



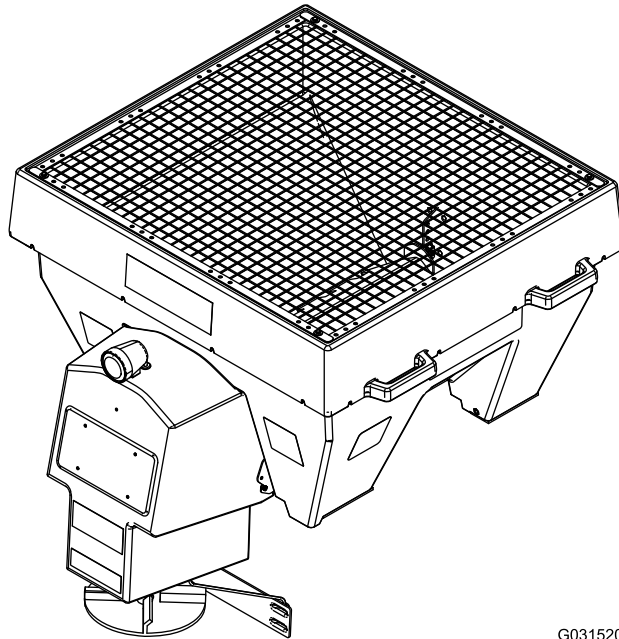
P.O. Box 787  
Iron Mountain, MI 49801  
United States

# Owner's Manual

## VBX 3000 V-Box Spreader

Part No. VBS11060—Serial No. 40000000 and Up

Part No. VBS19300B—Serial No. 40000000 and Up



G031520



This product complies with all relevant European directives; for details, please see the separate product specific Declaration of Conformity (DOC) sheet.

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

Patents pending.

**⚠ 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.** \_\_\_\_\_

This manual identifies potential hazards and has safety messages identified by the safety alert symbol (Figure 2), which signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.



**Figure 2**

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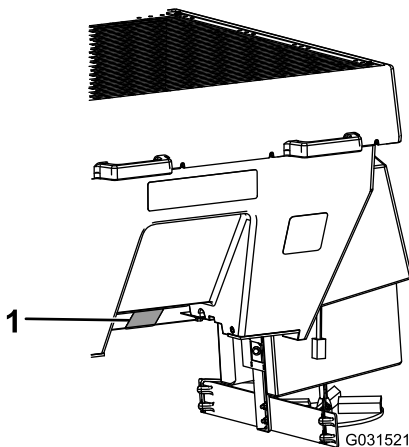
1. Safety alert symbol

# Introduction

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.

You may contact BOSS directly at [www.bossplo.com](http://www.bossplo.com) for product and 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 () 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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1. Serial number location

This manual uses 2 words to highlight information. **Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

# Contents

Safety .....	3
Preparation .....	3
Operation .....	3
Safety and Instructional Decals .....	4
Setup .....	6
Installing the Wire Harness .....	6
Mounting the Spreader .....	7
Installing the Tie-Down D-Rings .....	7
Securing the Spreader .....	8
Installing the Spinner Assembly .....	8
Installing the Spreader Controller .....	9
Product Overview .....	10
Controls .....	10
Specifications .....	11
Operation .....	11
Loading the Spreader .....	11
Operating the Spreader .....	12
Freeing a Clog .....	12
Adjusting the Material Deflectors .....	12
Adjusting the Baffle .....	13
Removing the Spinner Assembly .....	13
Unloading the Spreader .....	13
Operating Tips .....	14
Maintenance .....	15
Recommended Maintenance Schedule(s) .....	15
Lubrication .....	15
Greasing the Machine .....	15
Storage .....	15
Troubleshooting .....	16

# Safety

Improper use or maintenance by the operator or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety-alert symbol **A**, which means: *Caution, Warning, or Danger*—personal safety instruction. Failure to comply with the instruction may result in personal injury or death.

## Preparation

- Read the *Owner's Manual* before operating or servicing the spreader.
- Ensure that only trained personnel installs and performs maintenance on the equipment.
- Use a 500 kg (1/2 ton) minimum lifting device to move heavy spreader components. Never put any part of your body under a suspended load.
- This spreader has an operating sound level below 70 dBA while inside the vehicle. Wear hearing protection while operating the spreader outside of the vehicle.
- Always wear appropriate personal protective equipment when loading, unloading, and servicing the spreader. Wear substantial, slip-resistant footwear, cold-weather clothing, hard hat, safety glasses, and dust protection.

## Operation

- Never put any part of your body between the spreader and the vehicle.
- When transporting the spreader, ensure that it is properly secured. Instructions are available at [www.bossplov.com](http://www.bossplov.com).
- Material safety data sheets (MSDS) are available at [www.bossplov.com](http://www.bossplov.com).
- Do not operate the machine while ill, tired, or under the influence of alcohol or drugs.
- For vehicle mounted spreaders, always follow the manufacturer's recommendations for proper parking procedures.
- Always wear your seatbelt while operating a motor vehicle.
- Do not exceed 22 km/h (14 mph) while spreading.
- Overloading the spreader could result in an accident or damage. Never exceed the gross-vehicle-weight rating (GVWR), the front or rear gross-axle-weight ratings (FGAWR or RGAWR), or the utility vehicle bed capacity.
- This spreader is restricted to the use of dry, free-flowing salt. Do not run other materials through the spreader.
- Do not attempt to mount or remove the spreader with material in it.
- Turn the vehicle and spreader off before filling, mounting, removing, servicing, or cleaning it.
- Do not operate the spreader within 7.6 m (25 ft) of bystanders.
- Do not climb into or ride on the spreader.
- Keep your hands, feet, and clothing away from moving parts and mounting points.
- Mount the spreader to a vehicle when loading material.
- Install ratchet straps and keep them properly tightened at all times.
- Do not store material in the hopper.

