

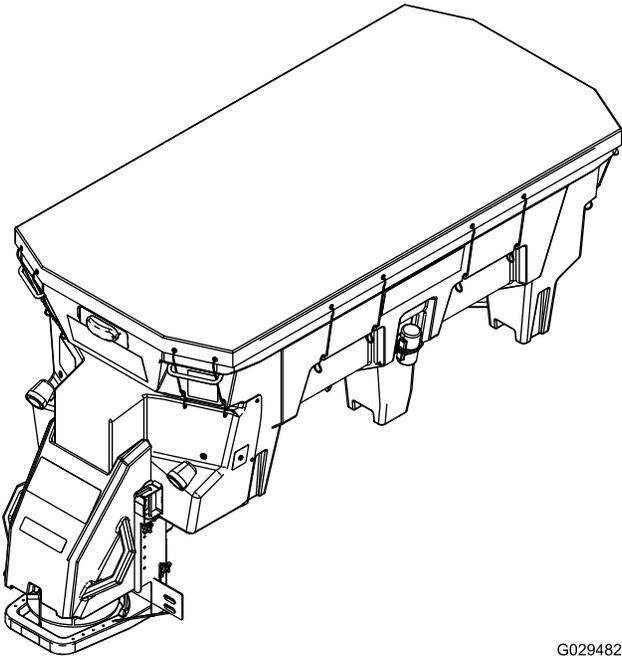


P.O. Box 787  
Iron Mountain, MI 49801  
United States

# Owner's Manual

## VBX 6500/8000/9000 V-Box Spreader

- Part No. VBS14200
- Part No. VBS14210
- Part No. VBS15150
- Part No. VBS15160
- Part No. VBS15300
- Part No. VBS15310



G029482



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

**⚠ WARNING**

**CALIFORNIA  
Proposition 65 Warning**

**This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.**

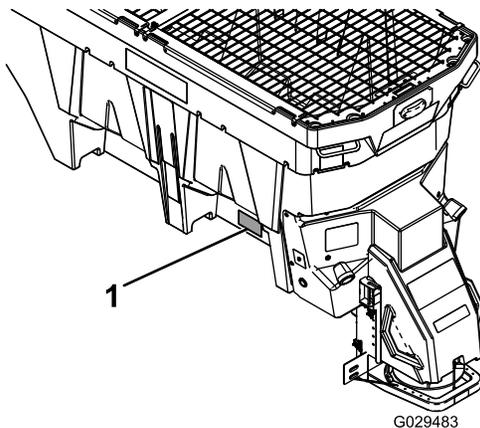
Patents Pending.

# 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.bossplov.com](http://www.bossplov.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 Service Dealer or BOSS Customer 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**

1. Serial number location

**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**

1. Safety-alert symbol

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..... 4
  - Safety and Instructional Decals ..... 4
- Setup ..... 7
  - Installing the Wire Harness ..... 7
  - Mounting the Spreader..... 9
  - Adjusting the Slide Stop ..... 9
  - Installing the Tie-Down D-Rings .....10
  - Building and Installing the Spacer .....11
  - Securing the Spreader.....11
  - Installing the Spinner Assembly.....11
  - Installing the Spreader Controller .....12
  - Checking the Installation .....12
- Product Overview .....13
  - Controls .....13
    - Spreader Controller.....14
  - Specifications .....15
- Operation .....16
  - Adjusting the Height of the Spinner Assembly .....16
  - Loading the Spreader .....16
  - Operating the Spreader .....16
  - Freeing a Clog.....17
  - Adjusting the Material Deflectors .....17
  - Unloading the Spreader .....18
  - Removing the Spinner Assembly .....18
  - Installing/Storing the Pintle-Chain Restrictor Plate.....19
  - Operating Tips .....19
- Maintenance .....20
  - Recommended Maintenance Schedule(s) .....20
  - Lubrication .....20
    - Greasing the Machine .....20
    - .....20
    - Adjusting the Pintle-Chain Conveyor Tension.....20
    - Controller Status and Error Indicators.....21
  - Cleaning .....23
    - Cleaning the Machine.....23

Storage .....	24
Troubleshooting .....	25

# 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 **▲**, 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 *Operator's Manual* before operating or servicing the spreader.
- Ensure that only trained personnel installs and performs maintenance on the equipment.
- This spreader has an operating sound level below 70 dBA.
- 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.
- Many newer trucks are equipped with air bags. **Never** disable, remove, or relocate any sensors or other components related to the operation of the air bags.

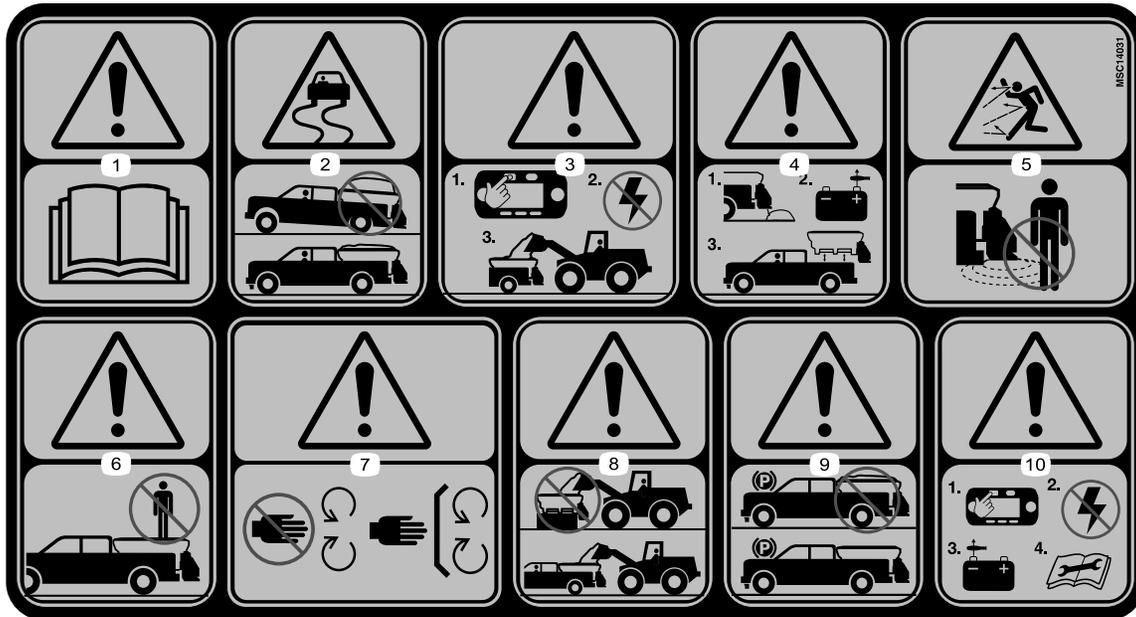
# Operation

- Use a 500 kg (1/2 ton) minimum lifting device to move heavy spreader components.
- **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.bossplo.com](http://www.bossplo.com).
- Material safety data sheets (MSDS) are available at [www.bossplo.com](http://www.bossplo.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 22.5 km/h (14 mph) while spreading.
- Overloading the spreader could result in an accident or damage. **Never** exceed the gross-vehicle-weight rating or the front or rear gross-axle-weight ratings for the vehicle.
- This spreader is restricted to the use of dry, free-flowing salt, sand, and sand/salt mix. **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 lost.



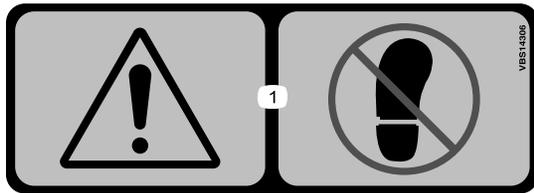
MSC14031

1. Warning—read the *Owner's Manual*.
2. Loss of control hazard—do not overfill the machine.
3. Warning—turn the machine off before filling.
4. Warning—empty the hopper and disconnect the power before installing or removing the machine.
5. Thrown object hazard—keep bystanders a safe distance from the machine.
6. Warning—do not stand or ride on the machine.
7. Warning—do not open or remove safety shields while the engine is running; keep all shields in place.
8. Warning—the machine must be installed before filling.
9. Warning—do not store materials in the machine.
10. Warning—turn the machine off and disconnect the power before servicing the machine.



