

## Wet Pipe Sprinkler System Expansion Chamber



**WARNING** READ CAREFULLY THE PRODUCT INSTALLATION, OPERATING AND MAINTENANCE MANUAL. FAILURE TO FOLLOW THE INSTRUCTIONS AND WARNINGS IN THE MANUAL MAY RESULT IN SERIOUS OR FATAL INJURY AND/OR PROPERTY DAMAGE, AND WILL VOID THE PRODUCT WARRANTY. THIS PRODUCT MUST BE INSTALLED BY A QUALIFIED PROFESSIONAL. FOLLOW ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS, IN THE ABSENCE OF SUCH CODES, FOLLOW THE CURRENT EDITIONS OF THE NATIONAL PLUMBING CODE AND NATIONAL ELECTRIC CODE, AS APPLICABLE.

**WARNING** Excessive pressure can cause tank to explode. Exercise care when filling a tank with air so the pressure does not exceed that required or does not exceed the working pressure of the tank as stamped on the nameplate. Failure to follow these instructions will result in serious personal injury or death and property damage.

**!** THIS IS A SAFETY ALERT SYMBOL. IT IS USED TO ALERT YOU TO POTENTIAL PERSONAL INJURY AND OTHER HAZARDS. OBEY ALL SAFETY MESSAGES THAT FOLLOW THIS SYMBOL TO REDUCE THE RISK OF POSSIBLE INJURY AS WELL AS PROPERTY DAMAGE.

**WARNING** This Product, like most Products under pressure, may over time corrode, weaken and burst or explode, causing serious or fatal injury, leaking or flooding and/or property damage. To minimize risk, a licensed professional must install and periodically inspect and service the Product. A drip pan connected to an adequate drain must be installed if leaking or flooding could cause property damage. Do not locate in an area where leakage of the tank or connections could cause property damage to the area adjacent to the appliance or to lower floors of the structure.

**WARNING** **EXPLOSION OR RUPTURE HAZARD** A relief valve must be installed to prevent pressure in excess of local code requirement or maximum working pressure designated in the Product Manual, whichever is less. Do not expose Product to freezing temperatures or temperatures in excess of 200° F.

**WARNING** Do not adjust the pre-charge or re-pressure this Product except for any adjustments required at the time of initial installation, especially if Product corroded, damaged or with diminished integrity. Adjustments to pre-charge must be done at ambient temperature only. Failure to properly size the Product or follow these instructions may result in excessive strain on the system lead to Product failure, serious or fatal personal injury, leakage and/or property damage.

**Note:** Please read the entire owner's manual and installation instructions before installing your new AMTROL product. Save all documents and manuals for future reference.

**Note:** Use proper safety equipment when installing.

**FAILURE TO FOLLOW THE WARNINGS AND INSTRUCTIONS HEREIN MAY RESULT IN SERIOUS OR FATAL PERSONAL INJURY AND/OR PROPERTY DAMAGE AND WILL VOID THE WARRANTY.**

**Note:** Inspect for shipping damage and notify freight carrier or store where purchased immediately if damage is present. To avoid risk of personal injury and property damage, if the product appears to be malfunctioning or shows signs of corrosion, call a qualified professional immediately. Current copies of the Product manual can be viewed at [www.amtrol.com](http://www.amtrol.com). Use proper safety equipment when installing.

**IMPORTANT** GENERAL SAFETY INFORMATION - ADDITIONAL SPECIFIC SAFETY ALERTS APPEAR IN THE FOLLOWING INSTRUCTIONS.

**WARNING** **CALIFORNIA PROPOSITION 65 WARNING:** This product contains a chemical known by the State of California to cause cancer and to cause birth defects or other reproductive harm. (California Installer/Contractor - California law requires that this notice be given to consumer/end user of this product.) For more information: [www.amtrol.com/prop65/htm](http://www.amtrol.com/prop65/htm).