# Safety and Instructional Decals



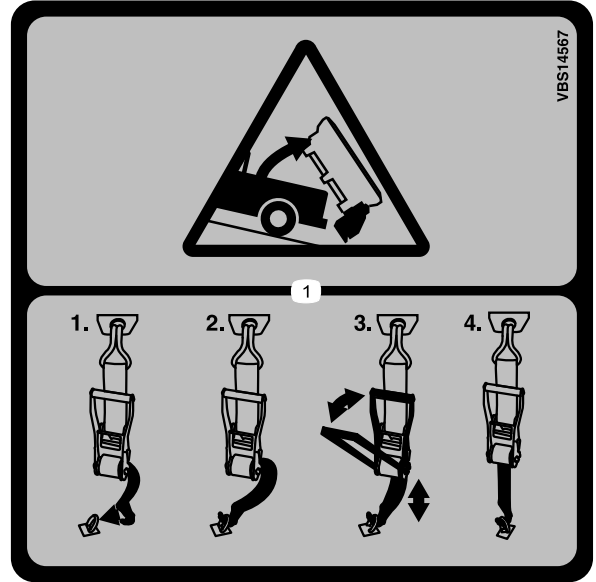
Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



**MSC19399**

decalsmc19399

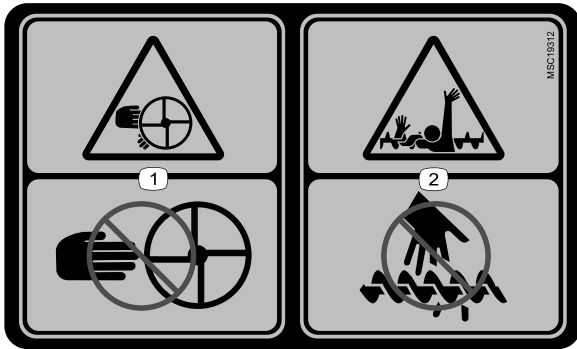
1. Warning—read the *Operator's Manual*.
2. Warning—receive training for this machine.
3. Tipping hazard—only drive side to side on slopes less than 10°.
4. Warning—do not operate the machine with an overloaded hopper.
5. Warning—do not raise the vehicle bed when the spreader is installed.
6. Tipping hazard—only drive up slopes less than 15°.



**VBS14567**

decalsvbs14567b

1. Loss of machine hazard—the ratchet straps must be secured at all times.



**MSC19312**

decalsmc19312b

1. Cutting/dismemberment hazard, spinner—keep hands clear.
2. Entanglement hazard; auger—keep hands clear.



decalsmc06370

### MSC06370

(non-replaceable decal)

- |                 |                  |
|-----------------|------------------|
| 1. Feeder speed | 4. Vibrator      |
| 2. Power        | 5. Blast         |
| 3. Light        | 6. Spinner speed |
-

# Setup

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

## Installing the Wire Harness

### **⚠ DANGER**

Vehicle engines contain moving parts and can become extremely hot, capable of causing severe burns and serious bodily harm.

Shut off the engine and allow it sufficient time to cool down before installing this kit.

### **⚠ DANGER**

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

Disconnect your battery before installing this kit by removing the negative connector followed by the positive connector.

1. Secure the spreader connectors end of the vehicle wire harness (Figure 3) to the left side of the rear vehicle bumper with a cable tie.
2. Route the wire harness along the driver-side frame-rail and into the engine compartment, and secure it with cable ties.

**Note:** Keep the wire harness away from any hot or moving parts.

3. Insert the controller connectors, spade connector, and ground cable through the engine compartment wall and into the vehicle cab, and secure them with cable ties.

**Note:** Route the connectors to the location that you want to install your controller.

4. Connect the black ring connector in the engine compartment to the negative (-) battery terminal (Figure 3).
5. Connect the red ring connector in the engine compartment to the positive (+) battery terminal (Figure 3).
6. Connect the spade connector to an ignition switch power source on the vehicle (Figure 3).
7. Connect the ground cable to the negative (-) battery post or chassis ground (Figure 3).
8. Wrap all of the excess wire and secure it in the engine compartment with cable ties.

