

# Installation & Operator's Manual

## LS9 Liquid Spray System

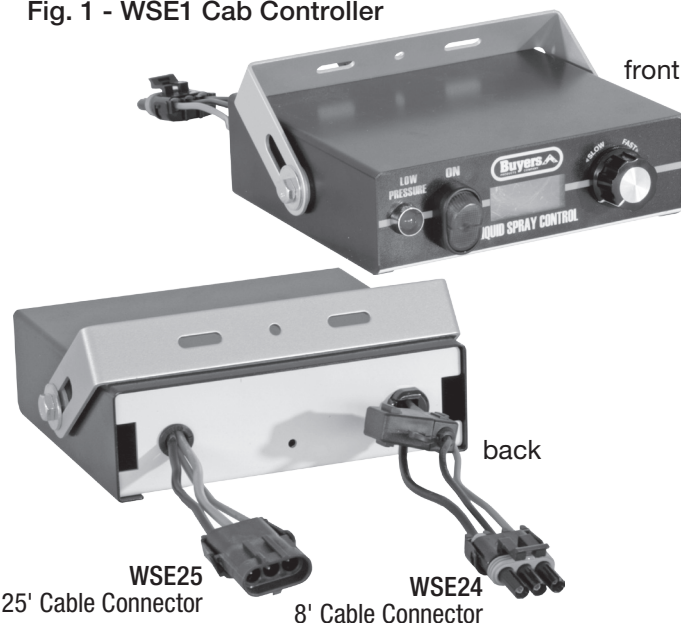
### 30 Gallon Tank

1. Locate the position where you will be mounting the Enclosure assembly.
2. Mount the Enclosure. All (4) mounting holes on Enclosure's flanges must be used.
3. Locate the position where you will be mounting the tank to the vehicle frame.
4. Use the Tank to determine the correct spacing of the Support Brackets and mark their mounting locations on the vehicle frame.
5. Mount the included Reservoir Support Brackets to the frame. **Note: Standard hardware is provided. If different sizes are required these will need to be purchased from a local hardware store.**
6. Mount the Tank to the Support Brackets. Note: Eyebolts and straps are provided as one method of attachment. Holes will need to be drilled in the support brackets to mount the eyebolts.
7. Plumb: Reservoir, ball valve, check valve, filter, pump enclosure and spray nozzles according to plumbing schematic, FIG 2. Use only Loctite™ #30534 or Permatex™ #2 thread sealants. **DO NOT USE TEFLON TAPE**

### Cab Controller Installation Instructions (fig.1)

1. Install cab controller (#WSE1) in cab for convenient driver operation. Mounting bracket and fasteners included.
2. Route 8' wire harness (#WSE24) under dash from controller (#WSE1) to truck's fuse panel.
3. Ground "black" wire from controller to truck frame or truck's battery (not dash).
4. Attach "green" wire in 8' wire harness (#WSE24) to a fused and keyed 15 Amp hot wire circuit.
5. Connect main power "white" wire in 8' wire harness (#WSE24) to fuse box that is "hot" full time or to battery "positive".
6. Route the 25' wire harness (#WSE25) from the rear of the spreader to the cab. Plug connector on controller (#WSE1) to the connector on pump harness (#WSE25).

Fig. 1 - WSE1 Cab Controller



### Liquid Spray System Operating Instructions

1. Read all instructions before operating. Always wear hand, eye, and skin protection when working with de-icing chemicals. Make sure everyone is standing clear of liquid spray system before operating.
2. Inspect all plumbing for leaks.
3. Open ball valve (#WSE10) at the reservoir.
4. Make sure reservoir has adequate supply of clean de-icing liquid. Do not operate pump without liquid.
5. Before turning the cab controller on, turn the black speed control knob counter clockwise until it stops to set the pump at the slowest speed.
6. To energize system, turn red power button to illuminate LCD screen "on" position.
7. Increase pump speed to desired liquid spray application rate by turning black knob clockwise.
8. If the red low pressure warning light/alarm comes on, the reservoir is empty or the pump is off. Do not operate pump without liquid. **Note: Low pressure light and alarm will sound each time system is started. This is normal and occurs until sufficient pressure is achieved to open pressure switch (turning off light/buzzer).**
9. Close ball valve (#WSE10) at the reservoir when not in use.