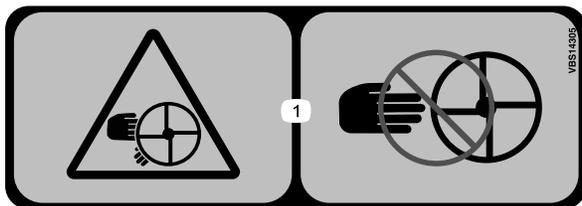
**MSC18131**

1. Crushing hazard—keep hands clear.



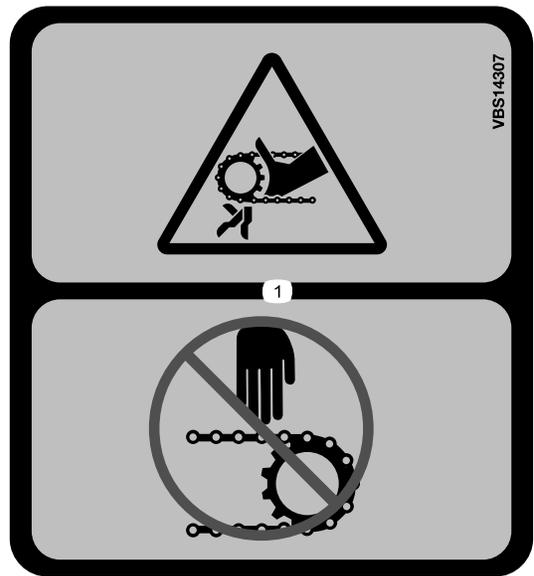
**VBS14306**

1. Warning—do not step here.



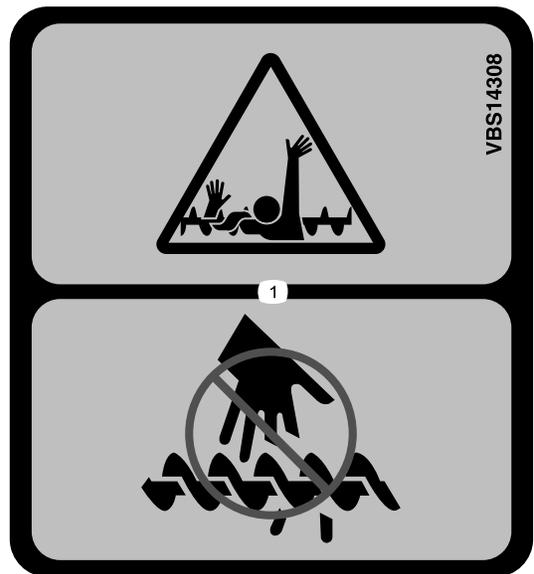
**VBS14305**

1. Cutting/dismemberment hazard, spinner—keep hands clear.



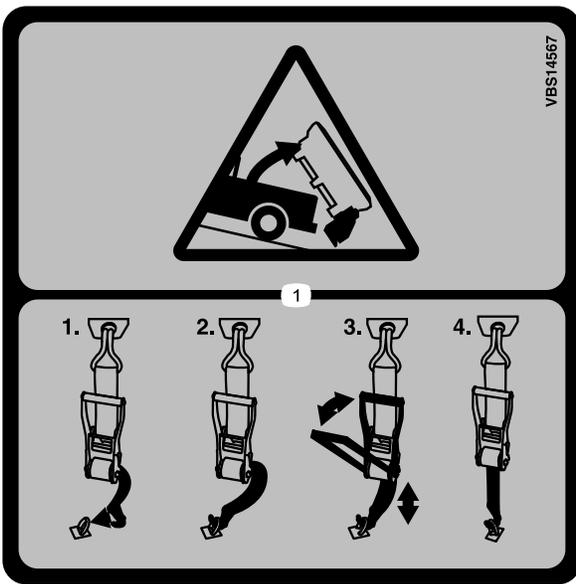
**VBS14307**

1. Finger/hand entanglement hazard, pintle chain—keep hands clear.



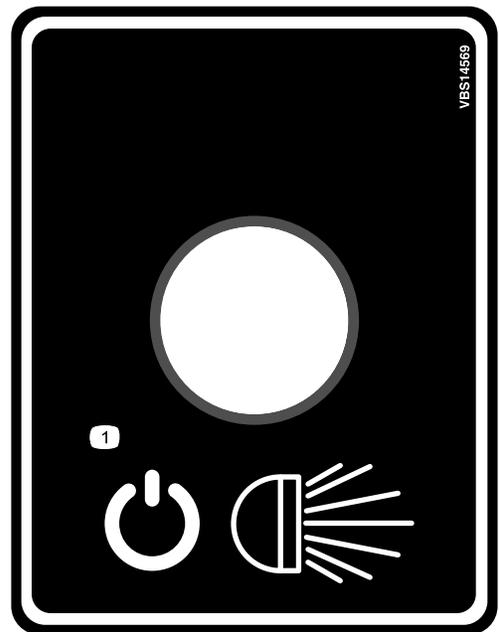
**VBS14308**

1. Entanglement hazard; auger—keep hands clear.



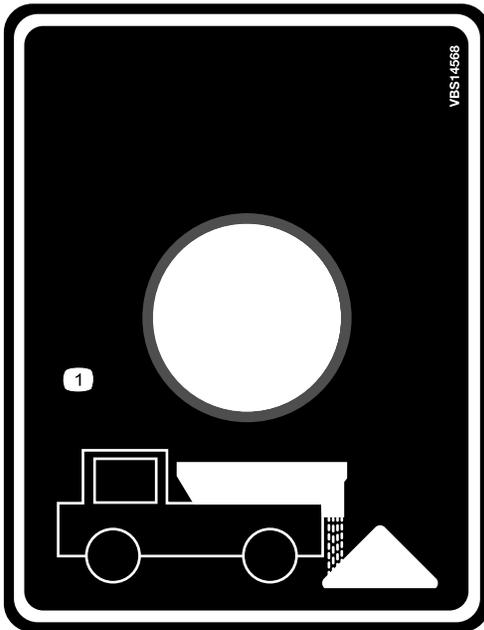
**VBS14567**

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



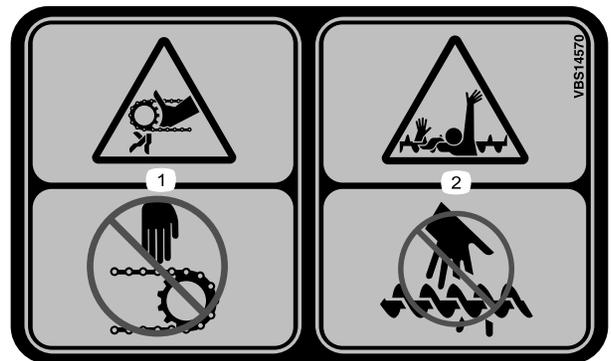
**VBS14569**

1. Work-light switch



**VBS14568**

1. Dump switch



**VBS14570**

1. Finger/hand entanglement hazard, pintle chain—keep hands clear.
2. Entanglement hazard; auger—keep hands clear.

# Setup

## 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 the battery before installing this kit.

1. Secure the vehicle-side power/ground and main harness connectors near the center of the rear bumper using cable ties (Figure 3).
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 connector through the firewall and into the vehicle cab, and secure it with cable ties.

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

4. Install the fuse block within 30 cm (12 inches) of the battery and remove the fuse-block cover.
5. Connect the red power/ground cable to the fuse block (Figure 3).

