

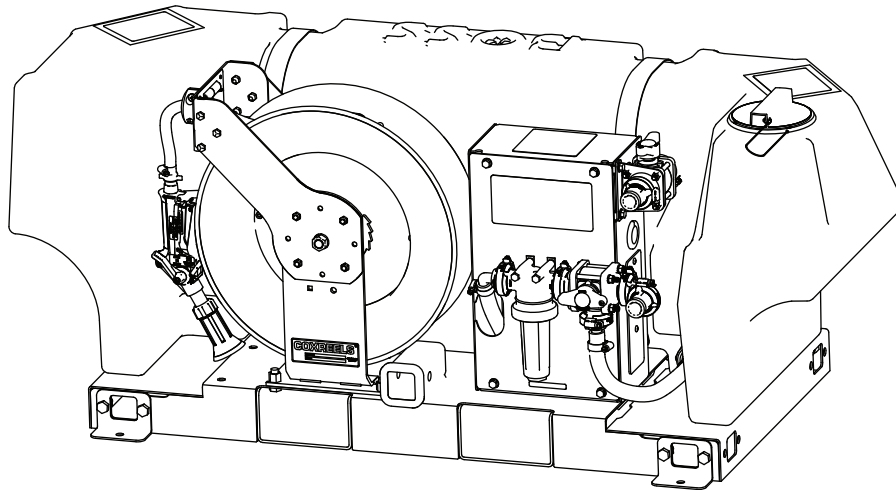


2010 The BOSS Way  
Iron Mountain, MI 49801  
United States

# Owner's Manual

## 60 Gallon Liquid Sprayer

Part No. LIQ28867—Serial No. 400000000 and Up



BOSS Products limited consumer warranty and BOSS Products commercial warranty policies are located at [www.bossplow.com](http://www.bossplow.com).

Patent [www.ttcopats.com](http://www.ttcopats.com)

⚠ WARNING

CALIFORNIA  
Proposition 65 Warning  
Use of this product may cause exposure to chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

## Safety-Alert Symbol

The safety-alert symbol (Figure 2) shown in this manual and on the machine identifies important safety messages that you must follow to prevent accidents.



Figure 2  
Safety-alert symbol

g000502

# Introduction

This machine is a dedicated ice-control spray system and is intended to be used by professional, hired operators. It is designed primarily for spraying ice-control solutions on residential or commercial properties. Using this product for purposes other than its intended use could prove dangerous to you and bystanders.

Read this information carefully to learn how to operate and maintain your product properly and to avoid injury and product damage. You are responsible for operating the product properly and safely.

Visit [www.bossplow.com](http://www.bossplow.com) for more information, including safety tips, training materials, accessory information, help finding a dealer, or to register your product.

Whenever you need service, genuine BOSS parts, or additional information, contact an Authorized BOSS Dealer or BOSS Technical Service (1-800-286-4155) and have the model and serial numbers of your product ready. Figure 1 identifies the location of the model and serial numbers on the product. Write the numbers in the space provided.

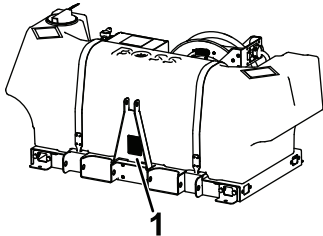


Figure 1

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The safety-alert symbol appears above information that alerts you to unsafe actions or situations and is followed by the word **DANGER**, **WARNING**, or **CAUTION**.

**DANGER** indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury.

**WARNING** indicates a potentially hazardous situation which, if not avoided, **could** result in death or serious injury.

**CAUTION** indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury.

This manual uses two other words to highlight information. **Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

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# Safety

## General Safety

This product is capable of causing personal injury. Always follow all safety instructions to avoid serious personal injury.

- Read and understand the contents of this *Owner's Manual* before operating or servicing the machine.
- Use your full attention while operating the machine. Do not engage in any activity that causes distractions; otherwise, injury or property damage may occur.
- Use appropriate personal protective equipment (PPE) to guard against contact with chemicals. Chemical substances used in the sprayer system may be hazardous and toxic.
- Do not put your hands or feet near moving components of the machine.
- Do not operate the machine without all guards and other safety protective devices in place and working on the machine.
- Keep clear of any discharge area of the sprayer nozzles and spray drift. Keep bystanders and children out of the operating area.
- Never allow children to operate the machine.
- Shut off the machine and disconnect the battery connector before adjusting, servicing, cleaning, or storing the machine.

