

Installation

S19372

Enclosed Indoor Safety Shower with Tepid Water Inlet

General Area, Class I Division 2 & Class I Division 1

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WARNING

Do not use this safety equipment in a location that does not match its hazardous location rating. Verify the appropriate ratings prior to installation.

When making electrical connections be sure to follow all lockout–tagout safety procedures.

CAUTION

Supply the shower unit with clean, potable water.

Perform regular checks of the shower and facewash fixtures for clogged debris and clean if necessary.

NOTICE

It is recommended that all water supply and electrical connections be made at temperatures above freezing. Failure to do so may result in major product and/or property damage.

Constant power supply to safety equipment is necessary for it to function.

Avoid cleaners containing organic solvents, alcohols and hydrocarbons. Rinse with potable water after cleaning.

IMPORTANT

Read this installation manual completely to ensure proper installation, then file it with the owner or maintenance department. Compliance and conformity to drain requirements and other local codes and ordinances is the responsibility of the installer.

Separate parts from packaging and make sure all parts are accounted for before discarding any packaging material. If any parts are missing, do not begin installation until you obtain the missing parts.

Installation and maintenance of this system must be completed by a qualified plumber and electrician according to the information contained in this installation manual and in compliance with all national and local codes.

Weekly activation must be conducted on all plumbed emergency equipment to ensure a suitable flushing fluid supply is present and any sediment build up in the supply line is cleared. Inspect safety equipment monthly to address any maintenance issues ensuring the equipment is in good operating condition and that there are no signs of wear.

Perform functional test upon relocation of safety equipment.

The installation and location of all safety drench showers, eye and eye/face washes must comply with the requirements of ANSI/ISEA Z358.1.

Workers who may come in contact with potentially hazardous materials should be trained regarding the placement and proper operation of emergency equipment per ANSI/ISEA Z358.1.

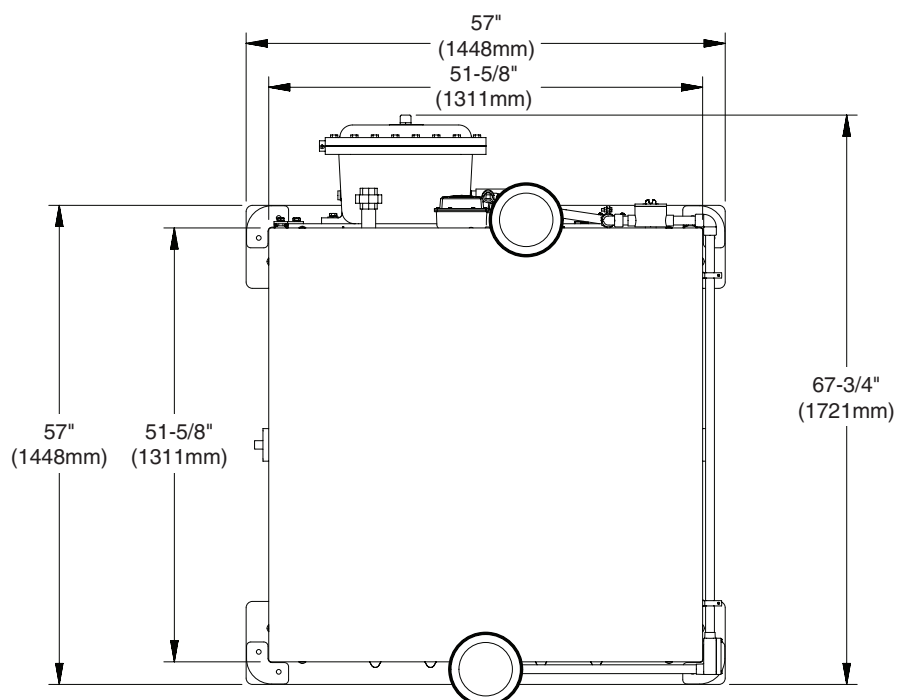
For questions regarding the operation, installation or maintenance of this product, visit bradleycorp.com or call 800.BRADLEY (800.272.3539).