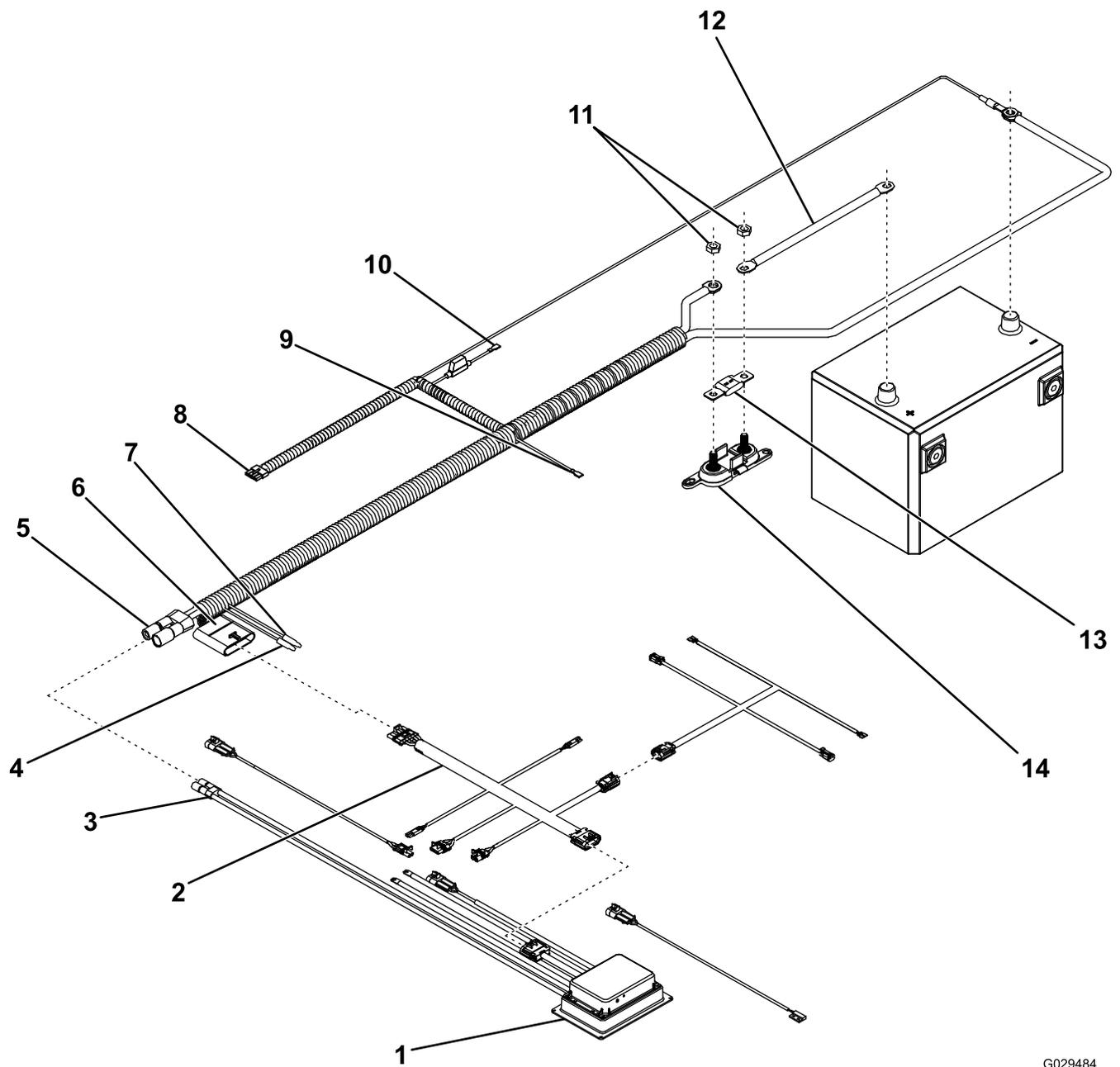
**Note:** Ensure that the 150 A fuse is installed.

6. Connect the power cable to the other end of the fuse block (Figure 3).
7. Install the cover onto the fuse block.
8. Connect the power cable to the positive (+) battery post (Figure 3).

**Important:** Do not connect the ground cable at this time.

9. Connect the red spade connector with the inline fuse to a keyed fuse source on the vehicle (Figure 3).
10. Connect the red spade connector without the inline fuse to the center high-mounted, stoplight fuse if it is available (Figure 3).
11. Connect the white bullet connector to the rear tail-light ground wire using a quick-splice connector (Figure 3).

12. Connect the brown bullet connector to the rear running-lamp wire using a quick-splice connector (Figure 3).
13. Wrap all of the excess wire and secure it in the engine compartment.
14. Connect the black power/ground cable and the controller ground cable to the negative (-) battery post (Figure 3).



G029484

**Figure 3**

- |   |  |  |                |
|---|--|--|----------------|
| 1. Control module                       | 5. Vehicle-side power/ground connector | 9. Red spade connector                     | 13. 150 A fuse |
| 2. Spreader-side main harness           | 6. Vehicle-side main harness connector | 10. Red spade connector (with inline fuse) | 14. Fuse block |
| 3. Spreader-side power/ground connector | 7. White bullet connector              | 11. Nuts (5/16 inch)                       |                |
| 4. Brown bullet connector               | 8. Controller connector                | 12. Power cable                            |                |

# Mounting the Spreader

The minimum truck bed length for the VBX 6500 is 1.68 m (66 inches), for the VBX 8000 is 2.0 m (78 inches), and for the VBX 9000 is 2.3 m (90 inches).

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

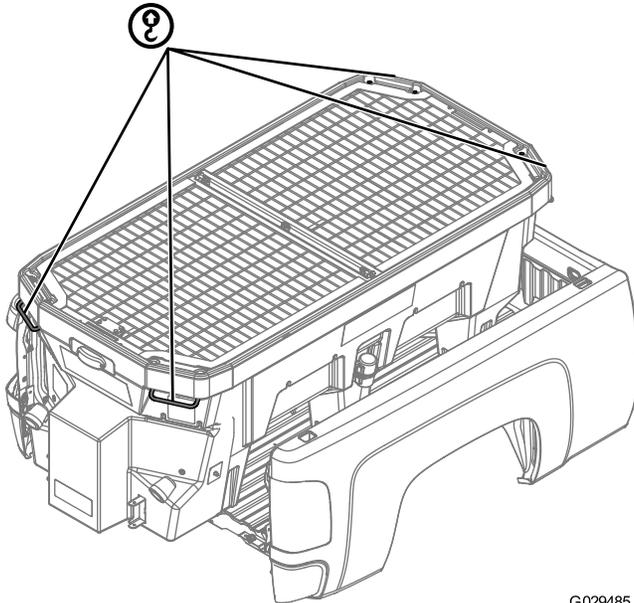


Figure 4

G029485

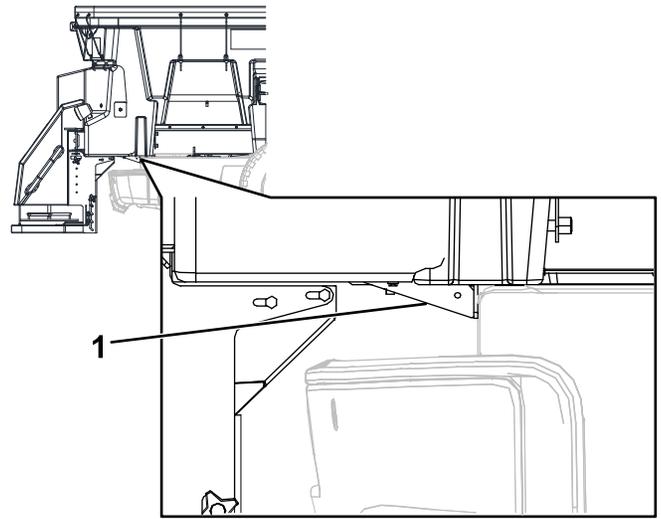


Figure 5

G029486

1. Slide stop

4. Using a 7/16-inch drill bit, drill 4 holes into the truck bed aligned with the slide stop holes.
  5. Secure the slide stop to the vehicle using 4 bolts, 4 locknuts, and 16 flat washers (3/8 inch).
- Note:** Slide stop fasteners are not included.
6. Torque the bolts to 28 N·m (19.7 ft-lb).

3. Slide the spreader toward the vehicle cab until the slide stop hits the truck bed (Figure 5).

**Note:** The truck bed must be at least 1.68 m (66 inches) long for the VBX 6500, at least 2.0 m (78 inches) long for the VBX 8000, and at least 2.3 m (90 inches) long for the VBX 9000.

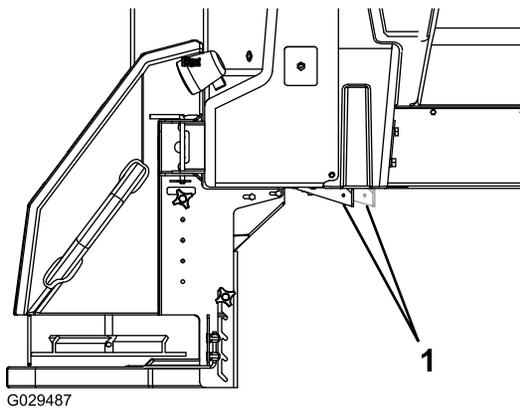
**Note:** If the spreader is flush with the truck box but the slide stop is not touching the rear bumper, refer to [Adjusting the Slide Stop](#) (page 9).

