

# Installation

**S19-300T (top supply)**

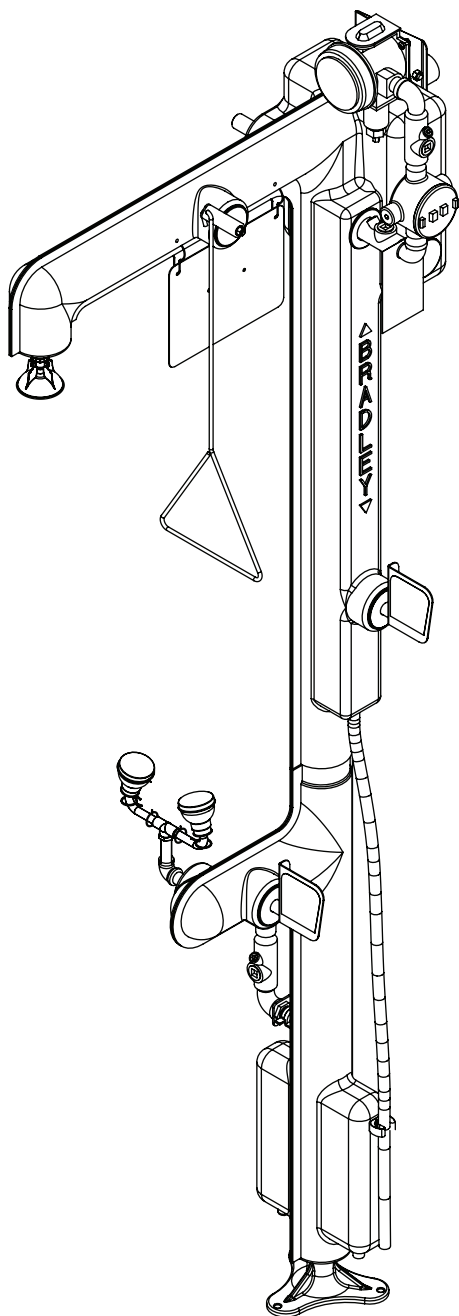
**S19-300B (bottom supply)**

**Heat Trace Combination Drench  
Shower and Eyewash Unit Class 1,  
Div. 1, Groups C & D**

**(includes 120 V and 220/240 V  
versions)**

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## **WARNING**

Flush the water supply lines before beginning installation and after installation is complete. Test the unit for leaks and adequate water flow.

Main water supply to the unit should be "ON" at all times unless system is being serviced. Provisions shall be made to prevent unauthorized shutoff.

Power supplied to the unit should be 120VAC or 220-240VAC, 50-60 Hz, 15 amp branch circuit with a dedicated circuit breaker or fuse and should not supply power to any other device. Compliance and conformity to local codes and ordinances is the responsibility of the installer.

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**

Emergency equipment must be supplied with tepid water (60-100°F/15.6-37.8°C). Any prolonged exposure to near freezing water affects the body's ability to maintain body temperature, increasing the risk of hypothermia.

The unit must be supplied with clean, potable water.

## **NOTICE**

Before installing this product ensure that there are adequate clearances around the product and activation of the product does not interfere with other products or obstructions.

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 the safety equipment is necessary for it to function.

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

## IMPORTANT

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

Read this installation manual completely to ensure proper installation, then file it with the owner or maintenance department. Compliance and conformity to 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.

The ANSI/ISEA Z358.1 standard requires an uninterrupted supply of flushing fluid. Bradley plumbed emergency fixtures require a minimum of 30 PSI (0.21MPa) flowing pressure. Flushing should be tepid per ANSI Z358.1

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.

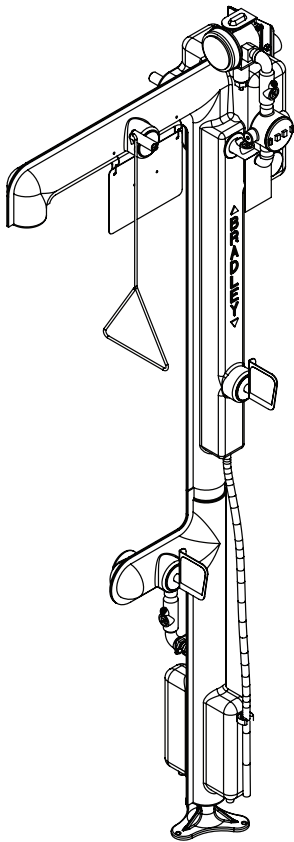
The inspection and testing results of this equipment should be recorded weekly to verify proper operation. This equipment should be inspected annually to ensure compliance with ANSI Z358.1.