Product warranties and parts information may also be found under "Products" on our web site at bradleycorp.com.

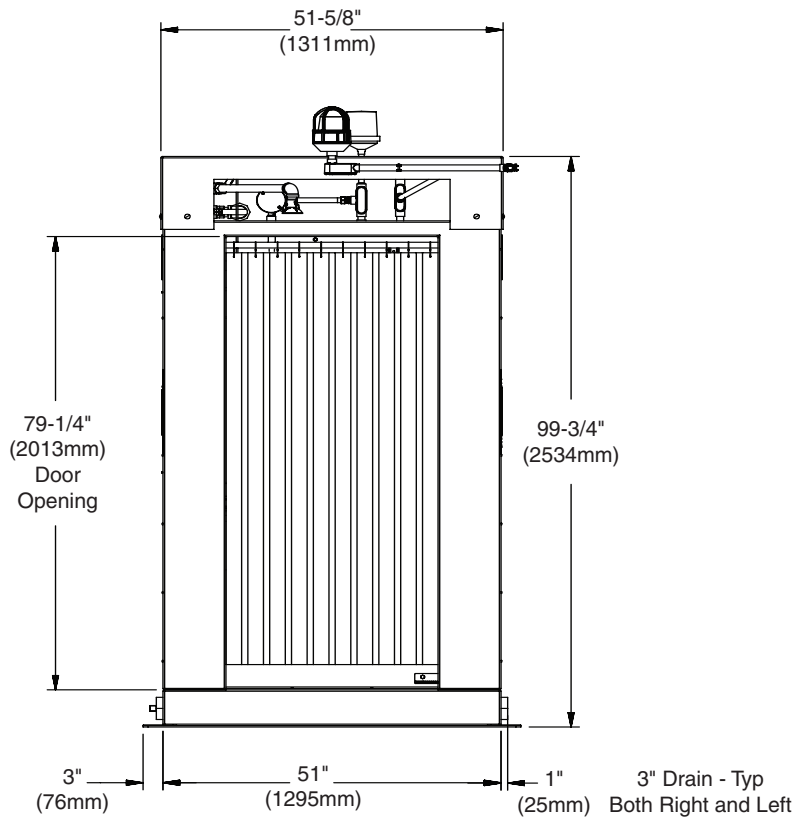
Dimensions

(mm)