## Adjusting the Slide Stop

### Optional

You can adjust the slide stop of the spreader 2.5 cm (1 inch) or 5 cm (2 inches) so that the spreader does not extend past the truck box.

1. Remove and retain the carriage bolts securing the slide stop.
2. Slide the spreader so that it does not extend past the truck box and contact the vehicle cab.
3. Move the slide stop to the desired position and secure it with the previously removed carriage bolts (Figure 6).



G029487

**Figure 6**

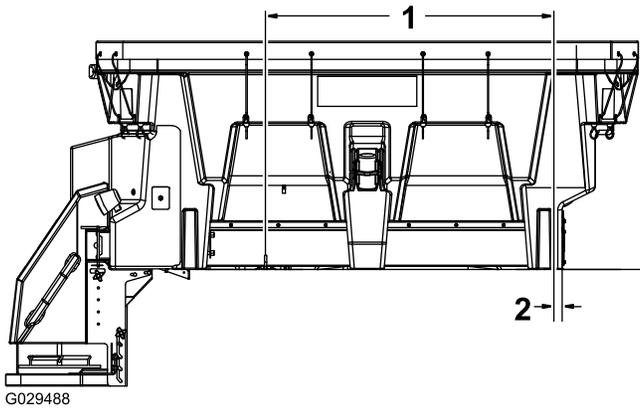
1. Slide-stop movement

4. Torque the bolts to 28 N·m (19.7 ft-lb).

## 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 7](#).

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

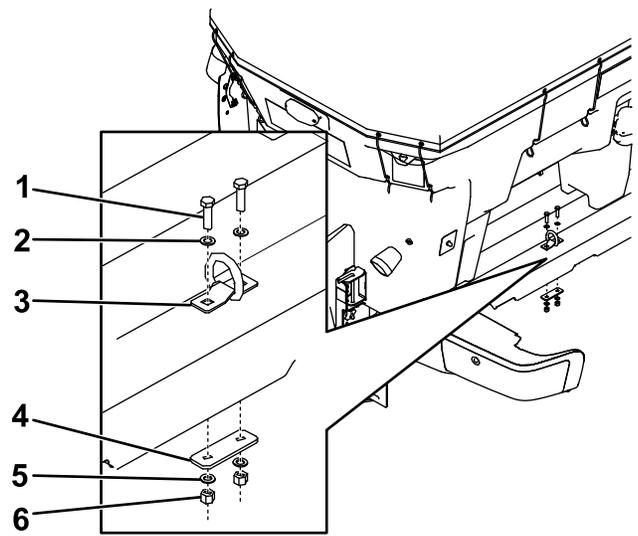


G029488

**Figure 7**

1. Back of the spreader leg to the D-ring center—3.8 cm (1-1/2 inches)
2. D-ring center to the D-ring center—129.5 cm (51 inches)

2. Install the D-rings as shown in [Figure 8](#) and torque the bolts to 28 N·m (19.7 ft-lb).



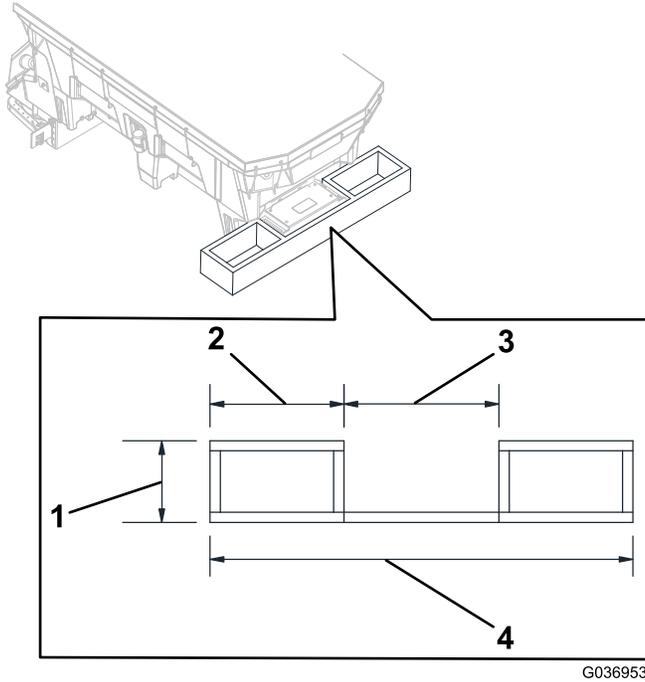
G029489

**Figure 8**

- |                           |                           |
|---------------------------|---------------------------|
| 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                |

# Building and Installing the Spacer

1. Measure the distance from the front of the truck box to the spreader legs.
2. Using 3.8 x 18.4 cm (1-1/2 x 7-1/4 inch) lumber, build the spacer as shown in [Figure 9](#).



**Figure 9**

- |   |                            |
|---|----------------------------|
| 1. Distance between the spreader leg and the truck box    | 3. 57.7 cm (22-3/4 inches) |
| 2. Distance between the truck box and the take-up housing | 4. Width of the truck box  |

3. Insert the spacer between the spreader and the front of the truck box.

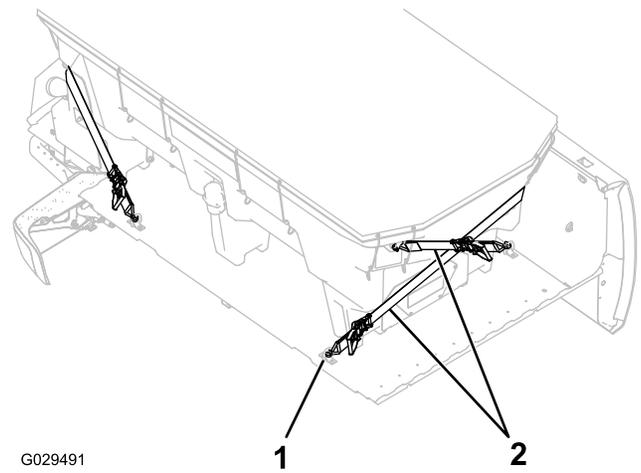
## Securing the Spreader

### **⚠ 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 D-rings around the upper edge of the spreader ([Figure 10](#)).



**Figure 10**

- |           |                   |
|-----------|-------------------|
| 1. D-ring | 2. Ratchet straps |
|-----------|-------------------|

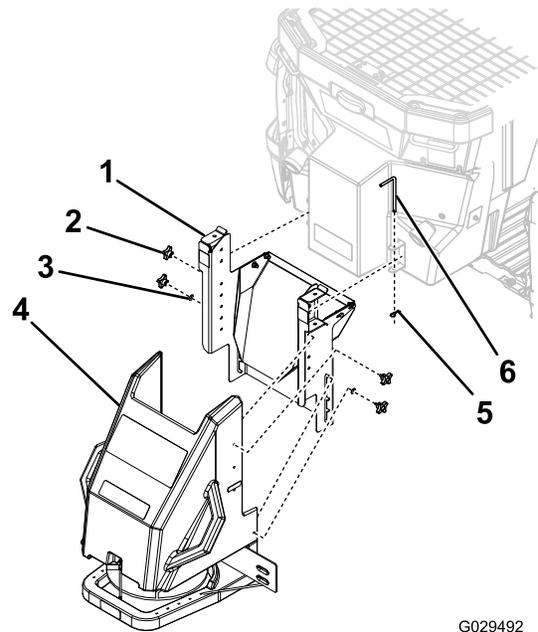
2. Connect the free ends of the ratchet straps to the D-rings opposite to them on the truck bed ([Figure 10](#)).

**Note:** The ratchet straps should cross on the front and back of the spreader.

3. Tighten the straps evenly to secure the spreader.

## Installing the Spinner Assembly

1. Attach the adjustment assembly to the spinner assembly using 2 flat washers (5/16 inch) and 4 thumb screws as shown in [Figure 11](#).



