INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS

1455 Kleppe Lane ◆Sparks, NV 89431-6467 ◆ (775) 359-4712 ◆Fax (775) 359-7424
E-mail: haws@hawsco.com ◆ website: www.hawsco.com

No. 0510001069 (2)

Model SP158.15
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

OPERATION:

- The SP158.15 automatically monitors the water temperature within the 8315CTFP shower:
  - When water temperature cools to 36ºF (2.2°C) or below, the thermostat begins to open the valve and water will bleed through the drain.
  - When the water temperature rises to 42ºF (5.6°C) or above, the valve will close completely.
- The valve automatically repeats this cycle as long as water temperature remains low. Bleeding frequency increases with colder temperature. The valve flows as much as necessary to prevent system freezing.

FEATURES:

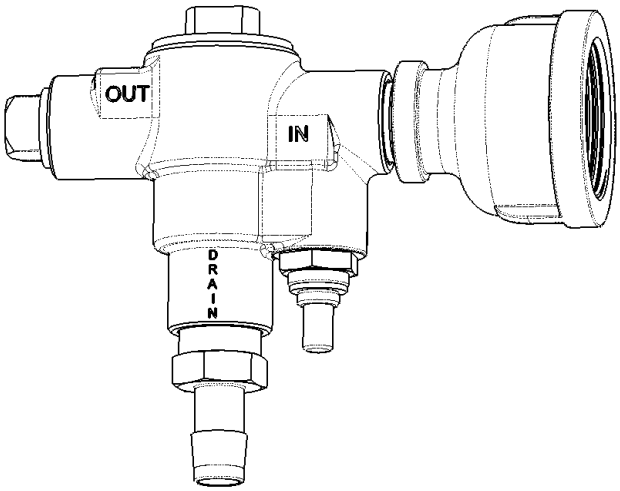
- Fully automatic operation.
- Contamination-resistant seat design for drip free closing.
- Paraffin thermostat for industry-leading response time and reliability.

SPECIFICATIONS:

- Operating Pressure Range: *Follow 8315CTFP specifications.*
- Ambient Temperature Range: *Follow 8315CTFP specifications.*
- Maximum Water Temperature: 165°F
- Valve Starts to Open at: 36°F (2.2°C)
- Valve is Fully Closed at: 42°F (5.6°C)

VALVE PORTS:

- Inlet: Factory-plumbed to 1-1/4" to interface with the 8315CTFP (or SP121).
- Outlet: Factory-plugged; unused.
- Drain: Factory-plumbed to barbed connection for 1/2" ID tubing.



RECOMMENDED TOOLS & SUPPLIES:

- Adjustable wrench *(only for retrofit installations)*
- Wire cutters
- Pipe wrench (and slip-joint pliers, if possible)
- Pipe joint sealant
  (Loctite PST #567 recommended)
- Serrated knife or saw
  (only for installing without the SP121)
- Insulation coating or cladding
  (only needed for severe outdoor exposure to UV)

LOCATION OF UNIT:

- The Model SP158.15 Freeze Protection Valve is intended for use only with the 8315CTFP series of emergency showers, and may be installed as follows:
  - As a standalone accessory directly on an 8315CTFP shower, **OR**
  - in conjunction with the SP121 Auxiliary Plumbing Assembly, which allows for various combinations of the following:
    - A recirculation loop through the shower
    - An SP158.15 valve
    - An SP145 drench hose
  - *For a freeze protection valve for use with other showers and eyewashes, please see Model SP158B.*
- This valve must be accessible for maintenance in its installed position.

INSTALLATION NOTES:

Installation of this device is the responsibility of the installer and shall be carried out in accordance with the instructions in this and other pertinent Haws manuals.

- **To install the SP158.15 with the SP121 auxiliary plumbing assembly:** Please consult the SP121 manual.
- **To install the SP158.15 as a standalone accessory:** Please use the following procedures.

- If system shutoff valves are installed for maintenance purposes, make provisions to prevent unauthorized shutoff.
- Flush water supply prior to installation.

Valve Installation (Standalone Accessory Only)

STEP 1: Unboxing & Preparation

The following components are included with this model. Pertinent installation steps are included for reference.

