

# **SPEAKMAN®**

SE-8000

## **Installation, Maintenance & Operation Instructions**

EMERGENCY TANK SHOWER WITH EYEWASH

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### **DESCRIPTION**

528 gallon Gravity-Fed Tank Shower and Eyewash for use in non-hazardous indoor and outdoor locations. The 528 gallon overhead tank is fitted with a 3kw immersion heater with high temperature cutoff to prevent overheating conditions, 5w/ft. heating cable to protect internal piping from freezing conditions, PIR controlled downlight in shower area, and all the electronics required to incorporate these and other electrical option features such as Digital Display Gauge which indicates water level & water temperature data, and the visual/audio alarm beacon. The power supply for the electrical system shall be 240 volt, single phase, 50/60Hz. Supported on a 1-1/2" x 1-1/2" x 1/8" hot dip galvanized carbon steel, square tubular frame with bolt down fixing brackets. The rotationally molded polyethylene water tank is covered in 1-1/2" reflective rigid polyurethane foam, insulation board and the tank structure is further protected by a shroud complete with warning signage.

### **SPECIFICATIONS**

#### **EYE WASH FEATURES:**

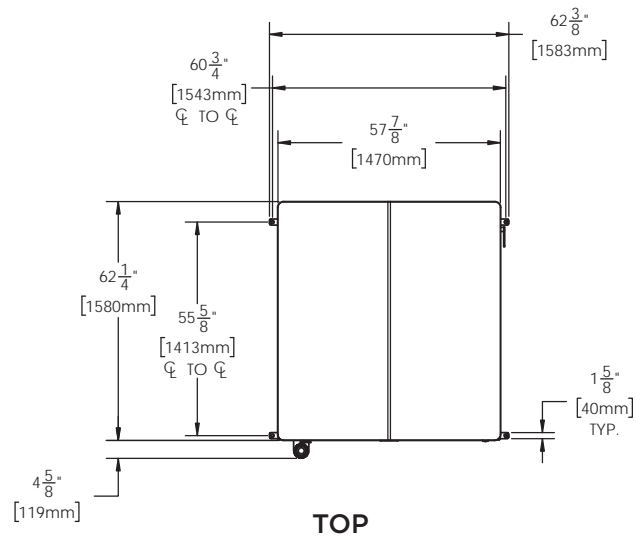
- Yellow Plastic Bowl
- (2) Yellow Plastic Spray Outlets with Flip-Top Dust Caps
- 1/2" NPT Female Brass, Chrome-Plated, Full Flow Stay-Open Ball Valve
- Stainless Steel Push Handle Activator

#### **SHOWER FEATURES:**

- Insulated 528 Gallon Polyethylene Tank
- Support Frame Constructed from 1-1/2" x 1-1/2" x 1/8" Hot Dipped Galvanized Tubular Steel, with Fixed Bolt Down Brackets
- Stainless Steel Shower Head
- 1-1/2" NPT Female Stainless Steel Full Flow Ball Valve, Activated by Yellow Steel Push Bar or Foot Treadle
- Mechanical Water Level Gauge
- 1" NPT Water Fill Inlet, with Valve and Ball Float for Automatic Shutoff When Tank is Full
- 1" NPT Water Overflow Outlet
- 240 Volt, Single Phase, 50/60Hz, 13.88 Amps
- 3kw Immersion Heater
- Heat Tracing for Shower and Eyewash Piping
- Area Downlight with PIR Sensor
- Thermal Cutoff to Protect Immersion Heater from Overheating Conditions
- Universal Emergency Sign
- Weight:
  - 1598 lbs (Un-Filled)
  - 6004 lbs (Filled)

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# ROUGH IN DIMENSIONS SE-8000