**Figure 11**

- |                            |                     |
|----------------------------|---------------------|
| 1. Adjustment assembly     | 4. Spinner assembly |
| 2. Thumb screw             | 5. Cotter pin       |
| 3. Flat washer (5/16 inch) | 6. Latch pin        |

2. Remove and retain the latch and cotter pins from the spinner assembly (Figure 11).
3. Attach the spinner assembly to the spreader and secure it with the previously removed latch and cotter pins (Figure 11).
4. Connect the wire harness.

3. Attach the sliding bracket to the mounting bracket using 2 carriage bolts and thumb nuts (Figure 12).

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

4. Connect the wire harness controller connector to the controller display.

## Installing the Spreader Controller

Mount the controller in the cab where it does not interfere with vehicle operation or visibility.

**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 either 2 hook and loop fasteners or 2 sheet-metal screws (Figure 12).

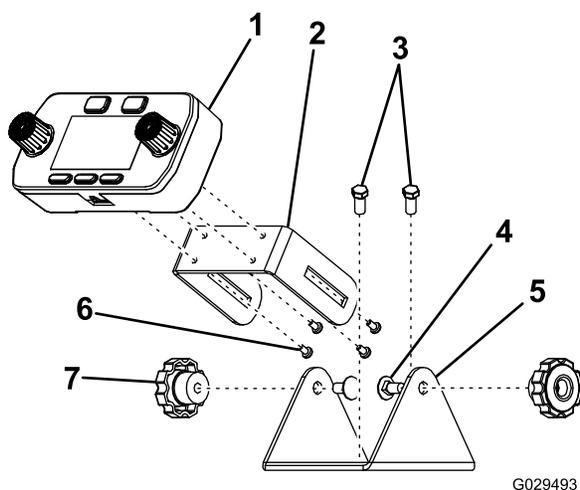


Figure 12

- |                       |                     |
|-----------------------|---------------------|
| 1. Controller display | 5. Mounting bracket |
| 2. Sliding bracket    | 6. Pan-head screws  |
| 3. Sheet-metal screws | 7. Thumb nut        |
| 4. Carriage bolt      |                     |

## Checking the Installation

1. For models VBS14210, VBS15310, and VBS15160, check the pintle chain conveyor tension; refer to [Adjusting the Pintle-Chain Conveyor Tension \(page 20\)](#).
2. Check that the unit type listed on the controller display matches your machine type; refer to the [Main Screen \(page 14\)](#) section.

**Note:** If the unit type does not match your machine, contact your Authorized BOSS Dealer about adjusting the control module.

2. Connect the controller display to the sliding bracket using 4 pan-head screws (Figure 12).

# Product Overview

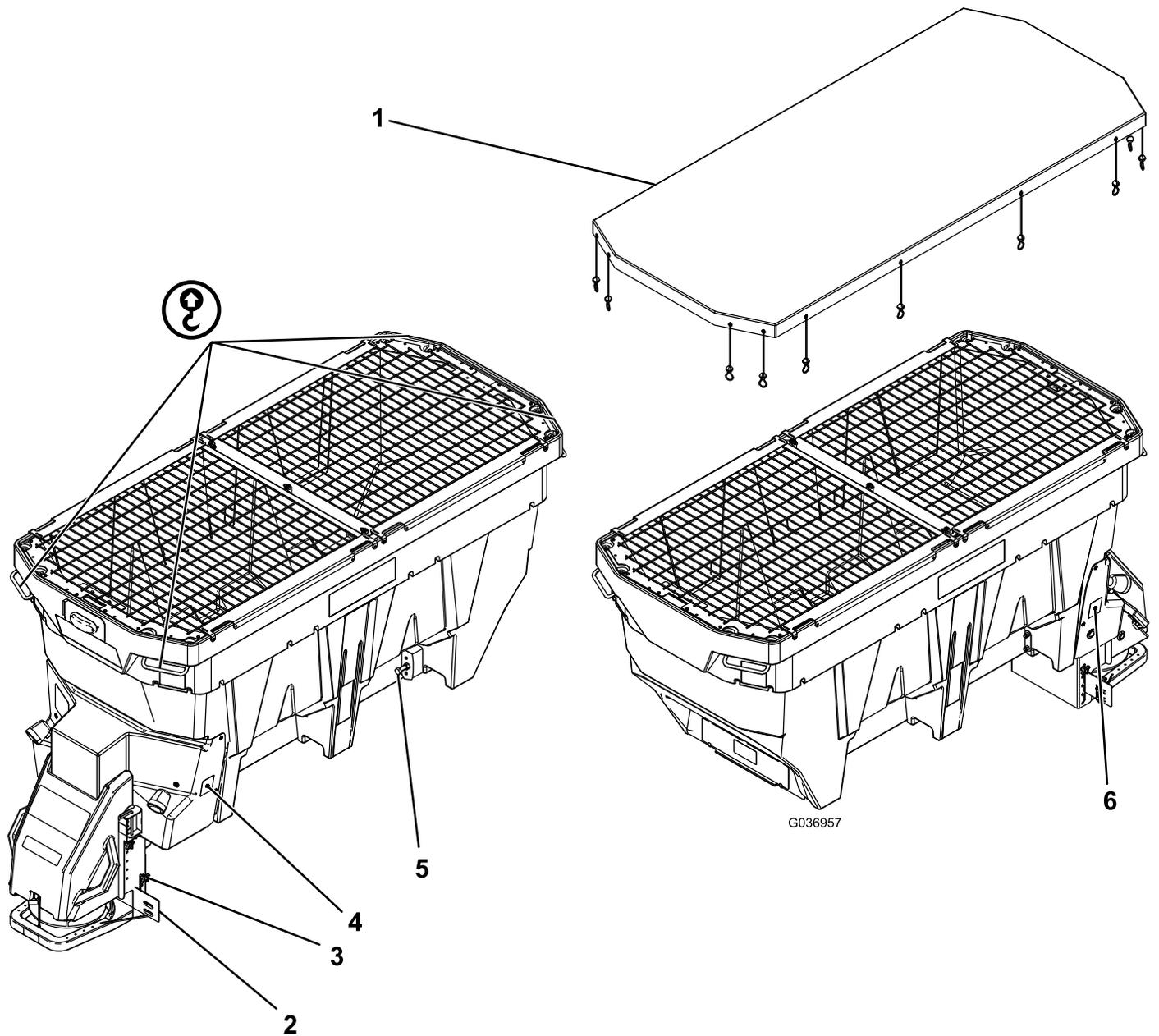


Figure 13

- 1. Hopper cover
- 2. Material deflector
- 3. Spinner-height adjustment
- 4. Dump switch
- 5. Pintle-chain tension adjustment
- 6. Work-light switch

## Controls

Become familiar with all the controls before you operate the spreader.

### 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 17).

### Dump Switch

The dump switch activates the spreader and empties out the contents. Press and hold the switch to empty the spreader.

### Work-Light Switch

The work-light switch activates the rear lights.

# Spreader Controller

The spreader controller shows information about your machine. [Figure 14](#) and [Figure 15](#) illustrate the main screen and adjustment screen of the controller. You can switch between the main screen and adjustment screen at any time by pressing the MODE button.

Refer to [Controller Status and Error Indicators \(page 21\)](#) for additional controller icons.