- Plumbing grommet.....*Step 2*
- 1-1/4" x 1" reducer.....*Step 3*
- 1-1/4" x 4-1/2" nipple.....*Step 3*
- Plumbed valve assembly.....*Step 3*
- 6 zip ties for heat trace.....*Step 4*
- Smaller insulation ring.....*Step 5*
- 4 zip ties for insulation within jacketing.....*Step 5*
- Larger insulation section.....*Step 5*
- 2 straps and 2 heads for outer insulation.....*Step 5*
- Insulation disc.....*Step 5*
- Insulation seam tape.....*Step 5*

Installation Tip: It is easiest to install this valve while installing the 8315CTFP-series shower itself; refer to the 8315CTFP O&M for details.

If this valve is to be retrofitted into a completed shower, the right-hand section of jacketing at the level of the eyewash must be removed:

- Peel the black seal trim off of the jacketing flanges in this area.
- Remove the eyewash push flag and the shower handle assembly so the jacket can slide off.

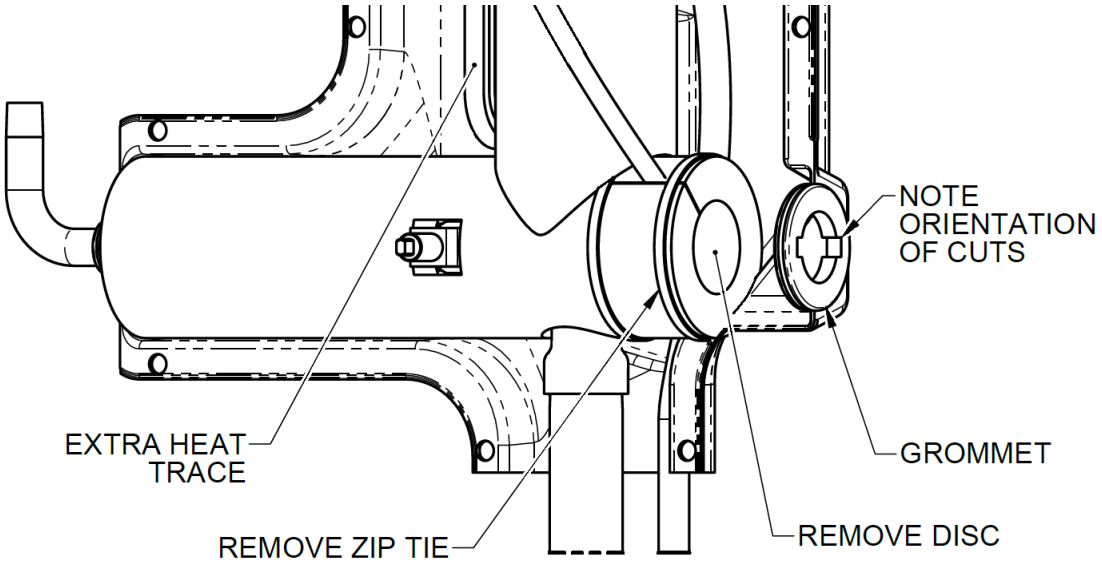
STEP 2: Auxiliary Outlet

a) Install the grommet in the jacket opening beneath the inlet, pointing the square cuts on the inner diameter toward the sides of the shower.

b) Locate the coil of extra heat trace in front of the vertical piping. Carefully clip the zip ties holding this coil together, taking care not to damage the heat trace.

c) This extra heat trace will soon be pulled rearward so it can run out the back of the unit. Clip the 1 or 2 insulation zip ties rearward of the heat trace that would prevent routing it in this fashion.

d) Remove and discard the insulation disc over the auxiliary outlet cap and discard. The slits in the insulation here allow the insulation to be folded back – find the galvanized cap over the auxiliary outlet and remove it with slip-joint pliers or a pipe wrench.



STEP 3: Plumbing

a) Run the heat trace out the grommet from Step 1, situating it within the nearest square cut in the grommet.