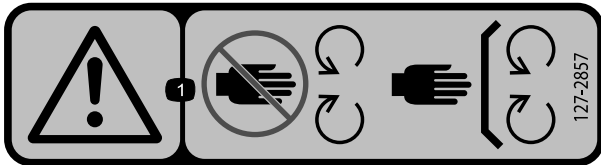
Improperly using or maintaining this machine can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety-alert symbol , which means Caution, Warning, or Danger—personal safety instruction. Failure to comply with these instructions may result in personal injury or death.

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# Safety and Instructional Decals



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



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127-2857

**WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).  
For more information, please visit [www.ticoCAProp65.com](http://www.ticoCAProp65.com)

133-8061

133-8061

decal133-8061

1. Warning—keep away from moving parts; keep all guards and safeties in place.



decal143-7421

143-7421

1. Warning—read the *Owner's Manual*.
2. Warning—all operators should be trained before operating the machine.
3. Warning—wear eye protection.
4. Warning—do not enter the tank.
5. Warning—shut off the machine, unplug the battery connector, and read the *Owner's Manual* before performing maintenance.
6. Warning—turn off the sprayer before leaving the machine.
7. Warning—stay away from moving parts; keep all guards and shields in place.
8. Fire hazard—do not put flammable liquids in the tank.
9. Tipping hazard—lift only an empty tank; do not lift the tank when full.
10. Thrown object hazard—keep bystanders away.

# Setup

## Mounting the Tank to the Machine

1. Open the tailgate of the vehicle.
2. Using the forklift pockets, lift the machine onto the vehicle bed.

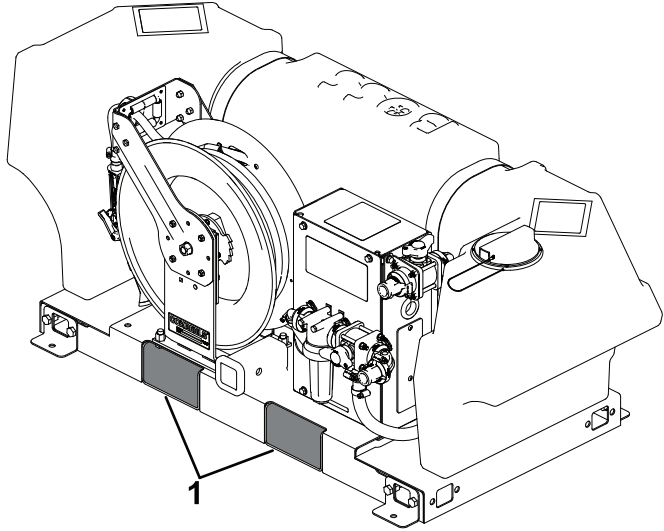


Figure 3

1. Forklift pockets

3. Secure the machine to the vehicle using straps or chains connected to the tie-down points.

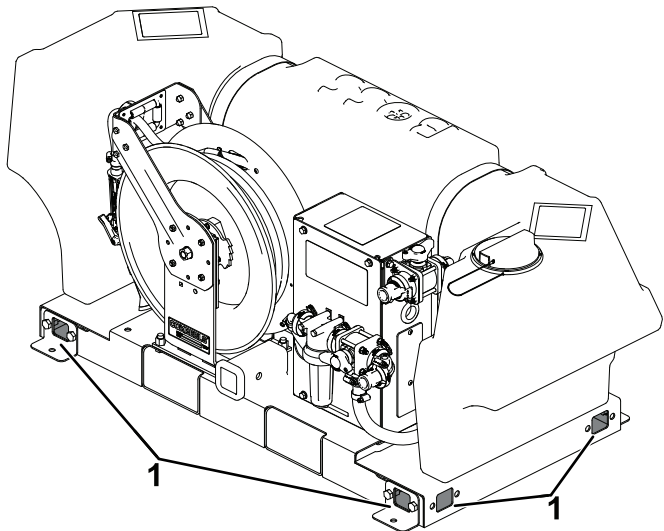


Figure 4

1. Tie-down points

**Note:** If your vehicle has a stainless or powder-coated bed, add rubber mats under the length of the skid to prevent the machine from sliding on smooth surfaces.

