



# INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS

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No. 0510001071 (2)

## Model SP121 Auxiliary Plumbing Assembly

**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**

## LOCATION OF UNIT:

- The Model SP121 Auxiliary Plumbing Assembly is intended for use only with the 8315CTFP series of emergency showers.

## RECOMMENDED TOOLS & SUPPLIES:

- Wire cutters
- Pipe wrench (and slip-joint pliers, if possible)
- Pipe joint sealant  
(*Loctite PST #567 recommended*)
- Level
- Phillips (or slotted) screwdriver
- Adjustable wrench
- Insulation coating or cladding  
(*only needed for severe outdoor exposure to UV*)

## 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.

**If connecting the shower to a recirculation loop**, ensure that all above-ground recirc piping is protected with heat trace, insulation, and weather sealing (by others). The recirc piping heat trace should overlap the Haws heat trace for complete coverage. If a flow switch is used, extend the heat trace and insulation 6" above the flow switch tee.

- **To install the SP121 as standalone recirc loop plumbing**, please consult the **first** set of installation instructions.
- **To install the SP121 in combination with any of these plumbed features**, please consult the **second** set of installation instructions.
  - Drench hose (SP145)
  - Freeze valve (SP158.15; also included with 8315CTFP.8 & 8315CTFP.220V.8 showers)
  - Recirculation loop

## Valve Installation (Recirc Plumbing Only)

### STEP 1: Unboxing & Preparation

The following included components are required for this type of installation. Pertinent installation steps are included for reference.

- Plumbing grommet.....Step 2
- 1-1/4" x 1" reducer.....Step 3
- Longer 1-1/4" nipple (4-1/2" length).....Step 3
- Union.....Step 3
- 5 zip ties for heat trace.....Step 4
- Smaller insulation ring.....Step 5
- 4 zip ties for insulation within jacketing.....Step 5

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

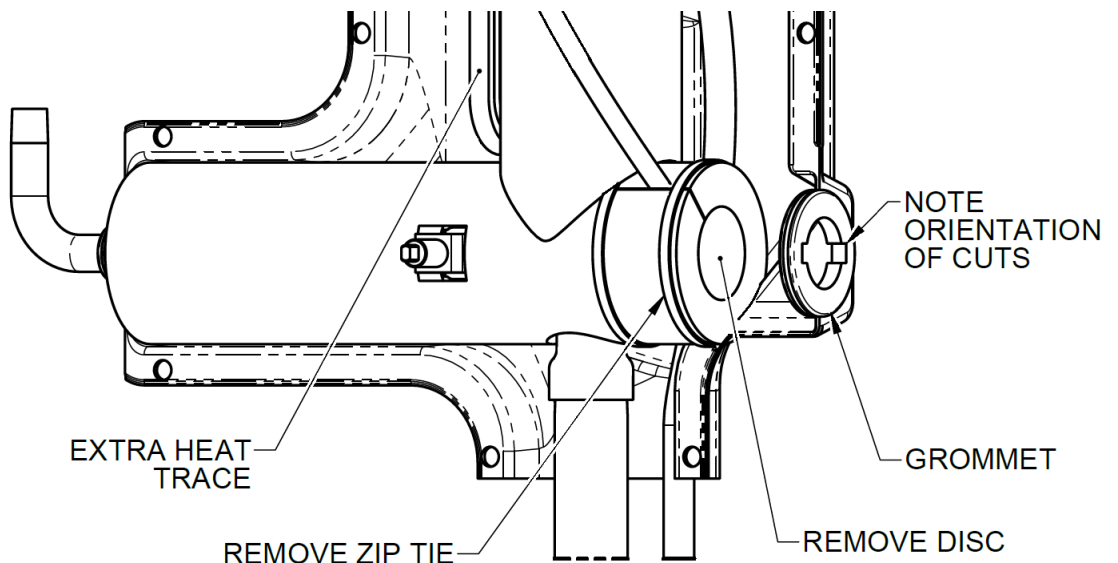
**If this assembly is to be retrofitted into a completed shower,** the right-hand section of jacketing at the level of the eyewash must be removed:

- 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

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

- 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.

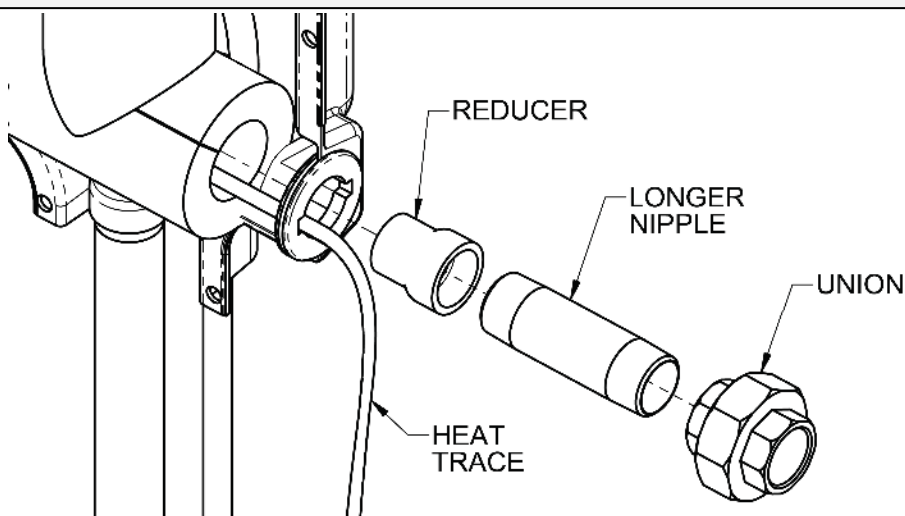


### STEP 3: Plumbing

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

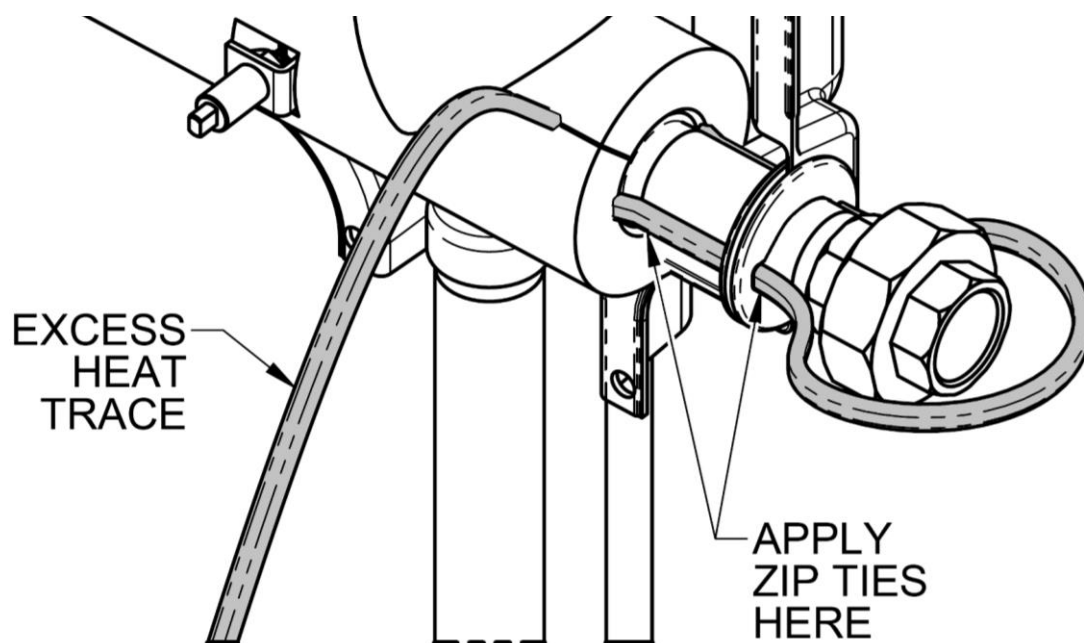
**WARNING:** The heat trace must lay flush against the plumbing, contacting it wherever possible, in order to transfer the necessary heat into the water. Failure to bring the heat trace into adequate contact with the plumbing may cause local freezing within the plumbing, risking damage, leakage, and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

