INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS

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No. 0510001018 (4)

Model 8315CTFP / 8315CTFP.220V / 8315CTFP.8 / 8315CTPF.220V.8 Shower, Combination, Heat Traced

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

LIMITED WARRANTY

HAWS warrants that all of its products are guaranteed against defective material or poor workmanship for a period of **one year from the date of shipment.** The foregoing notwithstanding, *HAWS* warrants certain specific products or components thereof for an adjusted period. A list of these excepted products and components and a description of their respective warranty terms may be found here: www.hawsco.com/warranty. *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 a claim is made in writing to Company 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* shall not be liable for the cost of repairs, alterations or replacements, or the labor required to implement them, or for any expense connected therewith made by the owner or owner's agents, except upon written authority from *HAWS*. *HAWS* shall 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 express 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, incidental, or consequential damages claimed to arise under the contract of sale.

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. Any HAWS emergency equipment 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.

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

TECHNICAL SUPPORT: 1-800-766-5612
FOR CUSTOMER SERVICE: 1-888-640-4297

RECOMMENDED TOOLS & SUPPLIES:

For All Models:

- Pipe wrenches *(both with teeth and smooth jaws)*
- Power drill with #2 Phillips bit *(preferred)*, or #2 Phillips screwdriver *(preferably ratcheting)*
- Adjustable wrench *(or a standard wrench set, up to 7/8")*
- 7/32" hex key
- Wire cutters
- Level
- Three (3) rust-resistant anchors *(3/8" diameter)*
- Pipe joint sealant *(Loctite PST #567 recommended)*
- Silicone caulking *(Dow Corning 832 recommended)*
- Stepladder

For the Optional Freeze Protection Bleed Valve in 8315CTFP.8 & 8315CTFP.220V.8:

- Slip-joint pliers
- Serrated knife or saw *(only for installing the valve without the SP121 auxiliary plumbing assembly)*
- Insulation coating or cladding *(only needed for severe outdoor exposure to UV)*

LOCATION OF UNIT:

- The 8315CTFP-series emergency shower eye/face wash should be installed in close proximity to potential accident areas. It should be clearly identified, free from obstructions, and easy to access.
- Suitable for use in Class 1, Division 2 Group B,C,& D areas.
- Heat trace freeze protection tested to -30°F (-34.4°C).
- Temperature rating T6 (85°C).
- A freeze protection valve, if installed, must be accessible for maintenance in its installed position.

ELECTRICAL SUPPLY:

- *During potentially freezing periods,* ***ensure that the unit is connected to a continuous power supply.***
- **Model 8315CTFP or 8315CTFP.8:** Electrical power required for standard heat traced unit is 120 VAC. Average power consumption at 50°F (10°C) ambient temperature is 110 watts. Maximum is 130 watts. Connection at input junction box is 3/4" NPT.
- **Model 8315CTFP.220V or 8315CTFP.220V.8:** Electrical power required for standard heat traced unit is 220 VAC. Average power consumption at 50°F (10°C) ambient temperature is 110 watts. Maximum is 130 watts. Connection at input junction box is 3/4" NPT.

WATER CONNECTIONS:

- **Minimum recommended supply line:** 1-1/4" IPS with 30-90 psi (2-6 ATM) flowing pressure
  *(Water supply **must** be freeze protected)*
  (An inlet filter is recommended where sediment or mineral content is a problem.)
- **Main shower inlet connection:** 1-1/4" IPS
- **Outlet for optional freeze protection valve:** Barbed connection for 1/2" ID tubing
  (Included with 8315CTFP.8 & 8315CTFP.220V.8; sold separately as SP158.15)
- **Outlet for optional scald protection valve:** Barbed connection for 1/2" ID tubing
  (Sold separately as SP157.15)
- **Outlet for optional auxiliary recirc plumbing:** 1-1/4" IPS
  (Sold separately as a feature of the SP121)

OPTIONAL FREEZE VALVE FEATURES & SPECS (INCLUDED ONLY IN 8315CTFP.8 & 8315CTFP.220V.8):

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

WARNING: Fire and shock hazards – must use a ground fault electrical protection device (30mA GFEPD) for heat trace. Electrical fault currents may be insufficient to trip a conventional circuit breaker.

INSTALLATION PROCEDURE

Refer to the Installation Drawing for further details.

STEP 1: Unboxing

The following components are included with this model. Note the locations within the packaging and the pertinent installation steps included for reference.

Top Tray

6 plastic jacket components…….*Step 7*

Small Internal Carton

Piping connector……*Step 3*

Piping union……*Step 3*

6 large zip ties…….....*Steps 3 & 6*

2 piping elbows……..*Step 5*

Bag

- Eye/face wash assembly…….*Step 8*

Bag

- Metal shower lever……...*Step 8*
- Eyewash push flag……...*Step 8*
- Paper test tag……...*Step 10*

Bag

- Plastic shower nozzle……..*Step 5*
- Plastic hole plug……*Step 8*
- Plastic shower handle……..*Step 8*

Bag

- Retaining ring……*Step 5*
- Nut, shower lever…….*Step 8*
- Shower handle bolt……..*Step 8*
- Push flag nut……*Step 8*
- 2 adhesive rubber covers……*Step 8*
- 4 thread-forming screws……..*Step 10*
- Small zip tie……*Step 10*

Large Internal Carton

Painted metal floor flange……*Steps 2-3*

Plastic shower bell……*Step 5*

6 lengths of seal trim……*Step 7*
Note colored tape

Universal shower sign……..*Step 10*

Central Area of Main Carton

Factory-assembled section……*Steps 3-10*

2 insulation tubing sections……..*Step 6*

8315CTFP.8 & 8315CTFP.220V.8 Only:

(Parts might be bagged together for shipping)

Plumbing grommet.....*Step 4A*

1-1/4” x 1” reducer.....*Step 4B*

1-1/4” x 4-1/2” nipple.....*Step 4B*

Plumbed valve assembly.....*Step 4B*

6 zip ties for heat trace.....*Step 4C*

Smaller insulation ring.....*Step 4D*

4 zip ties for insulation.....*Step 4D*
within jacketing

Larger insulation section.....*Step 4D*

2 straps & 2 heads.....*Step 4D*
for outer insulation

Insulation disc.....*Step 4D*

Insulation seam tape.....*Step 4D*

Bottom Area of Main Carton

1-1/4” pipe nipple……..*Step 3*

2 1” pipe nipples……..*Step 5*

2 expanded foam support……...*Step 7*
spacers for the horizontal
shower piping

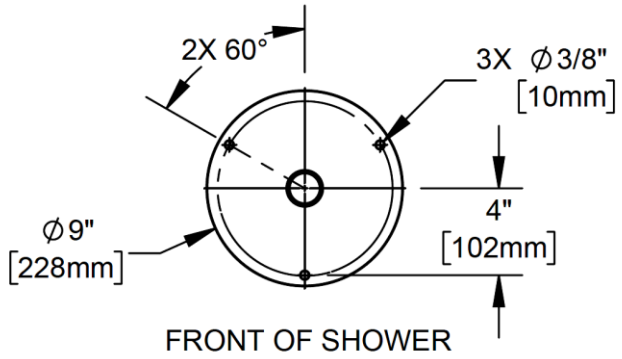
Expanded foam support……..*Step 7*
spacer for the vertical
shower piping

STEP 2: Preparation

a) Note the supply plumbing and electrical requirements.

- Ensure that all above-ground supply or recirculation piping is protected with heat trace, insulation, and weather sealing (by others). If a flow switch is used, extend the heat trace and insulation 6" above the flow switch tee.
- The small heat trace loop extending past the shower's supply plumbing should be secured to the piping as needed (zip ties by others) to provide good contact with the piping and to overlap the shower heat trace with the supply line heat trace.

b) Prepare the foundation, locating three 3/8" anchors (not supplied) for the floor flange (see diagram). Locate these anchors so one is directly toward the front of the shower.



STEP 3: Lower Support Stanchion

Installation Tip: The easiest way to build up this unit is likely to secure the floor flange to its anchors and assemble the piping from the ground up.

a) Pull the right-side jacket from the factory-assembled section. There are two small pieces of seal trim holding the jacket on; these can be discarded.

b) Assemble the dry lower support stanchion.