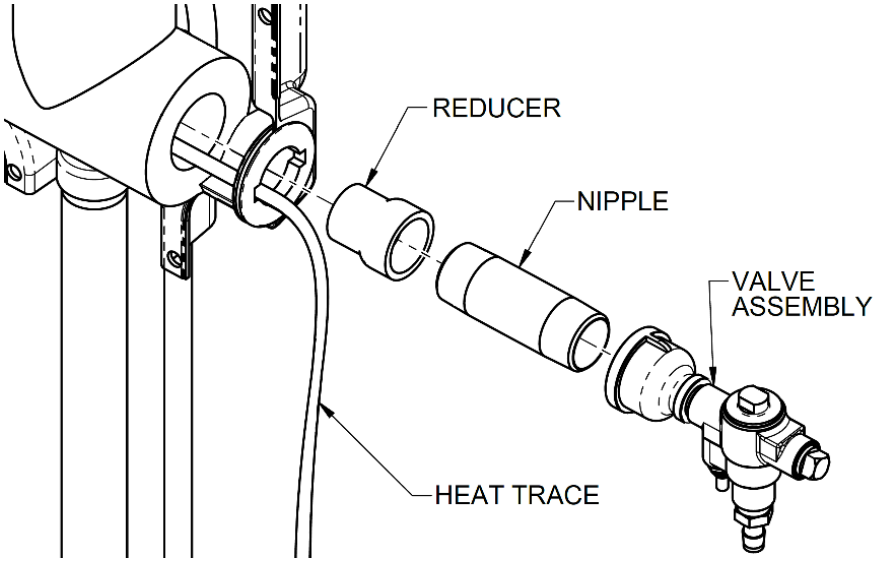
> **WARNING:** The heat trace must lay flush against the plumbing, contacting it wherever possible, in order to transfer the necessary heat into the water. Failure to bring the heat trace into adequate contact with the plumbing may cause local freezing within the plumbing, risking damage, leakage, and malfunction.

b) Connect and seal the galvanized reducer, and then the galvanized nipple, to the auxiliary outlet. The nipple will run through the grommet, with the heat trace alongside it.

c) Connect and seal the freeze valve assembly to the end of the nipple. Point the freeze valve drain fitting downward.

d) Pressurize the plumbing and check for leaks.

e) Make sure the heat trace is running smooth and flat along the new plumbing, but do NOT zip tie it into place yet.

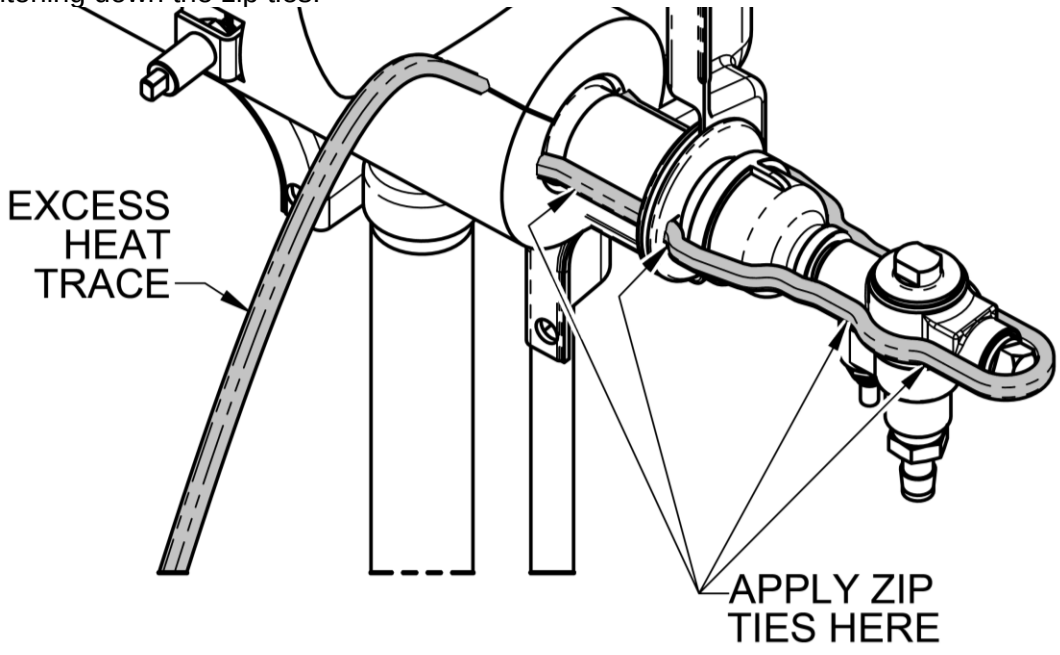


STEP 4: Heat Trace

a) Run the heat trace straight and level along the side of the plumbing and freeze valve. Wrap it around the outlet plug of the freeze valve, then run it straight back along the opposite side.

b) Push the end of the heat trace through the open square cut in the grommet and feed the excess length back within the jacket. The heat trace must run along the opposite side of the auxiliary outlet plumbing until it rejoins the vertical shower piping. The excess length beyond this point should run out through the insulation slit that the extra heat trace originally used. Store this excess length where the extra heat trace was originally located.