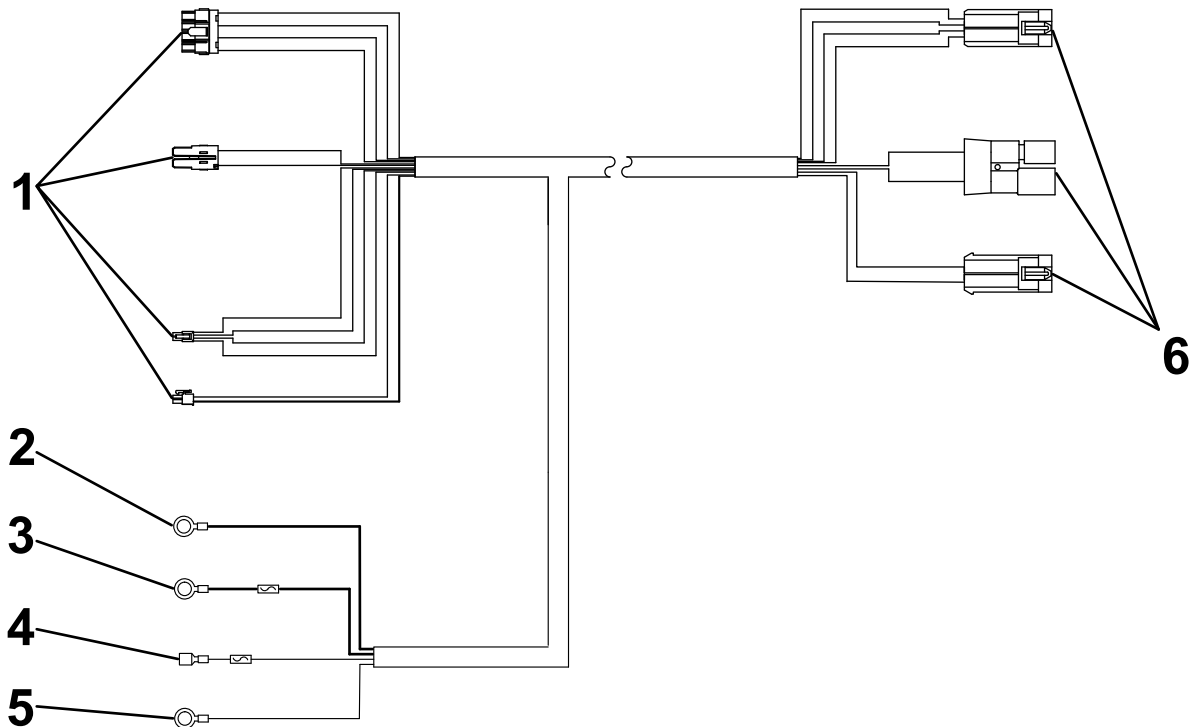


Figure 3

g239091

1. Controller connectors
2. Black ring connector
3. Red ring connector

4. Spade connector
5. Ground cable
6. Spreader connectors

# Mounting the Spreader

The minimum truck bed length for the spreader is 85 cm (33-1/2 inches).

1. Remove the tailgate from the vehicle.
2. Using the lift points (Figure 4), lift the spreader onto the utility vehicle bed and set it on the centerline.

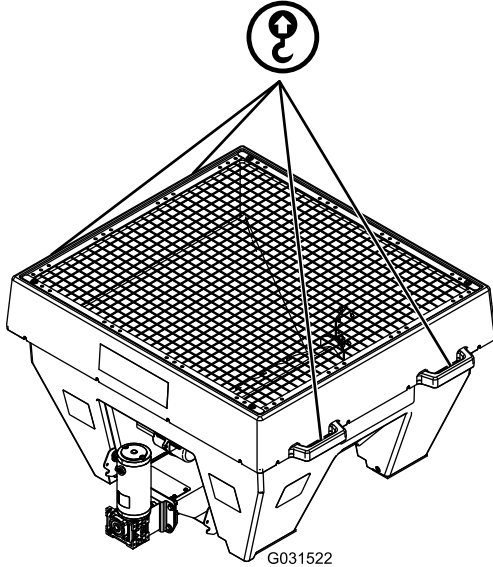


Figure 4

1. Lift points

3. Slide the spreader toward the vehicle cab until the slide stop feet hit the utility vehicle bed (Figure 5).

**Note:** The utility vehicle bed must be at least 85 cm (33-1/2 inches) long.

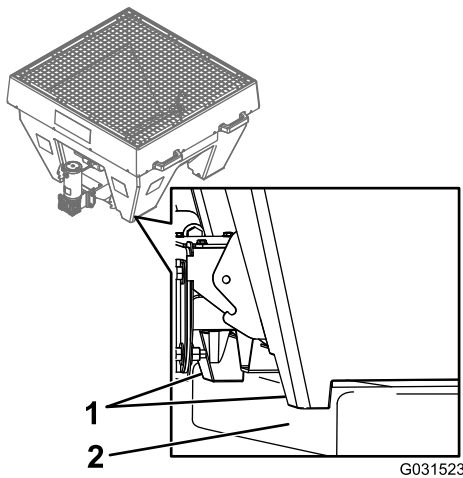


Figure 5

1. Stop feet
2. Edge of the utility vehicle bed

# Installing the Tie-Down D-Rings

1. Using a 7/16-inch drill bit, mark and drill the holes for the D-rings as shown in Figure 6. Align the rear D-ring with the back of the rear spreader leg.