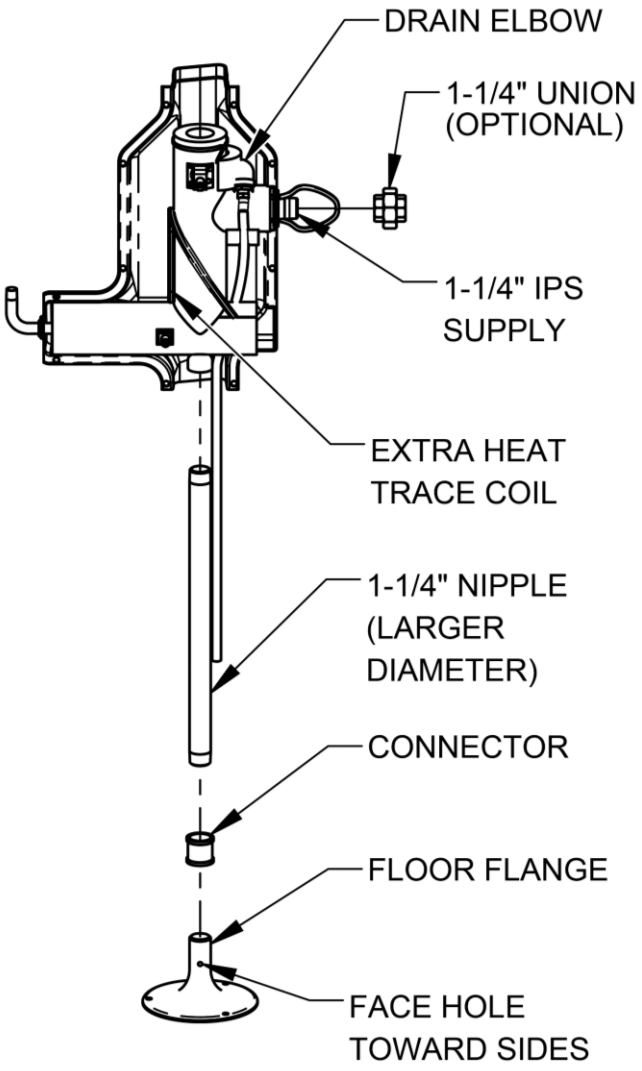
- These threads must be tightened as normal, but do **NOT** need to be sealed.
- Orient the floor flange so the hole in the upper half faces out the sides of the shower.

c) Connect the shower supply to the supply water line.

Important: Flush supply lines to clear debris before connecting the shower.

Important: Do not allow any of the factory plumbing to rotate out of alignment during this step. If needed, hold the inlet piping (do not damage the heat trace) while installing piping to it.

- If helpful, use the optional union as shown.
- If needed, apply one of the larger zip ties where the inlet plumbing exits the shower jacket, to create contact between piping and heat trace.



Installation Tip: If system shutoff valves are installed for maintenance purposes, make provisions to prevent unauthorized shutoff.

STEP 4: Plumbed Accessories

> *Installation Tip:* For any plumbed accessories that require heat trace, this heat trace is secured to the front of the vertical piping above the eyewash.

a) If desired, install the included optional freeze valve (8315CTFP.8 & 8315CTFP.220V.8 models only), as well as any separately purchased plumbed accessories (such as the SP157.15 scald valve, the SP158.15 freeze valve, the SP145 drench hose, and/or the SP121 auxiliary plumbing assembly). Consult the O&Ms and installation drawings of all purchased accessory models to be installed.

The rest of Step 4 relates to the optional installation of the freeze valve included with 8315CTFP.8 & 8315CTFP.220V.8 models, and may be skipped as needed. If the SP121 auxiliary plumbing assembly is to be used with the freeze valve, use the installation instructions found in the SP121 O&M instead.

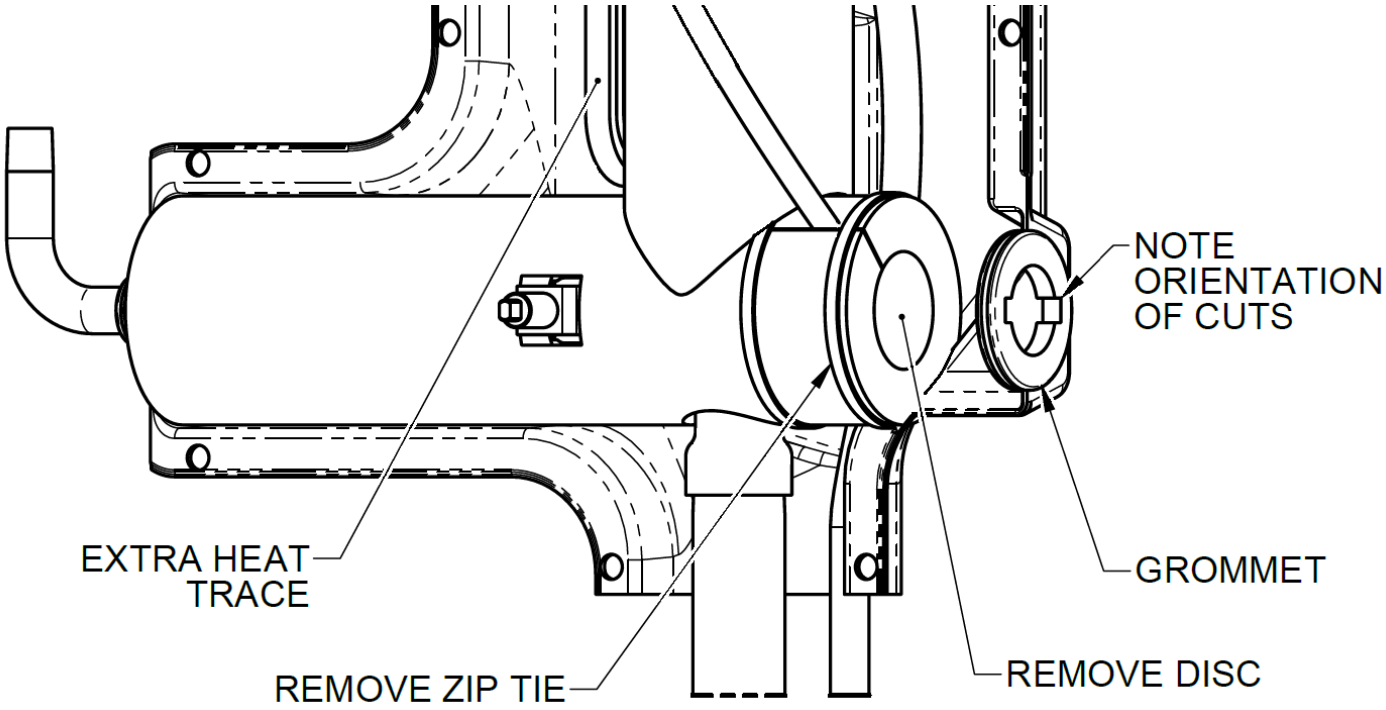
STEP 4A: Prepare Auxiliary Outlet for Freeze Valve

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 4B: Freeze Valve Plumbing

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

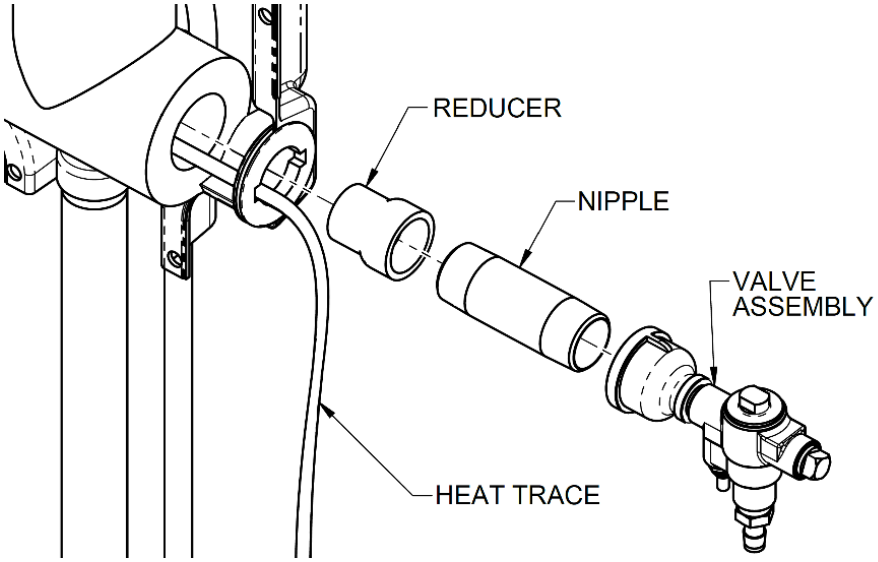
WARNING: The heat trace must lay flush against the plumbing, contacting it wherever possible, in order to transfer the necessary heat into the water. Failure to bring the heat trace into adequate contact with the plumbing may cause local freezing within the plumbing, risking damage, leakage, and malfunction.

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.

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

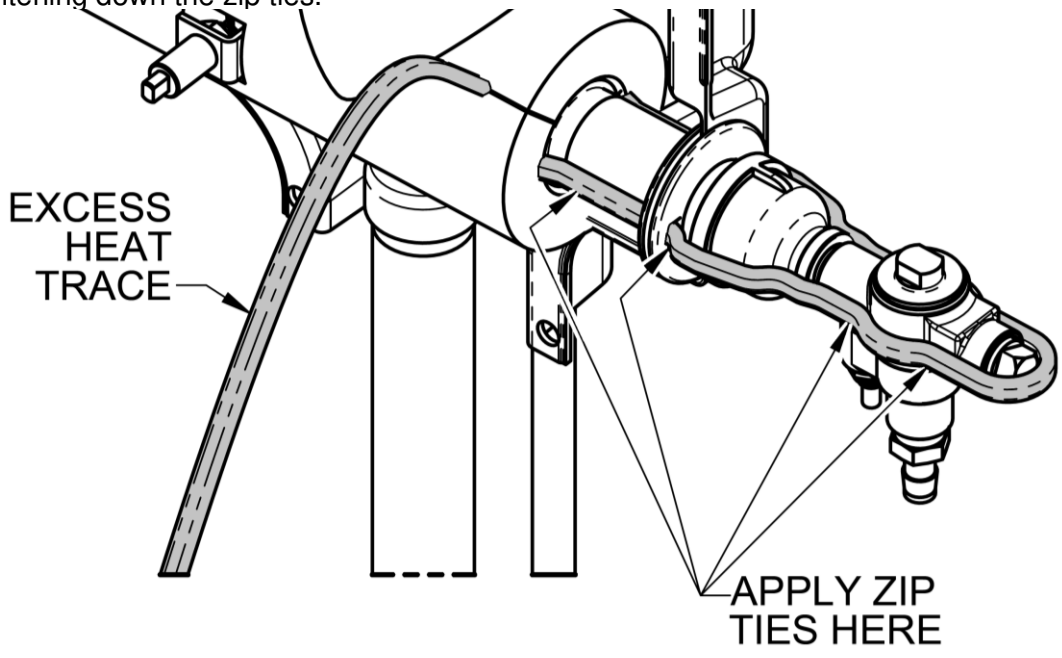


STEP 4C: Freeze Valve Heat Trace

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.