Top View



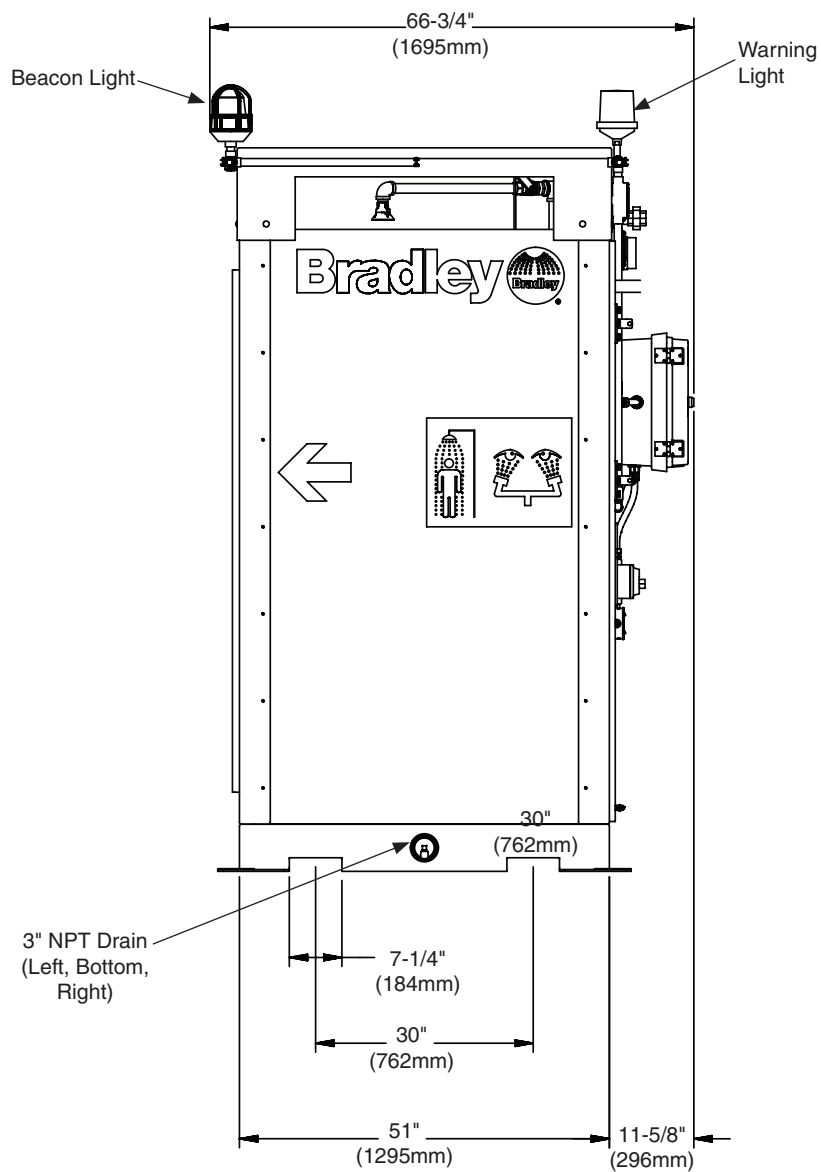
Front View



Dimensions

(mm)

Side View



Shipping and Handling Instructions

Base Model No.	Description	Approximate Weight (less shipping skid)
S19372	Enclosed Indoor Safety Shower with Tepid Water Inlet	850 lbs.*

*Weight will vary depending on options selected.

Transporting the Enclosed Safety Shower



Bradley Enclosed Safety Showers are transported within the continental United States and Canada via commercial truck.

NOTICE! *Use caution when transporting, and always use proper lifting techniques. Weight distribution is unbalanced and the product is susceptible to tipping which will result in damage to the product.*

NOTICE! *Check load ratings on equipment intended to be used to transport the enclosure. Standard safety procedures for forklift transport of larger than 2000 pounds should be followed at all times.*

- **Bottom Lift:** Locate lifting points at base of shelter. During transit, transport close to the ground. Use all standard safety measures and precautions prior to and during transit.
- **Top Lift:** Locate the roof lugs. Spreader bars must be used to avoid crushing the system components. Spreader bars must provide 0° vertical angle on the lift lugs for maximum weight load capability.
- If immediate destination of the unit is storage, refer to the Storage and Preservation Guide.



Each shower will be accompanied by document packaging that includes the installation instructions and electrical schematics, if applicable. Store safety enclosure documents for reference.

Enclosed Safety Shower Preconstruction Guide

Thank you for your business. The purpose of Bradley's Enclosed Safety Shower preconstruction guide is to provide important pre-installation information to the customer that has determined their product specification needs are met by an Enclosed Safety Shower configuration. For system details refer to Bradley's Product Technical Data sheets. If additional information is still required contact the Bradley Corporation Technical Service Department.

Technical Documents Available:

- Product Technical Data Sheets
- Storage and Preservation Guide
- Installation Instructions
- Enclosed Safety Shower Preconstruction Guide

Recommended Equipment, Materials and Supplies to be provided by Installer:

- Concrete slab rated to support a minimum 6000 psi load requirement
- (8) 3/8" diameter Anti-Corrosion Expansion Anchors (2 per mounting plate)
- Properly rated lifting equipment which exceeds the total weight of the shower unit
- Electrical Supply Materials (if applicable)
- Plumbing Supply Materials (if applicable)
- Installer must supply freeze protection equipment for the water supply leading up to the enclosure (if applicable)

⚠ WARNING DO NOT energize shower without first following all instructions in Steps 2 thru 6. Connections should be performed by a certified electrician and plumber only.