**Note:** Drill the holes through or near the frame cross-members of your vehicle.

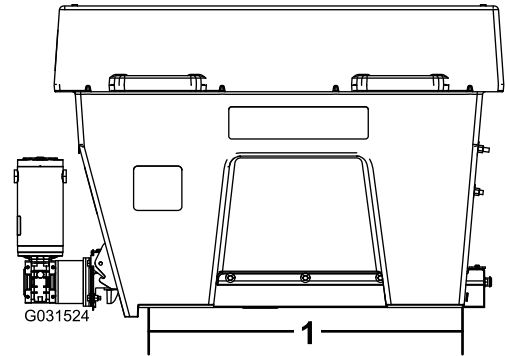


Figure 6

1. D-ring center to the D-ring center—minimum of 76 cm (30 inches)

2. Install the D-rings as shown in Figure 7 and torque the bolts to 28 Nm (19.7 ft-lb).

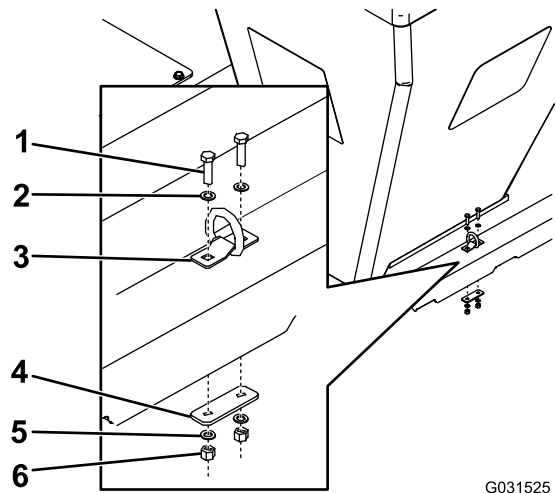


Figure 7

- |                           |                           |
|---------------------------|---------------------------|
| 1. Bolt (1-1/2 inch)      | 4. Bedmount plate         |
| 2. Flat washer (3/8 inch) | 5. Flat washer (3/8 inch) |
| 3. D-ring                 | 6. Locknut                |

# Securing the Spreader

## **⚠ DANGER**

The spreader is heavy and could cause serious injury or property damage if it falls off the vehicle.

Ensure that the ratchet straps are securely attached to the spreader at all times.

1. Connect the ratchet straps to the lift handles around the upper edge of the spreader (Figure 8).

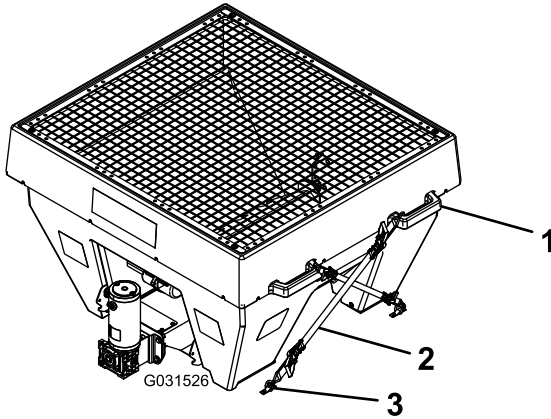


Figure 8

1. Lift handle
2. Ratchet strap
3. D-ring

2. Connect the free ends of the ratchet straps to the D-rings opposite to them on each side of the spreader (Figure 8).

**Note:** The ratchet straps should cross on the sides of the spreader.

3. Tighten the straps evenly to secure the spreader.

# Installing the Spinner Assembly

1. Attach the tether to the lower bolt on each of the hopper latches (Figure 9).

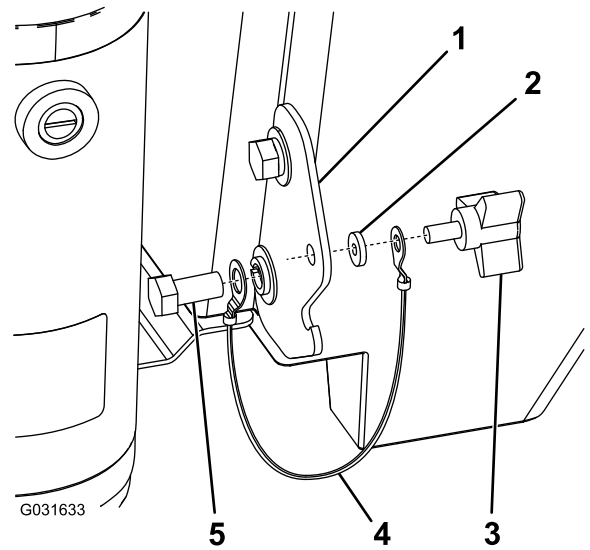


Figure 9

1. Hopper latch
2. Rubber washer
3. Thumbscrew
4. Tether
5. Lower bolt

2. Attach the open end of the tether to the thumbscrew using a rubber washer (Figure 9).
3. Attach the spinner assembly to the spreader and secure it with the thumbscrews (Figure 10).

**Important:** The spinner assembly is heavy and requires 2 people to lift.

**Note:** Avoid pinching fingers on the hopper latch when mounting the spinner assembly.

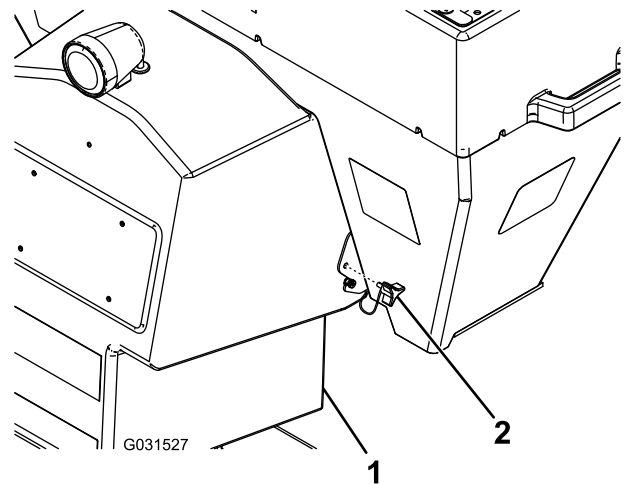


Figure 10

1. Spinner assembly
2. Thumbscrew

4. Connect the wire harness.



# Installing the Spreader Controller

Mount the controller in the cab where it does not interfere with vehicle operation or visibility. Ensure that the controller is in a dry area that is protected from the elements.