**APPROVAL** UL® Listed for use with Fire Protection antifreeze systems per **NFPA 13**.

**THIS PRODUCT COMES WITH A LIMITED ONE (1) YEAR WARRANTY, SEE AMTROL'S LIMITED PRODUCT WARRANTY FOR DETAILS.**

## Proper FIRE-X-TROL® Location

1. The FIRE-X-TROL® should be installed on the water supply line to the unheated area at a point between the backflow preventer and fill cup connection (See Figure 1).
2. Once the FIRE-X-TROL® is installed, check the system for any leakage. Make repairs if necessary.

## Pre-Installation

1. Visually inspect FIRE-X-TROL® for any damage.
2. Hydraulic system pressure must be at zero.
3. Attach nitrogen or dry air (-50°F/-46°C dew point or lower) supply to expansion chamber charging valve.

**WARNING** Do not use Oxygen-Explosive.

**WARNING** Pre-charge with nitrogen or dry air (-50°F/-46°C dew point or lower)

4. Pre-charge to 2 psig (0.14 bar) below system static pressure at tank location.

**WARNING** Never pre-charge below 25% of the system maximum rated pressure.

5. Remove charging hose. Carefully test charging valve for leakage.
6. Replace plastic cap.

**WARNING** Protect against freezing temperatures. Can cause damage and/or product failure.

**WARNING** Isolate expansion chamber during system hydro test.

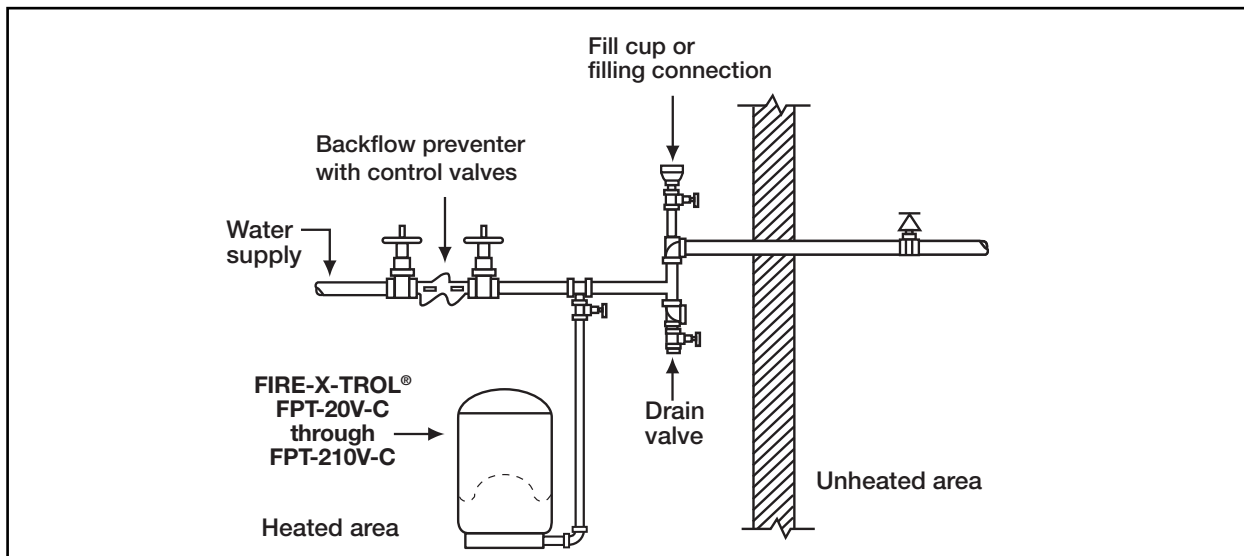
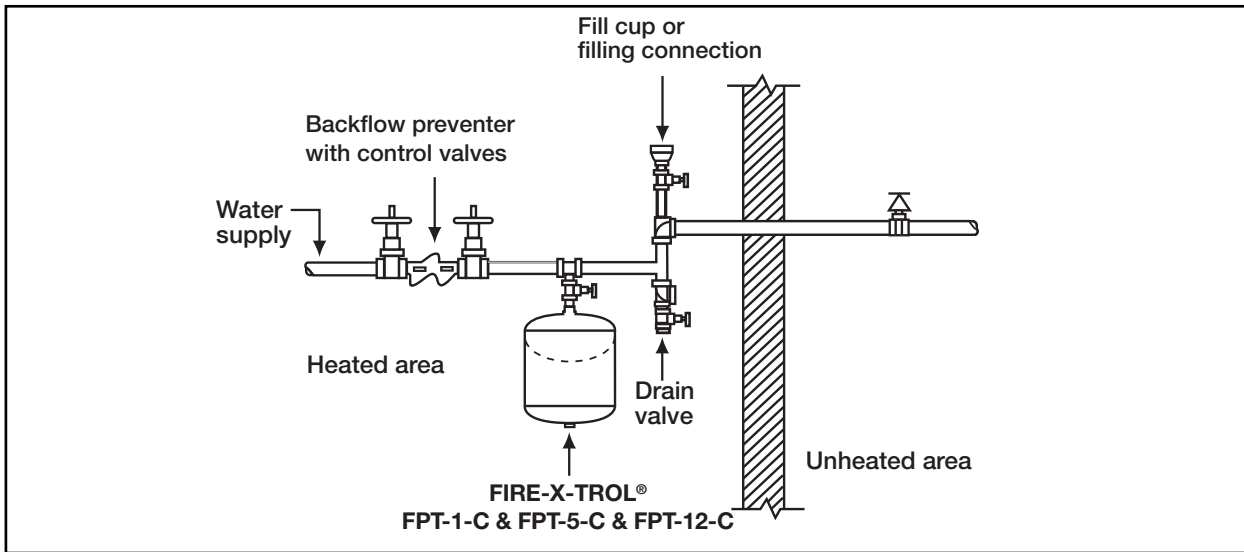
## Operation