Pre-installation Instructions:



All practices are based on local codes and standards. Local codes and standards apply to all steps in the installation instructions.

- Contact the authority having jurisdiction over local codes and ordinances regarding the disposal of waste water prior to installation.
- Contact the authority having jurisdiction over local codes and ordinances regarding the plumbing and electrical codes prior to installation.
- Survey the facility to ensure that the appropriate flushing system is installed per the ANSI/ISEA Z358.1 requirements. Identify a location that is capable of delivering a supply of water and power which will meet system plumbing and electrical requirements.
- Minimum water PSI requirements can be found on the technical data sheets.
- Review minimum electrical requirements based on the unit and options selected. Refer to wiring schematic or system rating labels provided with unit.
- Confirm that the installation area is a level plane.
- If concrete is not already present, pour a 6000 psi-rated concrete pad 5' x 5'.
- Make allowances to ensure the enclosure is grounded prior to connecting power to the enclosure.
- Emergency eyewash fixtures and drench showers must be visually inspected on a weekly basis to ensure they are ready for use.

Storage and Preservation Guide



Keep Bradley Enclosed Safety Shower stored in original packaging until installation.

Recommended Storage Criteria

- Store Bradley Enclosed Safety Shower where temperatures are above 35°F (5°C) at all times.
- Indoor storage is recommended.
- Minimize excessive transportation around a job site to reduce risk of damage.

Alternate Storage

If the Bradley Enclosed Safety Shower is stored in an outdoor environment, care should be taken to protect the Enclosed Safety Shower from rain or other falling precipitation via tarp or other waterproof material or runoff and accumulation of ground water from any source that may exceed 3" depth.

1 Secure Enclosure to Pad

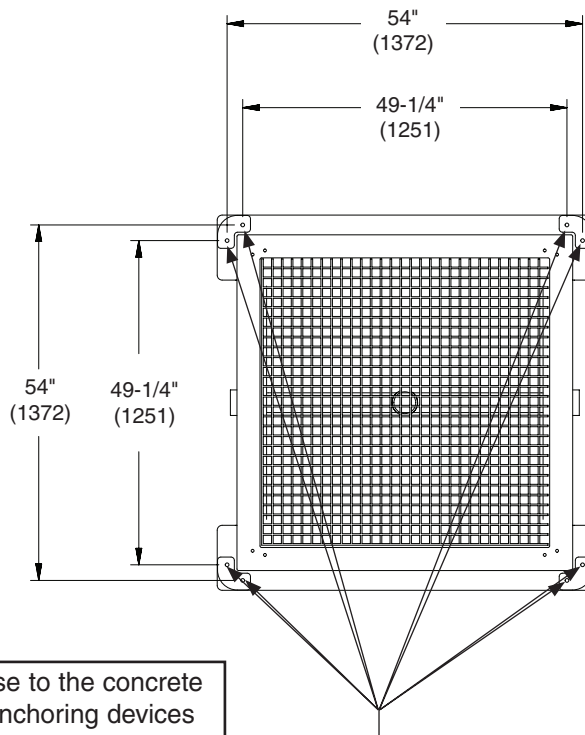
A

Place the enclosure in position on the resting pad, centering the unit on the concrete resting pad.



All practices are based on local codes and standards. Local codes and standards apply to all steps in the installation instructions.

NOTICE! Install anchors per manufacturer's recommendations and local codes and ordinances.



B

Secure the enclosure base to the concrete using suitable concrete anchoring devices supplied by installer. Anchoring devices must be a minimum 3½" long x 3/8" diameter.

2 Prepare Enclosure



*Some steps apply to optional components.
Review and follow if applicable.*

- ⚠ WARNING** To prevent personal injury or damage to the components, follow all manufacturer's warnings and instructions when performing any maintenance or installation of components used in this enclosed safety shower.
- ⚠ WARNING** To prevent personal injury and electrical system failure, **DO NOT** energize electrical power (if applicable) prior to priming the water in the system.
- ⚠ WARNING** To prevent personal injury and damage to the unit, the installer may need to provide adequate support for the supply piping.

