

### INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS

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No. 0002080128 (7)

## Model SP158B Freeze Protection Valve

NOTE TO INSTALLER: Please leave this information with the Maintenance Department.

### LIMITED WARRANTY

HAWS warrants that this specific product is guaranteed against defective material or poor workmanship for a period of **one year from date of shipment**. HAWS liability under this warranty shall be discharged by furnishing without charge F.O.B. HAWS Factory any goods, or part thereof, which shall appear to the Company upon inspection to be of defective material or not of first class workmanship, provided that claim is made in writing to Haws within a reasonable period after receipt of the product. Where claims for defects are made, the defective part or parts shall be delivered to the Company, prepaid, for inspection. HAWS will not be liable for the cost of repairs, alterations or replacements, or for any expense connected therewith made by the owner or his agents, except upon written authority from HAWS, Sparks, Nevada. HAWS will not be liable for any damages caused by defective materials or poor workmanship, except for replacements, as provided above. Buyer agrees that Haws has made no other warranties either expressed or implied in addition to those above stated, except that of title with respect to any of the products or equipment sold hereunder and that HAWS shall not be liable for general, special, or consequential damages claimed to arise under the contract of sale.

The emergency equipment manufactured by HAWS is warranted to function if installation and maintenance instructions provided are adhered to. The units also must be used for the purpose for which they were intended. This product is intended to supplement first-aid treatment. Due to widely varying conditions, Haws cannot guarantee that the use of this emergency equipment will prevent serious injury or the aggravation of existing or prior injuries.

NO OTHER WARRANTIES EXPRESSED OR IMPLIED ARE AUTHORIZED, PROVIDED OR GIVEN BY HAWS.

SHOULD YOU EXPERIENCE DIFFICULTY WITH THE INSTALLATION OF THIS MODEL, PLEASE CALL:

### 1-800-766-5612

FOR PARTS CALL:

## 1-800-640-4297

### **INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS**

#### Valve Specifications:

- The Haws Freeze Protection Valve monitors water temperature. When water temperature cools down to 36°F or below, the thermostat connects inlet to drain and valve starts bleeding. When water temperature rises to 42°F or above, valve will close completely.
- 2). The Freeze Protection Valve has 1/2 NPT (F) inlet, 1/2 NPT (F) outlet (in-line installation only), 1/2" NPT (F) drain connections.

## **Do not install the valve in-line for drench showers!** It does not have the capacity to provide the necessary flow.

 Minimum/Maximum operating pressure: 20 PSI/125 PSI. Minimum / Maximum ambient temperature: 0°F /130°F. Maximum water temperature 165°F.

#### Valve features:

- Fully automatic operation.
- In-line installation for eyewash only.
- Dead-Leg application: valve can be used for eyewash, shower, or combination units.
- Contamination resistant seat design for drip free closing.
- Paraffin thermostat for industry leading response time and reliability.

#### Valve Installation:

In-line installation for eyewash only.

For dead-leg installation the outlet should be plugged.

Flow Capacity to Drain, water temperature 36°F or below.

| Dynamic line pressure |            |            |            |            |            |            |            |
|-----------------------|------------|------------|------------|------------|------------|------------|------------|
|                       | 5 PSI      | 10 PSI     | 20 PSI     | 30 PSI     | 40 PSI     | 45 PSI     | 60 PSI     |
| Flow Rate             | 0.9<br>GPM | 1.2<br>GPM | 1.6<br>GPM | 1.9<br>GPM | 2.2<br>GPM | 2.3<br>GPM | 2.7<br>GPM |

In-line installation Flow Capacity through Valve, water temperature 85°F.

| Pressure Drop Across Valve |       |        |        |        |        |        |        |
|----------------------------|-------|--------|--------|--------|--------|--------|--------|
|                            | 5 PSI | 10 PSI | 20 PSI | 30 PSI | 40 PSI | 45 PSI | 60 PSI |
| Flow Rate                  | 7.8   | 12.3   | 17.4   | 24.6   | 30.1   | 34.8   | 42.6   |
|                            | GPM   | GPM    | GPM    | GPM    | GPM    | GPM    | GPM    |

#### **IMPORTANT**

To ensure proper operation of the valve, it is essential that:

- Haws Freeze Protection Valve must be located next to the eyewash for eyewash or combination units.
- Freeze Protection bleed valve must be located at the dead-leg of drain shower only.
- In-line application: use to feed eyewash only.
- Dead-Leg application: valve can be used for eyewash, shower, or combination units.

#### <u>Failure to comply with installation instructions could result in ineffective freeze</u> protection, or dangerous flow restriction to showers.

### **INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS**

#### Valve operation:

Valve inlet connects to tempered water supply. Outlet is plugged. Valve Drain should be connected to drainage system.

When water temperature cools down to 36°F or below, the thermostat connects inlet to drain and valve starts bleeding. When water temperature rises to 42°F or above, valve will close completely.