- b) Connect and seal the reducer, then the longer nipple, and then the union to the auxiliary outlet. The nipple will run through the grommet, with the heat trace alongside it.
- c) Connect the union to the recirc piping, pressurize the system, and check for leaks.
- d) Make sure the heat trace is running smooth and flat along the new plumbing, but do NOT zip tie it into place yet.



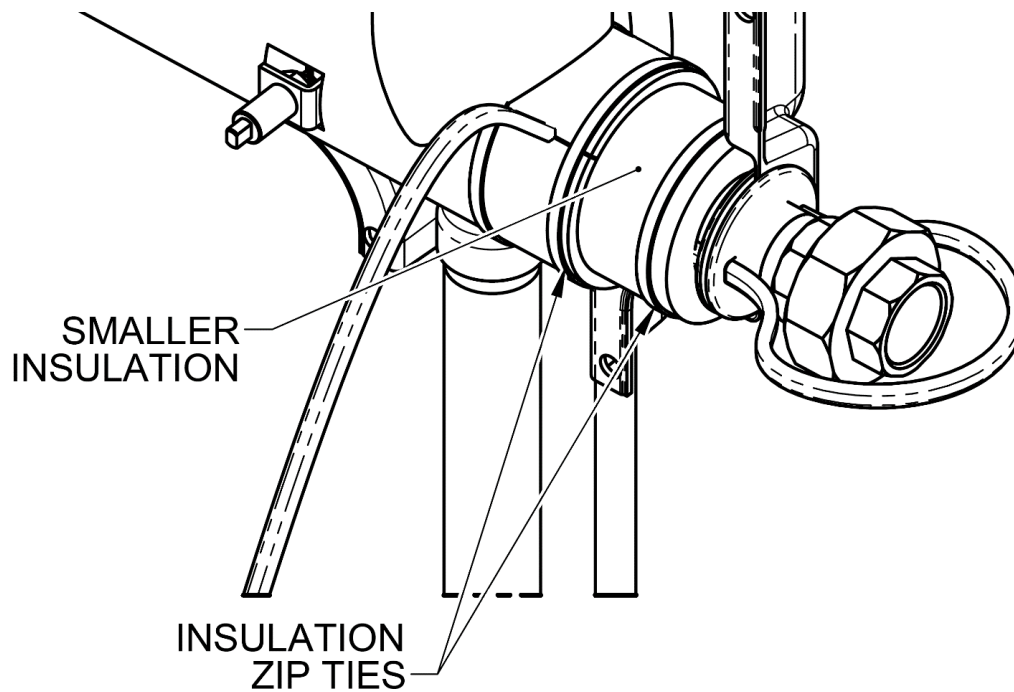
### STEP 4: Heat Trace

- a) Run the heat trace straight and level along the side of the plumbing. Make a loop around the union, roughly equal in size to the heat trace loop around the inlet plumbing above it. Run the heat trace 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 5) approximately where shown. Use more than the 2 shown if necessary. **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.



## Valve Installation (Multiple Accessories)

### STEP 1: Unboxing & Preparation

The following included components are required for this type of installation. Pertinent installation steps are included for reference.

- Plumbing grommet.....Step 2
- 1-1/4" x 1" reducer.....Step 3
- Longer 1-1/4" nipple (4-1/2" length).....Step 3
- 1-1/4" cross.....Step 3
- 3 1-1/4" close nipples.....Step 3
- 1-1/4" plug.....Step 3
- Union (optional).....Step 3
- 5 zip ties for heat trace.....Step 4
- Smaller insulation ring.....Step 5
- 4 zip ties for insulation within jacketing.....Step 5
- Larger insulation sections.....Step 5
- 2 straps and 2 heads for outer insulation.....Step 5
- Insulation disc.....Step 5
- Insulation seam tape.....Step 5

*Other necessary components will be included with the shower and with other accessory kits, as applicable.*

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

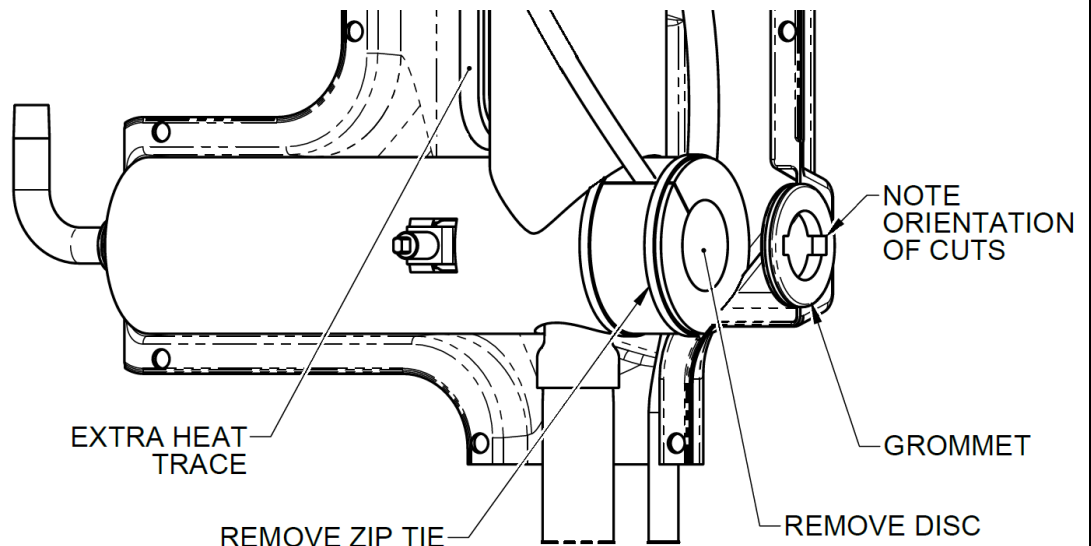
**If this assembly is to be retrofitted into a completed shower,** the right-hand section of jacketing at the level of the eyewash must be removed:

- 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

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

- 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, then the longer nipple, and then the galvanized cross to the auxiliary outlet. The nipple will run through the grommet, with the heat trace alongside it.
- c) Connect and seal the following plumbing into the cross ports. Make sure the plumbing is level.