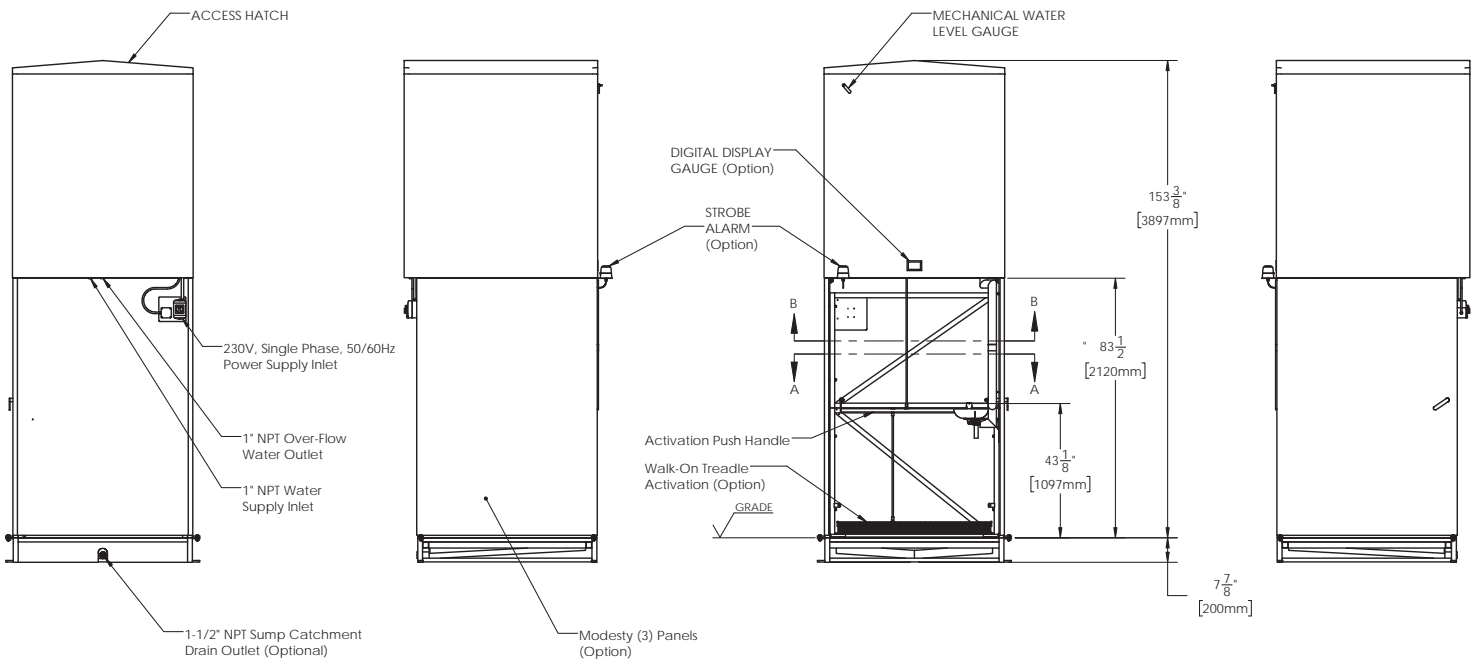


**BACK**

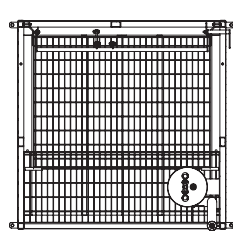
**RIGHT**

**FRONT**

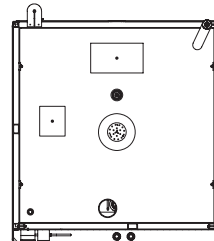
**LEFT**



**SECTION A-A**



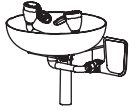
**SECTION B-B**



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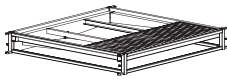
## SE-8000 (OPTIONS)