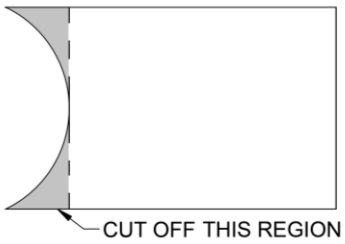
c) Install the heat trace zip ties (found in a bundle of 6) approximately where shown. Use more than the 4 shown if needed. **The purpose of these zip ties is to ensure that the heat trace maintains solid contact with the piping as continually as possible** – make sure the heat trace is ideally positioned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



STEP 4D: Freeze Valve 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.

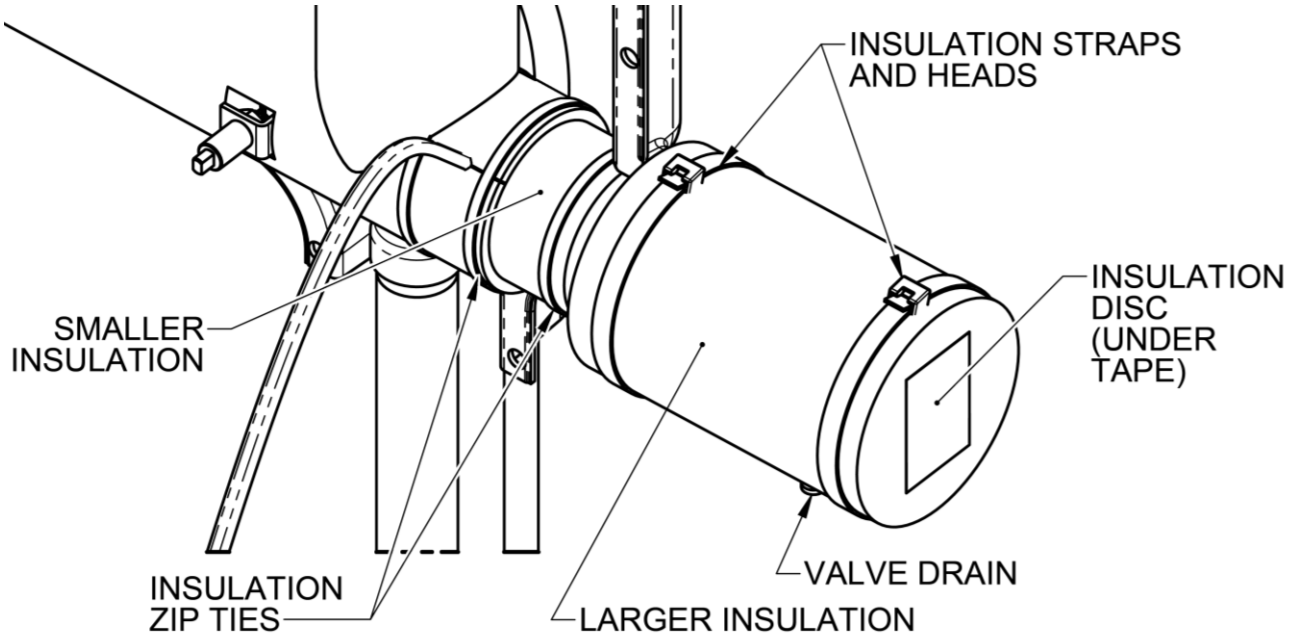


c) Place the new insulation disc into the open end of the larger insulation. Apply the seam tape over it to hold it in place.

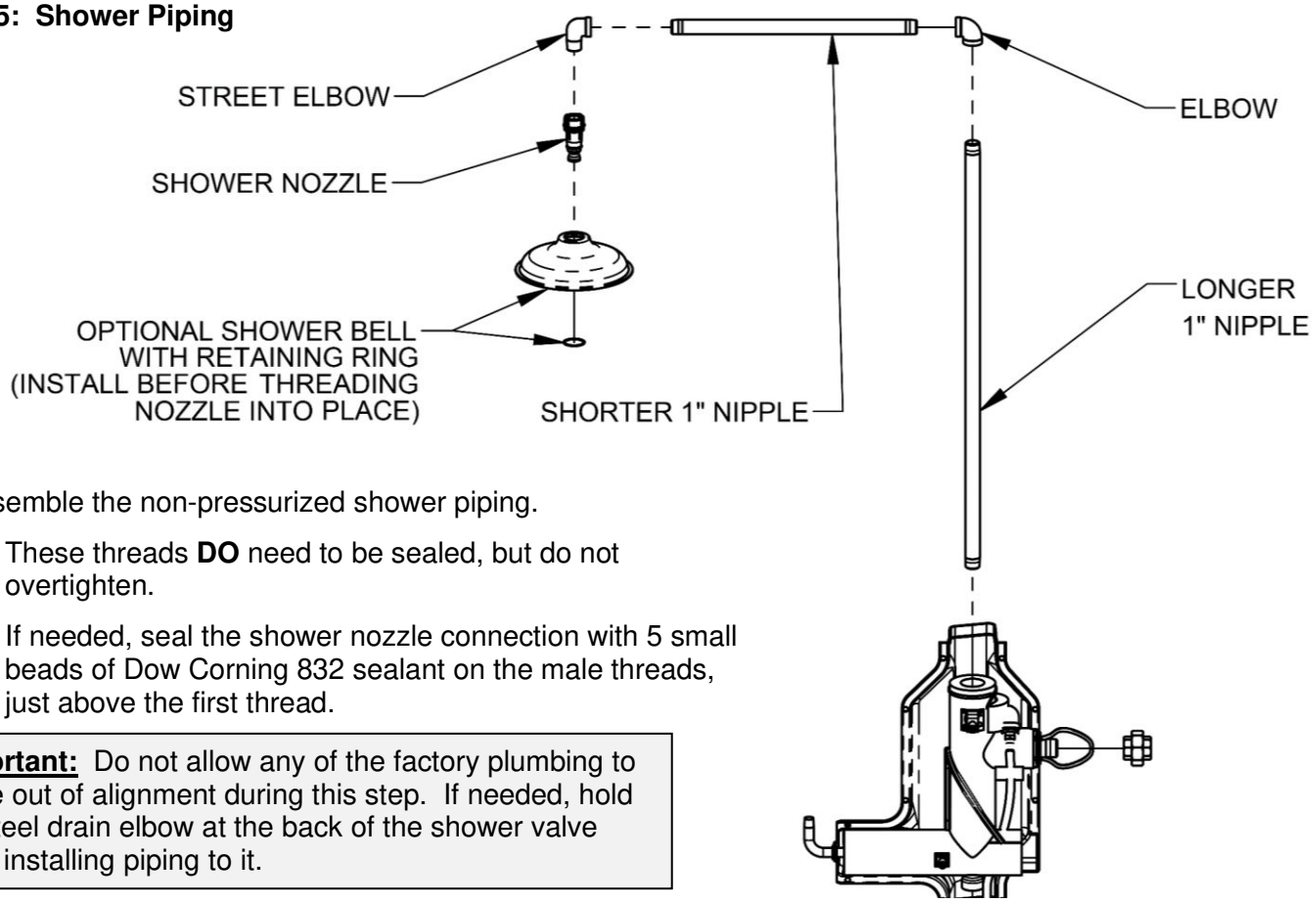
d) Use both the integral adhesive strips on the larger insulation to close it up. Use the insulation straps and heads on the two ends of the larger insulation to further hold it in place – only tighten the straps enough to close the insulation around the plumbing (and insulation disc).

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.



STEP 5: Shower Piping



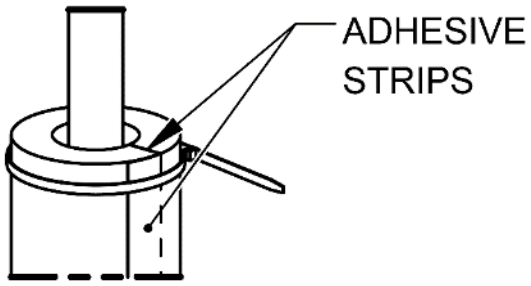
a) Assemble the non-pressurized shower piping.

