUUM BREAKER (PVB)</p> <ul style="list-style-type: none"> • Sophisticated • Versatile • Requires annual testing by a certified tester 	
<p>2. REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA)</p> <ul style="list-style-type: none"> • Usually most expensive • Most complex • Allows for application of fertilizer or other chemicals into irrigation system (no other type has this approval) • Requires annual testing by a certified tester 	

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Water Department

Visit our website at www.valparaisoutilities.org

INSTALLATION

1. Consult local codes for specific requirements and restrictions applicable to your area. It is recommended that system supply pressure be at least 20 psi.
2. These instructions apply to the model 765 series PVB sizes 1/2" – 2" only. The valves may be installed only in the orientation/flow direction as shown.
3. The 765 must be installed where it is accessible for periodic testing and maintenance. Clearances shown in the installation views apply to the exterior and interior installations and are only recommendations. These minimums do not apply to removable protective enclosures. Refer to local codes for actual requirements in your area.
4. PRIOR TO INSTALLING THE VALVE INTO THE LINE, FLUSH THE SUPPLY LINE OF ALL FOREIGN MATERIAL. Failure to flush the supply line may cause the check valves to become fouled and require disassembly and cleaning. The device should be installed where some spillage is not objectionable, as instantaneous siphon conditions and pressure surges may cause "spitting"
5. When threading the device inline, place the wrench only on the ball valve hex ends. Keep pipe dope (sealant) off the interior surfaces of the valve. After installation fill the assembly with water. Test the valve assembly to ensure correct operation.

Open the inlet ball valve to pressurize the device. Slowly open the outlet ball valve to fill the downstream line. **NOTE:** The downstream pressure must be maintained above 5 psi to keep the spring loaded air inlet poppet closed.

NOTE: All assemblies are tested at the factory for proper operation and leakage. If the valve does not pass the field test, it is most likely due to a fouled check valve. This is not covered by the factory warranty, and the valve cover(s) must be removed and the check seats inspected and cleaned. Any damage or improper operation caused by pipeline debris or improper installation / start-up is not included in the factory warranty.

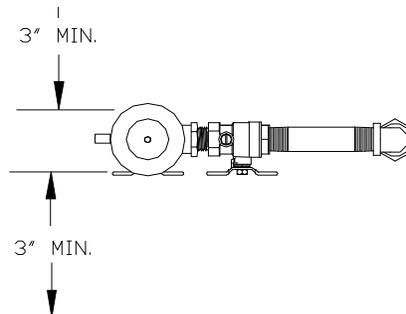
In case of a possible warranty claim, contact your local supplier or FEBCO Representative. DO NOT REMOVE THE VALVE ASSEMBLY FROM THE PIPELINE.

6. The assembly must be protected from freezing and excessive pressure increases. Pressure increases can be caused by thermal expansion or water hammer. These excessive pressure situations must be eliminated to protect the valve and system from possible damage.
7. Plastic testcock plugs and tethers are provided (loose in box) for areas that require them. Refer to Febco's literature on PVB freeze protection, "Freeze Protection 765".

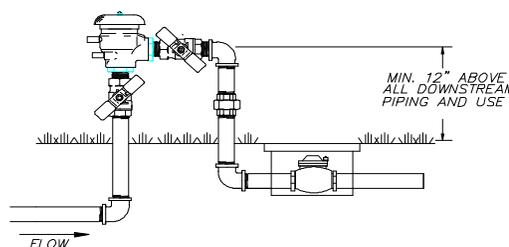
Since bronze plumbing products contain detectable amounts of lead, the state of California requires all manufacturers to issue the following notice:

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

Figure 2
765 Typical Installation
(Top view)



(Side view)



Service Procedure

Close the outlet shut-off valve, then close the inlet shut-off valve. Bleed residual pressure from the assembly by opening the #2 and #1 tests cocks in this sequence.

General

1. Detailed maintenance manuals are available from your local Febco representative.
2. Rinse all parts with clean water prior to reassembly.
3. DO NOT USE ANY PIPE DOPE, OIL, GREASE, OR SOLVENT ON ANY PARTS unless instructed to do so.
4. Do not force parts. Parts should fit together freely. Excess force may cause damage and render the assembly inoperable.
5. Carefully inspect seals and seating surfaces for debris or damage.
6. After servicing, repressurize the assembly and test to ensure proper operation.

Field Test Procedure

Febco recommends the use of the appropriate test method presented in the ASSE Series 5000 manual that is consistent with your local codes.

Trouble Shooting Guide

PROBLEM	CAUSE	SOLUTION
1. Check valve fails to hold 1.0 PSID minimum	A. Debris on sealing valve surfaces B. Damaged seat disc	Disassemble and clean check Disassemble and replace seal
2. Poppet fails to open at 1.0 psig minimum	A. Debris restricting free operation B. Poppet seal adhering to bonnet	Disassemble and clean check Disassemble and clean check replace damaged parts
3. Significant discharge	A. Poppet and or bonnet due to thermal expansion (see freeze protection)	Replace broken bonnet/poppet