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.

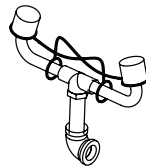
For questions regarding the operation or installation of this product, visit [www.bradleycorp.com](http://www.bradleycorp.com) or call 800-BRADLEY (272.3539).

Product warranties and parts information may also be found under "Products" on our web site at [bradleycorp.com](http://bradleycorp.com).

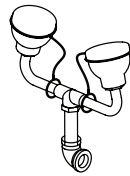
# Components



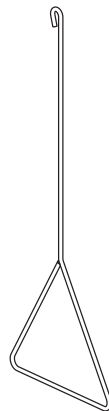
Heat Trace Unit—Class 1, Div. 1, Groups C & D  
 S19-300T (top supply)  
 S19-300B (bottom supply)



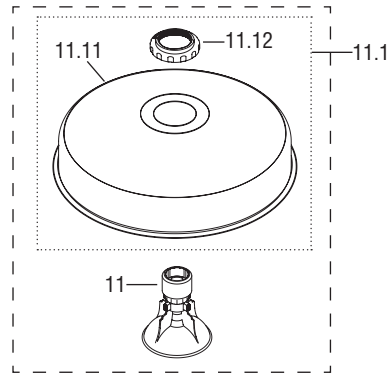
Eyewash Assembly  
 Option  
 S05-171



Eye/Face Wash  
 Assembly  
 Option  
 S05-153



Pull Rod  
 128-156G



Plastic  
 Showerhead

Stainless Steel  
 Showerhead

Prepack S45-1535

Safety Sign  
 114-052 (qty. 2)

Emergency Tag  
 204-421

Hook  
 151-001 (qty. 2)

Hex Nut #10-24  
 151-001 (qty. 2)

Screw #10-24 x 1/2"  
 160-245 (qty. 2)

**Supplies Required**

- (3) 3/8" floor anchors and bolts
- Teflon tape and pipe sealant
- Piping to 1 1/4" NPT water supply inlet on unit with adequate supply pipe supports
- Minimum 4" drain to accommodate 30 gallons per minute discharge for drench shower waste
- Electrical supplies to connect to unit junction box

**NOTICE!** Bottom supply units have provisions for supporting the top of the unit. The 1-1/4" NPT solid pipe protruding from the shell must be used to support the unit.

**Secure unit to floor**

1. Install three suitable anchors (supplied by installer) for 3/8" bolts in the floor.
2. Bolt the base to the floor anchors using 3/8" bolts (supplied by installer).
3. Install the pull rod to the unit as shown.

**NOTICE!** Do not rely on unit to support supply piping.

**⚠ WARNING!** Unit requires a minimum 30 GPM to operate and a minimum 30 PSI of flowing water pressure. Preferred flowing water pressure is 40–60 PSI. Water supply to the unit must be freeze-protected (by others).

**NOTICE!** Pipe size should be no smaller than 1 1/4" (supplied by installer).

**Connect water supply**

1. Connect the water supply piping to the 1 1/4" NPT inlet on the unit (piping by installer). Use pipe hangers or other means to provide adequate supports for the supply pipe (supports by installer).
2. Open water supply lines and test for leaks and adequate water flow.

**Assemble components**

1. Install the showerhead to the unit as shown. The bottom edge of the showerhead should be 85 1/4" (2165mm) from the floor.
2. Mount the safety signs to the wall or to the unit if desired. Use the screws, nuts and hooks provided to hang the signs back-to-back on the unit.