## Connecting the Machine to the Battery

### ⚠ DANGER

Vehicle batteries can cause dangerous electrical shocks that could lead to severe burns or death.

Disconnect your battery before installing this kit. Remove the negative cable first, then remove the positive cable.

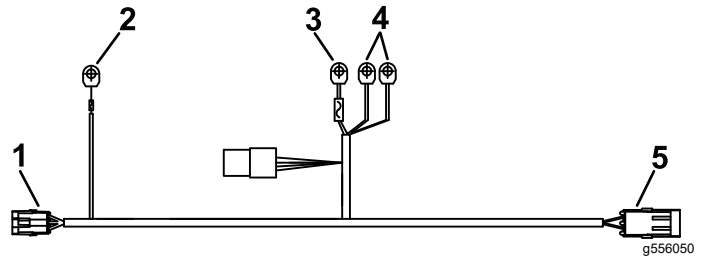
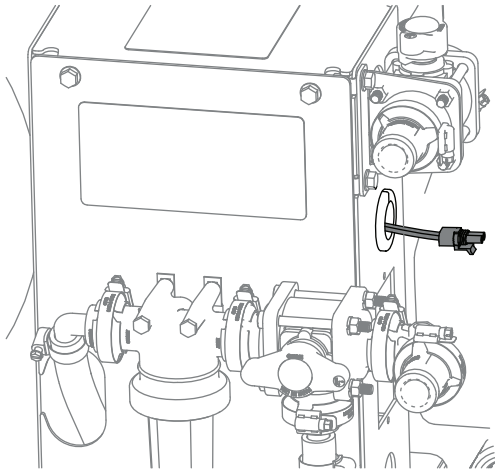


Figure 5

- |                                     |                              |
|-------------------------------------|------------------------------|
| 1. Switch connector                 | 4. Black wire ring terminals |
| 2. Key-on orange wire ring terminal | 5. Pump connector            |
| 3. Orange wire ring terminal        |                              |

1. On the vehicle, disconnect the negative battery cable first, then disconnect positive battery cable.
2. Install the rocker switch to the dashboard.
3. Connect the rocker switch connector to the wire harness connector.
4. Connect the key-on (+) orange wire to the key-on power source.
5. Connect the ring terminals to the battery. The orange wire connects to the positive battery post and the 2 black wires connect to the negative battery post.
6. Route the pump connector to the sprayer.

7. Route the connector on the pump to the pass-through hole.



g556049

**Figure 6**

- 
8. Connect the power harness to the connector on the pump.
  9. Connect the positive battery cable to the vehicle battery, then connect the negative battery cable to the battery.