A

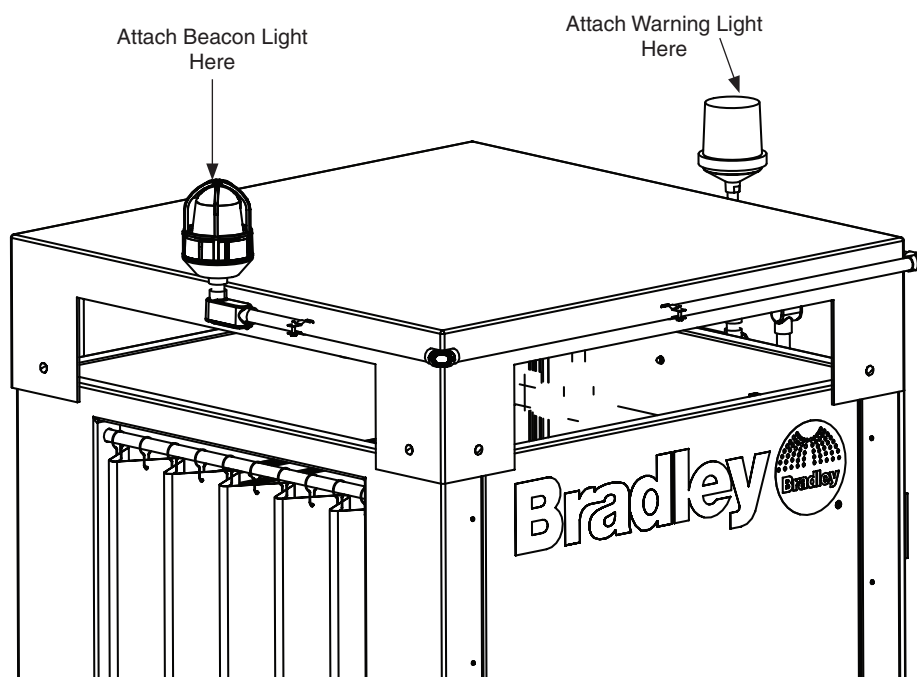
If applicable, locate the components attached to the combination shower inside of the enclosure. Remove the warning and beacon lights from the protective wrap.

B

If shipped loose, securely tighten the exterior lights to the conduit near the roof and make the electrical connections.

C

Remove zip tie holding drench shower handle to vertical shower pipe, hang handle from the shower's ball valve handle and close the drench shower valve by pushing upward.



3 Electrical Connections



Some steps apply to optional components.
Review and follow if applicable.

⚠ WARNING To prevent personal injury and damage to the components, surge protection is recommended.

⚠ WARNING To prevent personal injury and damage to the components, follow all manufacturer's warnings and instructions when performing any maintenance or installation of components used in this enclosed safety shower.

⚠ WARNING To prevent personal injury or damage to the components, make sure electrical disconnect is in the OFF position.

⚠ WARNING To prevent personal injury and damage to components, DO NOT touch the circuit board or the bulb inside the light. Do not disassemble the light.

NOTICE! To prevent damage to the electronics or internal wiring, do not perform any brazing or sweat soldering inside the enclosure box.



Install system according to national and local electrical codes. Follow all lockout/tagout procedures when performing any electrical maintenance to the system.

A

Verify that disconnect switch is in the OFF position.

B

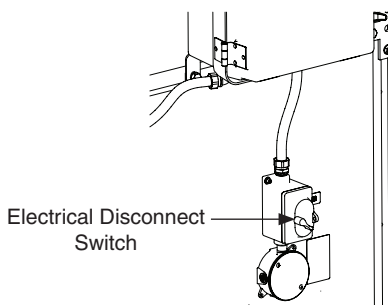
Install the 3/4" conduit for the incoming power into the junction box attached to the disconnect switch.