- a. Right-side port (i.e. the side of the shower with the eyewash push flag):

Close nipple, then SP145 drench hose (point hose downward)

**- OR -**

Galvanized plug

- b. Left-side port:

Close nipple, then SP158.15 freeze valve (point drain port downward)

**- OR -**

Galvanized plug

*(Note: SP158.15 valve is also included with certain shower models)*

- c. Back port:

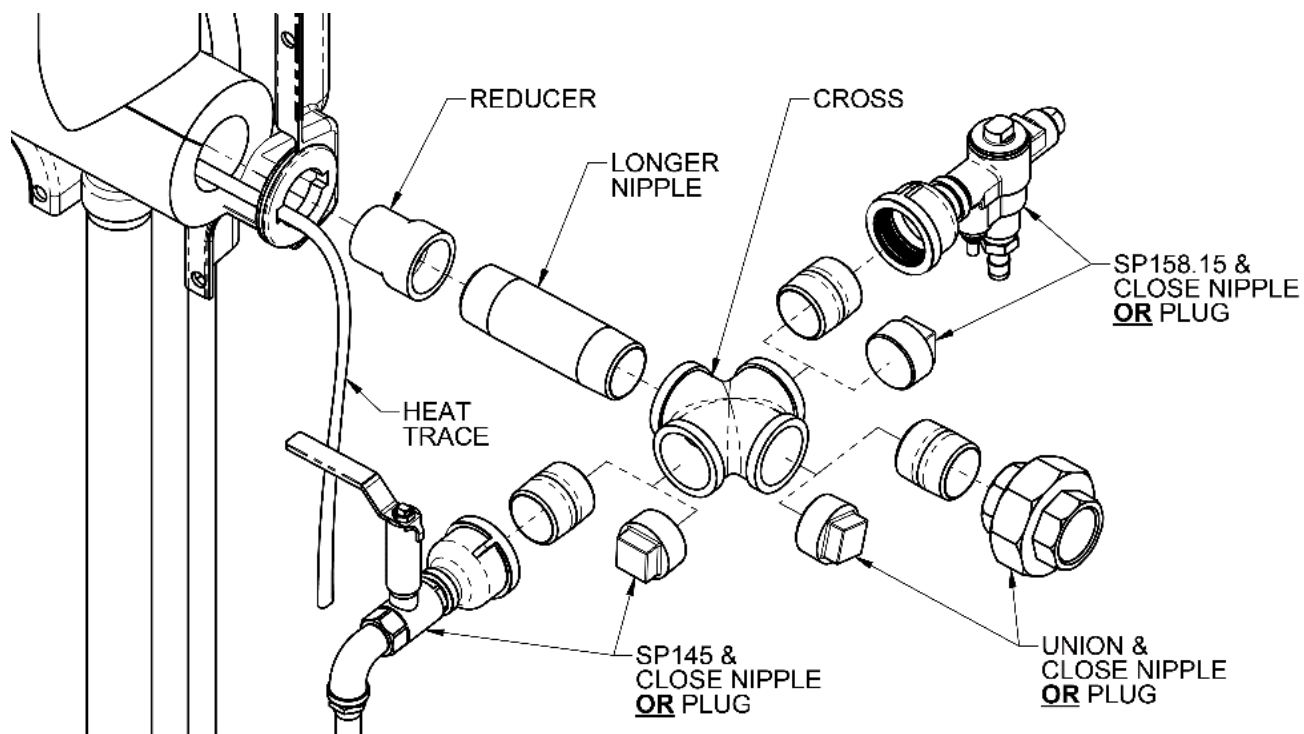
Close nipple, then union for recirc loop

**- OR -**

Galvanized plug

- d) Pressurize the system and check for leaks (if applicable, connect the union to the recirc piping).

- e) Make sure the heat trace is running smooth and flat out of the grommet, but do NOT zip tie it into place yet.



#### STEP 4: Heat Trace

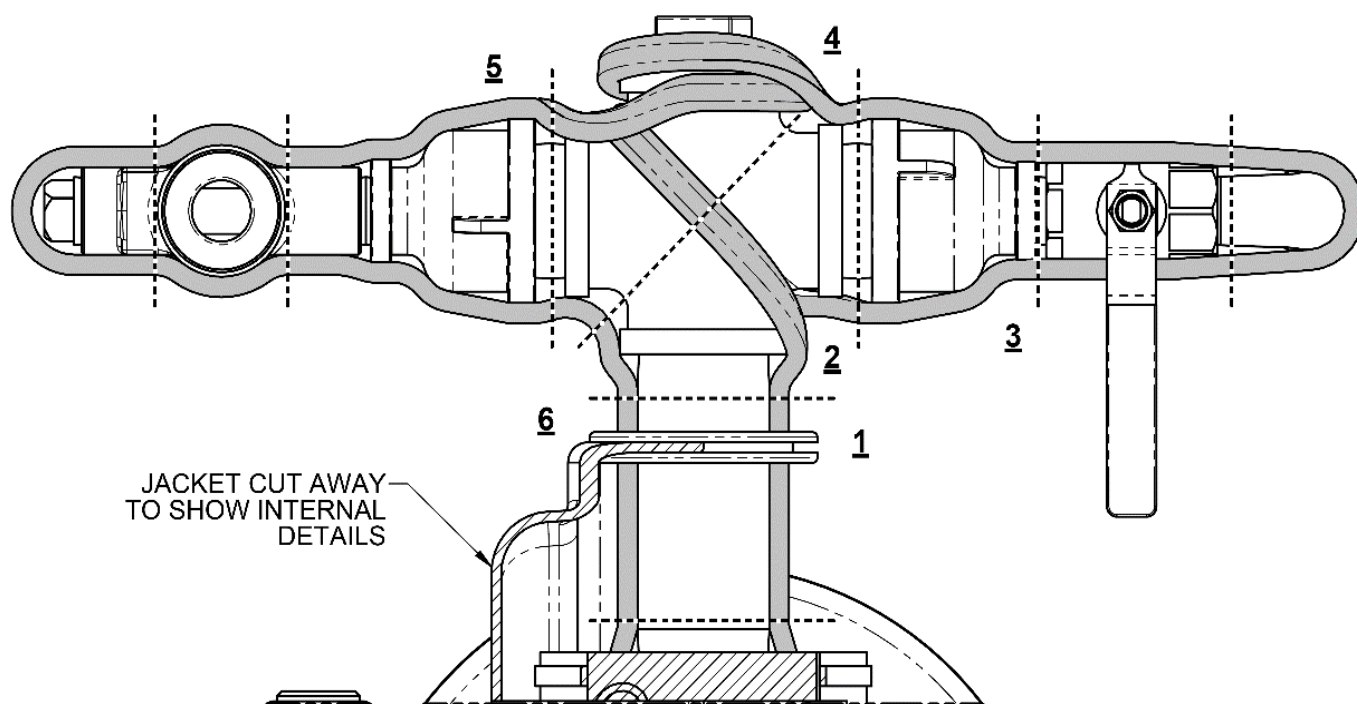
- a) The diagrams below show the heat trace layout for each plumbing configuration. Route the heat trace as shown, and install the heat trace zip ties (found in a bundle of 5, and in the other accessory models), approximately where shown by the dotted lines in the diagrams. Use more zip ties than the number shown if necessary.