# Product Overview

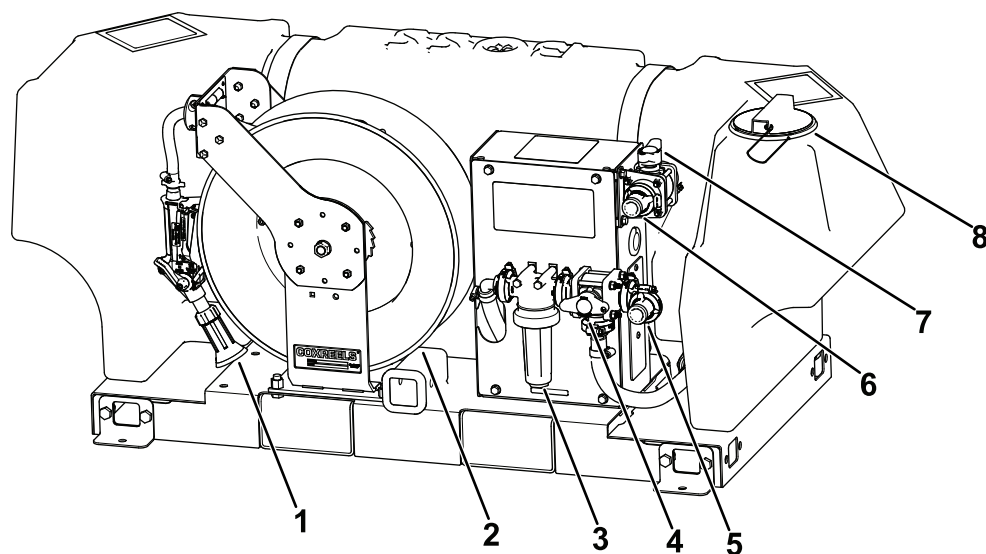


Figure 7

g555824

1. Spray wand

2. Hose reel

3. Fluid filter

4. Fill valve
5. Fill port

6. Pump-out port

7. Pump-out valve

8. Tank lid

## Controls

### Pump-Out Port

Use the pump-out port to pump out the brine to the boom or a storage tank.

### Pump-Out Valve

Use the pump-out valve to pump the brine out of the tank to the boom or the spray wand.

### Fill Port

Use the fill port to fill the tank with liquid.

### Fill Valve

Use the fill valve to pump the brine to the fill port.

### Spray Wand

The spray gun is located on the right side of the machine. It allows you to precisely apply the liquid in the sprayer tank.

## Filter

Each sprayer is equipped with a filter right before the inlet to the pump. Inside is a reusable stainless steel 30 mesh filter.

If you suspect that the filter is clogged:

1. Close the tank valve and loosen the collar around the filter housing.

2. Remove the outer housing and the filter.

3. Rinse the filter clean and install it in the housing.

## Specifications

**Note:** Specifications and design are subject to change without notice.

### Machine Specifications

Length	97.5 cm (38.4 inches)
Width	15.4 cm (60 inches)
Height	65.3 cm (13.9 inches)
Weight Empty	119.75 kg (264 lb)
Weight Full	390 kg (880 lb)
Capacity	227 L (60 US gallons)

# Operation

**Note:** Determine the left and right sides of the machine from the normal operating position.

## *Before Operation*

## Before Operation Safety

### General Safety

- Never allow children or untrained people to operate or service the machine. Local regulations may restrict the age of the operator. The owner is responsible for training all operators and mechanics.
- Become familiar with the safe operation of the equipment, operator controls, and safety signs.
- Shut off the machine and disconnect the battery connector before adjusting, servicing, cleaning, or storing the machine.
- Check that safety switches and shields are attached and functioning properly. Do not operate the machine unless they are functioning properly.
- Before operating the machine, inspect it to ensure that the components and fasteners are in good working condition. Replace worn or damaged components and fasteners.
- Ensure that all fluid line connectors are tight and that all hoses are in good condition before applying pressure to the system.
- Ensure that the weight of the machine with a full sprayer tank does not exceed the gross vehicle weight rating (GVWR).
- Do not mount or remove the sprayer tank with liquid in it.
- Verify that there is an adequate supply of clean water and soap nearby, and immediately wash off any chemicals that contact you.
- Carefully read and follow the chemical warning labels and safety data sheets (SDSs) for all chemicals used, and protect yourself according to the chemical manufacturer's recommendations.
- Always protect your body while using chemicals. Use the appropriate personal protective equipment (PPE) to guard against contact with chemicals, such eye protection and/or face shield and chemical-resistant gloves.
- Obtain proper training before using or handling chemicals.
- Use the correct chemical for the job.
- Follow the chemical manufacturer's instructions for the safely applying the chemical. Do not exceed the recommended system application pressure.
- Do not fill, calibrate, or clean the machine while people, especially children, or pets are in the area.
- Do not clean spray nozzles by blowing through them or placing them in your mouth.
- Always wash your hands and other exposed areas as soon as possible after working with chemicals.
- Keep chemicals in their original packages and stored in a safe location.
- Chemicals and fumes are dangerous; never enter the tank or place your head over or in the opening of a tank.
- Properly dispose of unused chemicals and chemical containers as instructed by the chemical manufacturer and your local codes.
- Follow all local, state, and federal regulations for spreading or spraying chemicals.

### Chemical Safety

Chemical substances used in the sprayer system may be hazardous and toxic to you, bystanders, and animals, and they may damage plants, soil, and other property.

