

Irritrol

311A Automatic Anti-Siphon Valve Installation Instructions

INSTALLATION

All Irritrol Systems Anti-Siphon Valves should be installed above ground and at least 6 to 12 inches above the highest sprinkler to prevent back pressure or drainage. Installation at any height lower than this may result in unsafe backflow condition. Consult your local codes to verify this height for your specific area. Do not install any other shut-off valves between the anti-siphon valve and the sprinkler heads.

In areas where freezing conditions occur, make provisions for draining the system by using both a drain valve and a stop-and-waste shut-off valve installed on the main line feeding the sprinkler system. To assure complete drainage of the valve after the water supply is shut-off, electrically energize each valve for at least 2-3 minutes. This will vent the upper cavity of the valve allowing maximum drainage.

The 311A Anti-Siphon valve is rated for use up to 150 PSI. Where static pressure is 80 PSI or greater, a pressure regulator can be used to keep the sprinkler heads within the recommended operating pressures. The OMNIREG™ modular pressure regulator may be used (models OMR-100 and OMR-30).

To Install the valve:

1. Flush the line thoroughly before installation to clean out any debris.
2. Use only PTFE tape on all valve to pipe connections. **Note: Do not use Pipe Dope or solvent cement on threaded connections.** After wrapping the tape around the male adapter or nipple threads, insert the male adapter or nipple into the valve. Tighten by hand, then using a wrench, turn the male adapter or nipple 1/2 to 1 turn to ensure a good seal.
3. If using male adapters, glue the male adapters to the pipe (consult your local codes for type of glue to be used). If using a threaded nipple, use the same procedure as above for the threaded connections on the mainline and downstream piping.
4. To test the connections for water leaks, turn on the main water supply. The valves may open when first pressurized but, they should close within 1 minute.

ELECTRICAL CONNECTION

All Irritrol Automatic Anti-Siphon Valves are supplied with a 24 volt solenoid. Connect the solenoid only to a controller that uses an approved class 2, 24 VAC transformer as a power source. **Warning: Do not connect the solenoid leads to 110 volt house current, serious injury or electrocution could result.**

Valve wires can be buried underground along side the pipes. Use approved Direct Burial type wire and be sure all splices are joined with waterproof connectors. Run one common wire to each location to serve all the valves at that location. **Note: Allow enough slack in the solenoid wires to enable the removal of the solenoid if future maintenance should be required.**

Max. dist. between controller and valve; (Std. 24 VAC solenoid, control and common wire same size.)*

18 AWG	16 AWG	14 AWG	12 AWG	10 AWG	8 AWG	6 AWG
1,020 ft	1,630 ft	2,590 ft	4,120 ft	6,540 ft	10,400 ft	16,540 ft

* For more information, consult Irritrol

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MANUAL OPERATION

The 311A Valve has two methods of manual operation; internal and external bleed.

The External Bleed is located on the top of the flow control handle. To open the valve, turn the small knob on top of the flow control handle counter clockwise until water starts to spray out from under the bleed knob. To close the valve, tighten the bleed knob on the flow control handle until the water stops spraying out from under the bleed knob. The valve will remain open for up to one minute after the manual bleed is closed.

The Internal Bleed is located under the solenoid. To open the valve, turn the ON/OFF handle under the solenoid to the ON position. Since this is an Internal bleed, there will be no water leaking visibly. To close the valve, turn the ON/OFF handle to OFF. The valve will remain open for up to one minute after the manual bleed is closed.

Note: The Internal bleed feature is provided for normal manual operation, the external bleed is for system start-up and flushing.

ADJUSTMENT OF FLOW CONTROL

Open the valve electrically or manually. With the valve open and the system fully pressurized, turn the flow control handle clockwise until there is a decrease in the amount of water spraying out of the sprinklers. Turn the flow control handle 1/2 of a turn counter clockwise. The flow is now set for that sprinkler system. If the water pressure is still creating a fogging effect at the sprinklers, use of a pressure regulator is recommended. The OMNIREG™ modular pressure regulator can be attached to the bonnet of the 311A (Models OMR-100 or OMR-30).

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