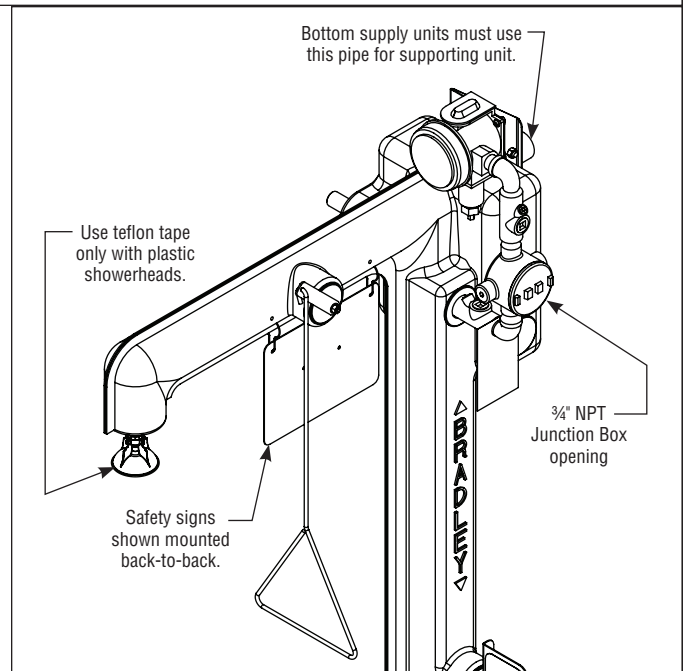
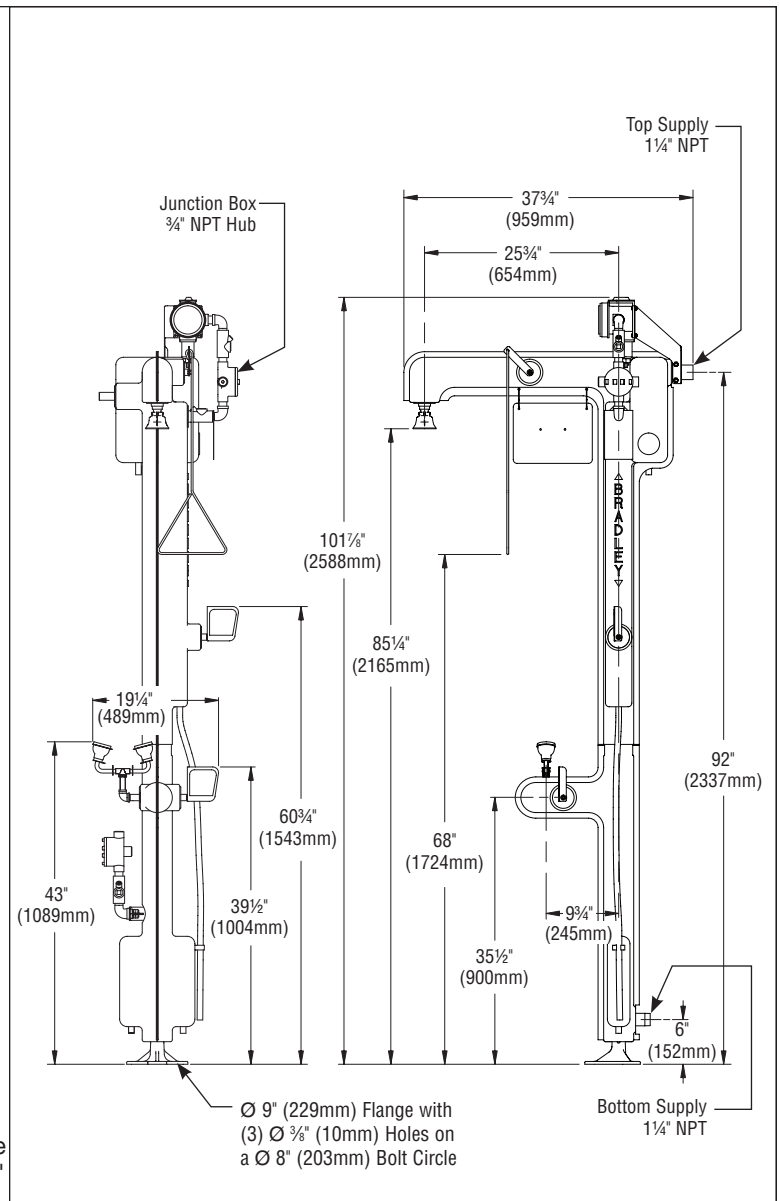
**Connect electrical supply**

1. Connect the power to the junction box on the unit as shown in the schematic on page 4 (junction box accepts 3/4" NPT conduit fittings).
2. Connect the optional alarm system and indicator light as shown.

*NOTE: Average power consumption of the unit is .7 amp/80 watts at 120VAC (.35 amp/80 watts at 220/240 vac) at 50°F (10°C) internal unit temperature. Refer to the installation instructions provided with the alarm system for more information.*