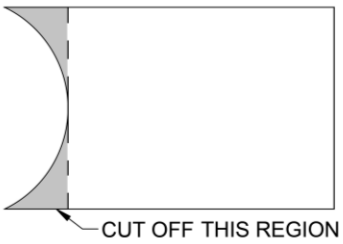
c) Install the heat trace zip ties (found in a bundle of 6) approximately where shown. Use more than the 4 shown if needed. **The purpose of these zip ties is to ensure that the heat trace maintains solid contact with the piping as continually as possible** – make sure the heat trace is ideally positioned before tightening down the zip ties.



STEP 5: Insulation

a) Place the smaller insulation ring around the bare auxiliary piping within the jacketing, using both the integral adhesive strips on the insulation to close it up. Be sure this new piece is butted fully against the factory insulation. Use the insulation zip ties (found in a bundle of 4) to secure the new piece, and to replace the ones previously cut. Tighten each zip tie only enough to close the insulation around the piping.

b) Note the large radius found on one end of the larger insulation. For this application, carefully cut the radiused portion away with a serrated knife or saw. Do not cut off any more than is necessary. Place the insulation around the freeze valve assembly, noting the opening for the freeze valve drain.

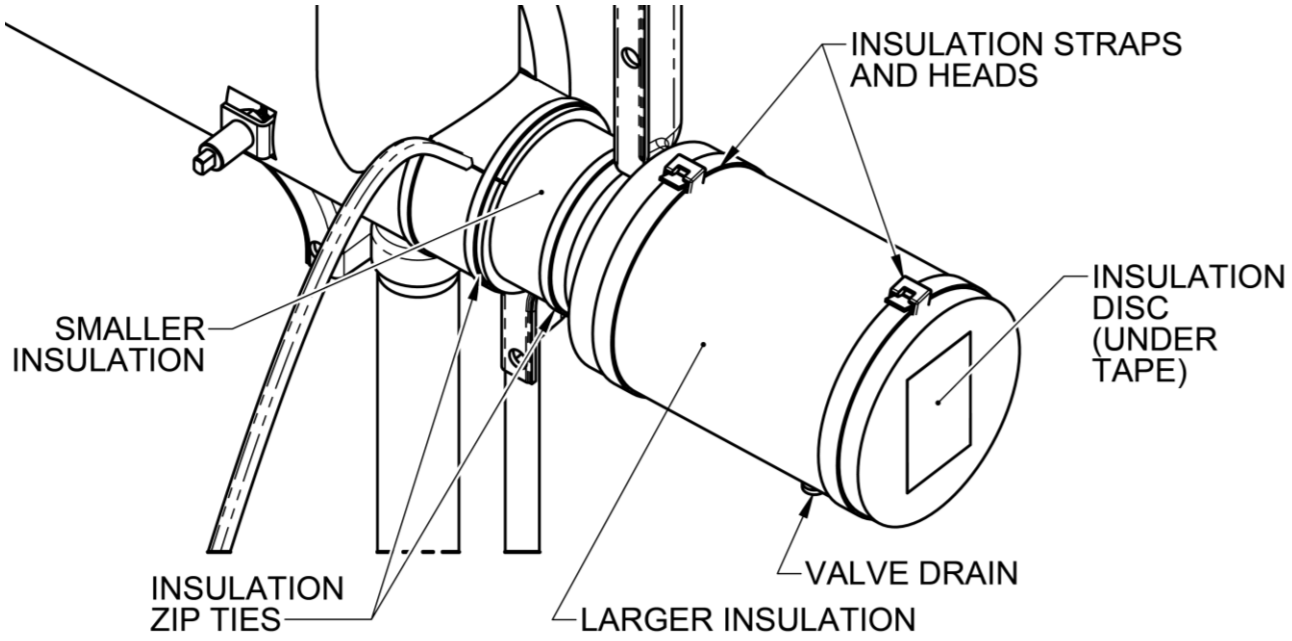


c) Place the new insulation disc into the open end of the larger insulation. Apply the seam tape over it to hold it in place.

d) Use both the integral adhesive strips on the larger insulation to close it up. Use the insulation straps and heads on the two ends of the larger insulation to further hold it in place – only tighten the straps enough to close the insulation around the plumbing (and insulation disc).

e) If the insulation is to be exposed to severe levels of UV (e.g. a rooftop installation), consider applying a protective coating or cladding (such as K-FLEX 374 or K-FLEX Clad) to the insulation.

f) If desired, connect the valve drain to a drain line.