**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.

- b) The free end of the heat trace must re-enter the shower jacketing through the open square cut in the grommet. Any excess heat trace must be housed 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.

#### Freeze Valve & Drench Hose:

(Top View)

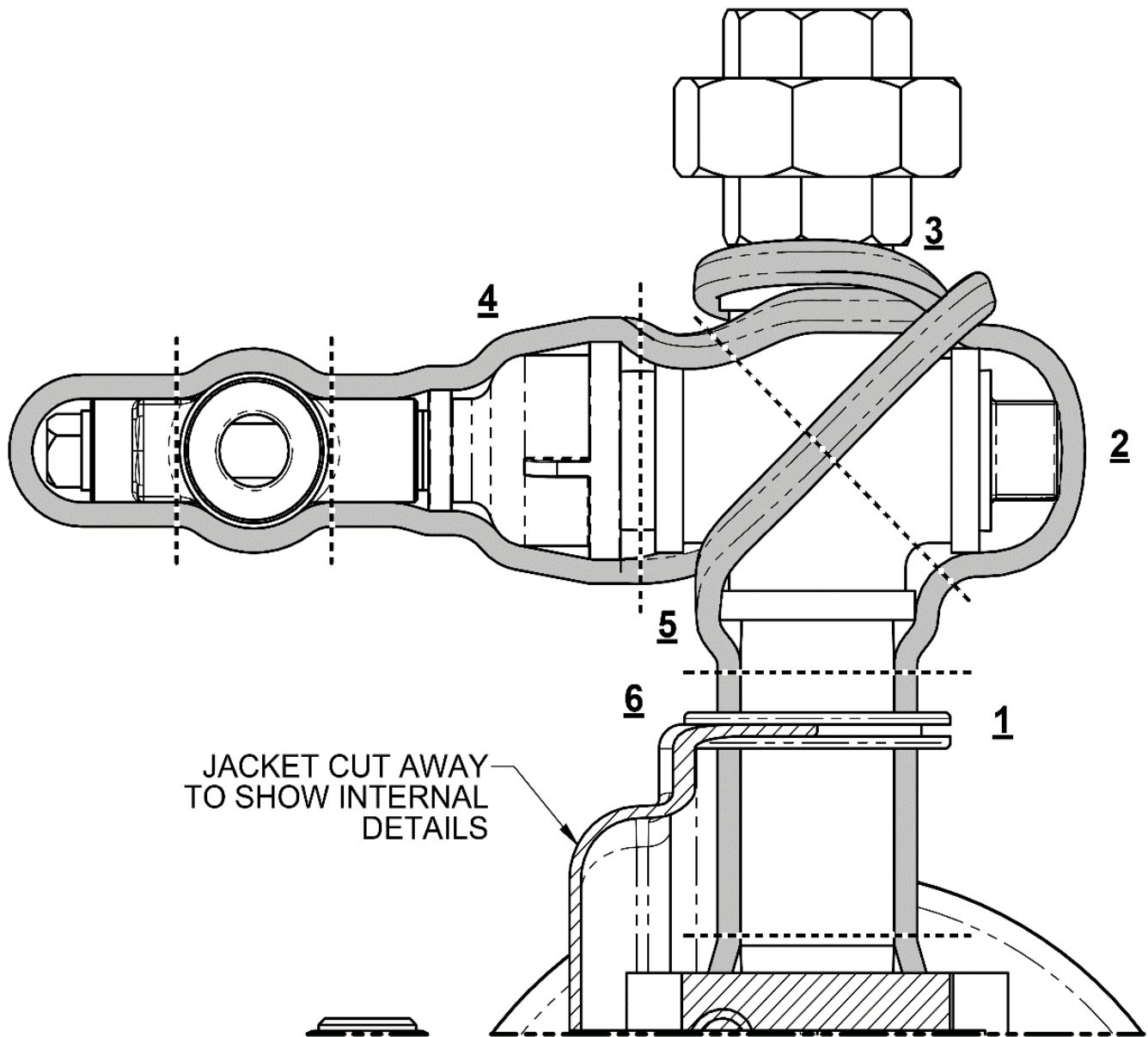


Run the heat trace as follows. Dotted lines indicate zip tie locations. Ensure maximum contact between plumbing and heat trace.

1. Along the side of the new outlet plumbing, and out the grommet.
2. Diagonally over the top of the cross, then diagonally back under.
3. Along the side of the drench hose plumbing, around the elbow, and back down the other side.
4. Over the top of the plugged union port in the cross, then fully looped around the port.
5. Along the side of the freeze valve plumbing, around the plug, and back down the other side.
6. Along the other side of the new outlet plumbing and back into the grommet.

Freeze Valve & Recirc Line:

(Top View)