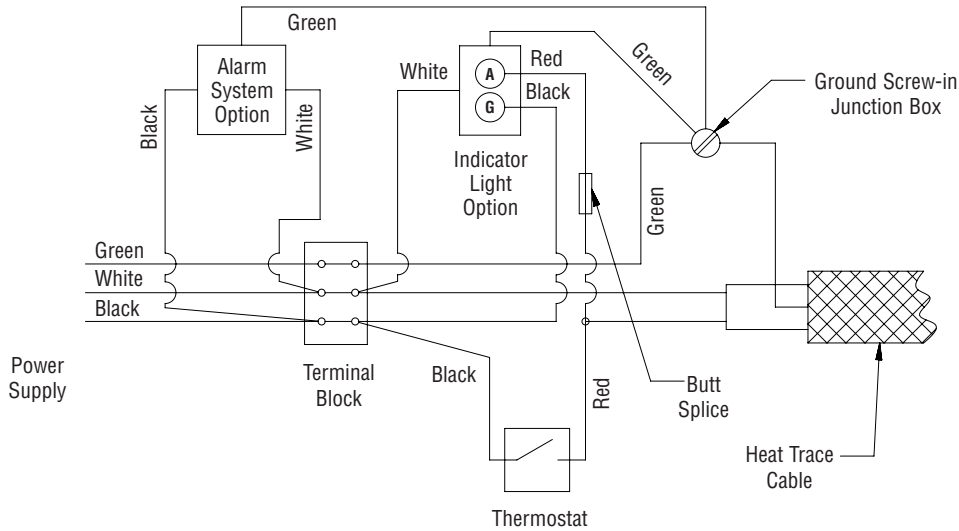
**⚠ CAUTION** Any electrical components supplied by installer must match the rating of the fixture to maintain its integrity.

**✔** Unit is provided with sealing compound and conduit seals. Seals must be filled by installer prior to powering the unit per seal manufacturer's instructions.