## Main Screen

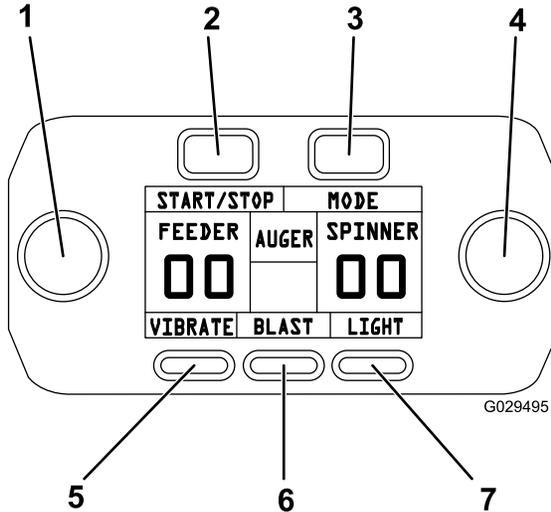


Figure 14

- |                       |                   |
|-----------------------|-------------------|
| 1. FEED SPEED dial    | 5. VIBRATE button |
| 2. START/STOP button  | 6. BLAST button   |
| 3. MODE button        | 7. LIGHT button   |
| 4. SPINNER SPEED dial |                   |

- FEED SPEED dial—increases the feed motor speed when turned clockwise, and decreases the feed motor speed when turned counterclockwise. The feed speed determines how quickly material is pulled from the hopper.
- Feeder display—indicates the feed motor speed
- START/STOP button—turns the feeder, spinner, and vibrator (if active) motors on or off
- Unit type display—indicates if the control module is set for auger or pindle chain mode
- MODE button—switches between the main screen and the adjustment screen
- Spinner display—indicates the spinner motor speed
- SPINNER SPEED dial—increases the spinner motor speed when turned clockwise, and decreases the spinner motor speed when turned counterclockwise. The spinner speed determines how far the material is thrown.
- LIGHT button—turns the rear lights on or off
- BLAST button—momentarily sends full power to the feed and spinner motors in 2 second bursts. Holding the

button increases the motors to full speed for 2 seconds and then pauses for 2 seconds then repeats until you release the button. The BLAST button only works if the feed and spinner motors are set at less than maximum speed.

- VIBRATE button—switches the vibrator on or off

**Note:** The vibrator only runs when the feeder motor is on.

## Adjustment Screen

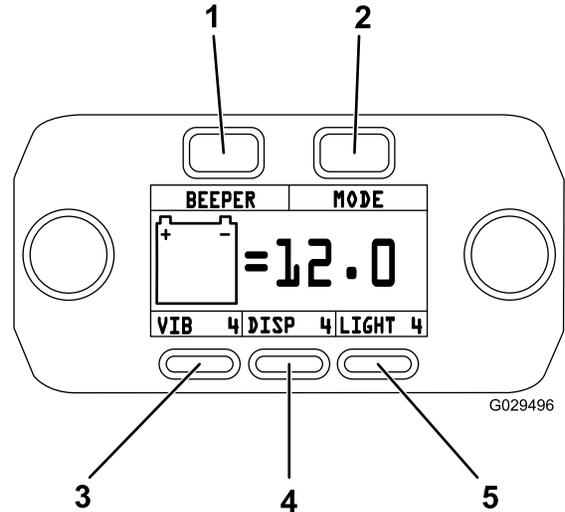


Figure 15

- |                               |                              |
|-------------------------------|------------------------------|
| 1. BEEPER button              | 4. DISPLAY ADJUSTMENT button |
| 2. MODE button                | 5. LIGHT ADJUSTMENT button   |
| 3. VIBRATOR ADJUSTMENT button |                              |

- BEEPER button—turns the beeper sound on or off
- MODE button—switches between the main screen and the adjustment screen
- Battery voltage display—indicates the estimated voltage of the vehicle
- LIGHT ADJUSTMENT button—adjusts the rear light brightness level from 1 to 4
- DISPLAY ADJUSTMENT button—adjusts the display screen brightness from 1 to 4
- VIBRATOR ADJUSTMENT button—adjusts the vibration level from 1 to 4

# Specifications

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

	<b>VBX 6500</b>	<b>VBX 8000</b>	<b>VBX 9000</b>
Length	2.4 m (94 inches)	2.9 m (115 inches)	3.1 m (123 inches)
Hopper height	97 cm (38 inches)	97 cm (38 inches)	124.5 cm (49 inches)
Hopper width	124.5 cm (49 inches)	123 cm (48-1/4 inches)	122 cm (48 inches)
Weight (empty)	250 kg (550 lb) with auger; 272 kg (600 lb) with pintle chain	272 kg (600 lb) with auger; 295 kg (650 lb) with pintle chain	322 kg (710 lb) with auger; 345 kg (760 lb) with pintle chain
Capacity	1.2 m <sup>3</sup> (1.5 yd <sup>3</sup> )	1.5 m <sup>3</sup> (2 yd <sup>3</sup> )	2.3 m <sup>3</sup> (3 yd <sup>3</sup> )

# Operation

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

## Adjusting the Height of the Spinner Assembly

You can adjust the spinner assembly height in 5 cm (2 inch) increments up to 20 cm (8 inches) to account for vehicles with higher beds. The bottom of the spinner assembly should be approximately 61 cm (24 inches) from the ground.

1. Remove the 2 upper thumbscrews (Figure 16).

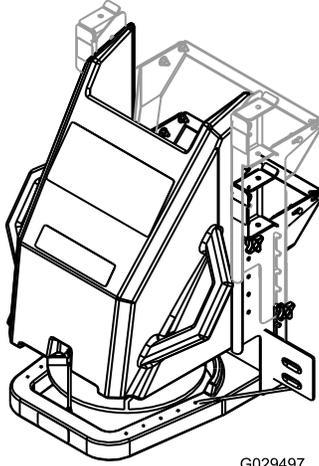


Figure 16

2. Hold the assembly and loosen the 2 lower thumbscrews.
3. Slide the spinner assembly down to the desired height.
4. Insert the 2 upper thumbscrews and tighten them.
5. Tighten the 2 lower thumbscrews.

## Loading the Spreader

**Important:** Only use dry salt, sand, sand/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) or gross-axle-weight rating (GAWR).

1. Ensure that the spreader is securely mounted to the vehicle and that the top screen is installed and closed.
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	1121 to 1281 kg/m <sup>3</sup> (1890 to 2160 lb/yd <sup>3</sup> )
Coarse salt	721 to 961 kg/m <sup>3</sup> (1215 to 1620 lb/yd <sup>3</sup> )
Coarse sand (dry)	1442 to 1762 kg/m <sup>3</sup> (2430 to 2970 lb/yd <sup>3</sup> )
Coarse sand (wet)	1762 to 2082 kg/m <sup>3</sup> (2970 to 3510 lb/yd <sup>3</sup> )
Cinders	641 kg/m <sup>3</sup> (1080 lb/yd <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 their 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 moving spinner, auger, chain, 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.

**Note:** The controller display should light up when you start the vehicle.

2. Use the controller to set the desired feed speed and spinner speed.

**Note:** You can adjust the feed and spinner speeds while the spreader is operating.

3. If you plan to use the vibrator during spreading, turn it on now.

**Note:** The vibrator does not start until you start the feed motor.

4. Press the START/STOP button to activate the spreader.

**Note:** Always check for bystanders before starting the spreader.

5. While spreading, you can press the BLAST button to momentarily increase the speed of the feed and spinner motors.
6. Press the START/STOP button when you are finished spreading to stop the spreader.
7. Empty the leftover materials from the spreader; refer to [Unloading the Spreader \(page 18\)](#).

## Freeing a Clog

The word JAM will appear in either the feeder or spinner display when debris gets wedged in the auger or pintle chain, or under the spinner disk.

1. Do not turn off the machine when a jam first occurs.

**Note:** The spreader is designed to automatically free clogs.

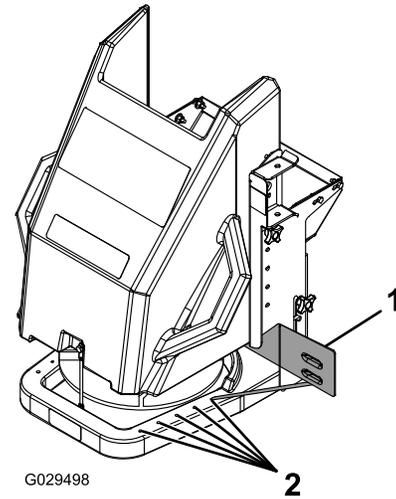
2. If JAM STUCK appears in the feeder or spinner display, push the START/STOP button.

**Note:** If the machine does not clear the clog after several attempts, the motor goes into a cooldown mode for 3 minutes.

