



# INSTALLATION, OPERATION & SERVICE INSTRUCTIONS

## For Use with Fill-Trol Combination Expansion Tank and Valve Units

1400 Division Road, West Warwick, RI 02893 ▲ T: 401.884.6300 ▲ F: 401.885.2567 ▲ www.amtrol.com

**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 ELECTRICAL CODE AS APPLICABLE.

**WARNING** WARNING: Mount vertically only. Do not mount on dead-end pipe.



THIS IS THE 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 PERSONAL 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 leaking could cause property damage.

**EXPLOSION OR RUPTURE HAZARD.** 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 those set forth in manual. Failure to properly size the product, or follow instructions in the manual, may result in excessive strain on the system and may lead to product failure, leakage, flooding and/or property damage.

**WARNING** **DANGER! EXPLOSION HAZARD.** Do not adjust the pre-charge or re-pressurize this product except for any adjustments at the time of the initial installation. If you attempt to adjust the pre-charge pressure or add pressure to a product that is corroded, damaged or with diminished integrity, the product can burst or explode, causing serious or fatal injury and/or property damage.

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

**WARNING** **FAILURE TO PROPERLY SEAL WILL RESULT IN LOSS OF PRECHARGE CAUSING PRODUCT TO FAIL.**

**WARNING** **POTABLE WATER WARNING.** This product must not be used in potable water systems or open systems of any kind. These plumbing systems contain oxygenated water, which will cause internal corrosion and premature tank failure. Use a Therm-X-Trol® for open system expansion control.

The FILL-TROL® unit is a combination TANK (the unique, specially adapted, pressurized, EXTROL® diaphragm-type expansion tank), and a specially-designed automatic pressure reducing valve.

The FILL-TROL tank provides an air chamber to receive the expanded volume of water, which is created in the heating system as the water is heated. It is, therefore, essentially an expansion tank. Pressurizing the tank with a 12 PSIG air charge results in the pressure reducing valve being set to 12 PSIG. Any adjustment to the precharge automatically adjusts the pressure reducing valve setting. It is air-charged at the factory to 12 PSIG and is ready to install in residential and most commercial systems without adjustments when received provided the system is set for 12 PSIG.

The FILL-TROL valve fills the system with water and automatically shuts off the flow when the system is filled and pressurized to 12 PSIG. It will also restore the system pressure to 12 PSIG if the pressure falls below this point.

The FILL-TROL unit, therefore, will automatically take care of system water expansion and automatically fill the system and maintain a minimum system pressure in a simple manner to provide a more satisfactory heating system operation. This product must be installed by a qualified professional.

## The FILL-TROL® Unit INSTALLATION

An ideal residential FILL-TROL installation is to mount it on the bottom of an AMTROL air vent and purger, located on the heating system supply main or it may be in a standard pipe tee (Fig. 1).

### TO INSTALL

1. Make connection to system with 1/2" pipe nipple from tapping marked "SYSTEM".
2. Connect 1/2" copper tubing cold water supply to 1/2" compression fitting connection at "SUPPLY".

## OPERATION

The FILL-TROL unit operates in the following manner:

Water enters the FILL-TROL valve through the 1/2" compression fitting connection, passes through the strainer and pushes open the spring-loaded check valve. It then flows through the automatic shut-off valve, which is held in the open position by the charge pressure in the FILL-TROL tank forcing the diaphragm against the pressure plate, which raises the fillgate stem, compressing the automatic shut-off valve spring. The water then flows through the valve body and through the system connection to the heating system. As the system reaches fill pressure of 12 PSIG, the diaphragm in the FILL-TROL tank depresses, permitting the automatic shut-off valve to close.

If the system falls below 12 PSIG, the diaphragm again pushes open the automatic shut-off valve, permitting water to flow into the system to restore system pressure.

**NOTE:** Although FILL-TROL is shipped from the factory with a standard 12 PSIG air charge which automatically sets the minimum fill pressure to 12 PSIG, other minimum fill pressures may be selected by simply increasing or decreasing the air charge in the tank to the desired minimum fill pressure. FILL-TROL must be empty (free of water) when changing the air charge.

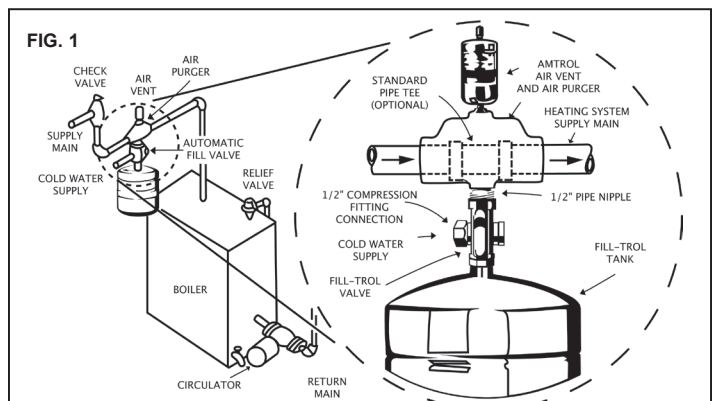
To place FILL-TROL unit into operation, proceed as follows:

- A. Open water supply shut-off valve and allow system to fill.
- B. After system is filled, the pressure should be 12 PSIG. After the boiler is brought up to operating temperature, pressure gauge will read higher than fill pressure. If the pressure is higher than desired, draw water from system until desired gauge reading is obtained. A good operating pressure is 18-25 PSIG. Do not let air out of the FILL-TROL tank.

## MAINTENANCE

To remove screen in FILL-TROL valve for cleaning, shut off main water supply to heating system and remove compression nut.

A heating system professional should check the complete heating system yearly and more frequently as the system ages.



# AMTROL INC. LIMITED PRODUCT WARRANTY

**Products covered:** all Products manufactured by AMTROL Inc. ("AMTROL"). All Fill-Trols Models come with a 5 year warranty.

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;
- 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.**

## 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 NON-DELIVERY 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.

## 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 Road, 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.



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