- These threads **DO** need to be sealed, but do not overtighten.
- If needed, seal the shower nozzle connection with 5 small beads of Dow Corning 832 sealant on the male threads, just above the first thread.

Important: Do not allow any of the factory plumbing to rotate out of alignment during this step. If needed, hold the steel drain elbow at the back of the shower valve while installing piping to it.

STEP 6: Insulation

a) Place the insulation tubing immediately above and below the factory insulation. Use **both** of the integral adhesive strips (one in the slit and one over the slit) to fully close each piece.



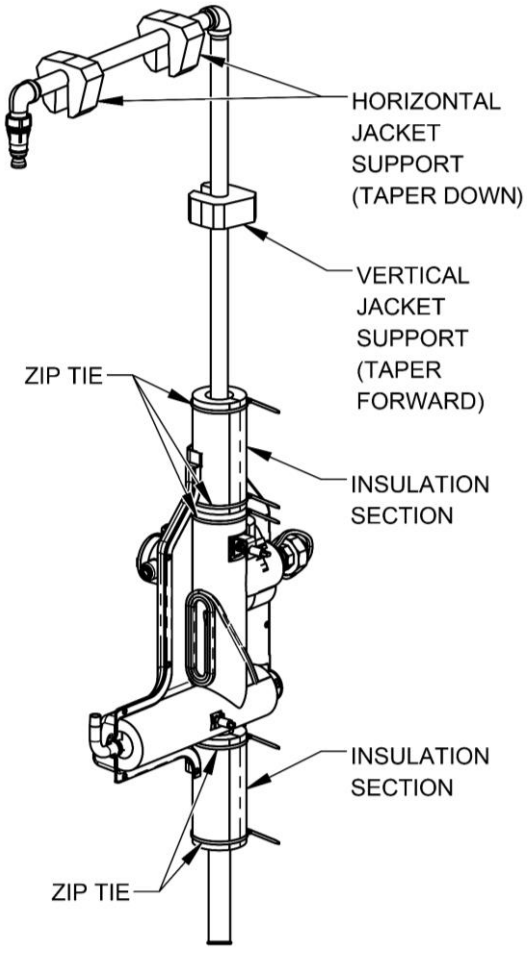
b) Use 5 larger zip ties to secure the insulation. Tighten each just enough to close the insulation around the pipe.

Important: Do not pinch the drain tubing with these.

Installation Tip: Locate each zip tie head to be in a back corner of the jacketing.

- Use 1 around each of the four ends of the new insulation pieces.
- Use 1 around the top of the factory insulation, above the shower valve.

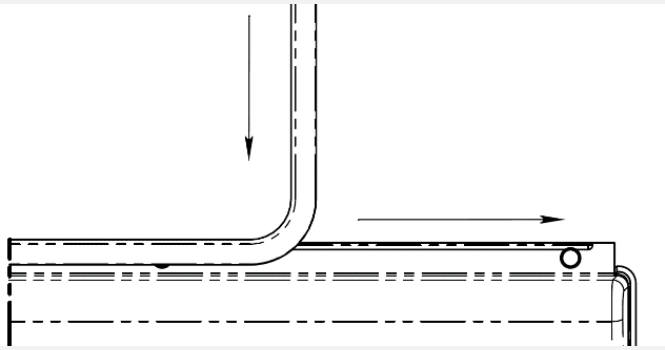
c) Clip the white jacket supports onto the piping as shown.



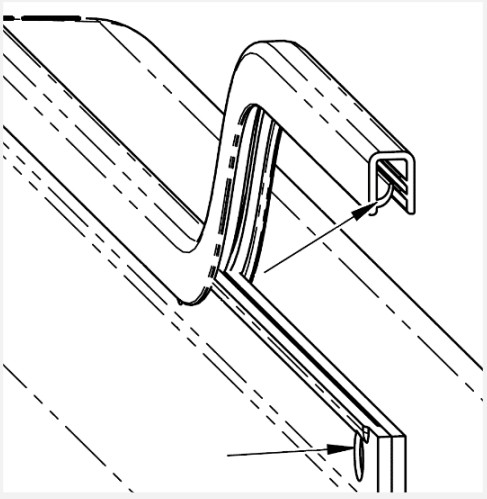
STEP 7: Jacketing

WARNING: Jacket edges may be sharp and could easily cut or puncture skin unless care is taken.

Installation Tip: Once a seal trim piece has been started on the jacket flanges, bend it sharply at a right angle and "roll" the seal trim onto the flanges. Ensure the seal trim is fully seated.



Installation Tip: Run the side of the seal trim with the single tooth on the side of the flanges with the holes.



a) Factory-assembled jacket.

- Replace the right-side jacket, fitting it into all grommets and lining it up with all the mating flanges.

  Important: Make sure the drain hole in the bottom of the plumbing beneath the eye/face wash is fully outside the jacketing.

- Press the short, unmarked seal trim piece onto the back flanges below the supply plumbing.

b) Lower jackets.

Important: Make sure the shower drain tubing does not kink, pinch, or let water to gather or pool. Make sure the tubing comes out the bottom of the jacketing.

- Slide the lower jackets fully into the opening in the factory jacketing above.
- Press the seal trim pieces marked with **red tape** and with **blue tape** into place where shown.

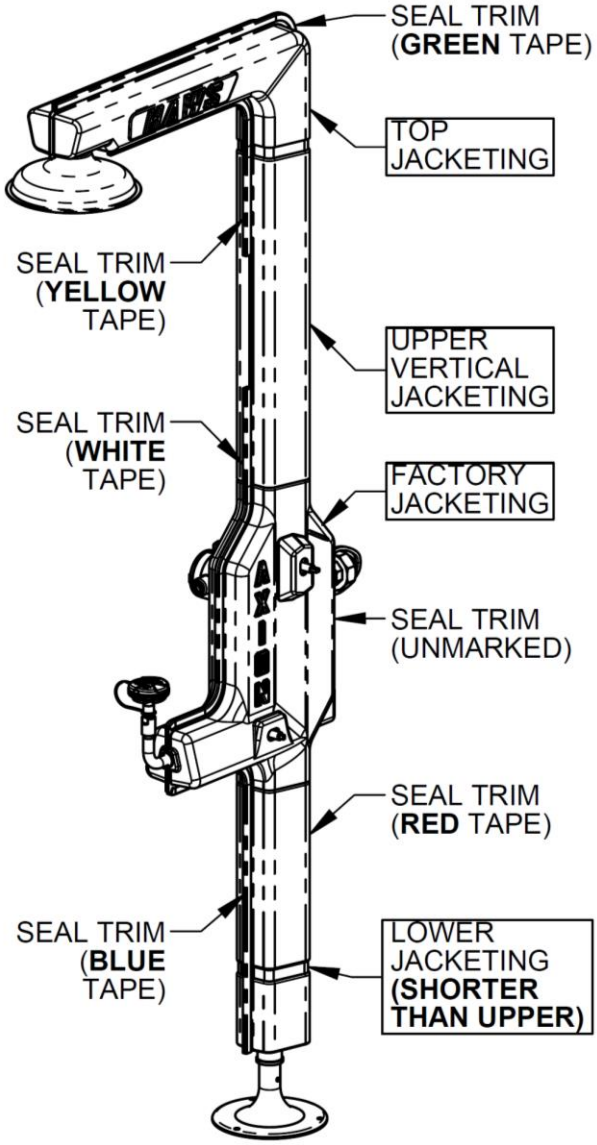
c) Upper vertical jackets.

- Slide the upper vertical jackets fully down onto the factory jacketing beneath. The white jacket support should help hold the jacketing in place.
- Press the seal trim marked with **white tape** onto the front flanges.

d) Top jackets.