The valve automatically repeats this cycle as long as water temperature remains low. Bleeding frequency increases as temperature gets colder. The valve flows as much as necessary to protect the system from freezing.

## Installation of this device is the responsibility of the installer and shall be carried out in accordance with the following instructions:

- 1. This valve must be accessible for maintenance in its installed position.
- 2. If system shutoff valves are installed for maintenance purposes, provisions shall be made to prevent unauthorized shutoff.
- 3. Flush supply line prior to installation.
- 4. Connect inlet to tempered water line.
- 5. Plug (1/2" NPT (M)) outlet, on dead-leg installation only.
- 6. Connect outlet to eyewash, in-line installation only.
- 7. Connect drain outlet to drain line, where applicable.
- 8. Pressurize tempered water line and check all connections for leaks.

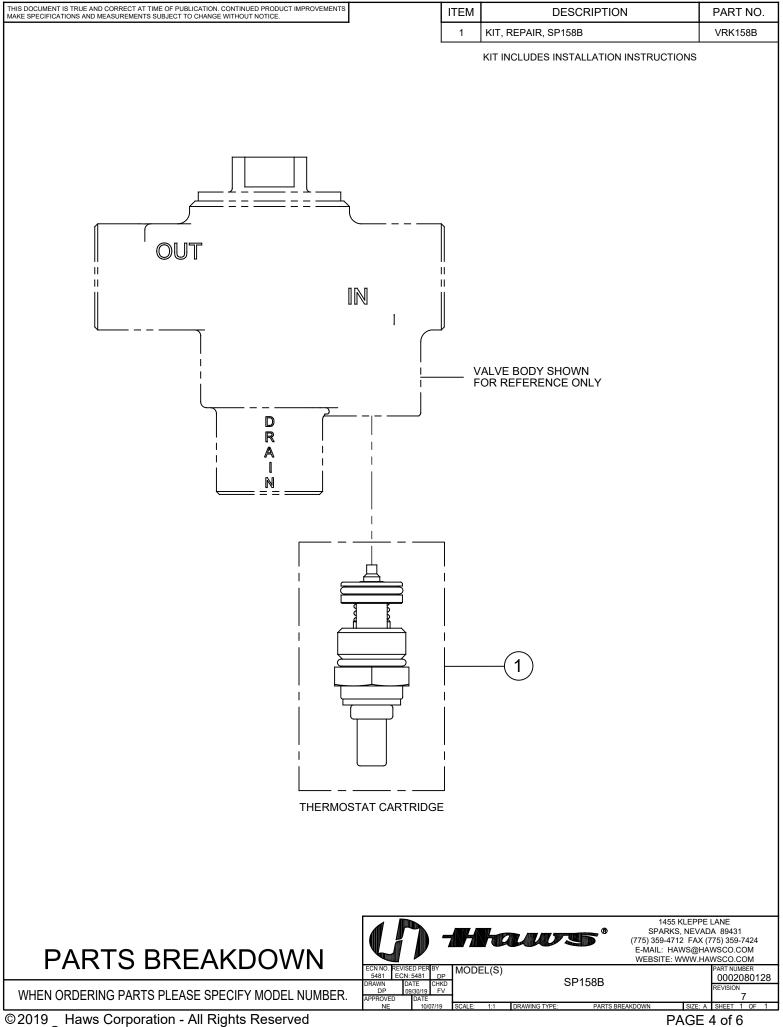
# <u>Cleaning Procedure</u>: CAUTION-Safely <u>turn off</u> the water supply pressure and confirm pressure has been relieved prior to servicing the valve.

- 1. Use a 7/8" Hex Wrench to remove the thermostat cartridge located next to the drain port from the bottom of the valve. Threads are normal right-hand threads. Turn Counter-Clockwise to remove.
- 2. Confirm that the very small O-ring (Dash #007, EPDM, Durometer 70) at the top of the cartridge is removed along with the cartridge. This O-ring is the sealing surface with the stainless steel plunger and must be present, clean, and undamaged for the valve to seal properly.
- 3. Inspect the top of the cartridge for debris/corrosion and clean the small O-ring and the plunger surfaces. The cartridge may be immersed in cool water if desired.
- 4. After cleaning, lubricate all three O-rings with an appropriate food grade lubricant (such as Dow 111) and confirm that the small O-ring is in place.
- 5. Re-install the thermostat cartridge and check for room temperature leakage.
- 6. If the valve continues to leak from the drain at room temperature, the valve may need to be repaired (see valve repair kit model VRK158B) or replaced.

| TROUBLESHOOTING PROCEDURE              |                  |  |  |  |  |
|--|------------------|--|--|--|--|
| PROBLEM CONDITION                      | REPAIR CHECKLIST |  |  |  |  |
| 1. Valve leaks to drain.               | a.               | Check tempered water line temperature. If it is over 42°F, clean the valve per the Cleaning Procedure. |  |  |  |
|  | b.               | Valve may require Repair (VRK158B) or Replacement.   |  |  |  |
| 2. Eyewash flow is low (in-line only). | a.               | Check pressure in line.  |  |  |  |

