# Air Powered Footwear Sanitizing Unit 

## Service Manual

SS2

SS2


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

## 1 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.


To prevent chemical spray to face and eyes, ensure full foot insertion into unit and press down with heel. Wear splash goggles as directed by chemical manufacturer, SDS, or OSHA.

This unit is for use with fully protective footwear only. This unit is designed to help sanitize footwear at transition zones with a focus on reduced moisture. This unit is intended to sanitize shoe soles and not intended for any other use.


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 SDS associated with the chemical solution 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 disconnect the air line from the unit before performing any maintenance, and clean the unit after each use.

Using the unit with fluid temperatures above $100^{\circ} \mathrm{F}\left(37.8^{\circ} \mathrm{C}\right)$ may result in scalding, burns, serious injury or death. DO NOT use a solution with a temperature above $100^{\circ} \mathrm{F}\left(37.8^{\circ} \mathrm{C}\right)$.

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.

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.

## NOTICE

Servicing or modifying 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.

This unit is for use with fully protective footwear only.

## 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

## 4 WARNING

Performing any maintenance with the unit pressurized may result in serious injury. Before conducting any maintenance, always ensure the unit has been depressurized by disconnecting the air line on the unit. Servicing or modifying 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. Remember to reconnect air line, and re-prime the unit according to the priming instructions in the operation manual after performing any maintenance.

## Maintaining Your Unit

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

## For SS2, SS2-BSH, SS2-FMH, and SS2-MBS units:

- Inspect the stainless foot grate for debris and clean when necessary.
- Collection basin should be emptied and cleaned each time the chemical supply container is changed or refilled. See Collection basin cleaning instructions for more information.

Note: During heavy use, over-spray can fill up basin. Be mindful of fluid levels not reaching above manifold, this can cause the unit to operate improperly.

- Verify nozzle assembly is free of any debris or blockage. Rinse with low pressure water if necessary.
- Check suction line and strainer for debris. Clean as needed.
- Inspect all tubing for leaks or excessive wear. Make sure all hose clamps and push fittings are in good condition and properly secured.


## For SS2-MBS units only:

- Remove brushes by lifting them out from the brush bracket. Remove debris and clean. Brushes should be replaced every 6 months depending on wear.
- Slide out debris tray. Empty debris and wipe clean.
- Base assembly of unit is fully stainless and can be cleaned in place by method suitable for stainless steel.


## Collection basin cleaning instructions:

1. Lift the shroud upwards to raise the top half of the unit. Then, slide the top half away from the bracket to detach it from the housing.
2. Place the top half of the unit to the side.

Note: Stand the top half of the unit on short end. Setting the unit down in other position may cause damage to nozzle assembly.
3. Empty and clean the collection basin.
4. Re-insert the top half of the unit by repeating step 1 in reverse order.


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## Servicing Your Unit

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

- Crescent wrench ( 2 x )
- $7 / 16$ in. $(11 \mathrm{~mm})$ socket wrench
- $9 / 16 \mathrm{in}$. ( 14 mm ) socket wrench
- \#2 Phillips head screwdriver


## Troubleshooting Your Unit

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

| Issue | Solution |
| :---: | :---: |
| If the unit does not spray | - Check valve stem and roller cam for proper movement and compression. <br> - If the pump is cycling, but unit does not spray, the pump may be air locked. <br> - Verify pump springs are not worn or broken. <br> - Check the suction line and strainer for debris and clean if necessary. <br> - Verify the jug the unit is pulling from is vented, and filled appropriately. <br> - Ensure nothing is blocking or impeding the full motion of the mechanism. |
| If the unit sprays irregularly | - Verify that the unit is connected to an appropriate compressed air source. Unit requires 40 psi (2.8 bar) with 1 CFM ( $28.3 \mathrm{I} / \mathrm{min}$ ) to operate. To maximize unit lifespan and performance, compressed air should be clean and dry. <br> Note: If the air source has a high moisture content, you may wish to install a water separator before the unit. <br> - Verify the pump is cycling regularly. Pump can be disassembled and the o-rings can be re-lubricated with a silicone-based lube. <br> - Ensure the springs in the pump are not worn or broken. <br> - Check the spray tips and make sure they are not clogged or blocked by debris. The spray tips may be removed and cleaned if necessary. <br> - Verify that the jug the unit is pulling from is vented, and filled appropriately. |
| If the unit does not hold a prime | - Check hose clamps and ensure that barbs are secure. <br> - Check all tubing connections and verify none are loose, broken, or leaking. |