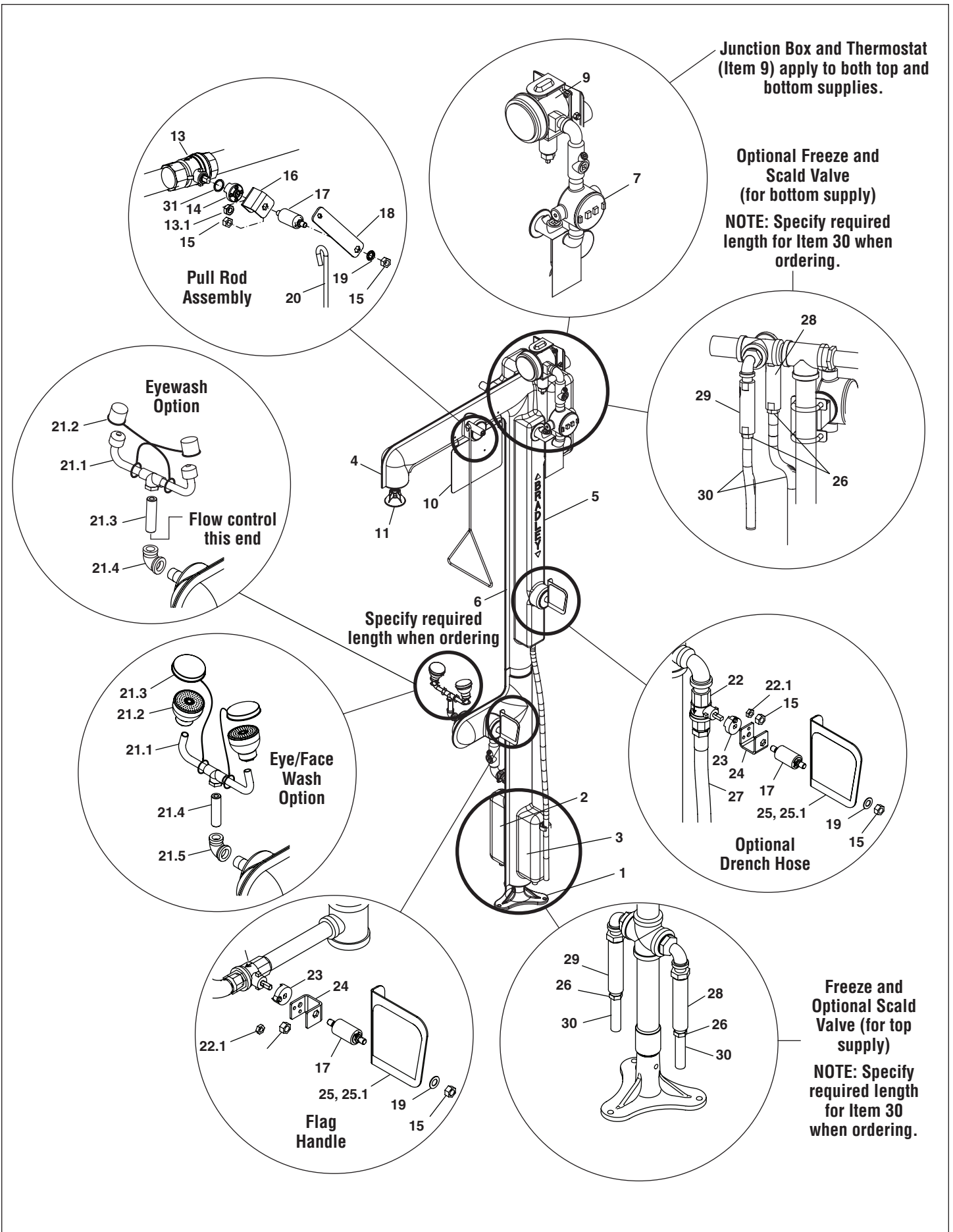
# Optional Alarm System

Amber Lamp = Heater ON  
Green Lamp = Power TO UNIT



Item	Part No.	Qty.	Description
1	131-059	1	Base
2	219-040	1	Shell - Lower Left
3	219-030	1	Shell - Lower Right
4	219-027	1	Shell - Upper Left
5	219-041	1	Shell - Upper Right
6	269-1292	as req'd.	Edge Trim
9	269-1551	1	Thermostat
10	S45-1535	1	Hardware Prepack
Plastic Showerhead (refer to page 2)			
11	S24-188	1	Plastic Showerhead
11.1	S24-193	1	Shroud Assembly
11.11	187-053	1	Showerhead Shell
11.12	154-147	1	Ring
Stainless Steel Showerhead (refer to page 2)			
12	S24-191	1	Stainless Steel Showerhead Assy.
13	S27-301	1	Ball Valve, 1" with Nut (frost-proof)
13.1	110-214	1	Nut only
14	153-489	1	Adapter
15	161-036	6	Hex Nut, 5/16"-18
16	128-200	1	Handle
17	S21-068	3	Operating Stem
18	128-150	1	Handle
19	142-002DC	3	Lockwasher
20	128-156G	1	Pull Rod, 26"

Item	Part No.	Qty.	Description
21	S05-153	1	Eye/Face Wash Assembly Option
21.1	S05-152	1	Yoke, Drilled
21.2	S05-135	2	Eyewash Head
21.3	S53-063	2	Dust Cover, Tethered
21.4	113-1191	1	Stem
21.5	169-1069	1	Elbow 1/2" x 3/8"
21	S05-171	1	Eyewash Assembly Option
21.1	S05-170	1	Yoke, Drilled
21.2	107-371	2	Dust Cover, Tethered
21.3	S21-077	1	Stem
21.4	169-1069	1	Elbow Reducing 1/2" x 3/8"
22	S27-329	2	Ball Valve, 1/2" with Nut (frost-proof)
22.1	110-215	2	Nut only
23	153-372R	2	Ball Valve Adapter - R. H.
24	128-151	2	Handle Adapter
25	S08-383	2	Flag Handle - R.H. Assembly
25.1	114-049	2	Handle Label
26	269-1296	2	Hose Barb
27	S89-025	1	Hose
28	S45-1703	1	Valve, Freeze-Protect
29	S45-1702	1	Valve, Scald-Protect
30	269-1285	as req'd.	Rubber Tubing
31	124-048	1	Washer



<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
Low water flow at drench shower and eyewash	<i>Insufficient pressure Undersized supply piping</i>	Minimum 30 GPM required Increase pressure/pipe size
Low water flow at drench shower or eye wash	<i>Debris in system</i>	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	<i>Power supply is off [if the water temperature from the valve is below 45°F (7°C)]</i>	Turn the power on.
	<i>Water supply is too cold</i>	Make sure the unit is supplied with tempered water.
	<i>Defective thermostat [if the water temperature from the valve is below 45°F (7°C)]</i>	Check continuity and replace if check fails activates at 50°F (10°C) (factory-set).
	<i>Defective freeze valve [if the water temperature from the valve is above 45°F (7°C)]</i>	Replace the freeze valve  <i>NOTE: A water supply that is at least 45°F (7°C) or colder will hold the freeze bleed valve open. To close the valve:</i>  <i>1. turn the water off temporarily or plug the valve until the heat trace unit's heat warms the valve</i>  <i>2. increase the surface temperature of the valve to above 45°F (7°C) by immersing the valve in hot water</i>  <b>IMPORTANT: Make sure that the heat trace unit is operating properly before plugging the freeze bleed valve. A plugged valve will not provide backup freeze protection should the heat trace unit fail.</b>
Scald-protection valve is flowing water	<i>Defective scald valve [if the water temperature from the valve is below 80°F (27°C)]</i>	Replace the scald valve.
	<i>Direct sunlight or high ambient temperature</i>	Cool the unit.
	<i>Defective thermostat</i>	Check continuity and replace if check fails activates at 50°F (10°C) (factory-set).