EYEWASH WITH  
STAINLESS STEEL  
BOWL  
(OPTIONAL)  
**(TS-SSEYEWASH)**



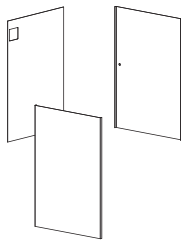
ALARM SYSTEM  
FOR BOTH SHOWER  
& EYEWASH  
(OPTIONAL)  
**(TS-ALARM)**



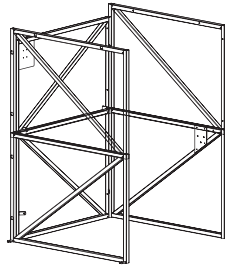
WATER  
COLLECTION  
BUND  
(OPTIONAL)  
**(TS-BUND)**



TREADLE PLATE  
ACTIVATOR FOR  
MAIN SHOWER  
(OPTIONAL)  
**(TS-TREADLE)**



PRIVACY  
SCREENS (3)  
SIDES  
(OPTIONAL)  
**(TS-SCREENS)**



STAINLESS STEEL  
SUPPORT  
FRAME  
(OPTIONAL)  
**(TS-SSSUPPORT)**



DIGITAL WATER LEVEL  
& WATER TEMPERATURE  
GAUGE  
(OPTIONAL)  
**(TS-GAUGE)**



<b>TS-TREADLE</b>	Treadle Plate Activator for Main Shower	<b>TS-SSSUPPORT</b>	Stainless Steel Support Frame
<b>TS-BUND</b>	Water Collection Bund	<b>TS-GAUGE</b>	Digital Water Level & Water Temperature Gauge
<b>TS-SSEYEWASH</b>	Eyewash with Stainless Steel Bowl	<b>TS-ALARM</b>	Alarm System for Both Shower & Eyewash
<b>TS-SCREENS</b>	Privacy Screens (3) Sides		

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## INSTALLATION INSTRUCTIONS

- 1 Determine final mounting position per all OSHA, ANSI/ISEA Z358.1 requirements. This area should be well lit, and the area around and underneath the equipment needs to have proper drainage to ensure there is no standing water left after activation. It's also important to understand the effects any water/overspray and or diluted chemicals could have on equipment in the same area, especially electrical items. Proper drainage of unit should follow all associated local, county, and national standards.

**NOTE:** UNIT IS SHIPPED  
FULLY ASSEMBLED,  
EXCEPT FOR (2) SIDE  
MODESTY PANELS  
(IF SUPPLIED).

- 2 Place crated SE-8000 Tank Shower as close to final location as possible, leaving enough maneuvering area for crane or suitably high and stable fork truck being used to safely hoist the unit from the shipping crate base.

- 3 Remove top and side panels of shipping crate.