**Important:** Do not mount the controller in a location that vehicle occupants could contact it during a crash.

1. Attach the mounting bracket to the vehicle using 2 sheet-metal screws (Figure 11).

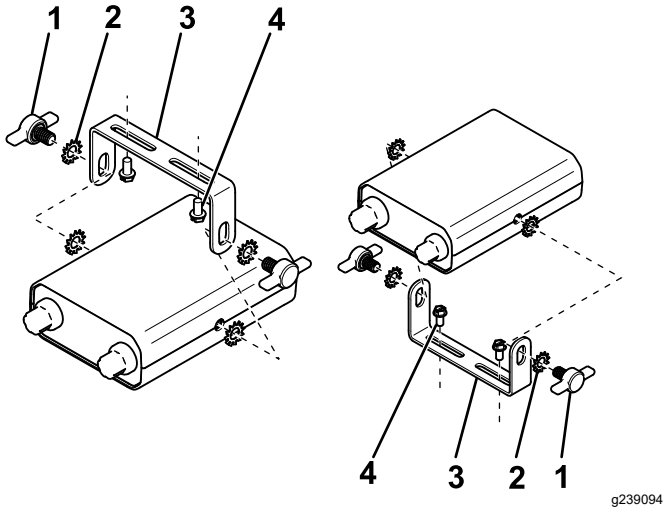


Figure 11

g239094

- |                |                      |
|----------------|----------------------|
| 1. Thumbscrew  | 3. Mounting bracket  |
| 2. Star washer | 4. Sheet-metal screw |

2. Attach the controller to the mounting bracket using 4 star washers and 2 thumbscrews (Figure 11).

**Note:** Position the controller screen so that it is clearly visible to the driver.

3. Connect the wire harness controller connectors to the controller (Figure 12).

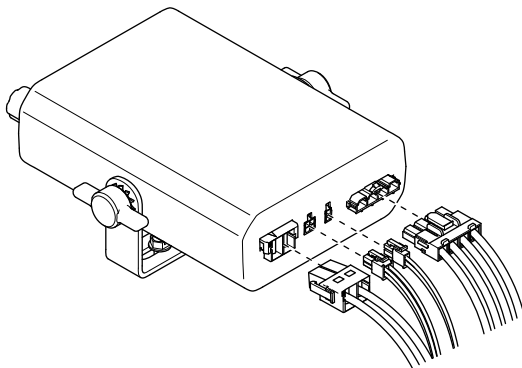


Figure 12

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# Product Overview

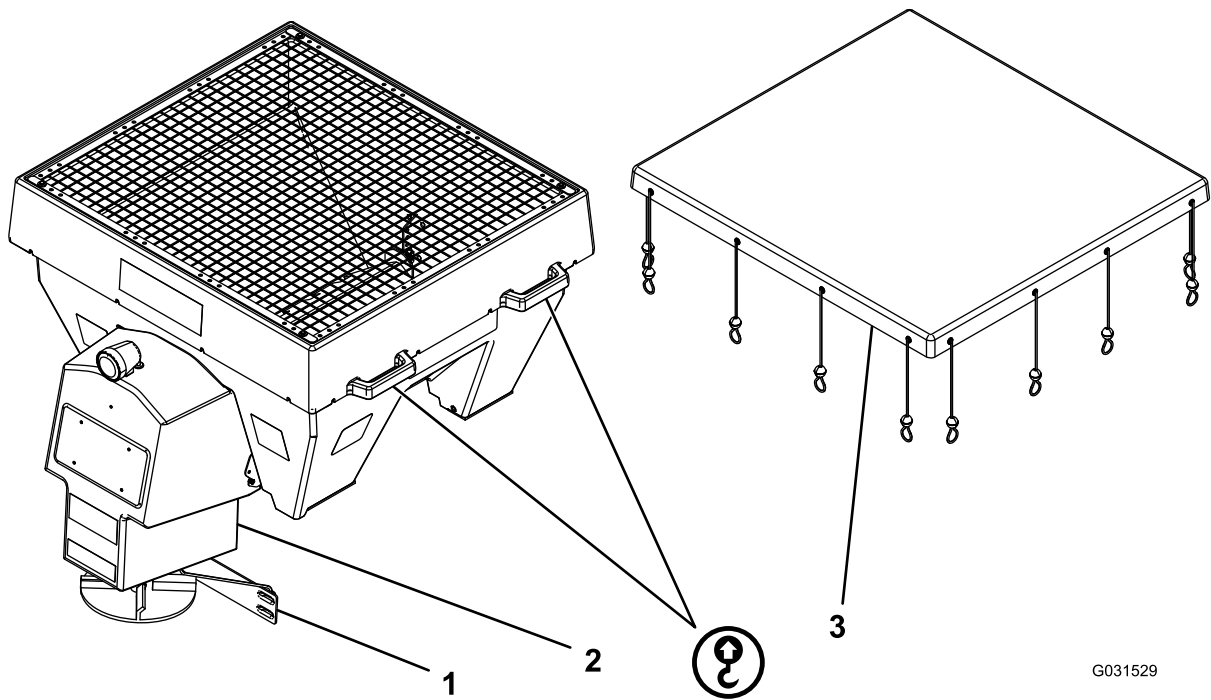


Figure 13

1. Material deflector
2. Spinner assembly

3. Hopper cover

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## Controls

### Material Deflector

The material deflector controls the spread of materials; you can adjust the controls to provide different spread patterns; refer to [Adjusting the Material Deflectors](#) (page 12).