Cleaning Procedure

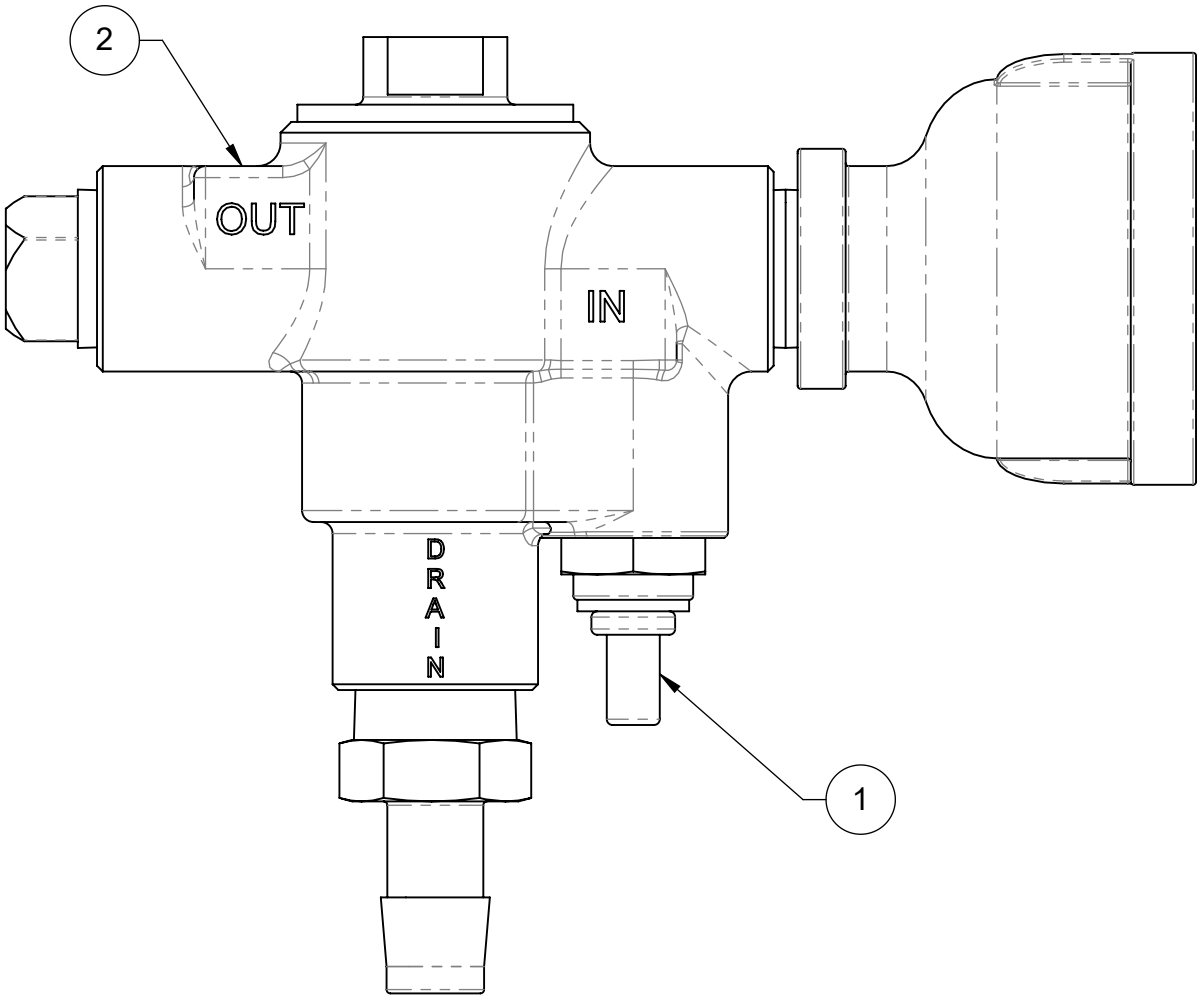
CAUTION-Safely turn off the water supply pressure and confirm pressure has been relieved prior to servicing the valve.