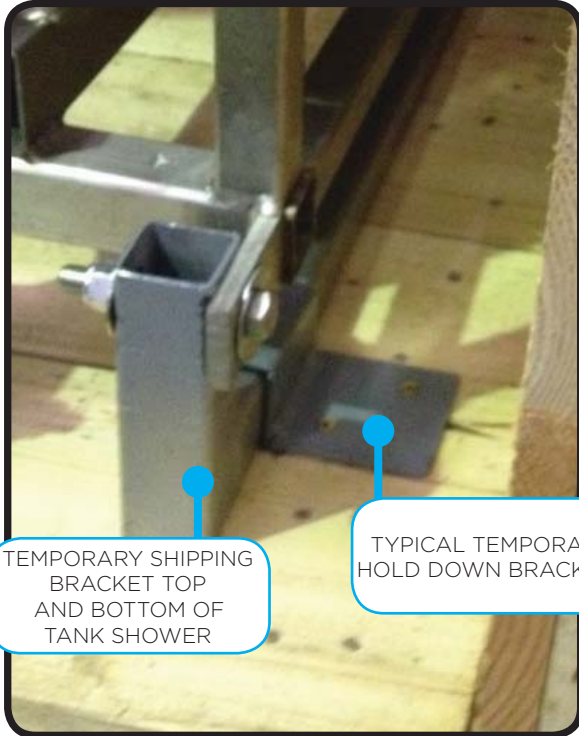
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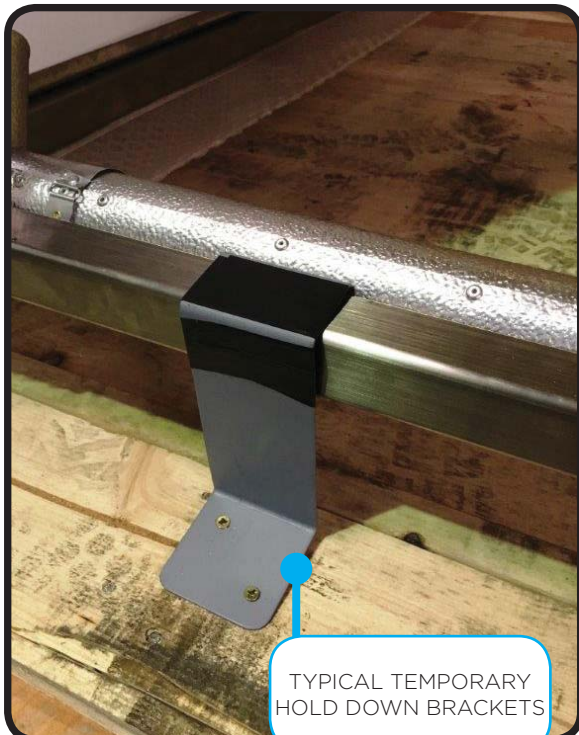
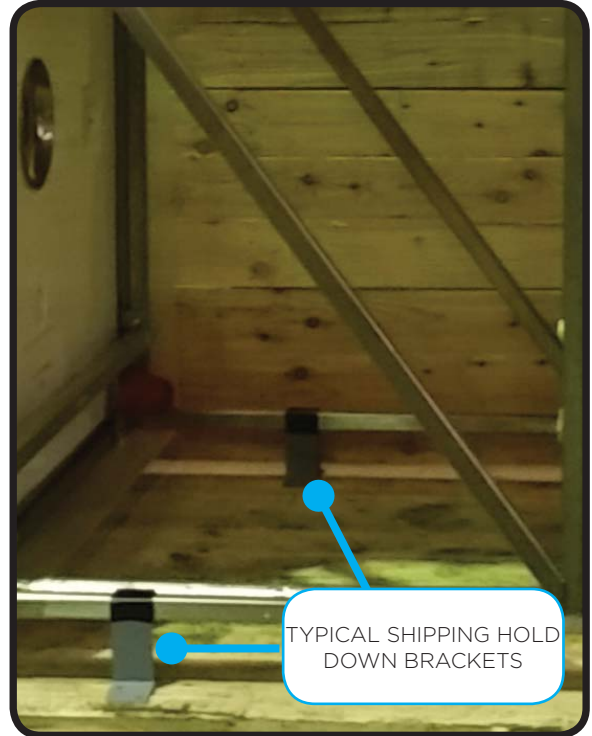
## INSTALLATION INSTRUCTIONS

- 4 Disconnect all temporary shipping brackets that are holding the unit in place.

**NOTE:** AFTER REMOVAL OF SUPPORT BRACKETING, IF DRAIN SUMP PAN IS INCLUDED PROCEED TO **STEP #5**, IF NOT PROCEED TO **STEP #7**.



TYPICAL TEMPORARY HOLD DOWN BRACKETS



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## INSTALLATION INSTRUCTIONS

- 5 The Water collection bund is sent attached to bottom of the Tank Shower. Disconnect, remove and locate and install/mount Water collection bund into final desired position, on suitable concrete foundation. Secure using suitable mounting hardware at all (4) mounting tab locations.

**NOTE:**

THIS SURFACE SHALL BE FLAT/LEVEL  
AND SUITABLE TO SUPPORT  
THE WEIGHT OF THE UNIT WITH  
A FULL TANK OF WATER  
(MINIMUM 6000 LBS. TOTAL).

- 6 Connect desired drain piping to outlet of Water collection bund following all applicable local, state, and national plumbing codes.