### Spreader Controller

The spreader controller lets you operate your spreader and displays information about your machine.

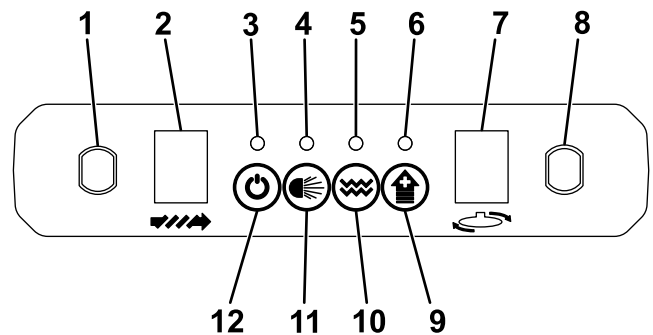


Figure 14

g246333

- |                       |                          |
|-----------------------|--------------------------|
| 1. Feed speed dial    | 7. Spinner speed display |
| 2. Feed speed display | 8. Spinner speed dial    |
| 3. Power LED          | 9. Blast button          |
| 4. Light LED          | 10. Vibrator button      |
| 5. Vibrator LED       | 11. Light button         |
| 6. Blast LED          | 12. Power button         |

- Feed speed dial—increases the feeder motor speed when turned clockwise, and decreases the feeder motor speed when turned counterclockwise
- Feed speed display—shows the feeder motor speed
- Power LED—when green, it indicates that the controller is on or the motors are running. When amber, it indicates that the spreader is clearing

a jam. When flashing red, it indicates that the spreader is jammed or has been disconnected. The speed display for the jammed motor flashes to indicate where the jam is.

- Light LED—indicates that the rear light is on
- Vibrator LED—indicates that the vibrator is enabled. It blinks while the vibrator is running.
- Blast LED—indicates that the Blast function is being used
- Spinner speed display—shows the spinner motor speed
- Spinner speed dial—increases the spinner motor speed when turned clockwise, and decreases the spinner motor speed when turned counterclockwise
- Power button—turns the spreader controller and motors on or off. If the controller is not active, pressing the button turns it on. If the controller is active, pressing the button starts the spinner and feeder motors and the vibrator (if enabled). If the spinner and feeder motors are on, pressing the button turns them off. Holding the button for 3 seconds turns off the motors and controller.
- Light button—turns the rear light on or off
- Vibrator button—switches the vibrator on or off when the feeder motor is on
- Blast button—momentarily sends full power to the spinner and feeder motors as long as it is pressed

## Specifications

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

Length	132 cm (52 inches)
Hopper height	71 cm (28 inches)
Hopper width	127 cm (50 inches)
Weight (empty)	104 kg (230 lb)
Capacity	0.34 m <sup>3</sup> (12 ft <sup>3</sup> )

## Operation

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

### Loading the Spreader

**Important:** Only use dry salt or cinder/salt mixes in the spreader. Other materials could cause damage to the machine.

The density of materials that can be loaded into the spreader varies and therefore so will the amount of a given material that can be carried by the spreader before the maximum load rating is reached.

**Important:** When filling the spreader, do not exceed the gross-vehicle-weight rating (GVWR), gross-axle-weight rating (GAWR), or the capacity of the utility vehicle bed.

1. Ensure that the spreader is securely mounted to the vehicle and that the top screen is installed.
2. Remove the tarp.
3. Determine the amount of material that you can safely transport using the GVWR/GAWR of the vehicle and the following table.

Material Type	Weight Range
Fine salt	1,121 to 1,281 kg/m <sup>3</sup> (70 to 80 lb/ft <sup>3</sup> )
Coarse salt	721 to 961 kg/m <sup>3</sup> (45 to 60 lb/ft <sup>3</sup> )
Cinders	641 kg/m <sup>3</sup> (40 lb/ft <sup>3</sup> )

4. Fill the spreader evenly with the material, making sure not to fill past the top of the hopper.

**Important:** Overfilling the hopper could damage the spreader and the vehicle.

# Operating the Spreader

## **⚠ DANGER**

Hands, feet, and clothing can get caught in the moving parts of the spreader and cause serious bodily injury and loss of limbs.

Keep your hands, feet, and clothing away from the moving spinner and attachment points.

## **⚠ CAUTION**

The spreader throws material at a high speed that could cause minor injuries to bystanders.

Bystanders should stay a minimum of 7.6 m (25 ft) away from operating spreaders.

1. Start the vehicle.
2. Press the Power button to turn on the spreader controller.
3. Press the Power button a second time to activate the spreader.  
**Note:** Always check for bystanders before starting the spreader.
4. Use the dials to set your desired spinner and feeder speeds.

**Note:** The feed speed determines how quickly the material is spread. The spinner speed determines how far it is thrown.

5. While spreading, you can press the Blast button to momentarily increase the speed of the spinner and feeder motors.
6. Press the Power button when you are finished spreading to stop the spreader.
7. Press and hold the Power button for 3 seconds or turn off your vehicle to turn off the spreader controller.