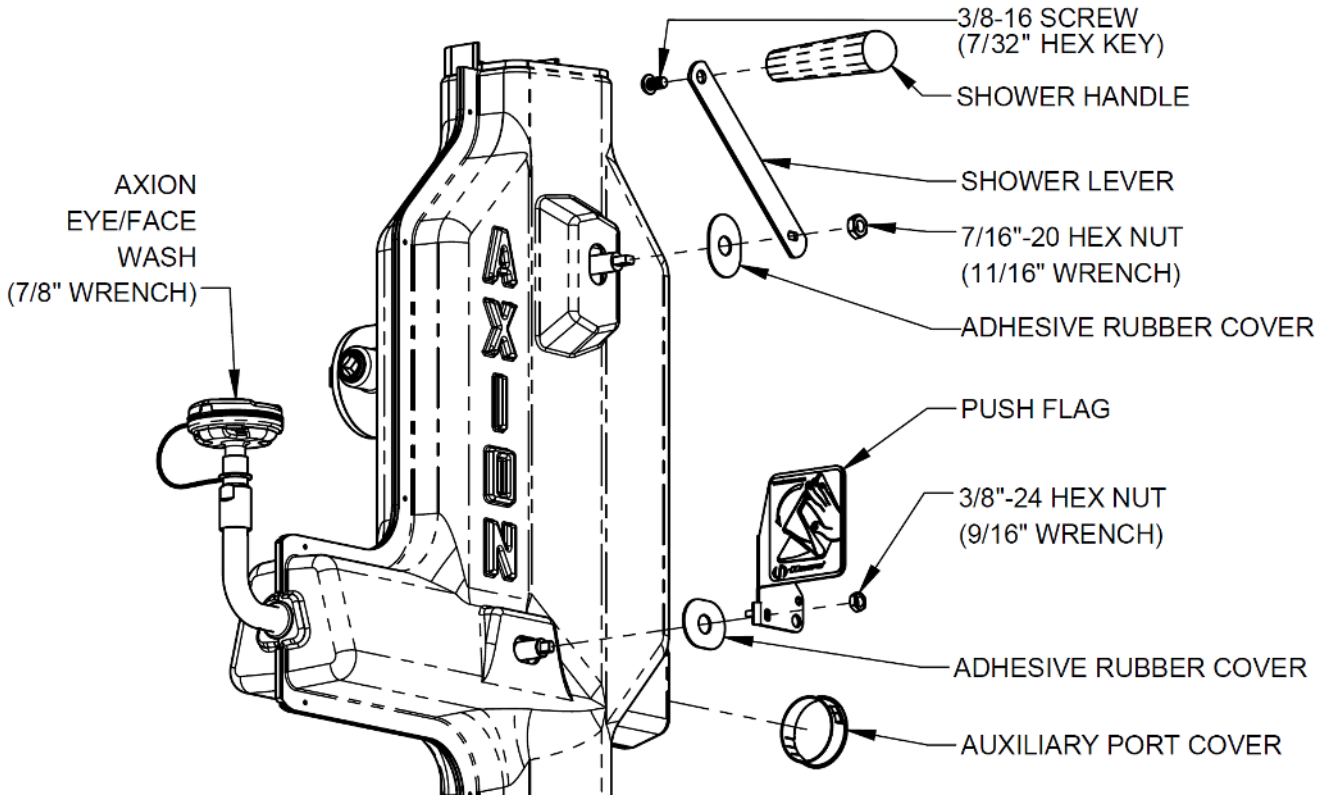
- Overlap the top jackets onto the upper vertical jackets below. The white jacket supports should help hold the jacketing in place.

  Press the seal trim pieces marked with **green tape** and with **yellow tape** into place where shown.



STEP 8: User Controls

a) Shim the floor flange as needed to level the eye/face wash plumbing. If tilted backward, water could pool within and freeze, potentially reducing flow or impeding valve actuation.



b) Make sure the local jacket surfaces are clean, then install the 2 adhesive rubber covers over the valve stem openings.

c) Install the Axion eye/face wash assembly as shown, so eyewash streams can wash both a user's eyes while standing in front of it. If needed, use pipe sealant on the threads.

d) Assemble the push flag and the shower handle assembly as shown.

e) Press the black hole plug into the auxiliary port, if unused.

STEP 9: Electrical & Heat Trace

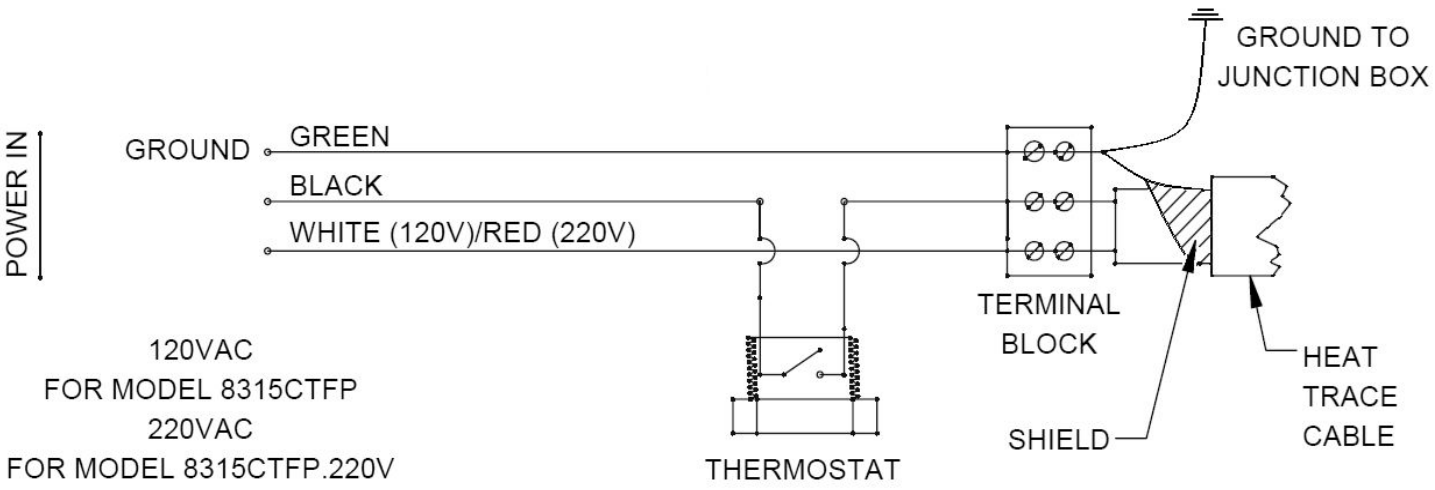
IMPORTANT SAFETY NOTICE

THE NATIONAL ELECTRICAL CODE REQUIRES GROUND-FAULT EQUIPMENT PROTECTION ON EACH HEATING CABLE BRANCH CIRCUIT. TO REDUCE THE RISK OF FIRE CAUSED BY DAMAGE OR IMPROPER INSTALLATION, CIRCUIT BREAKERS SUCH AS SQUARE D QO-EPD AND QOB-EPD OR EQUIVALENT, WITH A 30mA TRIP LEVEL, SHOULD BE USED. PLEASE SUBSTITUTE THESE BREAKERS WHEREVER REFERENCE IS MADE TO CONVENTIONAL BREAKERS IN THIS DOCUMENT. ALTERNATIVE DESIGNS PROVIDING COMPARABLE LEVELS OF GROUND-FAULT PROTECTION MAY ALSO BE ACCEPTABLE.

a) Connect the electrical power supply conduit to the shower's junction box using a suitable conduit fitting into 3/4" NPT inlet.

b) Wire the electrical supply within the junction box and turn on power supply.

- See wiring diagram on next page. -



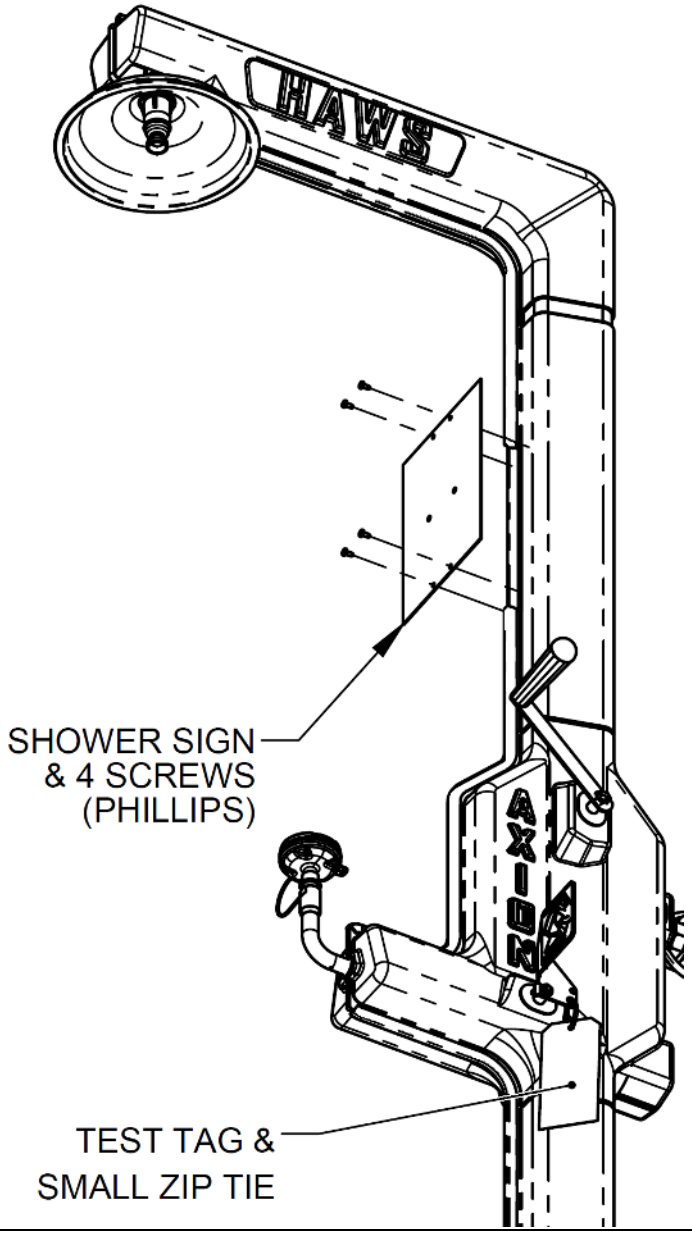
STEP 10: Miscellaneous

a) Use the 4 thread-forming screws to bolt the shower sign to the upper vertical jacketing, where the front flanges have been cut away.

b) Use the small zip tie to hang the test tag at a convenient location – for instance, off of the eye/face wash push flag.

c) If desired, install the optional shower bell on the shower nozzle by sliding it up onto the nozzle, then sliding the retaining ring up and into its groove on the shower nozzle.

d) If needed, install an optional SP220 foot treadle, per its installation drawing.