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## INSTALLATION INSTRUCTIONS

- 7 Using suitable lifting apparatus (crane, etc.) and rigging, properly attach rigging to lifting mounts at the top of the unit near the tank lid, and carefully stand unit upright. Ensure the center of the unit is directly under the lifting apparatus at all times, until vertical. Watch for unit to swing slightly when lifted from floor.



### NOTE

THE TANK SHOWER IS ALSO SUPPLIED WITH FORKLIFT TRUCK "LIFTING" BRACES, LOCATED INSIDE THE SHOWERING AREA, JUST BELOW THE INNER CEILING AREA FOR EASY VERTICAL UPRIGHT LIFTING USING FORKS FROM A LIFT CRANE OR FORK TRUCK.



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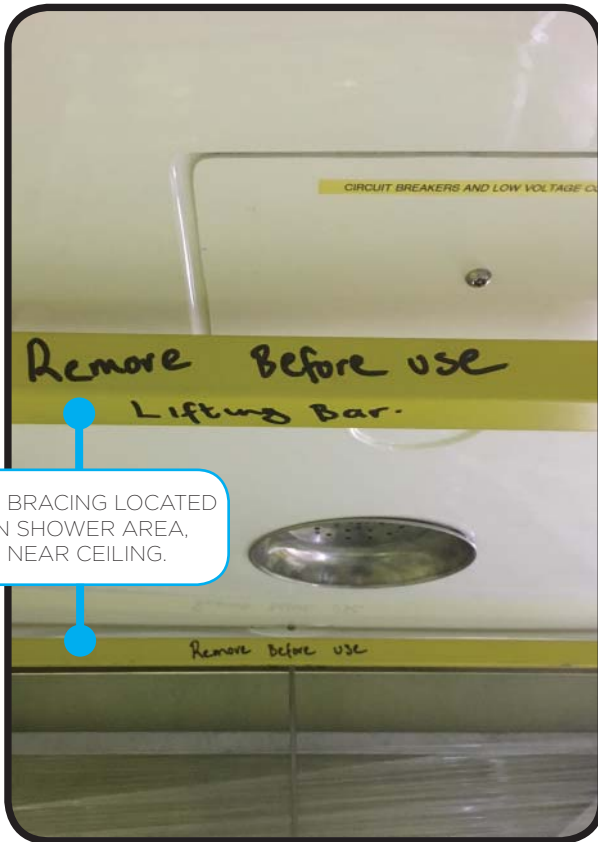
## INSTALLATION INSTRUCTIONS

- 8 Orient and install unit in final desired position either on Water collection bund (if supplied) or on suitable concrete foundation, and secure using suitable mounting hardware at all (4) mounting tab locations.

**NOTE:**

THIS SURFACE SHALL BE FLAT/LEVEL  
AND SUITABLE TO SUPPORT  
THE WEIGHT OF THE UNIT WITH  
A FULL TANK OF WATER  
(MINIMUM 6000 LBS. TOTAL).

- 9 Remove all “lifting” braces located at top of unit and inside the shower area, along ceiling. Save all bracing for future use.



- 10 Remove strap ties holding foot treadle in place, if supplied.



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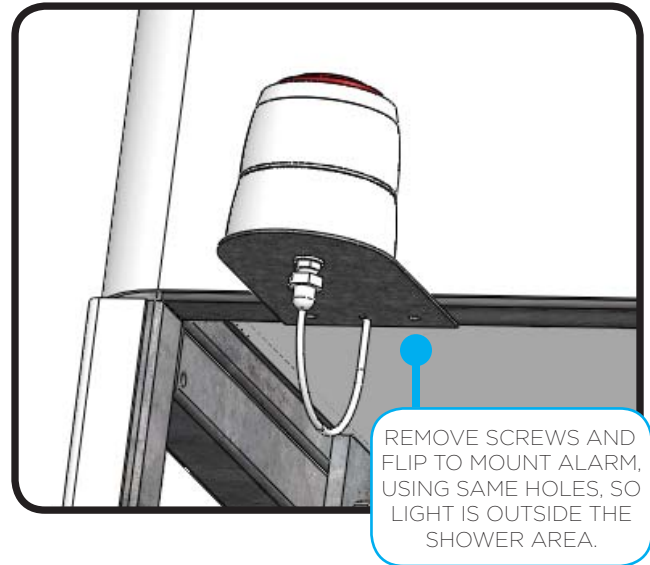
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# INSTALLATION INSTRUCTIONS

