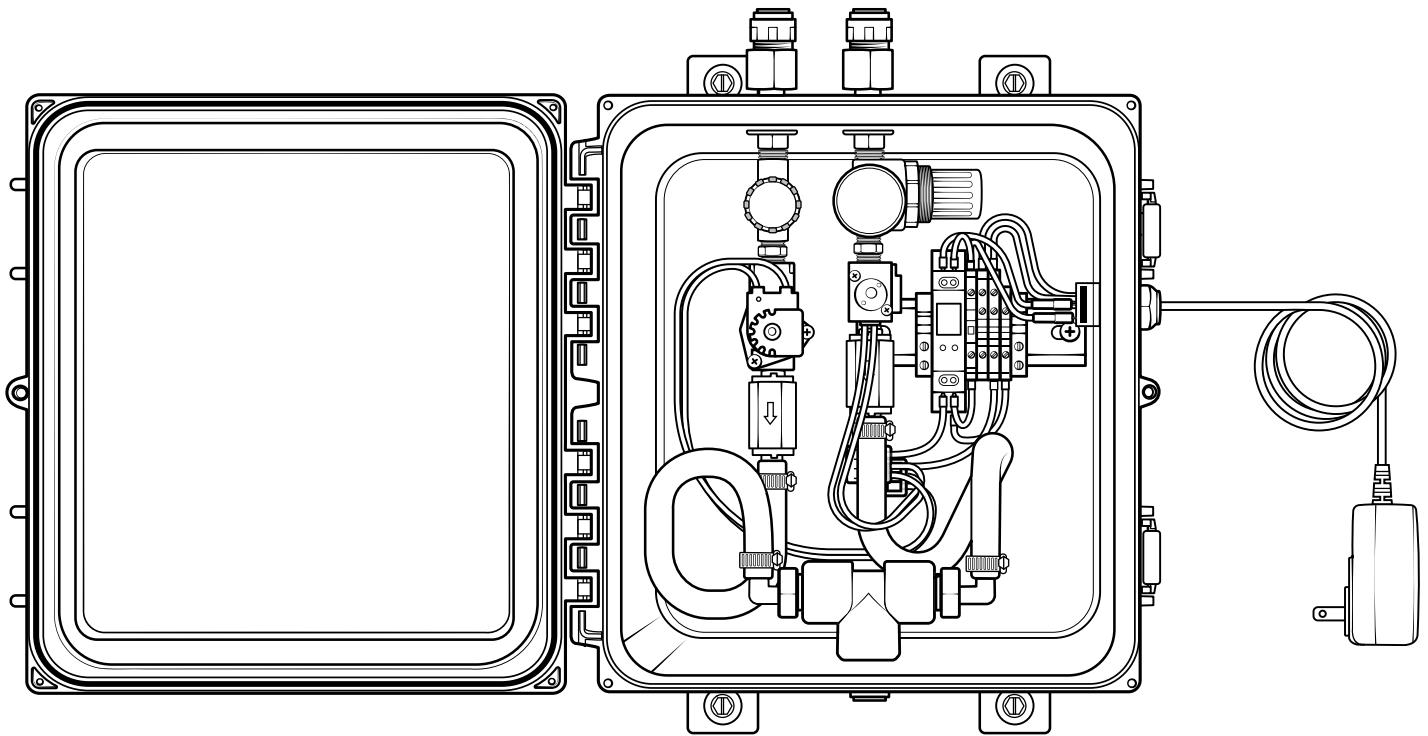# Single Line Central Doorway Foam Station
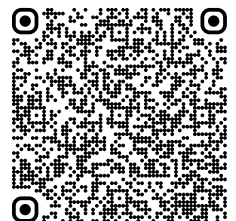
Service Manual

DS-STN

READ ALL INSTRUCTIONS BEFORE USING OR
SERVICING THIS UNIT. KEEP THIS MANUAL IN A
LOCATION THAT IS READILY AVAILABLE TO USERS
AND SERVICE TECHNICIANS.

English (Original Instructions)

Scan this code for
service manual

Safety

 WARNING

PEOPLE OR OBJECTS CAN BE HURT OR DAMAGED IF THIS UNIT IS NOT USED CORRECTLY!

Failure to read all the instructions before operating the unit may result in personal injury or death from the improper use or the chemical solution. Anyone handling, operating or using the unit must read, and understand, the instructions in the manual. The buyer assumes all responsibility for safety and proper use in accordance with the instructions.