- Read the information on each chemical. Refuse to operate or work on the sprayer if this information is not available.
- Before working on a sprayer system, ensure that it has been neutralized and triple rinsed according to the recommendations of the chemical manufacturer(s) and that all the valves have been cycled 3 times.



# Filling the Tank with Brine

The tank can be filled in 2 ways. See the options below:

- Option 1: Connect the hose to the fill port and open the fill valve to fill the sprayer with brine from a holding tank.

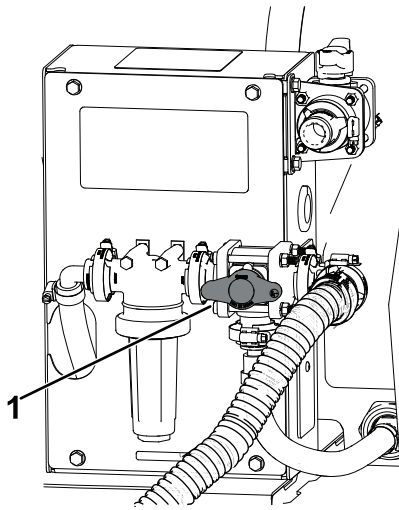


Figure 8

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1. Fill valve open

- Option 2: Remove the lid from the tank and use a hose to fill the tank with brine.

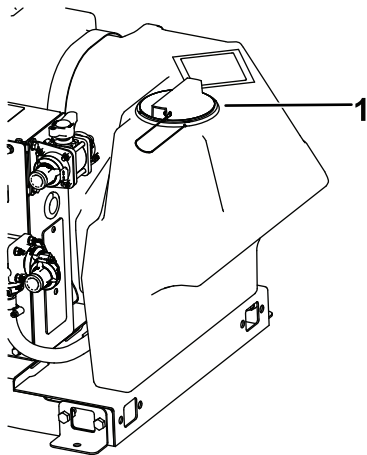


Figure 9

g555911

1. Tank lid

## Pumping out Brine

Your tank must have liquid in the tank. The hose must be connected to the pump-out port and the valve needs to be configured as shown in [Figure 10](#) when you are using the pump to transfer liquid from the sprayer to another tank outside of the sprayer.