## Shroud and Housing Assemblies

## SHRA-SS2:

Shroud assembly for SS2 - includes shroud with spray guard, and mounting hardware

| Item number |  | Description |
| :---: | :--- | :--- |
| $\mathbf{1}$ | SPGRD-SS2 | Spray guard for SS2 |
| $\mathbf{2}$ | BPB142038 | $1 / 4-20 \times 3 / 8$ in. binding post barrel - <br> stainless - truss head Phillips |
| $\mathbf{3}$ | SO142012 | $1 / 4-20 \times 1 / 2$ in. threaded standoff - <br> stainless |
| $\mathbf{4}$ | SHR-SS2 | Shroud - SS2 - drilled out - <br> includes warning and brand label |
| $\mathbf{5}$ | B142012-VS | $1 / 4-20 \times 1 / 2$ in. bolt - stainless - truss <br> head Phillips - Vibra-Seal |

## HSGA-SS2:

Housing assembly for SS2 - includes mechanism mounting plate, rubber feet, and mounting hardware

| Item number |  | Description |
| :--- | :--- | :--- |
| $\mathbf{6}$ | B142058-VS | $1 / 4-20 \times 5 / 8$ in. bolt - stainless - <br> truss head Phillips - Vibra-Seal |
| $\mathbf{7}$ | HSG-SS2 | Housing for SS2 - includes <br> warning label |
| $\mathbf{8}$ | MPL-SS2 | Mount plate for SS2 - stainless |
| $\mathbf{9}$ | LN1420 | Locknut - $1 / 4-20$ - stainless - <br> nylon insert |
| $\mathbf{1 0}$ | RFT12 | Rubber foot - $1 / 2$ in. tall - includes <br> internal washer |
| $\mathbf{1 1}$ | B142058-VS | $1 / 4-20 \times 5 / 8$ in. bolt - stainless - <br> truss head Phillips - Vibra-Seal |



HSGA-SS2

## Mechanism Assembly

## MCHA-SS2:

Mechanism assembly for SS2 - includes fluid pump, mounting hardware, and air connection

| Item number |  | Description |
| :---: | :---: | :---: |
| 1 | AP14 | Air fitting $1 / 4$ mpt $\times$ plug - nickelplated brass |
| 2 | R16 | Air regulator - $1 / 4$ FPT two port $1 / 8$ FPT two port - no bow/filter |
| 3 | H14CL-PV | $1 / 4$ in. id $3 / 8$ in. od clear hose PVC - available per ft. |
| 4 | CLMPTB38-ADJ | Clamp for $1 / 4$ in. od tube plastic - adjustable |
| 5 | TB14BL-PU | $1 / 4$ in. od blue tube - <br> polyurethane - available per ft. |
| 6 | VLVA-3W2P-SS2 | Valve assembly - 3 way 2 position - SS2 - includes tooth washers and nuts |
| 7 | GRT-SS2 | Grate - SS2 - stainless steel |
| 8 | TRD5161114 | $5 / 16$ in. od $\times 11 \frac{1}{4}$ in. long threaded rod - 5/16-18 end threads - stainless |
| 9 | LN516 | Locknut - 5/16-18 - stainless nylon insert |
| 10 | ACVB-3W2P-RCA | Air control valve - nickel-plated brass - 3 way 2 position - roller cam actuator |
| 11 | AG100 | Air gauge - $1 / 8 \mathrm{in}$. NPT - 100 psi dry model |
| 12 | LN1032 | Locknut - 10-32 - stainless nylon insert |
| 13 | B103212-PH | $10-32 \times 1 / 2 \mathrm{in}$. bolt - stainless pan head Phillips |
| 14 | RSPG1 | Radial spring - 1 in. dia. - rubber |
| 15 | MNA-SS2 | Manifold assembly - SS2 SS check valves and spray tips includes fitting and plug |
| 16 | PMPA-FLD-SS2 | Pump assembly - SS2 - fluid includes spring and seals |
| 17 | QF14P | Quick fit - $1 / 4 \mathrm{MPT} \times 1 / 4$ od tube polypropylene |



## Mechanism Sub-assemblies

## MNA-SS2:

Manifold assembly for SS2 - includes SS check valves, spray tips, fitting, and plug

| Item number | Description |  |
| :--- | :--- | :--- |
| $\mathbf{1}$ | HBSSEL1814 | Stainless hose barb $1 / 8$ MPT $\times$ <br> $1 / 4$ <br> barb elbow |
| $\mathbf{2}$ | MN-SS2 | Manifold - SS2 - $1 / 8$ in. NPT - 6 ports <br> PVC |
| $\mathbf{3}$ | FCN12016 | Full cone nozzle - PVDF - 120 deg <br> 16 GPH |
| $\mathbf{4}$ | CVSS18MF | Check valve - stainless steel - <br> $1 / 8$ MPT $\times 1 / 8$ FPT -1 lb. stainless <br> steel spring - Viton seals |
| $\mathbf{5}$ | P18 | Plug $1 / 8$ MPT hex head 304 SS |