C

Route the electrical supply wires to the wire leads leading from the disconnect switch, including the neutral wire if applicable. Refer to the system's electrical wiring schematic drawings included in the document package for proper conductor size and maximum electrical protection.

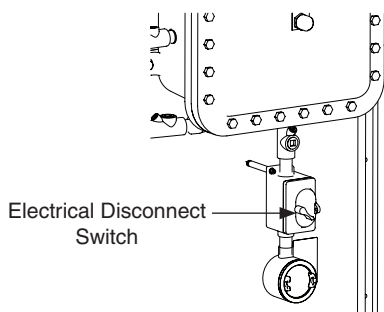
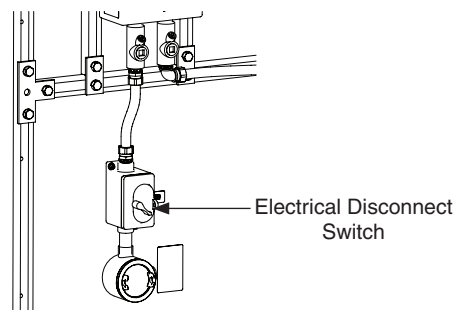
D

Close the junction box and/or disconnect switch box, but DO NOT energize.



S19372 General Area


S19372 Class I Division 2



S19372 Class I Division 1

4 Connect Water Supply

A Select desired drain position and connect to 3" PCV stub. Ensure remaining 2 drain holes are plugged.

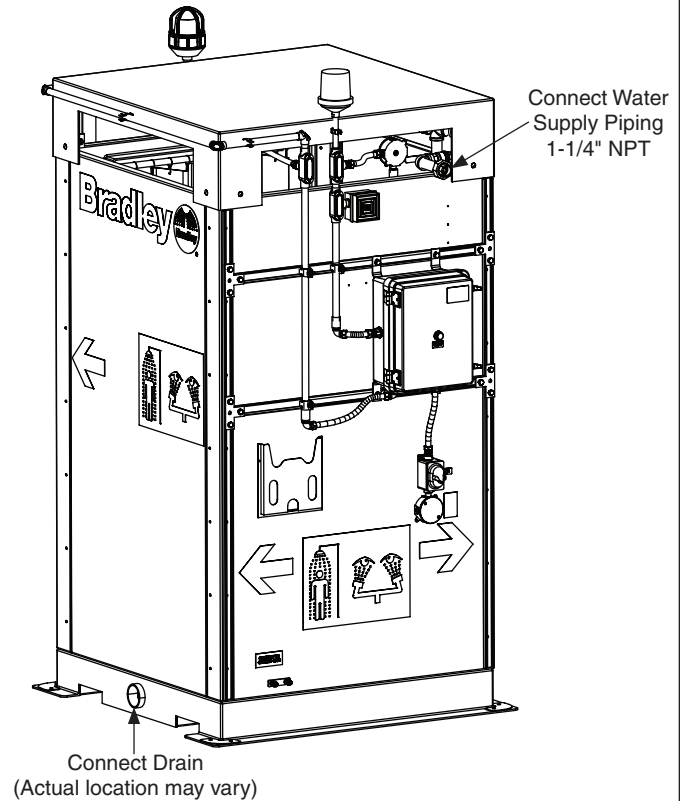
 *Drain must be able to accommodate 35 gpm discharge for shower, eyewash and drench hose waste.*

B Apply pipe sealant or Teflon tape to seal all pipe and fitting connections. Use care to avoid excess pipe sealant or Teflon tape, which may enter the plumbing system. Ensure all fitting connections are properly secured.

C Connect water supply with a minimum of 1-1/4" NPT water supply piping to the enclosure (piping by installer).

D After the connections have been made, flush water through the system using the drench shower, eyewash and drench hose. Flushing water through the system removes impurities and air from the system.

E After the flush is completed, turn off the emergency fixture. Check for leaks at all connections throughout the system.