# Freeing a Clog

The power LED on the spreader controller flashes orange and the feed or spinner speed display flashes when debris gets wedged in the spreader. If the clog is not cleared automatically, the power LED flashes red. If this happens, disconnect the spreader wire harness and manually free the clog.

# Adjusting the Material Deflectors

You can adjust the material deflectors by inserting the deflector pins into the staggered holes around the spinner (Figure 15).

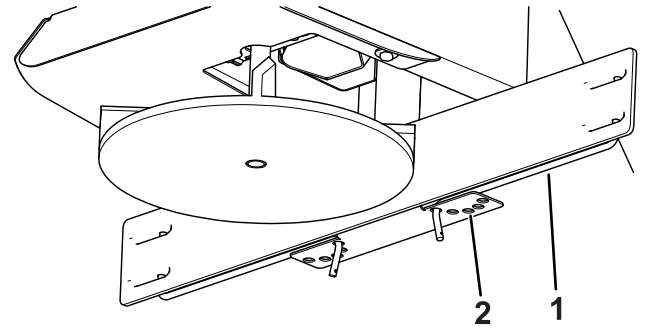


Figure 15

1. Material deflector
2. Adjustment holes

You can adjust the spread pattern by positioning the deflectors as shown in Figure 16.

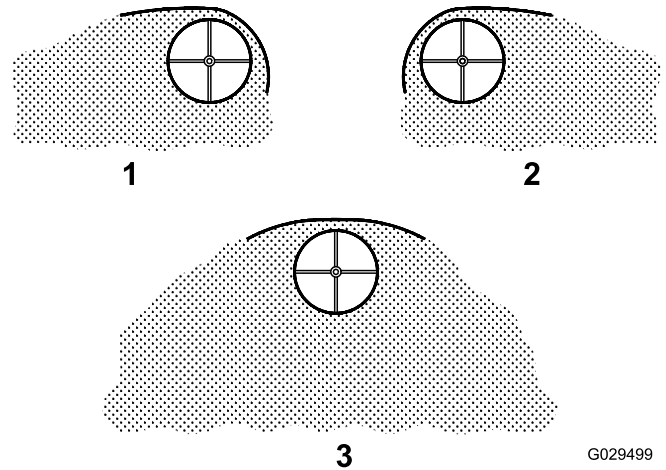


Figure 16

Deflection Settings

1. Driver side open
2. Passenger side open
3. Both sides open

## Adjusting the Baffle

1. Empty the spreader hopper; refer to [Unloading the Spreader \(page 13\)](#).
2. Unplug the spinner harness from the main wire harness.
3. Remove the top screen from the spreader.
4. Remove the hardware securing the baffle to the inside of the spreader ([Figure 17](#)).

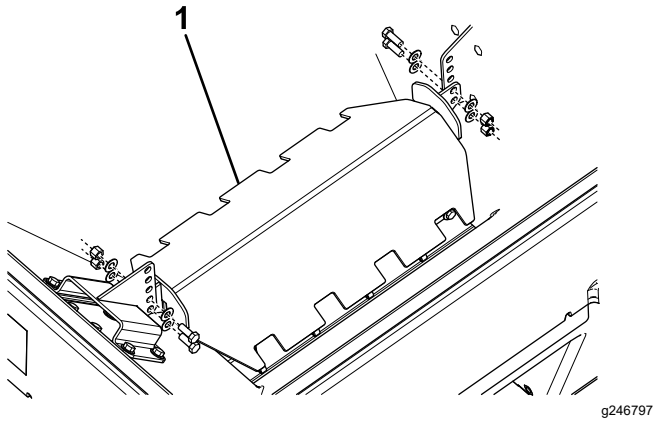


Figure 17

1. Baffle

5. Raise or lower the baffle to the desired height and secure it with the previously removed hardware ([Figure 17](#)).

**Note:** Raising the baffle increases the flowrate and load on the feeder. Lowering the baffle decreases the flowrate and load on the feeder.

6. Secure the previously removed top screen, and connect the spinner harness to the main wire harness.

## Removing the Spinner Assembly

1. Unplug the spinner harness from the main wire harness.
2. Remove the 2 thumbscrews securing the spinner assembly to the hopper ([Figure 18](#)).

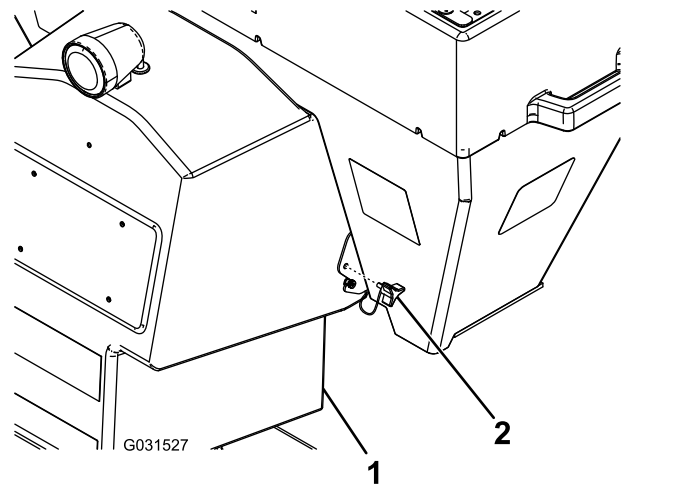


Figure 18

1. Spinner assembly
2. Thumbscrew

3. Remove the spinner assembly.

### **⚠ DANGER**

The spinner assembly is heavy and could cause serious injury if dropped.