## OPTIONAL

**11** The Alarm is mounted and shipped, so that the light faces towards the inside of the shower area. The light needs to be removed and flipped so it rests outside the shower.



Visual and audible alarms are available to provide a warning when the shower or eyewash has been activated, or to indicate changes in the water temperature/levels.

- The temperature alarm is activated by a temperature probe inside the shower and is connected to the graphic display or a signal conditioning relay if no graphic display is used.
- The water level alarm is monitored by a level transducer fitted to the bottom of the tank and the alarm sound when the level drops either by usage or testing. The signal from the transducer is connected to the graphic display or a signal conditioning relay if no display is used.
- The eyewash alarm is activated by means of a tilt switch fitted to the operating paddle.
- The local sounder/strobe alarm will sound for 30 minutes before it automatically switches itself off, the strobe light however will continue to flash while an alarm condition still exists.

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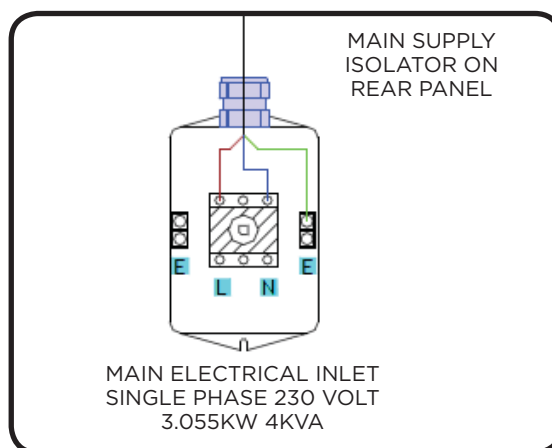
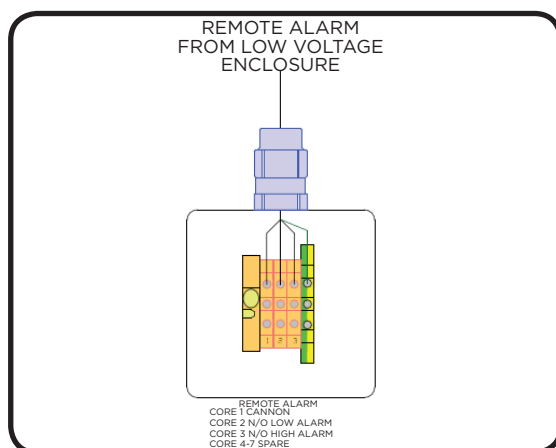
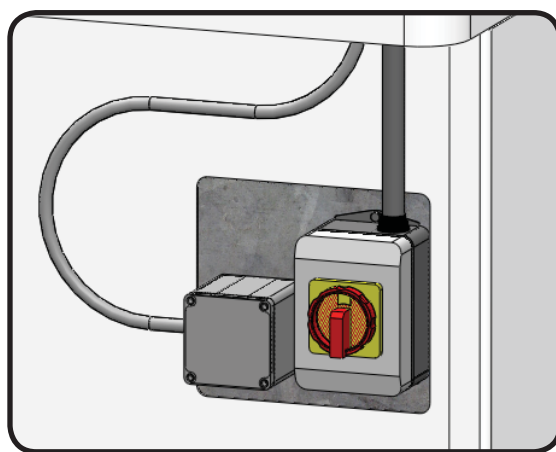
## INSTALLATION INSTRUCTIONS

**12** The Tank Shower requires connection to a 240 volt, single phase, 50/60Hz electrical supply, to run the immersion heater and all other electrical components. Any electrical options you have specified should be supplied through a minimum 30mA Ground Fault Protection Device (GFPD).

