



# INSTALLATION & OPERATION INSTRUCTIONS

## EXTROL®

### HYDRONIC DIAPHRAGM EXPANSION TANKS IN-LINE & SX SERIES

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

**PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY  
INSTALLER: LEAVE THIS MANUAL WITH THE END USER**

**WARNING** READ CAREFULLY THE PRODUCT INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS. 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.



**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 POSSIBLE INJURY AS WELL AS PROPERTY DAMAGE.

**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. Use proper safety equipment when installing.

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

**WARNING** This product, like most products under pressure, may over time corrode, weaken and burst or explode, causing serious or fatal personal 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 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 240° F. Do not adjust the pre-charge or re-charge this product except for any adjustments at the time of the initial installation, especially if product is 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 and may lead to product failure, serious or fatal personal injury, leakage, and/or property damage.

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

**FOR USE IN CLOSED HYDRONIC SYSTEMS ONLY.** Do not install on domestic water systems, or in open heating systems. Corrosion and tank failure may result. Use a Therm-X-Trol® for domestic water systems or a Radiant EXTROL® for radiant heating systems where proper air elimination equipment or barrier tubing is not used.

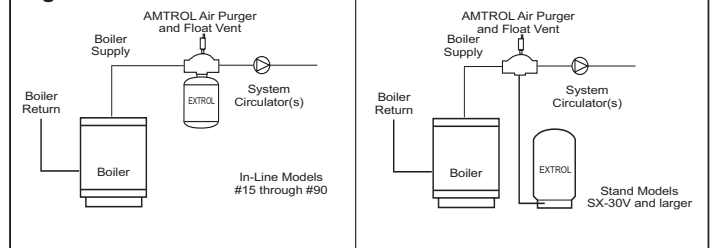
### Pre-Installation

1. Visually inspect EXTROL® for any damage.
2. Adjust pre-charge to equal system fill pressure.
3. Replace and tighten plastic cap on air fitting.

### Installation

1. Drain the boiler system or isolate the area where the EXTROL will be installed.
2. Install the EXTROL on the supply side of the boiler, on the suction-side of the heating circulator(s) (see Figure 1).
3. Once the EXTROL is installed, re-pressurize the system and check for leaks. Repair as necessary.
4. Restart the boiler system and check for relief valve discharge. If the relief valve drips, the tank may be improperly charged or undersized.
5. The EXTROL is now operational and will absorb expanded water during boiler operation.

Figure 1.



### Maintenance

1. A professional plumber should check the complete heating system, including the EXTROL, yearly and more frequently as the system ages.

### Operation

1. The EXTROL is installed on the supply-side of the boiler system. Its sealed-in air pre-charge prevents water from entering the tank until the system pressure begins to rise.
2. As the water temperature rises, water enters the EXTROL.
3. As the system cools, the diaphragm is forced downward. Water is expelled from the EXTROL, back into the heating system.

### Notes

1. Although the EXTROL does not have to be installed at the base of an air purger, this installation is recommended to reduce air in the system and provide a compact installation. Some method of air elimination is required to ensure an oxygen-free system.
  2. The EXTROL must not be placed overhead in the floor joint space. When replacing a plain-steel tank, the EXTROL should be relocated per Figure 1.
  3. Do not place the EXTROL on a dead-end pipe. Air can collect in the EXTROL, causing internal corrosion and possible leakage.
  4. Radiant systems with non-barrier tubing or high oxygen content should use a Radiant EXTROL® expansion tank with a plastic liner. See the EXTROL brochure, or call (401) 535-1216 for sizing assistance.
- \* Models #15 through #90 come with a 5 year warranty. All other EXTROL models come with a 1 year warranty. See reverse side for warranty information.
- \* Do not hang models SX-30V through SX-160V. They are floor standing models only.



MARK OF THE ORIGINATOR

# 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;
- 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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