## VLVA-3W2P-SS2:

Valve assembly for SS2-3 way 2 position - includes tooth washers and nuts

| Item number |  | Description |
| :--- | :--- | :--- |
| $\mathbf{6}$ | QFEL18 | Fixed elbow $1 / 4$ in. tube $\times 1 / 8$ in. MPT <br> brass |
| $\mathbf{7}$ | ACVB-3W2P | Air control valve - nickel-plated <br> brass - 3 way 2 position - valve <br> only - does not include tooth <br> washers and nuts |
| $\mathbf{8}$ | QF1814 | Quick fit - $1 / 8$ MPT $\times 1 / 4$ od tube - <br> polypropylene |
| $\mathbf{9}$ | TB14BL-PU | $1 / 4$ in. od blue tube - polyurethane <br> available per ft. |



VLVA-3W2P-SS2

## Mechanism Sub-assemblies

## PMPA-FLD-SS2-WF:

Pump assembly for SS2 - fluid - includes fittings, tubing, and check valves

|  | Item number | Description |
| :---: | :---: | :---: |
| 1 | TB14BL-PU | $1 / 4$ in. od blue tube polyurethane available per ft. |
| 2 | QFEL1814 | Fixed elbow $1 / 8$ in. MPT $\times 1 / 4$ in. tube - polypropylene |
| 3 | H14CL-PV | $1 / 4$ in. id $3 / 8$ in. od clear hose PVC - available per ft. |
| 4 | CV14HB14M | Check valve - PVC - $1 / 4$ barb $x$ $1 / 4$ MNPT-302SS spring - Viton seals - air flow right |
| 5 | PMPA-FLD-SS2 | Pump assembly - SS2 - fluid includes spring and seals |
| 6 | EL14M14F | $1 / 4 \mathrm{FPT} \times 1 / 4 \mathrm{MPT}$ - polypro elbow |
| 7 | CLMPTB38-ADJ | Clamp for $1 / 4$ in. od tube - plastic adjustable |
| 8 | CV14M14HB | Check valve - PVC - 1/4 MNPT x $1 / 4$ barb - 302SS spring - Viton seals - air flow left |

## RGA-R16-SS2:

Regulator assembly - includes regulator with $2 \times 1 / 4 \mathrm{in}$. and $1 / 8$ in NPT ports, air gauge, and $1 / 8$ in. NPT plug

| Item number | Description |  |
| :--- | :--- | :--- |
| $\mathbf{9}$ | AG100 | Air gauge $-1 / 8$ in. NPT - 100 psi <br> dry model |
| $\mathbf{1 0}$ | AP14 | Air fitting $1 / 4 \mathrm{mpt} \times$ plug - nickel- <br> plated brass |
| $\mathbf{1 1}$ | R16 | Air regulator $-1 / 4 \mathrm{FPT}$ two port <br> $1 / 8 \mathrm{FPT}$ two port - no bow/filter |
| $\mathbf{1 2}$ | SSA14 | Stainless adaptor $1 / 4 \mathrm{MPT} \times 1 / 4 \mathrm{FPT}$ |



## Base With Handle

## SS2-BSH:

Footwear sanitizer - SS2 and base with handle includes 2.5 gal chemical jug with suction and SS rack

## BSHA-SS2:

Base and handle assembly for SS2 - Includes floor base plate, mount plate adapter, handle, rubber feet, and hardware

|  | Item number | Description |
| :---: | :--- | :--- |
| $\mathbf{1}$ | B5161812-PH-VS | 5/16-18 $\times 1 / 2$ in. bolt - stainless <br> pan head Phillips - Vibra-Seal |
| $\mathbf{2}$ | FW3816 | Flat washer for $3 / 8-16$ bolt - <br> stainless -0.41 in. id $\times 0.88$ in. <br> od $\times 0.05$ in. thk |
| $\mathbf{3}$ | RFT1-516 | Rubber foot -1 in. tall $-5 / 16-18$ <br> threaded brass insert |
| $\mathbf{4}$ | HNDL-FS | Handle bar - footwear sanitizer |
| $\mathbf{5}$ | LN516 | Locknut - $5 / 16-18$ - stainless - <br> nylon insert |
| $\mathbf{6}$ | B5161834-HH | $5 / 16-18 \times 3 / 4$ in. bolt - stainless - <br> hex head |
| $\mathbf{7}$ | BRKT-BSPL-SS2 | Bracket for SS2 base plate - <br> stainless steel |
| $\mathbf{8}$ | BSHPL-SS2 | Base plate for SS2 and handle - <br> stainless steel |
| $\mathbf{9}$ | RFT12-SPC | Rubber foot - $1 / 2$ in. tall - spacer |
| $\mathbf{1 0}$ | B14201-SH | $1 / 4-20 \times 1$ in. bolt - stainless - <br> socket head |