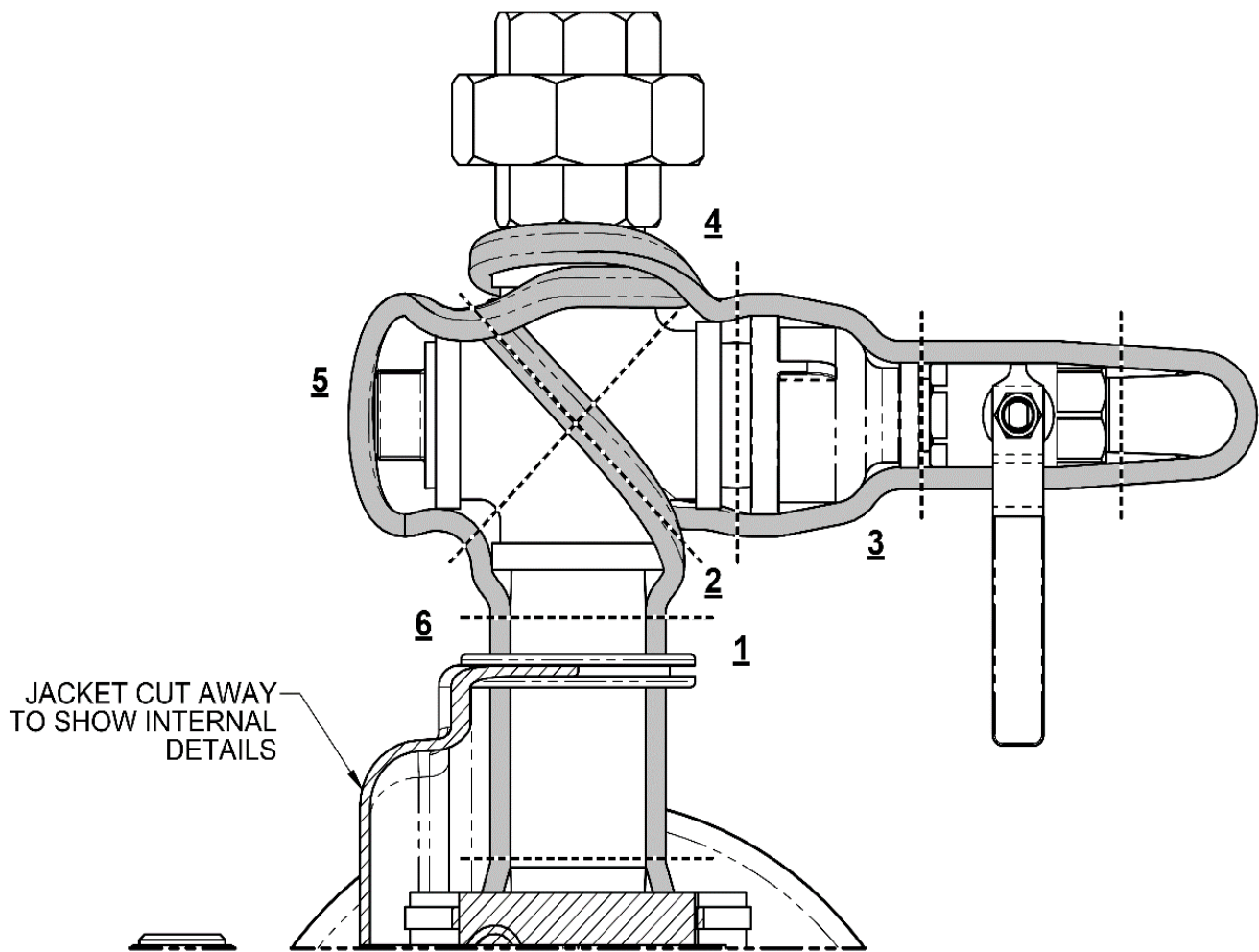


*Run the heat trace as follows. Dotted lines indicate zip tie locations. Ensure maximum contact between plumbing and heat trace.*

1. Along the side of the new outlet plumbing, and out the grommet.
2. Along the side of the plug in the drench hose port.
3. Over the top of the union port in the cross, then fully looped around the port.
4. Along the side of the freeze valve plumbing, around the plug, and back down the other side.
5. Diagonally under the bottom of the cross, then diagonally back over.
6. Along the other side of the new outlet plumbing and back into the grommet.

Drench Hose & Recirc Line:

(Top View)

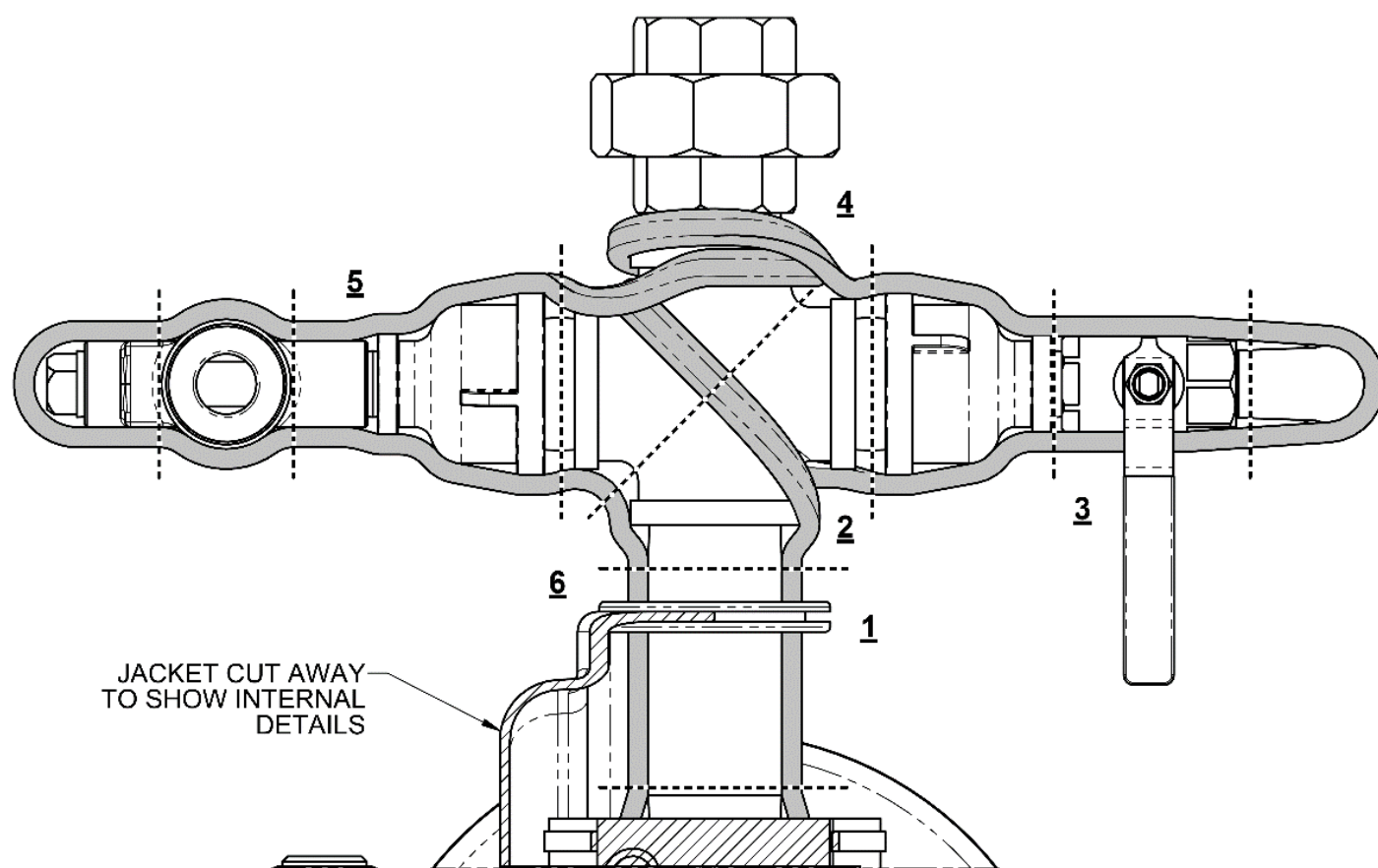


*Run the heat trace as follows. Dotted lines indicate zip tie locations. Ensure maximum contact between plumbing and heat trace.*

1. Along the side of the new outlet plumbing, and out the grommet.
2. Diagonally over the top of the cross, then diagonally back under.
3. Along the side of the SP145 plumbing, around the elbow, and back down the other side.
4. Over the top of the union port in the cross, then fully looped around the port.
5. Along the side of the plug in the freeze valve port.
6. Along the other side of the new outlet plumbing and back into the grommet.