1. Remove the insulation from around the valve.
2. Use an adjustable wrench (or 7/8" hex wrench) to remove the thermostat cartridge located next to the drain port.
3. 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.
4. 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.
5. After cleaning, lubricate all three O-rings with an appropriate food-grade lubricant (such as Dow Corning 111) and confirm that the small O-ring is in place.
6. Reinstall the thermostat cartridge and check for room temperature leakage.
7. 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.
8. Re-insulate the valve.

TROUBLESHOOTING PROCEDURE

PROBLEM CONDITION		REPAIR CHECKLIST
1. Valve leaks to drain.	a.	Check tempered water line temperature. If it is over 42ºF (5.6°C), clean the valve per the Cleaning Procedure.
	b.	Valve may require Repair (VRK158B) or Replacement.
2. Local freezing within plumbing.	a.	Ensure heat trace is powered.
	b.	Check if heat trace is contacting piping in the freezing area.
	c.	Consult 8315CTFP troubleshooting guide.

ITEM	DESCRIPTION	PART NO.
1	KIT, REPAIR, SP158B (THERMOSTAT CARTRIDGE)	VRK158B
2	FREEZE PROTECTION VALVE (INCLUDES VRK158B COMPONENTS)	SP158B



(INSULATION, ETC. HIDDEN FOR CLARITY)