Using, or servicing, the unit without proper protective clothing, gloves, and eye wear may result in serious injury such as burns, rashes, eye, throat or lung damage and death. Always wear protective clothing, gloves, and eye wear when using, or servicing, the unit. Protect eyes, skin, and lungs against drifting spray.

Chemical solutions may pose a health risk and death if they contact the skin or eyes, are inhaled or swallowed. Always read, and follow, all chemical safety precautions and handling instructions provided by the chemical manufacturer and the Safety Data Sheet (SDS) associated with the chemical solution being used before using the unit.

Pressure within the equipment may cause an unexpected release of the chemical solution and cause serious injury such as burns, rashes, eye damage, throat or lung damage and death. Always depressurize and clean the unit after each use. Never leave the unit unattended while pressurized.

Using the unit with fluid temperatures above 100°F (37.8°C) may result in scalding, burns, serious injury or death. DO NOT use a solution with a temperature above 100°F (37.8°C).

Operating the unit when damaged or leaking may result in exposure to chemical solutions, serious injury or death. Never use the unit if it is damaged or leaking.

Using incoming air pressure exceeding 100 psi (6.9 bar) may result in pressure buildup, explosion, serious injury or death. DO NOT exceed 100 psi (6.9 bar) incoming air pressure when operating unit.

Use of hydrocarbons and flammable products may result in explosions, fire and serious injury or death. Never use hydrocarbons or flammable products with the unit.

Performing any maintenance with the unit turned ON, plugged into an electrical power source or connected to the air supply may serious injury or death. Always ensure that the unit has been turned OFF, unplugged from the electrical power source, and disconnected from the air supply before conducting any maintenance.

Mixing an alkaline with an acid may result in a chemical reaction. Overheating of the mixture may cause it to splatter caustic compounds or release hazardous fumes, gas and vapors. Always flush the unit with fresh water thoroughly when switching from an alkaline to an acid or an acid to an alkaline.

NOTICE

Servicing, or modification, of this unit with parts not listed in this manual may cause the unit to operate improperly. Do not use unauthorized parts when servicing the unit.

Use of an air lubricator before the unit may result in diminished performance and damage to the unit. Do not use an air lubricator before the unit.

Moisture in the air lines will damage the pump and diminish the pumps life. The air must be filtered, clean, dry and free of moisture. If needed, install an air dryer before the unit.

PROTECT THE ENVIRONMENT

Please dispose of packaging materials, old machine components, and hazardous fluids in an environmentally safe way according to local waste disposal regulations

Service Guide

⚠ WARNING

Performing any maintenance with the unit turned ON, plugged into an electrical power source and connected to the air supply may serious injury or death. Always ensure that the unit has been turned OFF, unplugged from the electrical power source, and disconnected from the air supply before conducting any maintenance.

Servicing, or modification, of this unit with parts not listed in this manual may cause the unit to operate improperly. Do not use unauthorized parts when servicing the unit.

Maintaining Your Unit

To keep your unit operating properly, periodically perform the following maintenance procedures:

- Inspect all hoses for leaks or excessive wear.

- Ensure all hose clamps are in good condition and properly secured.

- Confirm all components are functioning correctly and are free of leaks or excessive wear.

Servicing Your Unit

Most repairs on the unit can be performed with the following tools:

- Crescent wrench (2x)
- $^7/_{16}$ in. (11 mm) open-ended wrench
- Flat head screwdriver
- Thread seal tape
- #2 Phillips head screwdriver
- #3 Phillips head screwdriver
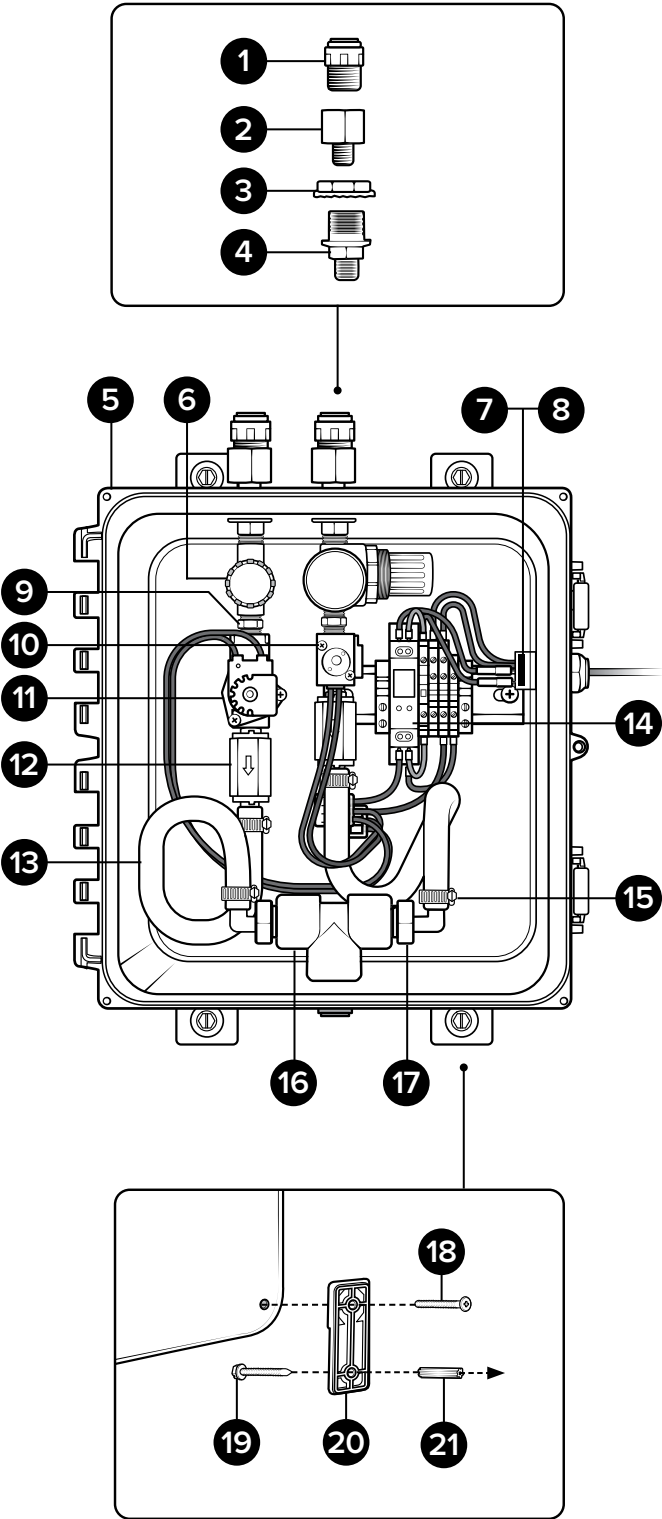- Hose cutters
- Knife

Troubleshooting Your Unit

If your unit is not operating properly, try using these troubleshooting tips:

Issue	Solution
Foam is sputtering out of the spray tip	• Adjust the needle valve and the air regulator to create better foam. • More chemical may need to be added to thicken the foam.
Only liquid or only air coming out of the spray tip	• Adjust the needle valve and air regulator to ensure one of them is not closed. • Verify all wiring is connected and secure. • One of the solenoids may need to be replaced. • Check valve may need to be replaced. • If foam still does not come out, ensure chemical is in the tank and the pump is running. If the pump is not running, it may need to be replaced.