Freeze Valve, Drench Hose, & Recirc Line:

(Top View)



*Run the heat trace as follows. Dotted lines indicate zip tie locations. Ensure maximum contact between plumbing and heat trace.*

1. Along the side of the new outlet plumbing, and out the grommet.
2. Diagonally over the top of the cross, then diagonally back under.
3. Along the side of the drench hose plumbing, around the elbow, and back down the other side.
4. Over the top of the plugged union port in the cross, then fully looped around the port.
5. Along the side of the freeze valve plumbing, around the plug, and back down the other side.
6. Along the other side of the new outlet plumbing and back into the grommet.

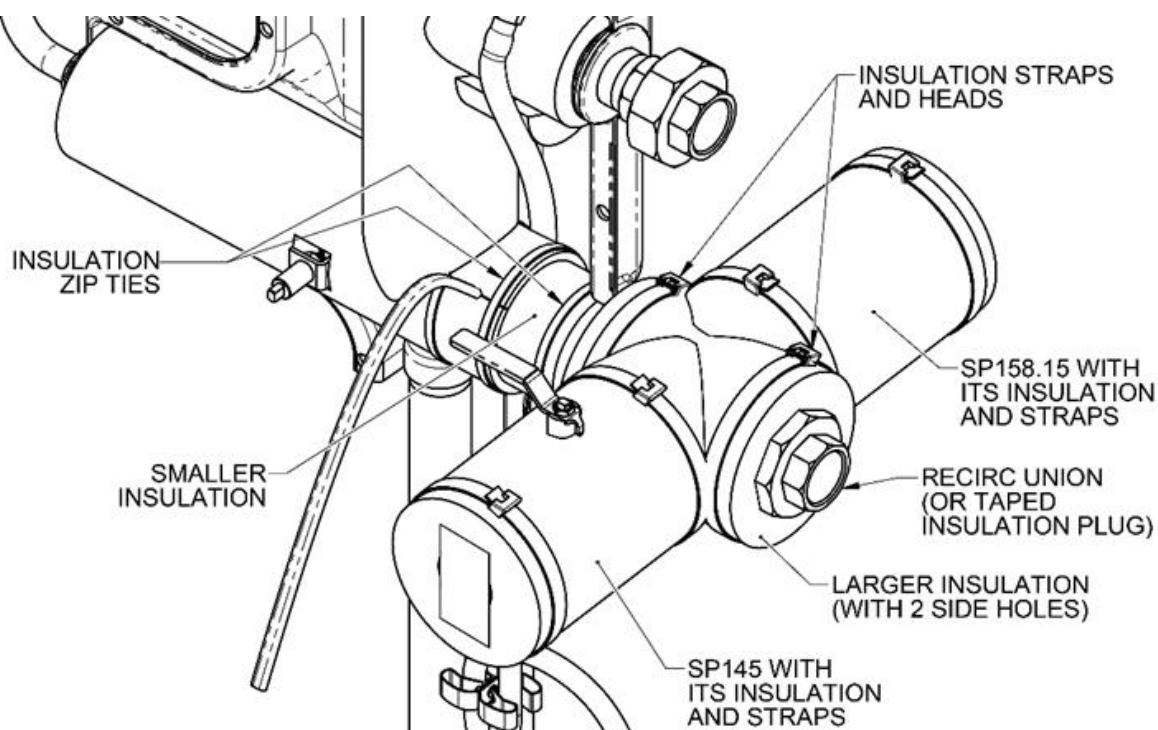
## STEP 5: Insulation & Miscellaneous

- 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) For the larger insulation outside the shower jacketing:
  - a. 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.
  - b. For the central plumbing (emerging from the back of the shower):**
    - i. Place a length of larger insulation around the central plumbing. If installing a drench hose **AND** a freeze valve, use the **piece with two side holes**. Otherwise, use the **piece with one side hole**.
    - ii. If the recirc port is plugged (i.e. no union is installed), insert the insulation disc into the open end of the new insulation. Apply the seam tape over it to hold it in place.
    - iii. Use both the integral adhesive strips on the new insulation to close it up.
    - iv. Use the insulation straps and heads on the two ends of the new insulation to further hold it in place – only tighten the straps enough to close the insulation around the plumbing (and/or insulation disc).
  - c. For the freeze valve plumbing (if present):**
    - i. Use the pertinent freeze valve components included with the shower or with the SP158.15 kit: larger diameter insulation, insulation disc, seam tape, straps, and heads.
    - ii. Place the insulation over the freeze valve, noting the opening for the barbed drain connection.
    - iii. Insert the insulation disc into the open end of the new insulation. Apply the seam tape over it to hold it in place.
    - iv. Use both the integral adhesive strips on the new insulation to close it up.
    - v. Use the insulation straps and heads on the two ends of the new insulation to further hold it in place – only tighten the straps enough to close the insulation around the plumbing (and insulation disc).
    - vi. If desired, connect the valve drain to a drain line.
  - d. For the drench hose plumbing (if present):**
    - i. Use the pertinent insulation components included with the SP145 kit: larger diameter insulation, insulation disc, seam tape, straps & heads, hose clips, screw, and nut.
    - ii. Place the insulation over the drench hose assembly, noting the opening for the hose.
    - iii. Insert the insulation disc into the open end of the new insulation. Apply the seam tape over it to hold it in place.
    - iv. Use both the integral adhesive strips on the new insulation to close it up.
    - v. Use the insulation straps and heads on the two ends of the new insulation to further hold it in place – only tighten the straps enough to close the insulation around the plumbing (and insulation disc).
    - vi. Assemble the two hose clips back-to-back with the screw and nut. Loop the hose and use this clip assembly to hold the hose to itself in a convenient position.