### NOTE:

IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE ALL INSTALLATION OF ELECTRICAL EQUIPMENT IS PERFORMED BY SUITABLY QUALIFIED PERSONNEL. FAILURE TO DO SO CAN RESULT IN INJURY OR DEATH.

The electrical equipment fitted to the Tank Shower is connected to a suitable miniature circuit breaker for the water heater, lighting, trace heating and alarm system as necessary. If an alarm system is fitted, then a junction box is also fitted in the void of the ceiling space at the front of the shower. The junction boxes are accessible via a removable hatch in the ceiling. If remote alarm monitoring is required, then a 7 core 1mm SY type cable is also brought out to the rear of the Tank Shower for connection to the building Building automation system. Connections are Hot, Neutral and Ground, with a Single Phase supply of either 50Hz or 60Hz, 240Volts.



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## INSTALLATION INSTRUCTIONS

- 13** Connect potable water supply to water inlet located in the back of the unit. When the tank reaches full capacity the Ballcock fill valve, located inside the tank will shut off the supply automatically. The main water supply to the tank shower should be turned off once filling is complete.

### **WATER SUPPLY**

**The Tank Shower should only be supplied from a potable water supply. See Cleaning & Maintenance section located in this document regarding inspection and water quality.**

#### **NOTE:**

TO ENSURE A FULL 15 MINUTES OF OPERATION, BE SURE TO REFILL THE TANK TO FULL CAPACITY EVERY TIME THE SHOWER OR EYEWASH IS ACTIVATED.

- 14** Connect drainage plumbing (if desired) to the tank over-flow outlet, located in the back of the unit.



UNIT IS SUPPLIED STANDARD WITH MECHANICAL STYLE VISUAL WATER LEVEL INDICATOR LOCATED ON THE FRONT OF THE SHROUD FACE. THIS LEVEL INDICATOR IS OPERATED MECHANICALLY BY A BALL FLOAT INSIDE THE WATER TANK.



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# OPERATION INSTRUCTIONS

## ACTIVATION

When installing a Tank Shower it is important to remember to allow time for the water to reach the correct temperature before use. Emergency Safety Shower, Eye wash water temperatures must never exceed 100°F or drop below 60°F.

Activation of a Tank Shower is by way of a yellow push bar that extends across the full width of the rear framework. This opens the stay-open valve. Unit can also be activated by a person other than the contaminated person, by using the same yellow push bar which extends beyond the shower area on the right hand side.

Once activated the valve will remain open until it is physically shut by pulling the bar upwards.

The eyewash is activated by way of a push paddle which is located to the side of the eyewash unit. Once activated, the valve will remain open until physically shut off by pulling the paddle back to the upright position.

If the unit has been fitted with an optional treadle plate the water supply will be activated as user steps on to it.



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## OPTIONAL DIGITAL DISPLAY

**NOTE: The Display pictured is for reference only.**

The graphic display screen shows the water level with a digital “dial” display and a numeric digital read out with the gallons remaining in the tank.

The temperature is also shown with a digital “dial” display and a numeric digital readout in Fahrenheit.

The alarm conditions are as follows:

1. When the water level drops below a critical level, the local alarm will sound and a **WATER DROPLET** appears on the display screen, if the remote alarm option is included then a volt free signal is also activated. To reset the alarm the tank must be re-filled.



BLUE

2. When the temperature drops below 65 degrees Fahrenheit the local alarm will sound and a **BLUE SNOWFLAKE** appears on the display screen, if the remote alarm option is included then a volt free signal is also activated.



BLUE

3. When the water temperature goes above 90 degrees Fahrenheit the local alarm will sound and a **RED SNOWFLAKE** appears on the display screen, if remote alarm option is included then a volt free signal is also activated.



RED



Whenever an alarm condition, high or low, exists an image of a **RINGING BELL** appears on the display screen.