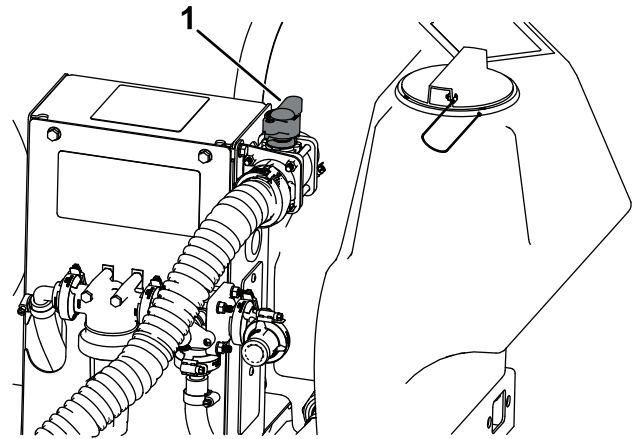


Figure 10

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1. Pump-out valve

## During Operation

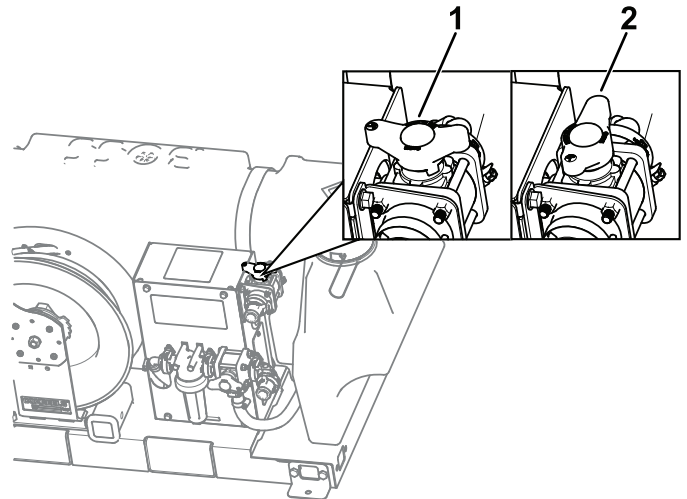
### During Operation Safety

- The owner/operator can prevent and is responsible for accidents that may cause personal injury or property damage.
- Wear appropriate clothing, including eye protection; substantial, slip-resistant footwear; long pants, and hearing protection. Tie back long hair and do not wear loose clothing or loose jewelry.
- Wear appropriate personal protective equipment as directed in Chemical Safety.
- Use your full attention while operating the machine. Do not engage in any activity that causes distractions; otherwise, injury or property damage may occur.
- Do not operate the machine while ill, tired, or under the influence of alcohol or drugs.
- Operate the machine only in good visibility.
- Use care when approaching blind corners, shrubs, trees, or other objects that may obscure your vision.
- Before backing up, look rearward and ensure that no one is behind you. Back up slowly.
- Never spray while people, especially children, or pets are nearby.
- Do not operate the machine near drop-offs, ditches, or embankments. The machine could suddenly roll over if a wheel goes over the edge or if the edge gives way.
- Reduce the speed when operating on rough terrain, uneven ground, and near curbs, holes, and other sudden changes in terrain. Loads may shift, causing the machine to become unstable.

- Stop the vehicle, shut off the engine, remove the key, engage the parking brake, and inspect for damage after striking an object or if there is an abnormal vibration in the machine. Make all necessary repairs before resuming operation.
- Slow down and use caution when making turns and crossing roads and sidewalks with the machine. Always yield the right-of-way.
- Use extra caution when operating the machine in adverse weather conditions, at higher speeds, or with a full load. Stopping time and distance increase in these conditions.
- Shut off the machine and disconnect the battery connector before adjusting, servicing, cleaning, or storing the machine.
- Use accessories and attachments approved by BOSS only.

## Using the Pump-Out Valve

Use the pump-out valve to direct the brine to the boom or the spray wand; refer to the following figure.

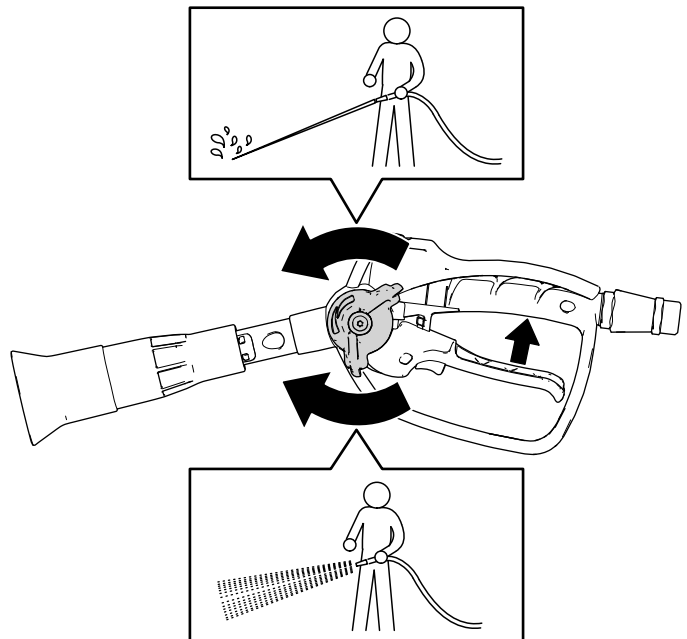


g555965

**Figure 11**

1. The brine is directed to spray wand.
2. The brine is directed to boom.

## Using the Spray Wand



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**Figure 12**

Spray wand application modes

1. Use the pump-out valve to direct the brine to the spray wand.

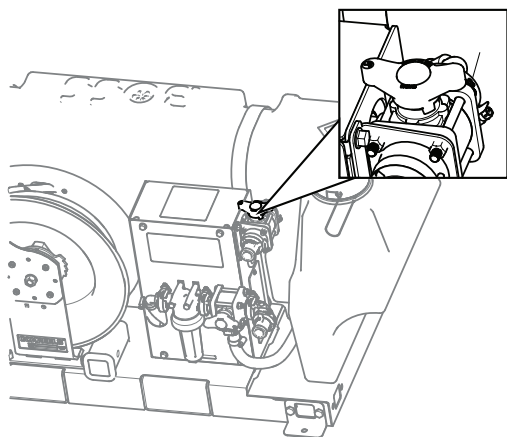


Figure 13

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## After Operation

### After Operation Safety

- Shut off the machine and disconnect the battery connector before adjusting, servicing, cleaning, or storing the machine.
- Keep all parts of the machine in good working condition and all hardware tightened.
- Replace all worn, damaged, or missing decals.
- Do not mount or remove the sprayer tank with liquid in it.