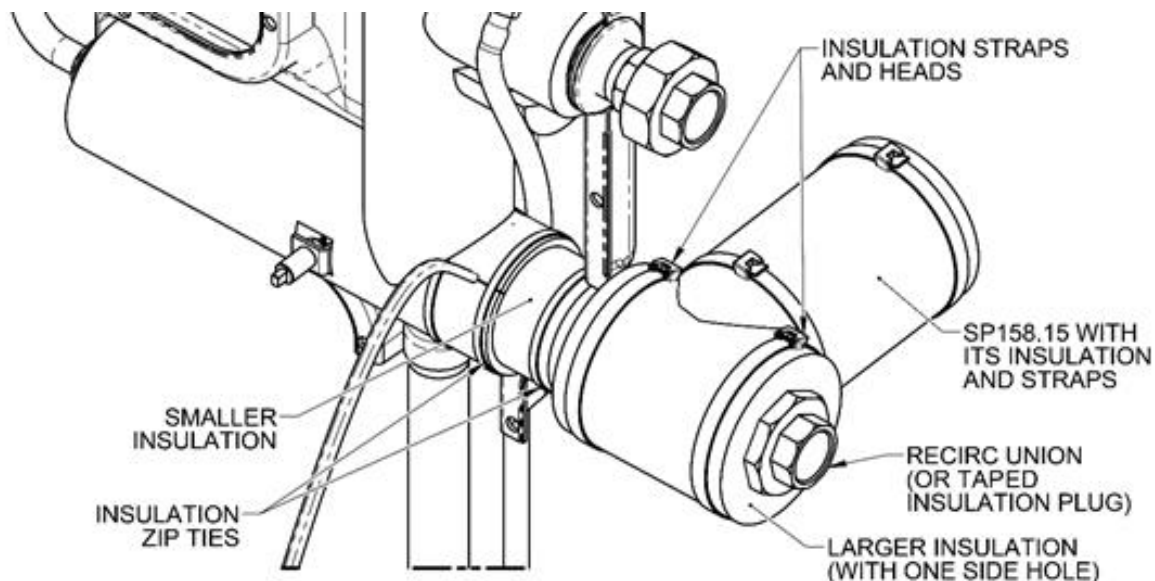
**WARNING:** Do not allow water to pool in the bottom of the hose loop, where it can freeze and block flow.

*See example illustrations on the following page.*

**Freeze valve, drench hose, & recirc plumbing:**



**Freeze valve & recirc plumbing only:**



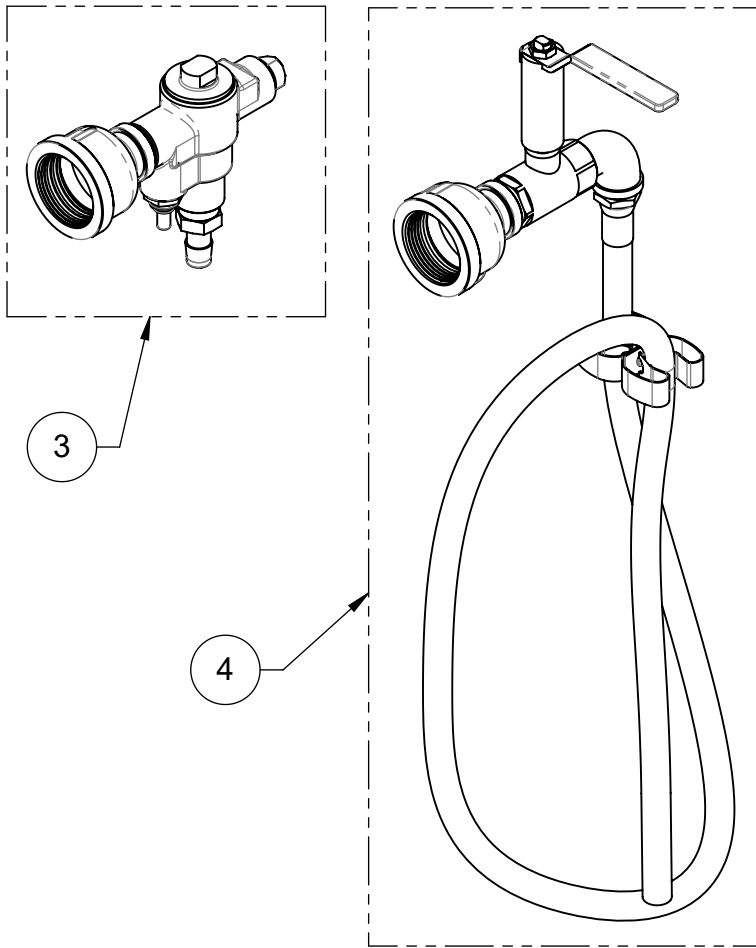
**TROUBLESHOOTING PROCEDURE**

**PROBLEM CONDITION**

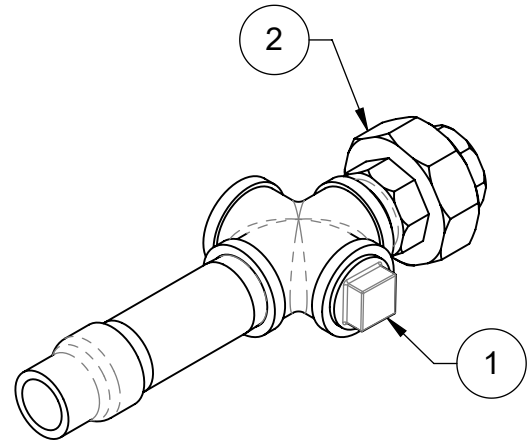
**REPAIR CHECKLIST**

- |                                      |    |                                       |
|--------------------------------------|----|---------------------------------------|
| 1. Issue with freeze valve assembly. | a. | Consult the SP158.15 or 8315CTFP O&M. |
| 2. Issue with drench hose assembly.  | a. | Consult the SP145 O&M.                |

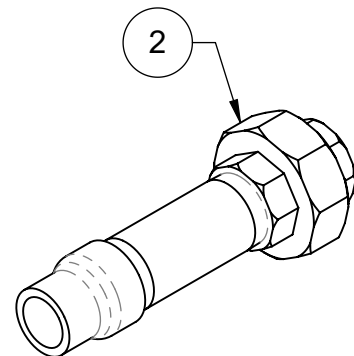
ITEM	DESCRIPTION	PART NO.
1	1-1/4" GALVANIZED PLUG	0004597985
2	1-1/4" GALVANIZED UNION	0006191712
3	FREEZE VALVE ASSEMBLY (SOLD SEPARATELY)	SP158.15
4	DRENCH HOSE ASSEMBLY (SOLD SEPARATELY)	SP145