OPERATING INSTRUCTIONS

Shower & Eye/Face Wash Activation

- Activate the shower by pulling down on the black handle approximately halfway up the unit.
- Activate the eye/face wash by means of a traditional push flag.

Temperature-Controlled Heat Trace Cable

Power to the 8315CTFP and 8315CTFP.220V may be left on year-round. The non-adjustable thermostat will shut off heat cable when air temperature rises to 47°-57°F (8.3°-13.9°C). Heat cycle will repeat when air temperature drops to between 37°-47°F (2.8°-8.3°C). Periodic check of water temperature from the unit will confirm normal operating temperatures above freezing and below 100°F (37.8°C).

Freeze Resistance & Ambient Conditions

This shower is freeze resistant, **without a freeze protection valve**, to a temperature of -30°F (-34.4°C). If the shower's piping has difficulty staying above freezing at or above this temperature due to strong winds or other natural phenomena, consider installing a failsafe, such as an SP158.15 freeze valve, or a windbreak enclosure, such as the 9035 3-sided enclosure.

Self-Draining Piping

This shower is designed to drain the plumbing downstream of the eye/face wash and shower valves automatically after use. This is done through a small weep hole in the eye/face wash plumbing and a drainage port in the shower valve, respectively. Drain tubing conducts water from the shower to the base of the unit, near the floor flange. **After use, make sure that the valves are fully closed and that water does not continue to seep slowly out the drain.**

Water Temperature

This unit uses low-power heat trace cable – suitable for freeze protection, but unable to warm a cold-water supply during use. Upon activating the shower, the water temperature will quickly match supply temperature.

ANSI recommends a comfortable shower temperature range of 60°-100°F (15°-38°C). For the protection of the user, Haws strongly recommends installing some system to provide tempered (warm) water to this unit. This shower's heat trace cable heats slowly and may take 90 minutes or longer to complete a full heat cycle.

Freeze & Scald Protection Valve Drainage

If a freeze or scald protection valve is used, no drain connection is normally required at the outlet. Any such valve will remain closed except in the event of a power outage in cold weather (when a freeze valve would open), high ambient temperatures (when a scald valve would open), or a product malfunction (see associated Troubleshooting sections).

NOTE: IF GROUNDWATER IS BELOW 38°F (3.3°C), SIMPLY TESTING THE SHOWER MIGHT CAUSE THE OPTIONAL FREEZE VALVE TO OPEN. ONCE THE VALVE IS OPENED, COLD GROUNDWATER WILL KEEP IT OPEN. SEE THE TROUBLESHOOTING GUIDE FOR THE PROCEDURE TO CLOSE A FREEZE VALVE IN SUCH A CONDITION.

Freeze Valve Operation (If Equipped)

- The freeze protection valve will automatically monitor the water temperature within the shower:
  - Water begins to drain through the valve when local temperature cools to 36ºF (2.2°C) or below.
  - The valve will re-close completely when the local temperature rises to 42ºF (5.6°C) or above.
- The valve repeats this cycle as long as local temperature remains low. Bleeding frequency increases with colder temperature. The valve flows as much as necessary to prevent system freezing.

MAINTENANCE INSTRUCTIONS

All Models

- Allow eye/face wash piping to **drain out completely** before replacing eye/face wash dust cover.
- In freezing conditions, **wipe eye/face wash head & dust cover dry** after each use, to prevent unwanted ice buildup.
- Periodic function tests of the shower and eye/face wash should be performed and recorded on the inspection tag attached to the unit, or in a separate maintenance logbook (preferred).
- During regular testing, also verify these items:
  - Verify that both the eye/face wash and the shower are **able to drain completely**.
  - Verify that the dust cover is **intact and firmly in place**.
- The optional freeze protection valve included in the 8315CTFP.8, the 815CTFP.220V.8, and the standalone SP158.15 is a field serviceable item; see information below or refer to the SP158.15 O&M for more information as applicable.
- These shower models may be upgraded with a variety of add-on accessory models (thermal protection valves, foot treadles, etc.), to suit the needs of each individual installation. Please visit www.hawsco.com for complete details.

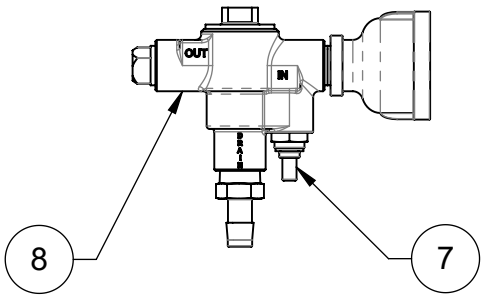
Cleaning Procedure for Optional Freeze Valve (8315CTFP.8 & 8315CTFP.220V.8 Only)

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.