### CAUTION

Always wear hand, eye, and skin protection when working with de-icing chemicals. Use extreme care!

**Fig.2 - Prewet Plumbing Diagram**

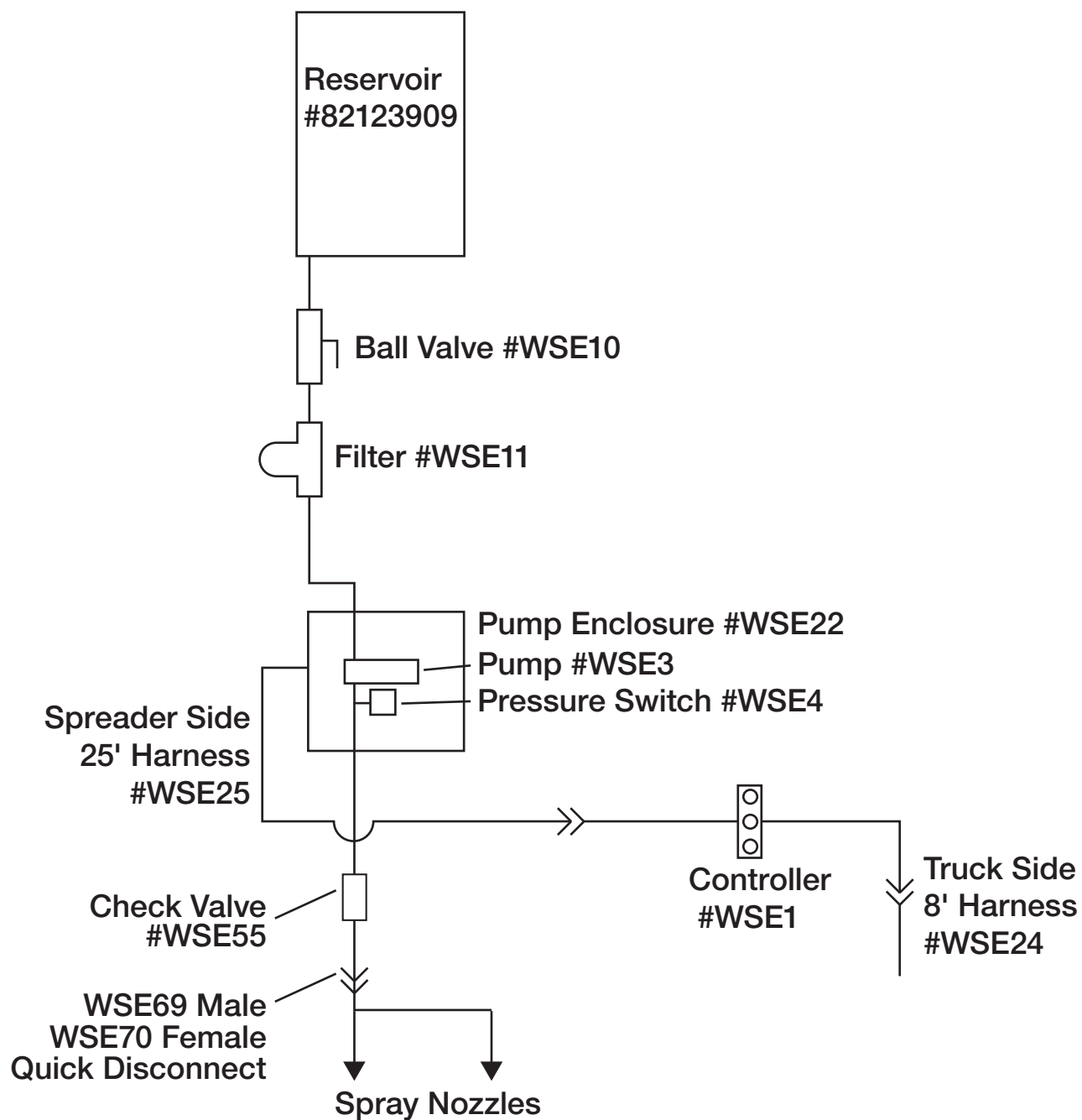