**ACCESSORIES THAT MAY BE  
USED IN CONJUNCTION**  
(SOLD SEPARATELY)



**ASSEMBLED PLUMBING FOR  
MULTIPLE ACCESSORIES**



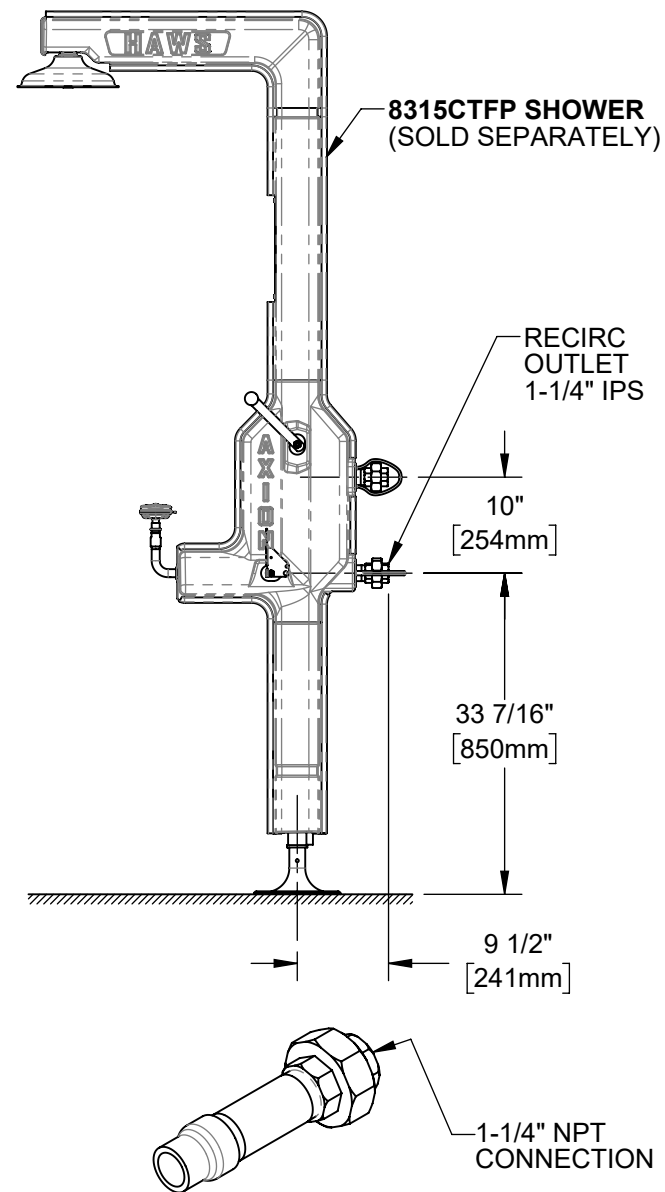
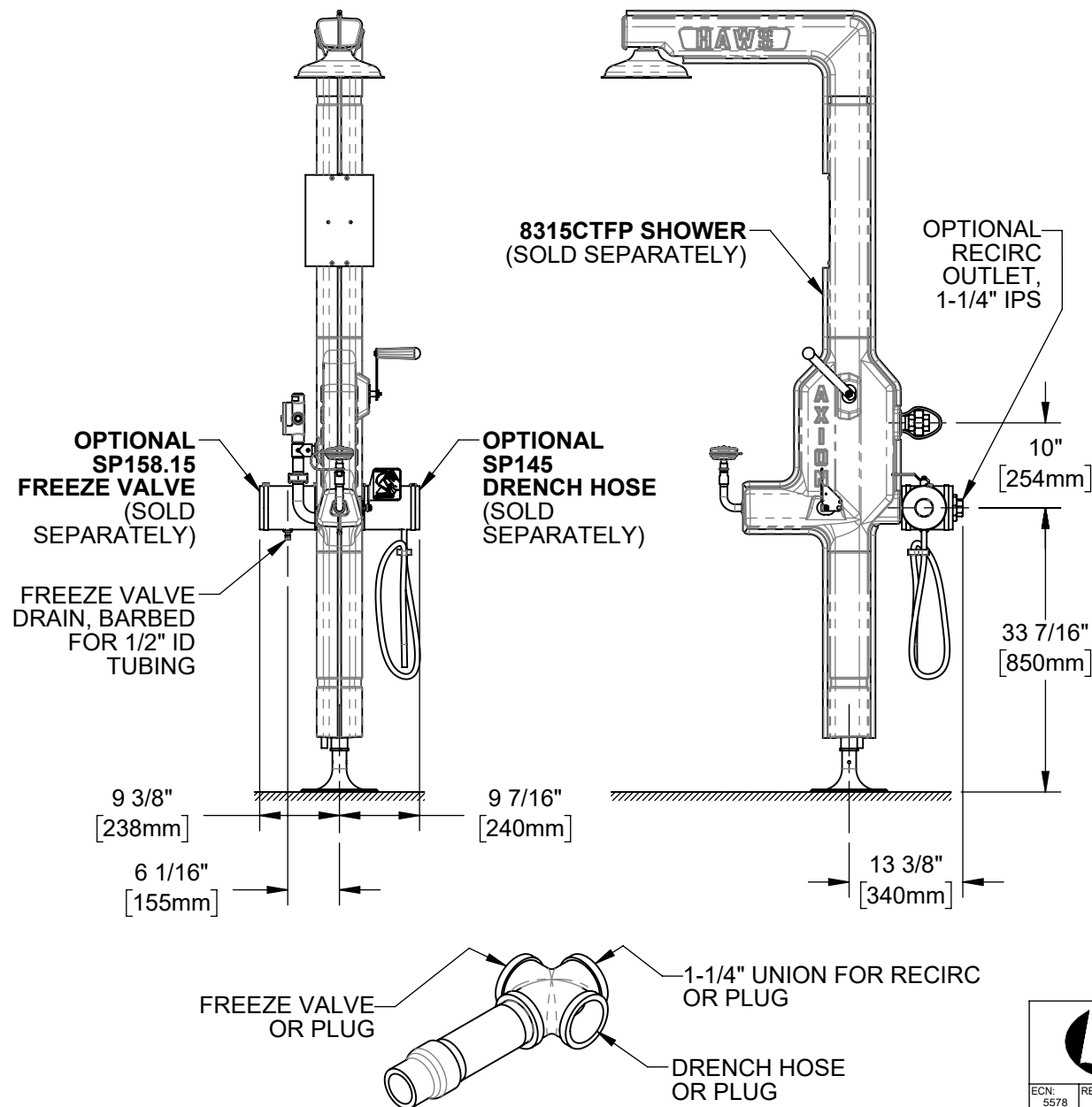
**ASSEMBLED PLUMBING FOR  
RECIRC LOOP**

				1455 KLEPPE LANE SPARKS, NEVADA 89431 (775) 359-4712 FAX (775) 359-7424 E-MAIL: HAWS@HAWS.CO.COM WEBSITE: WWW.HAWS.CO.COM			
ECN: 5578	REV. ECN:	BY: JL	MODEL(S)	PART NUMBER	0510001071		
DRAWN: JL	DATE: 09/17/20	CHKD: BJM	SP121 - AUXILIARY PLUMBING MODEL	REVISION	2		
APPROVED: JL	DATE: 04/19/21	SCALE: 1:4	DRAWING TYPE: PARTS BREAKDOWN	SIZE: A	SHEET 1 OF 1		

WHEN ORDERING PARTS, PLEASE  
SPECIFY PART NUMBER

# NOTES:

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



## PLUMBING FOR RECIRC LOOP ONLY



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

ECN: 5578	REV. ECN: 5661	BY: JL	MODEL(S)	PART NUMBER
DRAWN: JL	DATE: 09/17/20	CHKD: BJM	SP121 - AUXILIARY PLUMBING MODEL	0510001071.D
APPROVED: JL	DATE: 04/19/21	SCALE: N/A	DRAWING TYPE: INSTALLATION	REVISION 2
			SIZE: A	SHEET 1 OF 1

## PLUMBING FOR MULTIPLE ACCESSORIES - ALL OPTIONS SHOWN