Ensure that your footing is stable, and avoid removing the spinner assembly near slippery or uneven surfaces.

## Unloading the Spreader

**Important:** Do not leave material in the hopper as it could damage the machine.

1. Position the spreader in the area where you want to deposit your material.
2. Unplug the spinner harness from the main wire harness.
3. Remove the thumbscrews from the spinner assembly ([Figure 18](#)).
4. Remove the spinner assembly from the hopper ([Figure 18](#)).
5. Turn the Feed Speed dial to 9 to unload the hopper.
6. Once the hopper is empty, attach the spinner assembly to the hopper and secure it with the previously removed thumbscrews.
7. Connect the spinner harness to the main wire harness.

# Operating Tips

- Know the area in which you are working; hidden obstructions such as curbs, sidewalks, and pipes, can damage the spreader or vehicle.
- Do not let the ice build up; always start as soon as possible.
- Always wear your seatbelt when spreading.
- Always remember to spread at a safe speed.
- Never ride on or put body parts into the spreader while servicing or operating it.

# Maintenance

## **▲ WARNING**

Failure to properly maintain the machine could result in premature failure of machine systems causing possible harm to you or bystanders.

Keep the machine well maintained and in good working order as indicated in these instructions.

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

## Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
Before each use or daily	<ul style="list-style-type: none"><li>• Check the ratchet straps and tighten as necessary.</li></ul>
Every 20 hours	<ul style="list-style-type: none"><li>• Clean the chute of any buildup.</li><li>• Grease the bearings.</li><li>• Tighten the hardware.</li></ul>
Before storage	<ul style="list-style-type: none"><li>• Unload the spreader.</li><li>• Clean and grease all of the bearings.</li></ul>

## *Lubrication*

### Greasing the Machine

Every 20 hours—Grease the bearings.

Grease all of the bearings with a No. 2 lithium grease.

## Storage

1. Unload the spreader; refer to [Unloading the Spreader \(page 13\)](#).
2. Remove the spreader from the vehicle using the lift handles; refer to [Product Overview \(page 10\)](#).
3. Wash and rinse the entire machine.
4. Clean and grease all the bearings.
5. Clean all exposed connectors and apply dielectric grease to them.
6. Remove the controller from the utility vehicle and store it in a clean, dry place.

# Troubleshooting

Problem	Possible Cause	Corrective Action
The controller has no power.	<ol style="list-style-type: none"> <li>1. The spade connector is not connected to the ignition switch power source.</li> <li>2. The the ignition switch, battery, or ground connections are corroded.</li> <li>3. The vehicle side circuit fuse, 70 A in-line fuse, or 5 A in-line fuse in the vehicle side harness is bad.</li> <li>4. The controller is not plugged into the wire harness.</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect the spade connector to the ignition switch power source.</li> <li>2. Clean the ignition switch, battery, and ground connections.</li> <li>3. Replace the fuses.</li> <li>4. Plug in the controller.</li> </ol>
The spinner motor does not work or the Power LED is red.	<ol style="list-style-type: none"> <li>1. The spreader and vehicle wire harnesses are not connected.</li> <li>2. The controller is not plugged into the wire harness.</li> <li>3. The spinner motor is not connected to the spreader side harness.</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect the wire harnesses.</li> <li>2. Plug in the controller.</li> <li>3. Connect the wire harnesses.</li> </ol>
The Power LED is red or the feeder motor does not work.	<ol style="list-style-type: none"> <li>1. The spreader and vehicle wire harnesses are not connected.</li> <li>2. The controller is not plugged into the vehicle wire harness.</li> <li>3. The feeder motor is not connected to the spreader wire harness.</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect the wire harnesses.</li> <li>2. Plug in the controller.</li> <li>3. Connect the wire harnesses.</li> </ol>
The Power LED is flashing red and the feed speed display is flashing.	<ol style="list-style-type: none"> <li>1. The feed motor is jammed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to the Freeing a Clog section.</li> </ol>
The Power LED is flashing red and the spinner speed display is flashing.	<ol style="list-style-type: none"> <li>1. The spinner motor is jammed</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to the Freeing a Clog section.</li> </ol>
The spinner motor works but the spinner is not turning.	<ol style="list-style-type: none"> <li>1. The connection between the spinner and the motor shaft is bad.</li> <li>2. The connection between the motor shaft and the motor hub is bad.</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact your Authorized Service Dealer.</li> <li>2. Contact your Authorized Service Dealer.</li> </ol>
The feed motor works but the feeder is not turning.	<ol style="list-style-type: none"> <li>1. The connection between the feeder and the motor shaft is bad.</li> <li>2. The connection between the motor shaft and the motor hub is bad.</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact your Authorized Service Dealer.</li> <li>2. Contact your Authorized Service Dealer.</li> </ol>
The Light LED is flashing red.	<ol style="list-style-type: none"> <li>1. The rear light is burnt out or disconnected.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the connection, and replace the bulb if necessary.</li> </ol>
The Vibrator LED is flashing red.	<ol style="list-style-type: none"> <li>1. The vibrator is disconnected or broken.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the vibrator connection, and replace the vibrator if necessary.</li> </ol>