Floor Mount Base With Handle

## SS2-FMH:

Footwear sanitizer - SS2 and base with handle includes 2.5 gal chemical jug with suction and SS rack

FMHA-SS2:
Floor mount and handle assembly for SS2 - includes floor mount with handle bracket, handle, mount plate adapter, and mounting hardware

| Item number | Description |  |
| :--- | :--- | :--- |
| $\mathbf{1}$ | HNDL-FS | Handle bar - footwear sanitizer |
| $\mathbf{2}$ | LN516 | Locknut - $5 / 16-18$ - stainless - <br> nylon insert |
| $\mathbf{3}$ | FMHPL-SS2 | Floor mount plate for SS2 and <br> handle - stainless steel |
| $\mathbf{4}$ | B5161834-HH | $5 / 16-18 \times 3 / 4$ in. bolt - stainless - <br> hex head |
| $\mathbf{5}$ | BRKT-FMPL-SS2 | Bracket for SS2 floor mount <br> plate - stainless steel |

## SS2-MBS:

Footwear sanitizer - SS2 - includes floor mount, manual boot scrubber with combo handle, 2.5 gal chemical jug with suction, and SS rack

FMA-SS2:
Floor mount assembly for SS2 - includes floor mount bracket and mount plate adapter - no hardware

| Item number | Description |  |
| :---: | :--- | :--- |
| $\mathbf{1}$ | BRKT-FMPL-SS2 | Bracket for SS2 floor mount <br> plate - stainless steel |
| $\mathbf{2}$ | FMPL-SS2 | Floor mount plate for SS2 - <br> stainless steel |

## MBS-C:

Manual boot scrubber combo - includes handle

| Item number |  | Description |
| :---: | :--- | :--- |
| $\mathbf{3}$ | HNDL-FS-C | Handle bar - footwear sole <br> sanitizer and manual boot <br> scrubber combo |
| $\mathbf{4}$ | DBSH | Debris shield - manual boot <br> scrubber - stainless steel |
| $\mathbf{5}$ | LN516 | Locknut - $5 / 16-18$ - stainless - <br> nylon insert |
| $\mathbf{6}$ | B5161834-HH | 5/6-18 $\times 3 / 4$ in. bolt - stainless - <br> hex head |
| $\mathbf{7}$ | MBS100-C-BASE | Manual boot scrubber floor <br> mount bracket - footwear <br> sanitizer base - stainless steel <br> Block brush for boot scrubber <br> side - polypropylene |
| $\mathbf{8}$ | BR10S | Block brush for boot scrubber <br> sole - polypropylene |
| $\mathbf{9}$ | BR10 | Debris tray - manual boot <br> scrubber - stainless steel |
| $\mathbf{1 0}$ | DBTR |  |

MBS-C

## Jug Assembly

## J2.5BKSR:

2.5 gallon natural jug - includes black cap, suction and rack

## JC35B-TAV:

Black 3.5 inch one way vented cap polypropylene - includes EPDM gasket, check valve, and bead chain tether assembly

| Item number |  | Description |
| :--- | :--- | :--- |
| $\mathbf{1}$ | B103234-SH-VNT | $10-32 \times 3 / 4$ in. bolt - stainless - <br> socket head - vented |
| $\mathbf{2}$ | JC35B-P | Black 3.5 inch cap - polypropylene |
| $\mathbf{3}$ | CHN-JC35 | JC35 bead chain tether assembly |
| $\mathbf{4}$ | CV-JC35 | EPDM check valve for non locking <br> jug cap |
| $\mathbf{5}$ | JC-G35 | Jug cap gasket 3.5 inch cap EPDM |
|  | Item number | Description |
| $\mathbf{6}$ | J2.5 | 2.5 gallon natural jug - jug only |