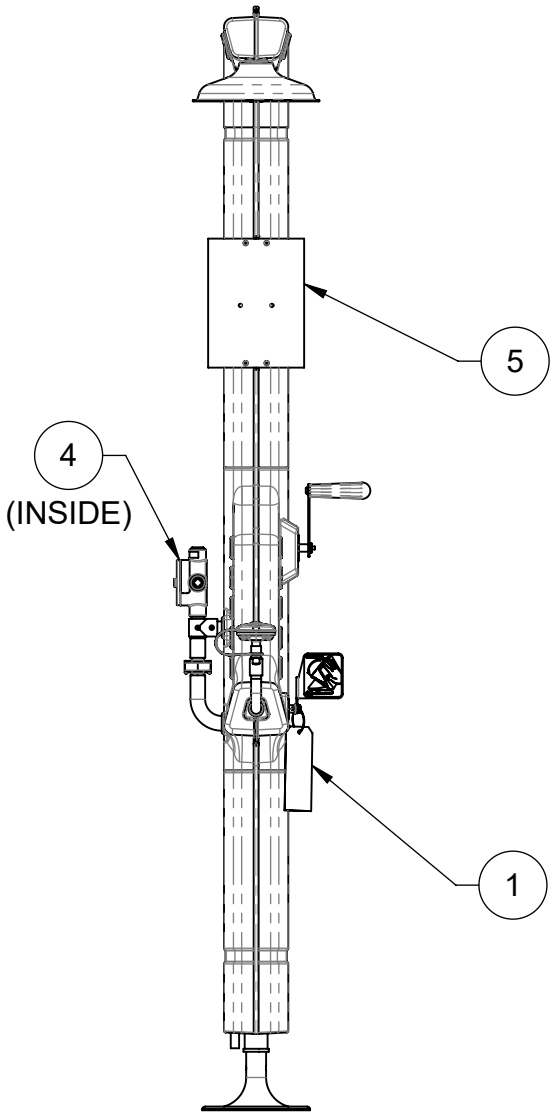
TROUBLESHOOTING

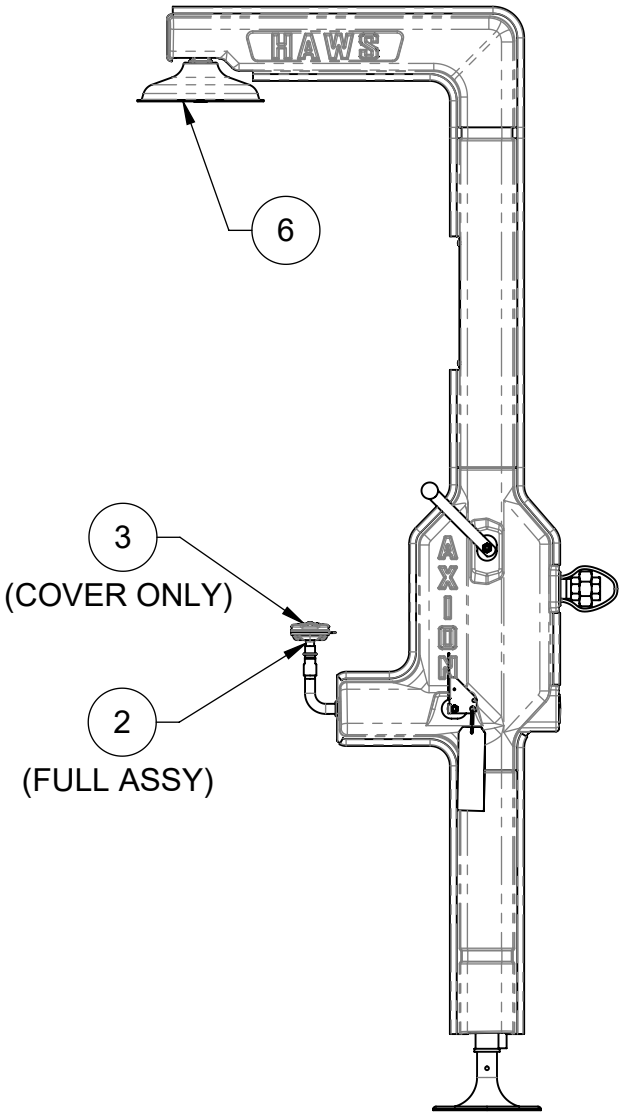
	PROBLEM		REPAIR CHECKLIST
1.	Shower ball valve is stuck.	1.	Water is frozen against or within the ball valve. Check for electrical power. Check for clogged shower drain plumbing. Check thermostat as described in item 7.
2	Eye/face wash valve is stuck.	2.	Water is frozen against or within the ball valve. Check for electrical power. Check for a fouled drainage weep hole. Check thermostat as described in item 7.
3.	Shower or eye/face wash does not dispense.	3.	- Verify available water supply. Check for blockage in lines. - Water is frozen within piping downstream of valve. Check for ice here. Check for electrical power. Check for clogged or fouled drainage. Check thermostat as described in item 7.
4.	Shower does not drain.	4.	Check for clogged shower drain plumbing. If ice is present here, make sure tubing is not kinked or pinched.
5.	Eye/face wash does not drain.	5.	Check for a fouled drainage weep hole.
6.	Local freezing within plumbing.	6.	- Ensure heat trace is powered and water supply is freeze-protected. - Check if shower and eyewash can both drain properly. - Check if heat trace is routed properly and contacting piping in the freezing area.
7.	Shower and eye/face wash water temperature below 40ºF or above 100ºF.	7.	Shut off electrical power. All electrical connections are made inside external junction box. Thermostat is mounted in top port of junction box. Disconnect thermostat leads from terminal block and wire nut in junction box. Check thermostat continuity: open circuit above 57°F (14°C), closed below 37°F (3°C). Thermostat is not adjustable and should be replaced if either of the continuity checks are incorrect. If unit is subject to freezing temperatures, temporarily disconnect thermostat and reconnect wiring to bypass thermostat and protect shower from freezing until replacement thermostat can be installed. Self-regulating heat trace cable will not overheat shower while air temperature is below approximately 40°F (4°C).
8.	Insufficient flow at shower AND eye/face wash.	8.	Verify minimum 30 PSI (2 ATM), 28 gallon per minute (106 liters per minute) available supply. Check for blockage in lines.
9.	Insufficient flow at eye/face wash ONLY.	9.	- Probable clogging of flow control due to inadequate line flushing. Turn water supply off. Unscrew eye/face wash heads and adapter to access and clean flow control. - Check for ice buildup in eye/face wash plumbing downstream of activation valve.
10.	Insufficient water flow at the showerhead ONLY.	10.	- Probable clogging of flow control inside showerhead. Unscrew showerhead and clean rubber flow control. - Check for ice buildup in shower plumbing above activation valve.
11.	Eye/face wash valve stem leaks.	11.	Remove shower handle and eye/face wash push flag. Pull seal trim off of this area of jacketing and pull the right-side jacket off. Peel back or remove insulation to gain access to valve. Remove “U” bracket from valve stem and tighten valve stem hex packing nut to stop leak. Reassemble bracket, insulation, shower housing and valve arm.
12.	Shower valve stem leaks.	12.	Stem seal is a double o-ring seal and cannot be adjusted; replace valve. Disassemble as in item 11. Remove shower jacketing and piping to access shower. Any zip ties removed must be replaced exactly after the valve is replaced. Reverse above steps to reassemble.
13.	Shower and eye/face wash valve leaks. (Does not shut off completely).	13.	Disconnect power to unit. Disassemble as in item 11. Check valve stop tabs for damage. Repair or replace valve assembly. Heat trace is looped around valves and should be pulled away from valve. Any zip ties removed must be replaced exactly after the valve is replaced. Remove valve (removing shower valve will require the removal of shower jacketing and piping). Reverse above steps to reassemble.
14.	Freeze valve (if present) leaks to its drain port.	14.	- Check tempered water line temperature. If it is over 42°F (5.6°C), clean the valve per the Cleaning Procedure (see previous page). - Valve may require repair (VRK158B) or replacement.



FREEZE VALVE -
8315CTFP.8 & 8315CTFP.220V ONLY
(INSULATION, ETC. REMOVED)

ITEM	DESCRIPTION	PART NO.
1	TEST TAG	SP170
2	EYE/FACE WASH ASSY (COVER INCLUDED)	SP65CTFP
3	EYE/FACE WASH COVER	9091
4	THERMOSTAT	SP156
5	SHOWER/EYEWASH SIGN	0510001012
6	SHOWER HEAD	SP829
7	KIT, REPAIR, SP158B (THERMOSTAT CARTRIDGE)	VRK158B
8	FREEZE PROTECTION VALVE (INCLUDES VRK158B COMPONENTS)	SP158B

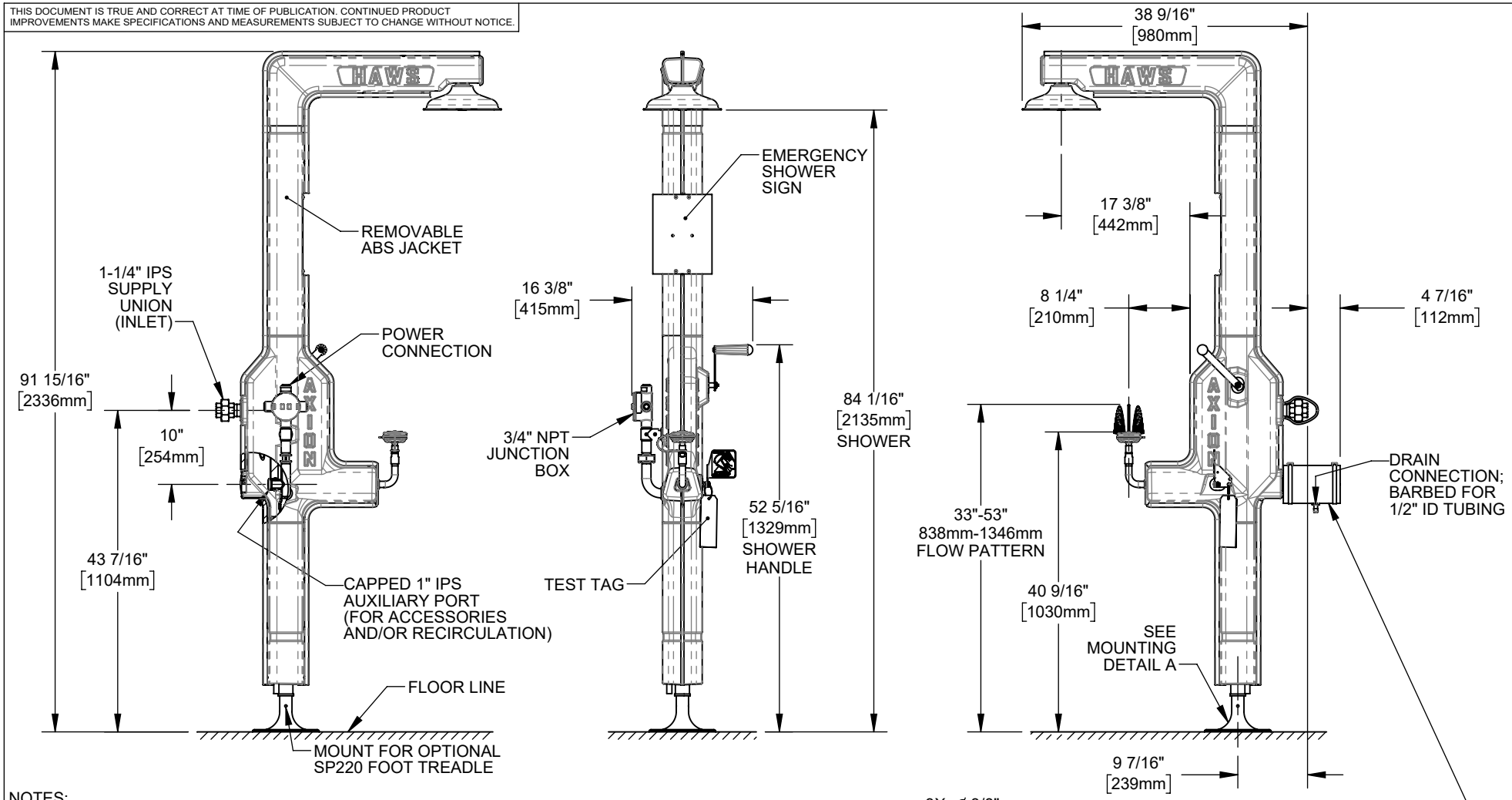




WHEN ORDERING PARTS, PLEASE SPECIFY PART NUMBER

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
5566	5775	FV		0510001018
DRAWN: JL	DATE: 07/23/20	CHK'D: JS	8315CTFP, 8315CTFP.220V, 8315CTFP.8 & 8315CTFP.220V.8	REVISION 4
APPROVED: FV	DATE: 02/22/22			
SCALE: N/A	DRAWING TYPE: PARTS BREAKDOWN		SIZE: A	SHEET 1 OF 1



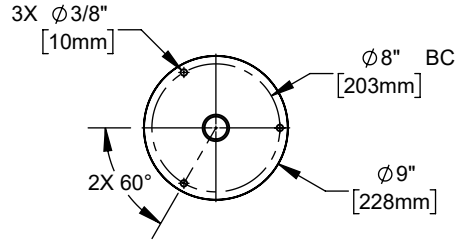
NOTES:

1. WHEN INSTALLING THIS UNIT, LOCAL, STATE, OR FEDERAL CODES SHOULD BE ADHERED TO FOR INSTALLATION DIMENSIONS (LOCATIONS) AND FOR WASTE AND SUPPLY DIMENSIONS OTHER THAN SHOWN.