Fig. 3 - Filter/Valve Assembly

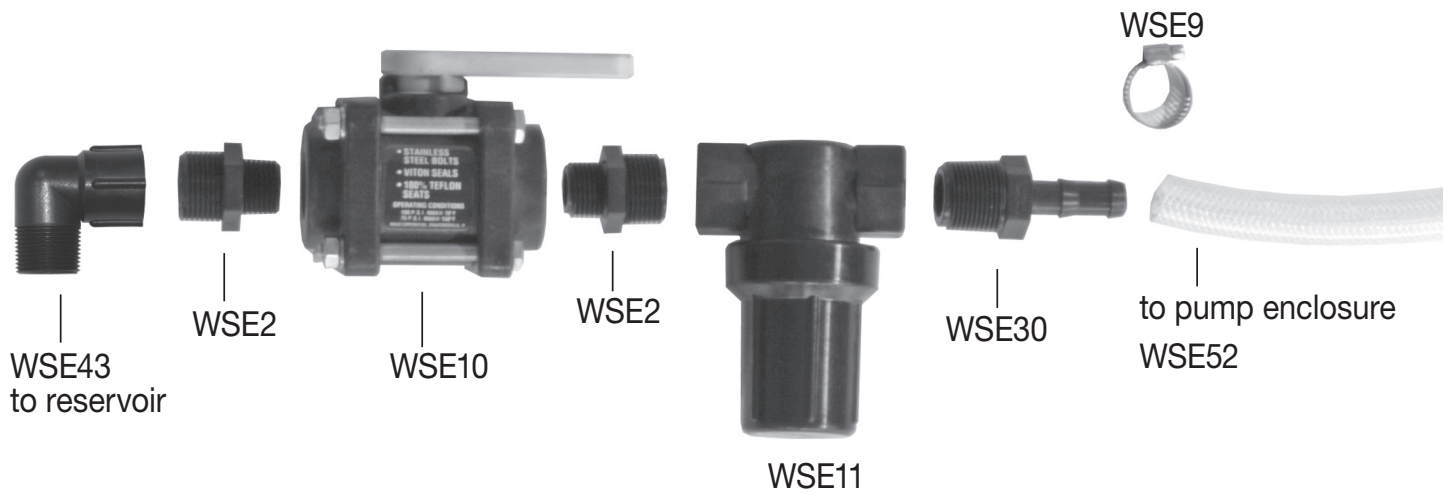
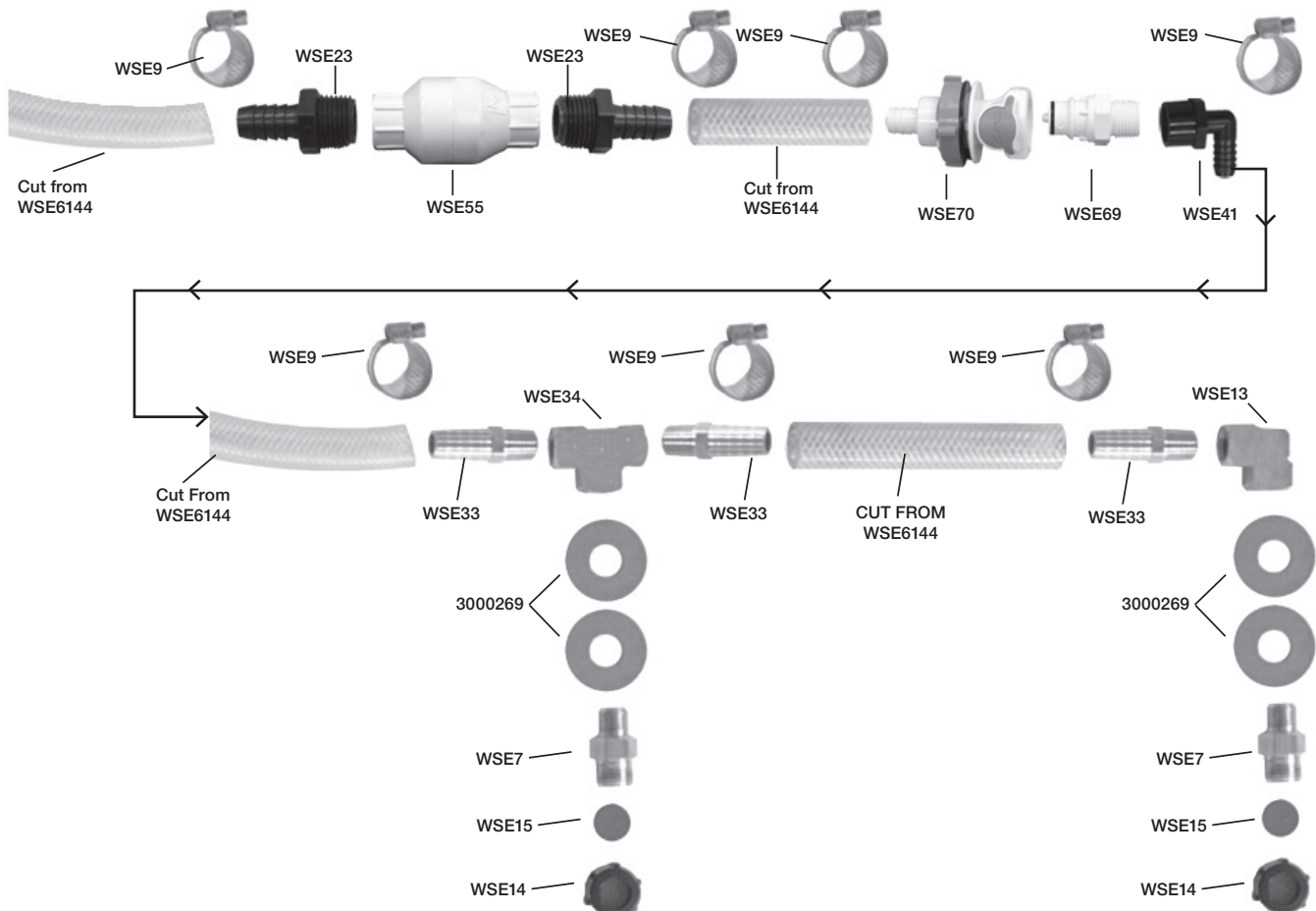