- 
2. Turn the pump on using the switch on the dashboard.
  3. Pull the spray-wand hose towards you.
  4. Select the spray wand application mode using the selector dial:
    - **Forward-jet stream: ice and hard-packed snow.**
    - **Backward-fan: post-treatment coating.**
  5. Squeeze the trigger to start applying brine.
  6. After you are done working, pull the hose slightly towards you and the hose reel will start retracting.

# Maintenance

**Note:** Determine the left and right sides of the machine from the normal operating position.

## Maintenance Safety

- Shut off the machine and disconnect the battery connector before adjusting, servicing, cleaning, or storing the machine.
- Allow machine components to cool before performing maintenance.
- Allow only qualified and authorized personnel to maintain, repair, adjust, or inspect the machine.
- Before performing any maintenance, thoroughly clean and rinse the sprayer; refer to [Chemical Safety \(page 8\)](#).
- Chemicals used in the sprayer system may be hazardous and toxic to you, bystanders, animals, plants, soils, or other property.
  - Carefully read and follow the chemical warning labels and safety data sheets (SDSs) for all chemicals used, and protect yourself according to the chemical manufacturer's recommendations.
- Refuse to operate or work on the sprayer if chemical safety information is not available.
- Do not fill, calibrate, or clean the machine while people, especially children, or pets are in the area.
- Do not clean spray nozzles by blowing through them or placing them in your mouth.
- Always wash your hands and other exposed areas as soon as possible after working with chemicals.
- To ensure that the entire machine is in good condition, keep all hardware properly tightened.
- If the machine requires a major repair or you need technical help, contact an authorized BOSS dealer.
- Modifying this machine in any manner may affect machine operation, performance, durability, or its use, and result in injury or death.
- Carefully release pressure from components with stored energy.

## Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first hour	<ul style="list-style-type: none"><li>• Inspect the tank straps for proper attachment.</li></ul>
Before each use or daily	<ul style="list-style-type: none"><li>• Inspect the tank straps for proper attachment.</li><li>• Wash the machine after each use.</li></ul>
Every 200 hours	<ul style="list-style-type: none"><li>• Inspect all hoses and connections for damage and proper attachment.</li></ul>
Before storage	<ul style="list-style-type: none"><li>• Grease and cap all connection points.</li><li>• Rinse the sprayer tank.</li><li>• Drain the pump.</li><li>• Condition the spray system.</li></ul>

# ***Lubrication***

## **Lubricating the Machine**

**Service Interval:** Before storage

Use dialectic grease on all connection points and cap them.

# ***Sprayer System Maintenance***

## **Inspecting the Tank Straps**

**Service Interval:** After the first hour

Before each use or daily

The machine is equipped with tank straps. It is important to frequently check the straps to ensure that the straps remain tight. If a band can move freely by hand it should be tightened. Do not overtighten, as tank damage may occur.

## **Inspecting the Hoses**

**Service Interval:** Every 200 hours—Inspect all hoses and connections for damage and proper attachment.

Examine each hose in the spray system for cracks, leaks, or other damage. At the same time, inspect the connections and fittings for similar damage. Replace any hoses and fittings if damaged.

# ***Pump Maintenance***

## **Inspecting the Pumps**

Have an authorized BOSS dealer check the pump seals for damage and replace if necessary.

# ***Cleaning***

## **Washing the Machine**

**Service Interval:** Before each use or daily

Wash the machine after each use using water alone or with a mild detergent. You may use a rag when washing the machine.

**Important:** Do not use brackish or reclaimed water to clean the machine.

**Note:** Do not use power-washing equipment to wash the machine. Power-washing equipment may damage the electrical system, loosen important decals, or wash away necessary grease at friction points. Avoid excessive use of water near any electrical connectors.

## **Rinsing the Tank**

**Service Interval:** Before storage

After the season is complete, rinse out the sprayer tank and run fresh water through the entire system to wash out any salt residue.