5 Energizing the Unit



Some steps apply to optional components. Review and follow if applicable.

A

Verify that all water and electrical connections have been properly made. Verify that the water supply is ON.

⚠ CAUTION Before turning on the power, close the electrical disconnect box.

B

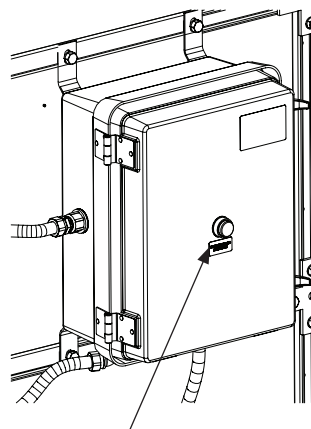
Turn on the power at the electrical disconnect switch. Horn and warning light will activate when system is energized.

C

Press the horn silence and reset button on the electrical box at the back of the unit.

D

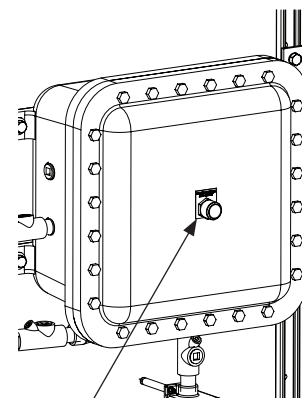
Complete first Weekly Activation Checklist (included in this manual) at this time.



**S19372
General Area
&
Class I Division 2**

Horn Silence and
Reset Button

S19372 Class I Division 1



Horn Silence and
Reset Button

6 Pouring Required Seals (Class I, Division 1 & 2 Only)



In units that are designed for hazardous locations, conduit seal fittings may be identified by numbered tags.

A

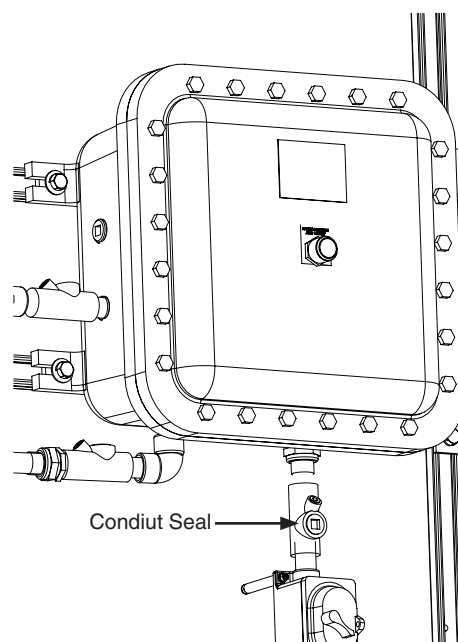
De-energize and lock out the electrical system.

B

Add an approved sealant to all conduit seal fittings per manufacturer's instructions and local codes and standards. The numbered tags may be removed after all fittings are sealed.

C

Re-energize system and put into service.



Conduit Seal

S19372 Enclosed Safety Shower Start-up Checklist (some items refer to optional selections)		Complete OK	Inspector Initials
System Flush (All Electrical Power off for System Flush)			
• Drain is attached and operational.			
• Drench hose is positioned and prepared for system flush.			
• System water supply is connected and all water supply valves opened.			
• System has been flushed using the emergency fixture.			
• Water is clear and free of any contamination, particles or discoloration.			
• Unlock drench hose and shut off.			
• Check all system fittings for water leaks.			
Bradley drench shower, eyewash and drench hose activation checklist			
• The horn and warning lights have been activated when the shower and/or eyewash are running.			
• The alarm silences and the warning light continues to flash when the horn silence button is depressed (outside the enclosure).			
• All system fittings have been checked for water leaks.			
• The water temperature at the drench shower, eyewash and drench hose is tepid (per ANSI/ISEA Z358.1).			
• The proper spray pattern is maintained for the drench shower, eyewash and drench hose for the duration of the test.			
• The correct drain disposal rate is being maintained (no pooling of water above grate level).			
• Remote Signal Option – the signal is functional at the remote sensing location.			
Bradley drench shower, eyewash and drench hose deactivation checklist			
• After the shower, eyewash and drench hose are all turned off, the warning light is turned off and the system is reset when the horn silence button is depressed for the second time.			
• Remote Signal Option – remote sensing location signal is off.			
Verify other enclosure system checks			
• The interior light is always on.			
• The shelter and the control panel are not damaged (no cracks, voids, holes or other functional or structural issues).			
• The certification and serial number labels are present.			
S19372 Enclosed Outdoor Safety Shower with Tepid Water Inlet System Start-up and Test Checklist Completion & Approval			
System Serial Number:			
Inspection Date:			
Inspector Signature:			