Fig. 4 - Nozzle Assembly



## Bill of Materials

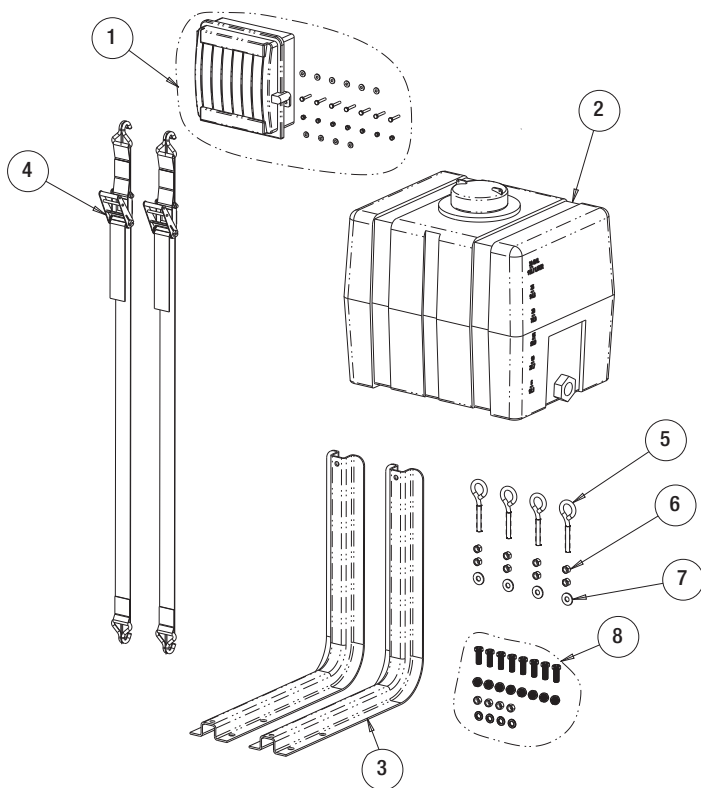
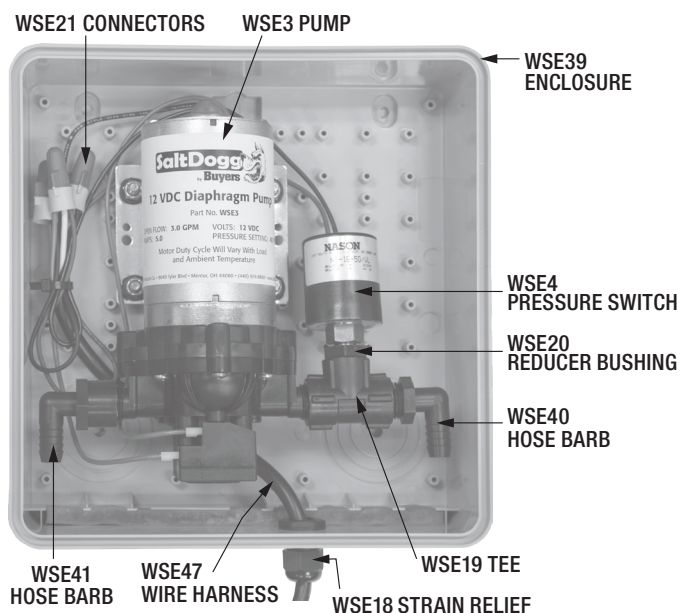


Fig. 5 Internal Components of LS102



### WARRANTY

Buyers Products Co. warrants all truck/trailer hardware manufactured or distributed by it, to be free from defects in material and workmanship for a period of one year from date of shipment. Parts must be properly installed and used under normal conditions. Any product which has been altered, including modification, misuse, accident or lack of maintenance will not be considered under warranty. Normal wear is excluded. The sole responsibility of Buyers Products Co. under this warranty is limited to repairing or replacing any part or parts which are returned, prepaid, and are found to be defective by Buyers Products Co. Authorization from Buyers Products Co. must be obtained before returning any part. No charges for transportation or labor performed on Buyers' products will be allowed under this warranty.