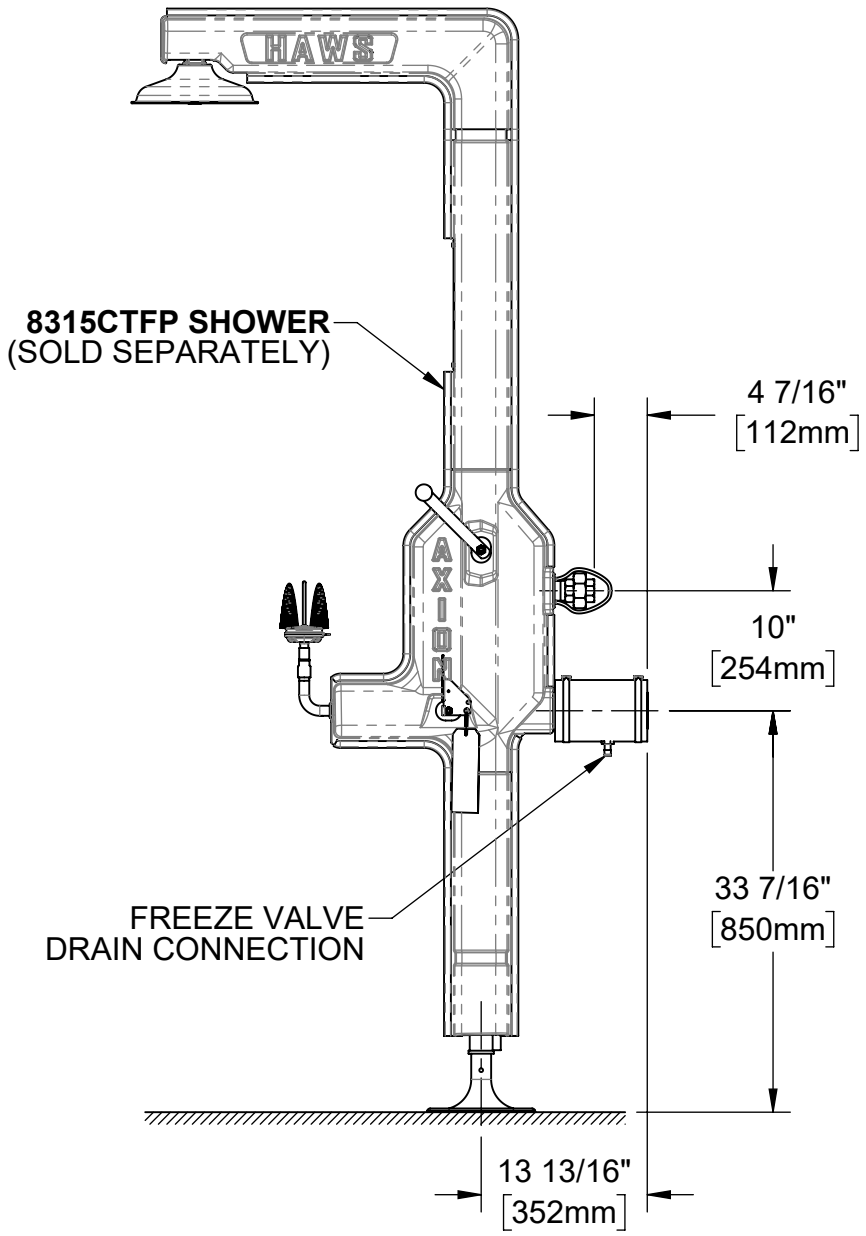
WHEN ORDERING PARTS, PLEASE SPECIFY PART NUMBER

1455 KLEPPE LANE
SPARKS, NEVADA 89431
(775) 359-4712 FAX (775) 359-7424
E-MAIL: HAWS@HAWSCO.COM
WEBSITE: WWW.HAWSCO.COM

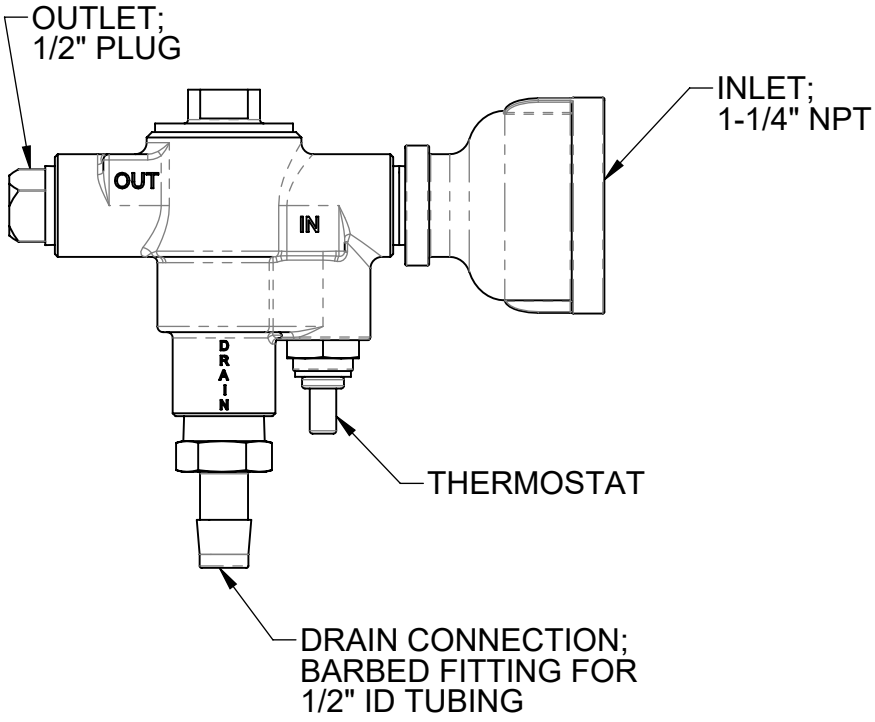
ECN:	REV. ECN:	BY:	MODEL(S)	PART NUMBER
5588	5661	JL	SP158.15 FREEZE PROTECTION VALVE	0510001069
DRAWN: JL	DATE: 09/17/20	CHK'D: BJM		REVISION 2
APPROVED: JL	DATE: 04/19/21		SCALE: 1:1 DRAWING TYPE: PARTS BREAKDOWN SIZE: A	SHEET 1 OF 1

NOTES:

1. HOLD ROUGH-IN DIMENSIONS ±1/4" (6.4mm).
2. WHEN INSTALLING THIS UNIT, LOCAL, STATE, OR FEDERAL CODES SHOULD BE ADHERED TO.



SP158.15 STANDALONE INSTALLATION
(FOR USE IN CONJUNCTION WITH THE SP121, CONSULT THE SP121 DOCUMENTATION)



FACTORY-ASSEMBLED VALVE SECTION
(WITHOUT INSULATION, ZIP TIES, OR ADDITIONAL PLUMBING)

Haws
1455 KLEPPE LANE
SPARKS, NEVADA 89431
(775) 359-4712 FAX (775) 359-7424
E-MAIL: HAWS@HAWSCO.COM
WEBSITE: WWW.HAWSCO.COM

ECN: 5588	REV. ECN: 5661	BY: JL	MODEL(S) SP158.15 FREEZE PROTECTION VALVE	PART NUMBER 0510001069.D
DRAWN: JL	DATE: 09/17/20	CHK'D.: BJM		REVISION 2
APPROVED: JL	DATE: 04/19/21		SCALE: N/A DRAWING TYPE: INSTALLATION SIZE: A	SHEET 1 OF 1