Weekly Inspection Checklist

Survey the facility to ensure that the appropriate flushing system is installed per the ANSI/ISEA Z358.1 requirement.



Safety Data sheets can help determine what flushing system is appropriate for your hazards.

S19372 Enclosed Outdoor Safety Shower Weekly Inspection Checklist		Complete OK	Inspector Initials
Visually inspect lights.			
• Power disconnect switch is in the "ON" position.			
• Beacon light is "steady on."			
Activate and inspect all eyewashes, drench showers and drench hose systems to ensure they are compliant and operational in case of an emergency.			
• Replace any broken or missing parts immediately.			
• Remove any obstructions or trip hazards			
• Ensure the system is on the same plane as the hazard.			
• Protect equipment against freezing. If a freeze protection valve is attached to bleed off cold water, be sure to allow this water to freely drain from the system as it may be a slip hazard.			
• Evaluate if the user should be protected against scalding water. If a scald protection valve is attached to bleed off hot water, be sure to allow this water to freely drain from the system as it may be a slip or scald hazard.			
• Use a Bradley drench shower tester with a bucket to contain the water released from the drench shower. Measure the water released from the shower to ensure it complies with the 20 gpm ANSI minimum flow requirements.			
• Test the shower's water temperature after a brief run time to ensure it is tepid per ANSI/ISEA Z358.1.			
• Turn OFF all water fixtures (shower, eyewash and drench hose). Press the silence button to reset the system.			
Document inspection on the unit's inspection tag and in any centrally-controlled documentation log.			

Performing Preventive Maintenance

For your system to work properly and have protection from freezing, keep the system dry inside the enclosure. Moisture inside an enclosure increases the humidity, which condenses on cooler surfaces of the enclosure. This can cause electrical problems and reduces the efficiency of enclosure insulation.

Troubleshooting

Should damage occur to the shelter, it is recommended to contact the factory for repair instructions. Cleaning should be conducted using rinse down water, DO NOT USE STEAM TO CLEAN.

Problem	Cause	Solution
Low water flow at drench shower and/or eyewash	Insufficient pressure.	Check pressure.
	Undersized supply piping or water pressure.	Increase pressure/pipe size.
	Debris in system.	Clean out Y-strainers. Disassemble the showerhead, clean and reassemble. Unscrew the eyewash heads from the yoke, clean and reassemble. If still clogged, replace the heads.
Freeze-protection valve is flowing water	The freeze valve is supposed to release water if its temperature is below 40°F (4°C).	Make adjustments to supply tepid water (60-100°F (16-37°C)) to the unit.
	Defective freeze valve if the water temperature from the valve is above 45°F (7°C).	Remove the freeze valve and flush any debris. Replace the freeze valve if needed.
	Water supply is too cold.	Make sure the unit is supplied with tepid water.
Scald-protection valve is flowing water	The scald valve is supposed to release water if its temperature is above 105°F (40°C) and will continue until the water drops below 95°F (35°C).	Make adjustments to supply tepid water (60-100°F (16-37°C)) to the unit.
	Defective scald valve if the water temperature from the valve is below 90°F (32°C).	Remove the scald valve and flush any debris. Replace the scald valve if needed.
	Direct sunlight or high ambient temperature.	Cool the unit.