2. TO COMPLY WITH ANSI Z358.1-2014 FOR EMERGENCY EYEWASH AND SHOWER EQUIPMENT:
   - UNIT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND ACCEPTABLE PLUMBING PRACTICES.
   - EYEWASH STREAMS SHALL BE POSITIONED SUCH THAT STREAMS ARE 15.3 CM (6 IN.) MINIMUM FROM THE WALL OR NEAREST OBSTRUCTION AND, WHEN FLOWING AT 30-30.5 PSI, MEET ANSI GAUGE REQUIREMENTS BETWEEN 83.8 & 134.6 CM (33-53 IN) ABOVE FLOOR.
   - SHOWER SHALL BE POSITIONED SUCH THAT SHOWERHEAD IS BETWEEN 208.3 & 243.8 CM (82-96 IN.) FROM FLOOR.
   - SHOWER SPRAY PATTERN SHALL HAVE A MINIMUM DIAMETER OF 50.8 CM (20 IN.) AT 152.4 CM (60 IN.) ABOVE SURFACE ON WHICH USER STANDS, AND CENTER OF SPRAY PATTERN SHALL BE LOCATED AT LEAST 40.6 CM (16 IN.) FROM ANY OBSTRUCTION.

3. CERTAIN PRODUCT DIMENSIONS MAY VARY BY ±1/2" [133mm] OR MORE.

4. **WARNING:** EYEWASH PLUMBING MUST BE INSTALLED LEVEL SO ALL WATER DOWNSTREAM OF THE BALL VALVE CAN DRAIN AFTER USE. FAILURE TO ENSURE DRAINAGE CAN ALLOW WATER TO POOL AND FREEZE, POTENTIALLY RESTRICTING EYEWASH FLOW OR NOT ALLOWING THE EYEWASH VALVE TO ACTUATE.

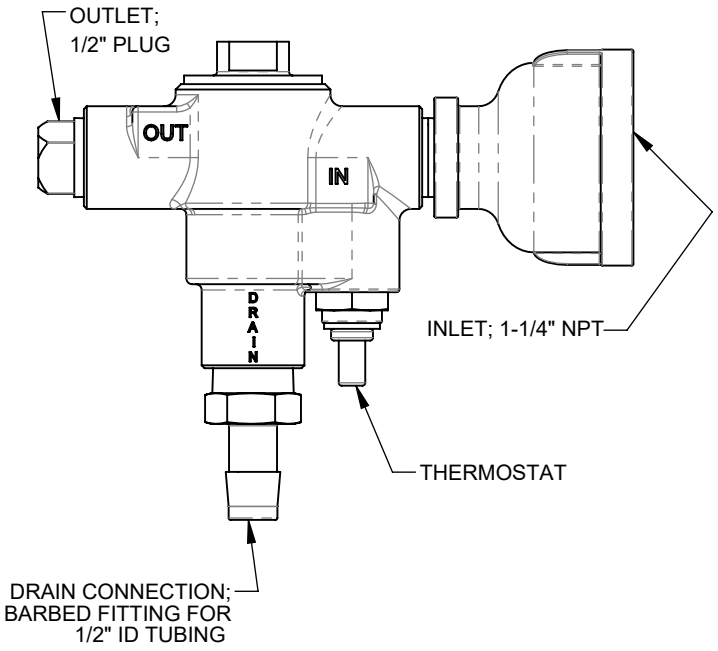


OPTIONAL FREEZE VALVE (8315CTFP.8 & 8315CTFP.220V.8 ONLY). FOR USE WITH THE SP121, SEE THE SP121 DOCUMENTATION

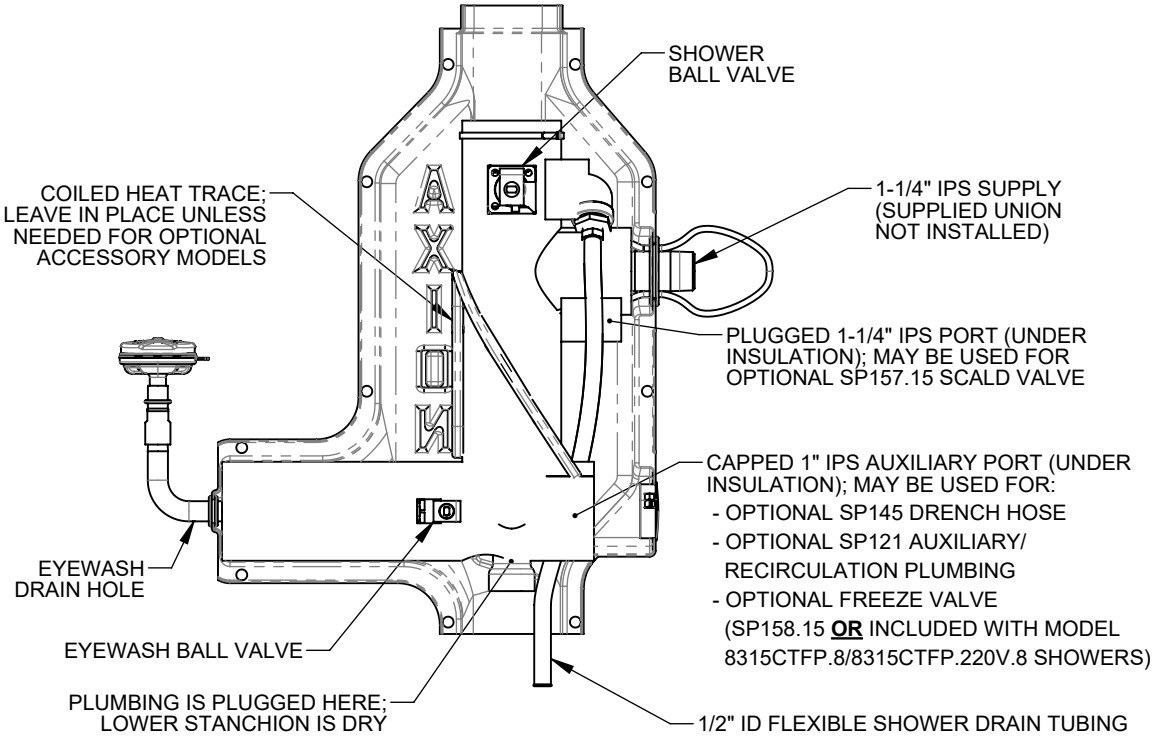
MOUNTING DETAIL A

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

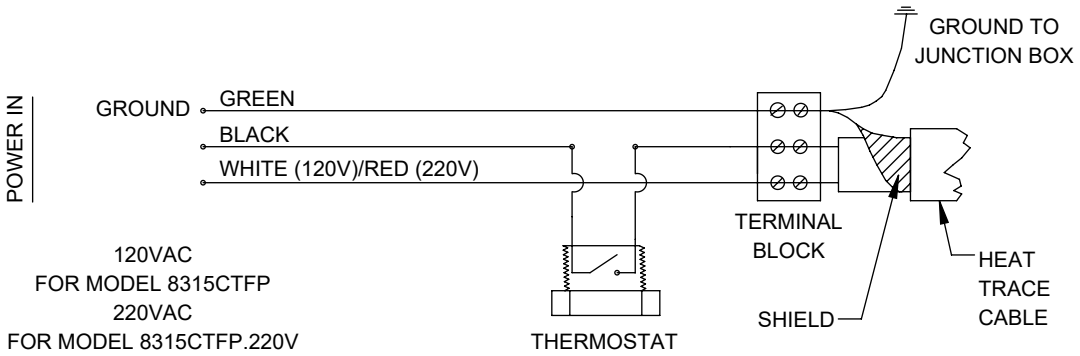
ECN:	REV. ECN:	BY:	MODEL(S)	PART NUMBER
5566	5775	FV	8315CTFP, 8315CTFP.220V, 8315CTFP.8 & 8315CTFP.220V.8	0510001018.D
DRAWN: JL	DATE: 07/23/20	CHK'D.: JS		REVISION 4
APPROVED: FV	DATE: 02/22/22		SCALE: 1:20 DRAWING TYPE: INSTALLATION SIZE: A	SHEET 1 OF 2



FACTORY-ASSEMBLED VALVE SECTION
(8315CTFP.8 & 8315CTFP.220V.8 MODELS ONLY)



FACTORY-ASSEMBLED SECTION
(ZIP TIES HIDDEN FOR CLARITY)



ELECTRICAL SCHEMATIC

Haws
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E-MAIL: HAWS@HAWSCO.COM
WEBSITE: WWW.HAWSCO.COM

ECN: 5566	REV. ECN: 5775	BY: FV	MODEL(S)		PART NUMBER 0510001018.D
DRAWN: JL	DATE: 07/23/20	CHK'D.: JS	8315CTFP, 8315CTFP.220V, 8315CTFP.8 & 8315CTFP.220V.8		REVISION 4
APPROVED: FV	DATE: 02/22/22		SCALE: N/A	DRAWING TYPE: INSTALLATION	SIZE: A / SHEET 2 OF 2