| ITEM                                                 | PART NO.       | QTY. | DESCRIPTION                              |
|------------------------------------------------------|----------------|------|------------------------------------------|
| 1                                                    | LS102          | 1    | ENCLOSURE ASSY,ELECTRIC                  |
| <i>SEE FIGURE 5 FOR INTERNAL COMPONENTS OF LS102</i> |                |      |                                          |
| 2                                                    | 82123909       | 1    | RESERVOIR,30 GALLON                      |
| 3                                                    | 3005186        | 2    | BRACKET,RESERVOIR SUPPORT                |
| 4                                                    | 149650501      | 2    | STRAP ASSY,RATCHET                       |
| 5                                                    | 3015006        | 4    | EYEBOLT,1/2-13 X 3IN LONG                |
| 6                                                    | FNE050013041G5 | 8    | NUT,ELASTIC STOP,1/2-13                  |
| 7                                                    | FWF050138014   | 4    | WASHER,FLAT,1/2                          |
| 8                                                    | SMD005DKHDW    | 1    | HARDWARE BAG,TANK MOUNT                  |
| <i>FOLLOWING PARTS ARE SHOWN ON FIGURES 3 AND 4</i>  |                |      |                                          |
|                                                      | 3000269        | 4    | WASHER,FLAT,1/2 USS SST                  |
|                                                      | WSE2           | 2    | NIPPLE,POLY,HEX 3/4 X 1/2                |
|                                                      | WSE7           | 2    | NOZZLE BODY,BRASS                        |
|                                                      | WSE9           | 10   | HOSE CLAMP                               |
|                                                      | WSE10          | 1    | BALL VALVE,POLY,1/2 FNPT                 |
|                                                      | WSE11          | 1    | FILTER,POLY,3/4 FNPT                     |
|                                                      | WSE13          | 1    | ELBOW,BRASS,1/4 FNPT X 1/4 FNPT          |
|                                                      | WSE14          | 2    | NOZZLE,CAP                               |
|                                                      | WSE15          | 2    | NOZZLE,RUBBER                            |
|                                                      | WSE23          | 2    | BARB,POLY,1/2 MNPT X 1/2 HB              |
|                                                      | WSE30          | 1    | BARB,POLY,3/4 MNPT X 1/2 HB              |
|                                                      | WSE33          | 3    | BARB,HOSE,BRASS,1/4 MNPT X 1/2 HB        |
|                                                      | WSE34          | 1    | TEE,BRASS,1/4 FNPT X 1/4 FNPT X 1/4 FNPT |
|                                                      | WSE41          | 1    | ELBOW,POLY,1/2 FNPT X 1/2 HB             |
|                                                      | WSE43          | 1    | STREET ELBOW,POLY,3/4 NPT                |
|                                                      | WSE55          | 1    | CHECK VALVE                              |
|                                                      | WSE69          | 1    | QUICK COUPLER,POLY,1/2 MNPT X 3/4 MALE   |
|                                                      | WSE70          | 1    | QUICK COUPLER,POLY,1/2 BARB X 3/4 FEMALE |
|                                                      | WSE6144        | 1    | HOLE,POLY,1/2 X 144 IN                   |
| <i>FOLLOWING PARTS ARE SHOWN IN FIGURES 1 AND 2</i>  |                |      |                                          |
|                                                      | WSE1           | 1    | CONTROLLER,IN CAB                        |
|                                                      | WSE24          | 1    | HARNESS,8FT,TRUCK SIDE                   |
|                                                      | WSE25          | 1    | HARNESS,25FT,SPREADER SIDE               |
|                                                      | WSE6144        | 1    | HOLE,POLY,1/2 X 144 IN                   |
| <i>FOLLOWING PARTS ARE SHOWN IN FIGURES 1 AND 3</i>  |                |      |                                          |
|                                                      | WSE75          | 1    | CONTROLLER,IN CAB                        |
|                                                      | WSE88          | 1    | HARNESS,TRUCK SIDE                       |
|                                                      | WSE89          | 1    | HARNESS,SPREADER SIDE                    |

### CAUTION

Always wear hand, eye, and skin protection when working with de-icing chemicals. Make sure everyone is standing clear of liquid spray system before operating.

### SAFETY ALERT SYMBOL

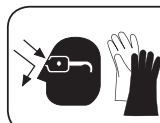


This Symbol Means **ATTENTION!**  
Please Read & Understand Completely  
Before Operating!

#### EQUIPMENT INSTALLERS & OPERATORS:

**TURN OFF ALL POWER BEFORE PERFORMING ANY SERVICE OPERATIONS.**

- Follow Recommended Operating Procedure.
- Keep Equipment In Safe Operating Condition At All Times.
- Recognize & Avoid Hazards While Operating, Servicing and Maintaining Equipment.



**CAUTION**  
**RESERVOIR & COMPONENTS MAY  
CONTAIN HAZARDOUS MATERIAL.  
HANDLE WITH CARE.**