Service

DS-STN:
Doorway foam - 24VDC timer - central system - single line discharge

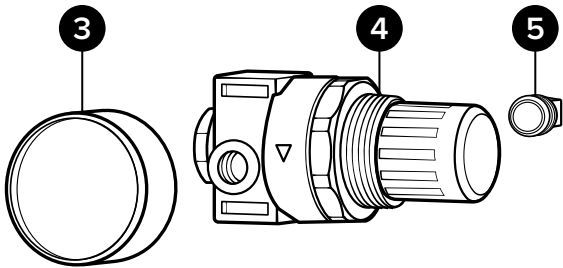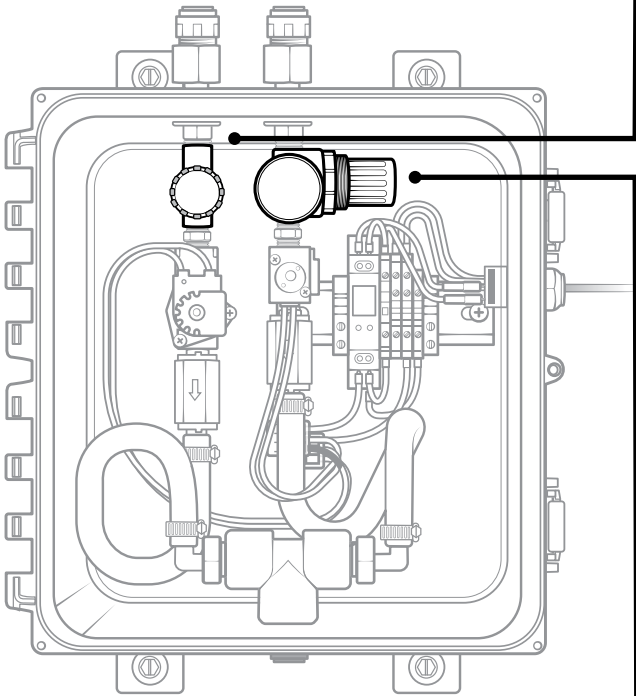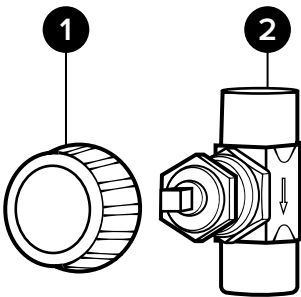| Item number		Description
1	QF1212	Quick fit - ½ MPT x ½ od tube - polypropylene
2	SSA1412	Stainless adapter ½ FPT X ¼ MPT
3	SSSFN12	Serrated stainless steel flange nut - ½ in.
4	SSA14BKH	Bulkhead adapter - stainless steel - ¼ in. NPT x ¼ in. NPSM
5	PBA-12117	Poly box assembly - 12 in. x 11 in. x 7 in. - gray polypropylene - includes mounting hardware
6	NV14	Needle valve - ¼ in. NPT - includes black knob
7	TSW-BDY	Toggle switch - body - single pole single throw - nickel-plated brass - ¼ in. spade terminals - ½ in. mounting hole - ¹⁵⁄₃₂-32 keyed threaded bushing
8	TSW-BT	Toggle switch - mounting boot - black silicone rubber - ¹⁵⁄₃₂-32 integrated nut
9	SN1414	Stainless hex nipple ¼ MPT x ¼ MPT
10	ACV14-24VDC	Air control valve - mac - ¼ in. FPT in. - 2x ¼ in. FPT out - aluminum body - 24 VDC solenoid - normally closed - 18 in. 18 AWG flying leads
11	FCV14-24VDC	Fluid control valve - DEMA - ¼ in. FPT - 7 GPM - polypropylene body - Viton diaphragm - 24VDC solenoid - normally closed - 18 in. 18 AWG flying leads
12	CV1438	¼ MPT x ⅜ barb - PVC check valve - stainless steel spring
13	H38BL-F	⅜ in. id blue hose - hybrid TPE - available per ft.
14	TMRA-RPT-24VDC	Timer assembly - repeat cycle - 24VDC - 5A resettable circuit protector - includes 120VAC NA power cord
15	SSC38	Screw band clamp - stainless steel - for ⅜ in. hose
16	T5	½ poly tee
17	HBEL1238	Hose barb elbow ½ x ⅜
18	S1034-FH-HL	Screw - #10 x ¾ in. - stainless steel flat head Phillips - hi-lo thread
19	WMS14	Wall mount screw - #14 x 1 ¼ in. - Stainless steel - hex head slotted
20	PB-FT	Poly box foot - gray polypropylene
21	WMS14A	Wall mount screw anchor - #14 x 1 ¼ in. - plastic - ⁵⁄₁₆ in. drill size

Sub-assemblies

NV14:

Needle valve - ¼ in. NPT - includes black knob

NV14

Item number		Description
1	NV14-HNDL	Black knob for needle valve
2	NV14	Needle valve - ¼ in. NPT - includes black knob

RGA-R16-AG-P18:

Air regulator assembly with 2x ¼ in. and ⅛ in. FPT ports - no air bowl / filter - includes gauge and ⅛ in. MPT plug

Item number		Description
3	AG100	Air gauge - ⅛ in. NPT - 0-100 PSI markings - dry model
4	R16	Regulator - air - 2x ¼ in. FPT and 2x ⅛ in. FPT ports - no bowl and filter - no gauge
5	P18	Plug - ⅛ in. MPT - 304 stainless steel - square head

RGA-R16-AG-P18