3. If the clog is not cleared automatically, disconnect the spreader wire harness and manually free the clog.

## Adjusting the Material Deflectors

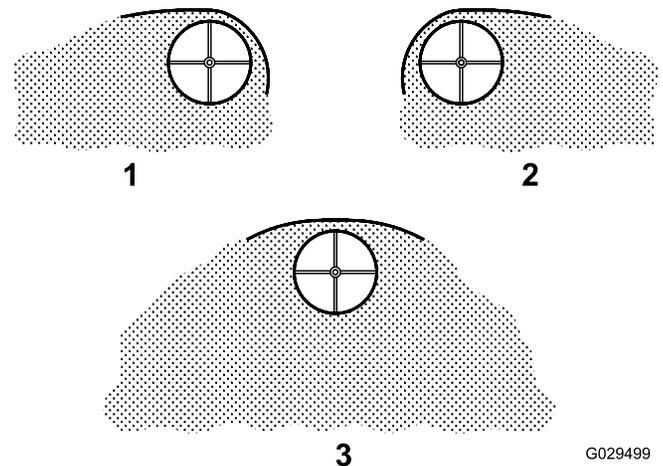
You can adjust the material deflectors by inserting the deflector pins into the staggered holes around the spinner (Figure 17).



**Figure 17**

1. Material deflector
2. Adjustment holes

You can adjust the spread pattern by positioning the deflectors as shown in Figure 18.



**Figure 18**

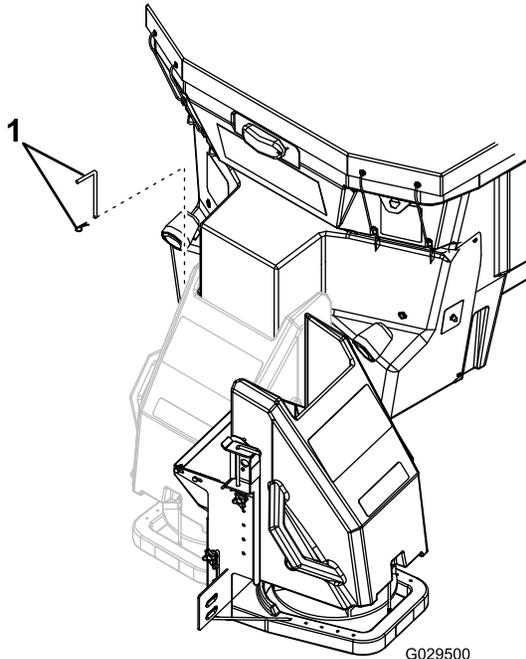
Deflection Settings

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

# 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 the material.
2. Unplug the spinner harness from the main wire harness.
3. Remove the left latch and cotter pin from the spinner assembly (Figure 19).



**Figure 19**

1. Latch and cotter pin

- 
4. Swing the spinner assembly free from the hopper opening (Figure 19).

**Note:** Do not move the vehicle when the spinner assembly is swung out.

5. Push and hold the dump switch to unload the hopper material.

## **CAUTION**

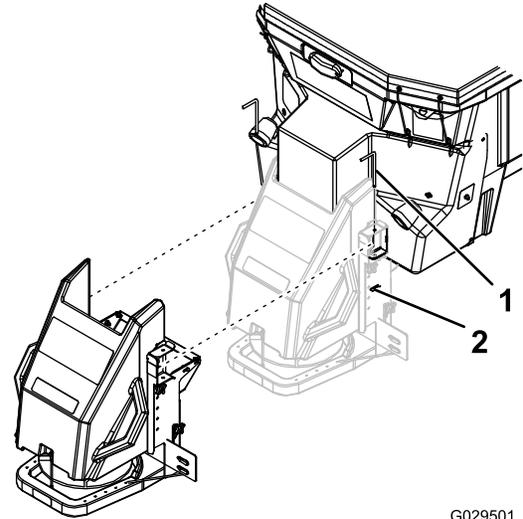
The spreader throws material at a high speed that could cause minor injuries.

Stand to the side of the spreader when activating the dump switch.

6. Swing the spinner assembly back into place and secure it with the previously removed attachment pin and cotter pin.
7. Connect the spinner harness to the main wire harness.

# Removing the Spinner Assembly

1. Position the spreader over a flat, dry surface.
2. Unplug the spinner harness from the main wire harness.
3. Remove the 2 latch and cotter pins securing the spinner assembly to the hopper (Figure 20).



**Figure 20**

1. Latch pin
2. Cotter pin

- 
4. 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.

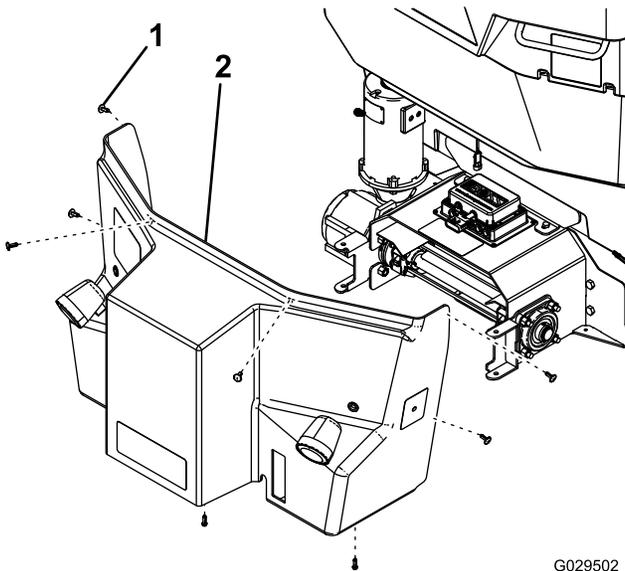
5. Insert the attachment pins and cotter pins into the spinner assembly for storage.

# Installing/Storing the Pintle-Chain Restrictor Plate

## Model VBS14210 and VBS15310 Only

Models VBS14210 and VBS15310 are shipped with a restrictor plate in the Stored position. If the spreader flow is too fast, install the restrictor plate. If the spreader flow is too slow, store the restrictor plate.

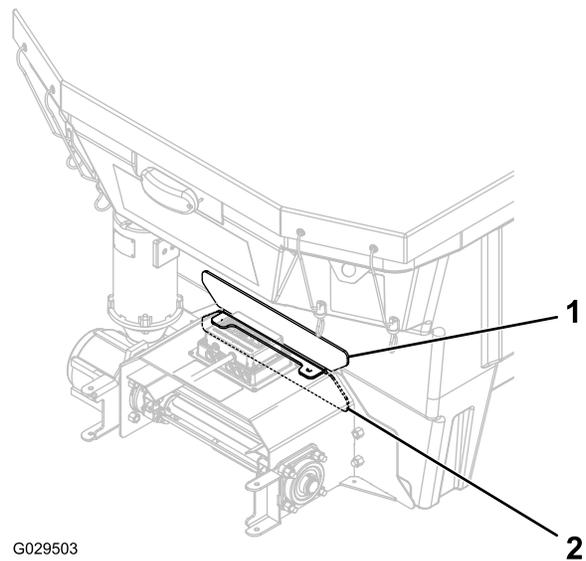
1. Unplug the power/ground cable and the main harness from the wire harness.
2. Remove the spinner assembly; refer to [Removing the Spinner Assembly \(page 18\)](#).
3. Remove the plastic clips securing the front cover to the hopper ([Figure 21](#)).



**Figure 21**

1. Plastic clip
2. Front cover

4. Carefully pull the cover away and unplug the cover harness from the main wire harness.
5. Set the cover aside.
6. Remove the bolts and locknuts securing the restrictor plate ([Figure 22](#)).



G029503

**Figure 22**

1. Stored position
2. Installed position

7. Rotate the restrictor plate to the desired position and secure it with the previously removed bolts and locknuts ([Figure 22](#)).
8. Position the front cover in place and connect the cover harness to the main wire harness.
9. Secure the front cover to the hopper using the previously removed plastic clips.
10. Connect the power/ground cable and main harness to the 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. Spreading faster can be hard on your vehicle as its load is greatly increased.
- **Never** ride on or get body parts into the spreader while servicing or operating it.

# Maintenance

**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> <li>• Check the pintle-chain conveyor tension.</li> <li>• Empty the cleanout tray.</li> </ul>
Every 20 hours	<ul style="list-style-type: none"> <li>• Grease the bearings.</li> <li>• Grease the pintle chain (Model VBS14210, VBS15310, and VBS15160 only).</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> <li>• Clean and grease the pintle-chain (Model VBS14210 and VBS15310 only).</li> </ul>

## Lubrication

### Greasing the Machine

Every 20 hours—Grease the bearings.

Every 20 hours—Grease the pintle chain (Model VBS14210, VBS15310, and VBS15160 only).

Grease all of the bearings, and pintle chain for model VBS14210, VBS15310, and VBS15160, with a general-purpose, lithium-based grease.