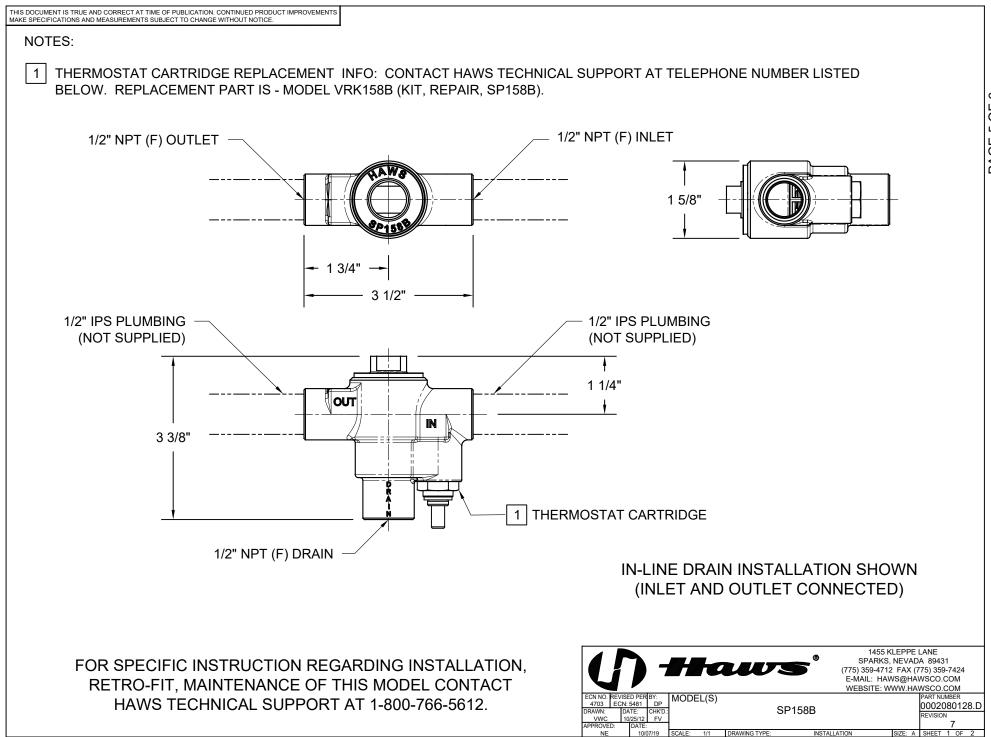
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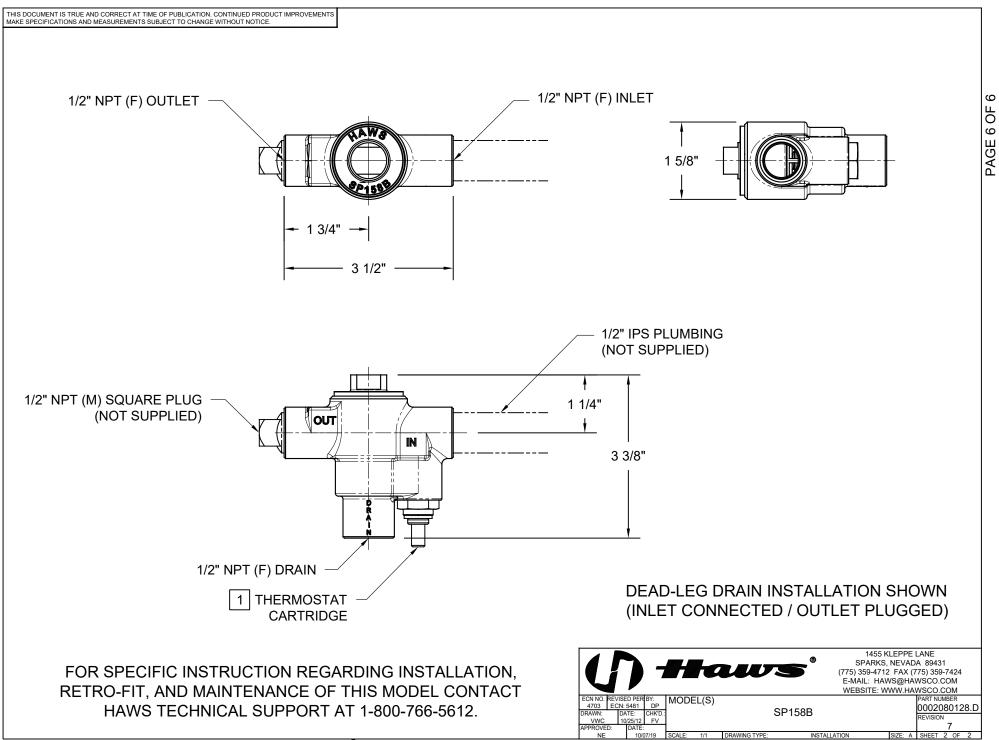


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