## **Draining the Pump**

**Service Interval:** Before storage

Remove the quick-connect fittings to drain excess water from the pump.

## **Conditioning the Sprayer System**

**Service Interval:** Before storage

After rinsing the tank, add RV antifreeze to the tank and run it through the entire system.

Open all valves to ensure that no water is present inside the ball valve.

Remove the filter housing to drain water.

# Storage

## Storage Safety

Shut off the machine and disconnect the battery connector before adjusting, servicing, cleaning, or storing the machine.

## Preparing the Machine for Storage

1. Disconnect the negative terminal first and the positive last. Connect the positive terminal first and the negative last.
2. Wash the machine; refer to [Washing the Machine \(page 14\)](#).
3. Rinse the sprayer tank and sprayer components; refer to [Rinsing the Tank \(page 14\)](#).
4. Drain the sprayer tank as completely as possible.
5. Condition the sprayer tank; [Conditioning the Sprayer System \(page 14\)](#).
6. Grease and cap all connection points; refer to [Lubricating the Machine \(page 13\)](#).
7. Drain the pump; refer to [Draining the Pump \(page 14\)](#).

# California Proposition 65 Warning Information

## What is this warning?

You may see a product for sale that has a warning label like the following:



**WARNING: Cancer and Reproductive Harm—**[www.p65Warnings.ca.gov](http://www.p65Warnings.ca.gov).

## What is Prop 65?

Prop 65 applies to any company operating in California, selling products in California, or manufacturing products that may be sold in or brought into California. It mandates that the Governor of California maintain and publish a list of chemicals known to cause cancer, birth defects, and/or other reproductive harm. The list, which is updated annually, includes hundreds of chemicals found in many everyday items. The purpose of Prop 65 is to inform the public about exposure to these chemicals.

Prop 65 does not ban the sale of products containing these chemicals but instead requires warnings on any product, product packaging, or literature with the product. Moreover, a Prop 65 warning does not mean that a product is in violation of any product safety standards or requirements. In fact, the California government has clarified that a Prop 65 warning "is not the same as a regulatory decision that a product is 'safe' or 'unsafe.'" Many of these chemicals have been used in everyday products for years without documented harm. For more information, go to <https://oag.ca.gov/prop65/faqs-view-all>.

A Prop 65 warning means that a company has either (1) evaluated the exposure and has concluded that it exceeds the "no significant risk level"; or (2) has chosen to provide a warning based on its understanding about the presence of a listed chemical without attempting to evaluate the exposure.

## Does this law apply everywhere?

Prop 65 warnings are required under California law only. These warnings are seen throughout California in a wide range of settings, including but not limited to restaurants, grocery stores, hotels, schools, and hospitals, and on a wide variety of products. Additionally, some online and mail order retailers provide Prop 65 warnings on their websites or in catalogs.

## How do the California warnings compare to federal limits?

Prop 65 standards are often more stringent than federal and international standards. There are various substances that require a Prop 65 warning at levels that are far lower than federal action limits. For example, the Prop 65 standard for warnings for lead is 0.5 µg/day, which is well below the federal and international standards.

## Why don't all similar products carry the warning?

- Products sold in California require Prop 65 labelling while similar products sold elsewhere do not.
- A company involved in a Prop 65 lawsuit reaching a settlement may be required to use Prop 65 warnings for its products, but other companies making similar products may have no such requirement.
- The enforcement of Prop 65 is inconsistent.
- Companies may elect not to provide warnings because they conclude that they are not required to do so under Prop 65; a lack of warnings for a product does not mean that the product is free of listed chemicals at similar levels.

## Why does BOSS include this warning?

BOSS has chosen to provide consumers with as much information as possible so that they can make informed decisions about the products they buy and use. BOSS provides warnings in certain cases based on its knowledge of the presence of one or more listed chemicals without evaluating the level of exposure, as not all the listed chemicals provide exposure limit requirements. While the exposure from BOSS products may be negligible or well within the "no significant risk" range, out of an abundance of caution, BOSS has elected to provide the Prop 65 warnings. Moreover, if BOSS does not provide these warnings, it could be sued by the State of California or by private parties seeking to enforce Prop 65 and subject to substantial penalties.