SRPK-J2.5:
Suction valve assembly for 2.5 gallon jugs

| Item number |  | Description |
| :---: | :--- | :--- |
| $\mathbf{7}$ | P203CT-FS | Foot strainer for the P203CT |
| $\mathbf{8}$ | H14CL-PV | $1 / 4$ in. id $3 / 8$ in. od clear hose - PVC - <br> available per ft. |
| $\mathbf{9}$ | TB14N-PE | $1 / 4$ in. od natural tube - polyethylene <br> available per ft. |
| $\mathbf{1 0}$ | H38CL-PV | $3 / 8$ in. id $3 / 8$ in. od clear hose - PVC - <br> available per ft. |
| $\mathbf{1 1}$ | QCPP-M-HAST | $3 / 8$ in. panel mount socket - suction <br> $3 / 8$ id $\times$ quick connect - Hastelloy <br> spring - $11 / 16-24$ thread |
| $\mathbf{1 2}$ | QCPP14HB-HAST | $1 / 4$ in. in-line hose barb - polypro <br> body - Hastelloy spring |

## SSJR2:

| SS rack to mount chemical jug - includes mounting hardware |  |  |
| :---: | :--- | :--- |
| Item number |  | Description |
| $\mathbf{1 3}$ | WMS14 | $\# 14 \times 11 / 4$ in. wall mount screw - stainless <br> hex head slotted |
| $\mathbf{1 4}$ | SSJR2-P | SS rack to mount chemical transport jug |
| $\mathbf{1 5}$ | WMS14A | $\# 14 \times 11 / 4$ in. wall mount screw anchor - <br> plastic - 5/16 in. drill size |

JC35B-TAV


## Additional Configurations

## SS2-FM:

Footwear sanitizer - SS2 - includes floor mount, 2.5 gal chemical jug with suction, and SS rack

| Item number | Description |  |
| :---: | :--- | :--- |
| $\mathbf{1}$ | SS2 | Footwear sanitizer - includes 2.5 <br> gal chemical jug with suction and <br> SS rack |
| $\mathbf{2}$ | FMA-SS2 | Floor mount assembly - SS2 - floor <br> mount bracket and mount plate <br> adapter - no hardware |

## SS2-BS:

Footwear sanitizer - SS2 and base mount - includes floor mount, 2.5 gal chemical jug with suction, and SS rack

| Item number |  | Description |
| :--- | :--- | :--- |
| $\mathbf{3}$ | SS2 | Footwear sanitizer - includes 2.5 <br> gal chemical jug with suction and <br> SS rack |
| $\mathbf{4}$ | BSA-SS2 | Base assembly for SS2 - includes <br> base plate, mount plate adapter, <br> rubber feet, and hardware |

## SS2-MBS-BS:

Footwear sanitizer - SS2 and manual boot scrubber with combo handle on base mount - includes 2.5 gal chemical jug with suction and SS rack

| Item number |  | Description |
| :--- | :--- | :--- |
| $\mathbf{5}$ | SS2-MBS | Footwear sanitizer - SS2 - includes <br> floor mount, manual boot scrubber <br> with combo handle, 2.5 gal <br> chemical jug with suction, and <br> SS rack |
| $\mathbf{6}$ | BSA-SS2-MBS | Base assembly for SS2 and manual <br> boot scrubber - includes base <br> plate, mount plate adapter, rubber <br> feet, and hardware |



## Additional Configurations

## MBS:

Manual boot scrubber with handle

| Item number |  | Description |
| :--- | :--- | :--- |
| $\mathbf{1}$ | HNDL-FS | Handle bar - footwear sanitizer |
| $\mathbf{2}$ | DBSH | Debris shield - manual boot <br> scrubber - stainless steel |
| $\mathbf{3}$ | LN516 | Locknut - $5 / 16-18$ - stainless - nylon <br> insert |
| $\mathbf{4}$ | B5161834-HH | $5 / 16-18 \times 3 / 4$ in. bolt - stainless - hex <br> head |
| $\mathbf{5}$ | MBS100-C-BASE | Manual boot scrubber floor mount <br> bracket - footwear sanitizer base - <br> stainless steel |
| $\mathbf{6}$ | BR10S | Block brush for boot scrubber side <br> polypropylene |
| $\mathbf{7}$ | BR10 | Block brush for boot scrubber sole <br> polypropylene |
| $\mathbf{8}$ | DBTR | Debris tray - manual boot scrubber <br> stainless steel |

## Optional Component

## DBSH-EXT:

Debris shield extension for manual boot scrubber -
stainless steel

| Item number |  | Description |
| :---: | :---: | :---: |
| 9 | DBSH-EXT | Debris shield extension - manual <br> boot scrubber - stainless steel |