BELL

The eyewash alarm is turned on when water flow is detected through the eyewash and the local sounder/strobe unit will activate, if the remote alarm option is included then a volt free signal is also activated.

The eyewash alarm is not a part of the graphic display and will not turn on any icons until the water level drops to a critical level.

The local alarm sounder/beacon has a built in 30 minute timer that shuts the alarm sound off however the strobe will continue to flash until the alarm condition has been removed, by resetting the system by re-filling tank, and allowing water temperatures to reach acceptable range.

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## REPAIR PARTS

PART/GROUP NUMBER	DESCRIPTION
RPG04-0877	Stainless Steel Paddle Handle for Eyewash
RPG38-12630	Low Flow Eyewash Spray Head Assembly (1 per)
SE-910	½" Brass Eyewash Ball Valve with Paddle Handle
SE-910-SSBV	½" Stainless Steel Eyewash Ball Valve with Paddle Handle

**Note:** Shower and Eyewash flow simultaneously to meet the minimum 15 minutes as required by the ANSI/ISEA Z358.1 standard.

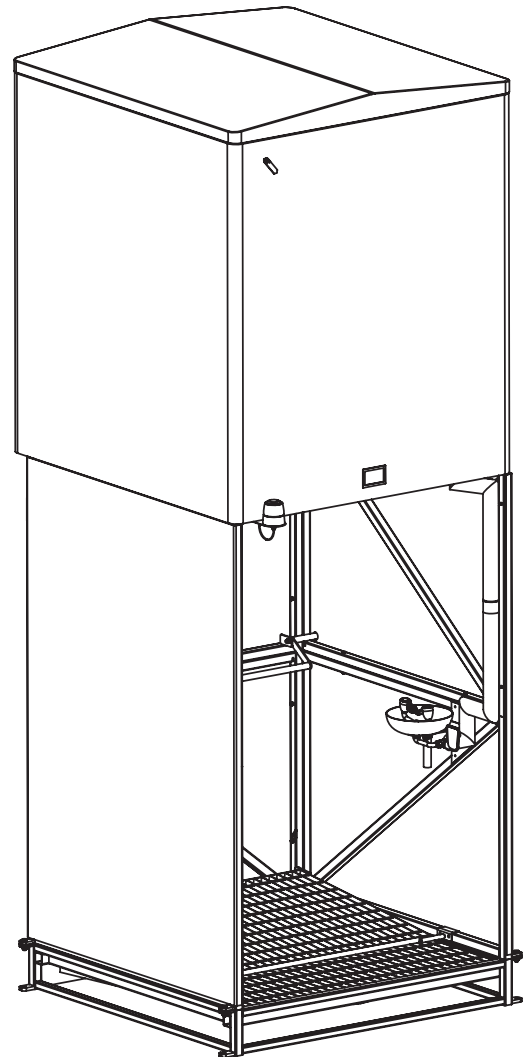
### COMPLIANCE:

COMPLIES TO ANSI/ISEA Z358.1

CONSTRUCTED USING UL APPROVED ELECTRICAL COMPONENTS

### WARRANTY:

- 3 year (general mechanical) limited
- 1 year (electrical equipment) limited



COMPLETE ASSEMBLY

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## PERIODIC CLEANING AND MAINTENANCE

The time frame for changing the water in the tank will vary depending on the quality of the water, and the surrounding environmental conditions. Per ANSI/ISEA Z358.1 the tank shower “shall be visually checked weekly to determine if flushing fluid needs to be changed or supplemented. Such inspection shall be conducted in accordance with manufacturer’s instructions”. Furthermore, Speakman suggests that the unit should be tested at least once a week to check for optimum performance, and document data to record results for maximum efficiency. **Note: After each activation (including maintenance), the tank should be refilled to ensure it is full and ready for use.**

Frequent analysis of the water quality within the unit is recommended to ensure there is no build-up of harmful bacteria. If you are using a water treatment supplement such as EndoSan™, please do so in accordance with all the manufacturer’s recommendations and instructions.

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