1. The FIRE-X-TROL® is installed in the supply line between the backflow preventer and the fill cup connection. Its sealed-in air pre-charge prevents water from entering it until the system pressure exceeds the pre-charge pressure. The FIRE-X-TROL® is precharged to 25 psig (1.7 bar).
2. As the water/antifreeze solution temperature rises, expanded system fluid enters the FIRE-X-TROL®'s non-corrosive reservoir. The pre-charge air chamber absorbs the pressure increase, keeping system pressure below maximum system rating.
3. As the water/antifreeze temperature decreases, pressure in the air chamber forces system fluid back into the system.
4. In antifreeze systems, this sequence allows the system antifreeze percentage to stay constant. Additional supply of water/antifreeze is not needed to replace fluid that would have escaped through a relief valve.

## Maintenance

1. Sprinkler system must be maintained and inspected per **NFPA 25**.

Figure 1



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## AMTROL® INC. LIMITED PRODUCT WARRANTY

**Products covered:** all Products manufactured by AMTROL Inc. ("AMTROL").

This warranty cannot be transferred – it is extended only to the original Purchaser or First User of the Product. By accepting and keeping this Product you agree to all of the warranty terms and limitations of liability described below.

**IMPORTANT WARNING – READ CAREFULLY THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS MANUAL ("MANUAL") to avoid serious personal injury and/or property damage and to ensure safe use and proper care of this product.**

### Who Receives AMTROL's Product Warranty

All purchasers or first users of the new Product. The Warranty is non-transferable.

### What is covered by this Warranty

AMTROL warrants to the purchaser or first user of the new Product that at the time of manufacture, the Product is free from defects in material and workmanship. **Any warranty claim must be made within one (1) year unless another time period is set forth in the Manual, measured from the time the Product was purchased.**

### What AMTROL Will Do If You Have a Covered Warranty Claim

In the event of a breach of the foregoing warranty, AMTROL will at its option either make repairs to correct any defect in material or workmanship or supply and ship either new or used replacement parts or products. AMTROL will not accept any claims for labor or other costs.

### What This Warranty Does Not Cover – Exclusions and Limitations

This Warranty does not cover any failure or problem unless it was caused by a defect in material or workmanship. In addition, this Warranty shall not apply:

- if the Product is not correctly installed, operated, repaired or maintained as described in the Manual provided with the Product;
- to any failure or malfunction resulting from abuse (including freezing); improper or negligent: handling, shipping (by anyone other than AMTROL), storage, use, operation, accident; or alteration, lightning, flood or any other environmental condition;
- to any failure or problem resulting from the use of the Product for any purpose other than those specified in the accompanying Manual or alteration of any part of the product;
- if the Product is used anywhere except the United States, its territories or possessions, or Canada;
- this Warranty does not cover labor costs, shipping charges, service charges, delivery expenses, administrative fees or any costs incurred in removing or reinstalling the Product;
- this Warranty does not cover any claims submitted to AMTROL or an AMTROL-authorized distributor or retailer more than 30 days after expiration of the applicable warranty time period described in this Warranty;
- this Warranty also does not cover repair or replacement costs not authorized in advance by AMTROL.

### Additional Warranty Limitations

**ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY DISCLAIMED. Some states do not allow limitations on how long an implied Warranty lasts, so the above limitation may not apply to you.**

### Limitations of Remedies

**THE REMEDIES CONTAINED IN THIS WARRANTY ARE THE PURCHASER'S OR FIRST USER'S EXCLUSIVE REMEDIES. IN NO CIRCUMSTANCES WILL AMTROL BE LIABLE FOR MORE THAN, AND PURCHASER-FIRST USER'S REMEDIES SHALL NOT EXCEED, THE PRICE PAID FOR THE PRODUCT. IN NO CASE SHALL AMTROL BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NONDELIVERY OR FROM THE USE, MISUSE, OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT OR FROM AMTROL'S OWN NEGLIGENCE OR OTHER TORT.** This exclusion applies regardless of whether such damages are sought for breach of warranty, breach of contract, negligence, strict liability, in tort or under any other legal theory. Such damages include, but are not limited to, inconvenience, loss or damage to property, mold, loss of profits, loss of savings or revenue, loss of use of the Products or any associated equipment, facilities, buildings or services, downtime, and the claims of third parties including customers. Some states do not allow the exclusion or the limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

### What To Do If You Have a Problem Covered By This Warranty

Any covered Warranty service must be authorized by AMTROL. Contact the person from whom you purchased the Product, who **must** receive authorization from an AMTROL distributor or AMTROL. If you do not receive a prompt response, call AMTROL directly at 877-517-9673. Notice of a Warranty claim should be submitted by the authorized distributor to AMTROL at the following address:

AMTROL Inc.  
Warranty Claim Dept.  
1400 Division Rd.  
West Warwick, RI 02893

Before AMTROL determines to provide any replacement part or Product, it may as a pre-condition to making such a determination require that the warranty claimant ship the Product, postage prepaid to an authorized AMTROL distributor, or to AMTROL and provide proof of purchase evidenced by the original sales receipt or Product registration.

### Replacement Product Warranty

In case of replacement of a Product or any component part, AMTROL reserves the right to make changes in the design, construction, or material of the substitute components or products, which shall be subject to all of the terms and limitations of this Warranty, except that the applicable warranty periods shall be reduced by the amount of time the warranty claimant owned the product prior to submitting notification of the warranty claim.



In the interest of continuous development, AMTROL Inc. and its subsidiaries reserve the right to alter designs and specifications without prior notice. The AMTROL, AMTROL logo, and Fire-X-Trol logos are registered trademarks of AMTROL Inc. and its subsidiaries.

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