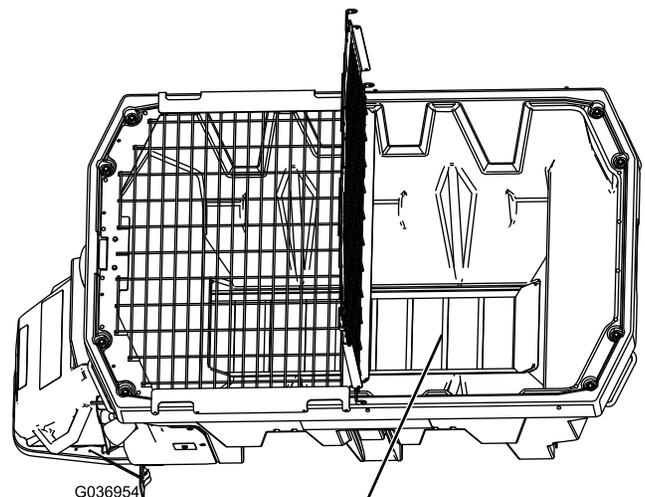
## Adjusting the Pintle-Chain Conveyor Tension

### Model VBS14210, VBS15310, and VBS15160 Only

**Service Interval:** Before each use or daily—Check the pintle-chain conveyor tension.

1. Disconnect the power/ground cable and main harness from the wire harness.
2. Inside the hopper, check the gap between the pintle-chain and the cleanout tray (Figure 23).

**Note:** The chain should hang 2.5 to 5 cm (1 to 2 inches) below the conveyor deck.



1  
Figure 23

1. Pintle chain

- To adjust the tension, loosen the jam nuts on the sides of the spreader (Figure 24).

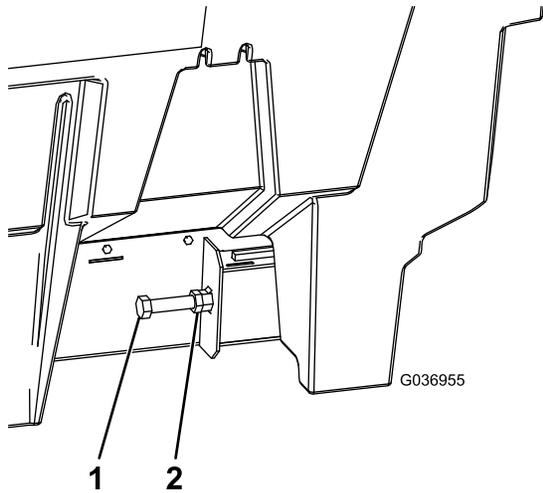


Figure 24

- Take-up bolt
- Jam nut

- Turn the left take-up bolt clockwise 1 to 3 revolutions.
- Turn the right take-up bolt clockwise 1 to 3 revolutions.
- Check the chain tension, and repeat steps 4 and 5 until the desired tension is reached.

**Note:** Do not overtighten the pintle chain as it could lead to premature wear and spreader failure.

- Tighten the jam nuts.
- Connect the power/ground cable and main harness to the wire harness.

## Controller Status and Error Indicators

The following icons and messages indicate that an error has occurred with your machine. Refer to [Troubleshooting](#) (page 25) for possible solutions.

Feeder and spinner errors only appear in 1 location or the other, not both.

- X icon—indicates that the controller has no communication with the control module

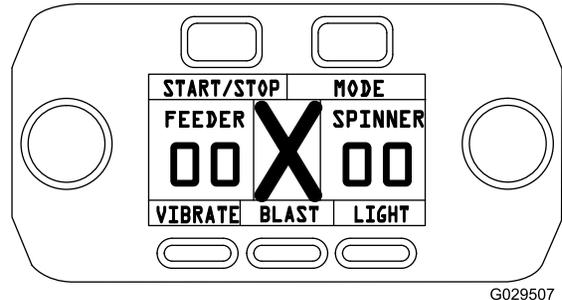


Figure 25

- BUTTON STUCK icon—indicates that a button is pressed or stuck down when the controller is powered up

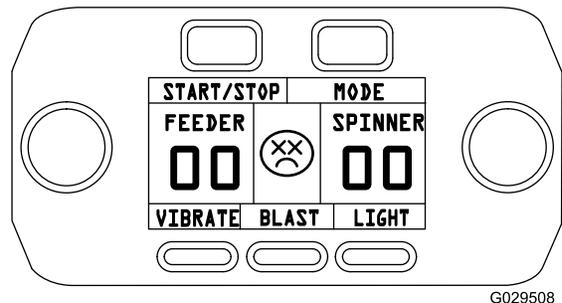


Figure 26

- VIB ERROR icon—indicates that the vibrator is disconnected or not running properly

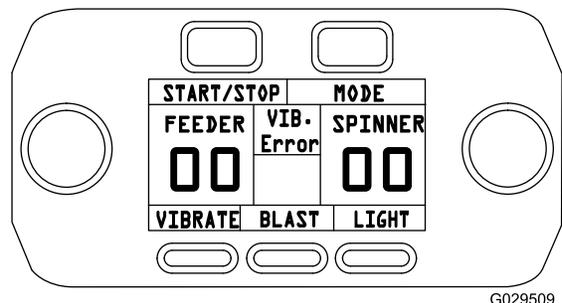


Figure 27

- FEEDER ERROR or SPINNER ERROR icon—indicates that the feeder or spinner motor is disconnected or that there is a circuit issue

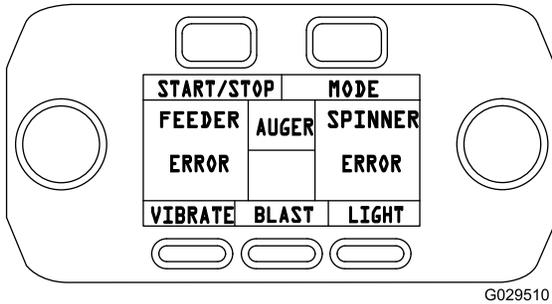


Figure 28

G029510

- FEEDER JAM or SPINNER JAM icon—indicates that the feeder or spinner has encountered an obstacle and is trying to free itself

**Note:** Do not shut down the system at this time.

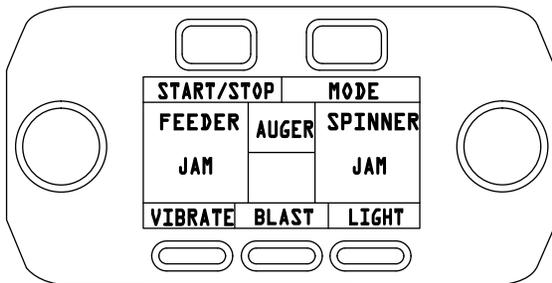


Figure 29

G029511

- FEEDER JAM STUCK or SPINNER JAM STUCK icon—indicates that the feeder or spinner could not free the jam

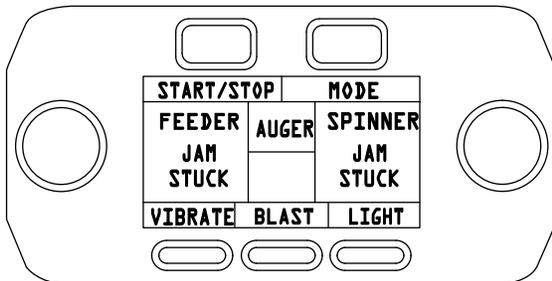


Figure 30

G029512

- FEEDER MOTOR COOL or SPINNER MOTOR COOL fan icon—indicates that the motor has shut down and is cooling for 3 minutes

**Note:** Turning the machine off and on again does not reset the timer.

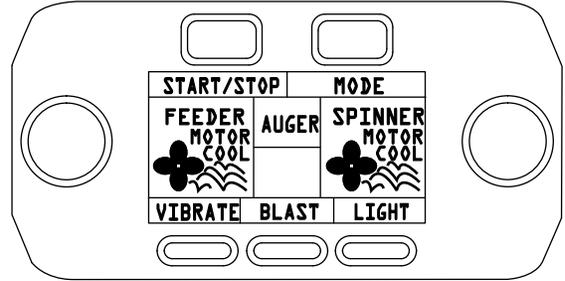


Figure 31

G029513

- DUMP icon—indicates that the dump switch has been activated

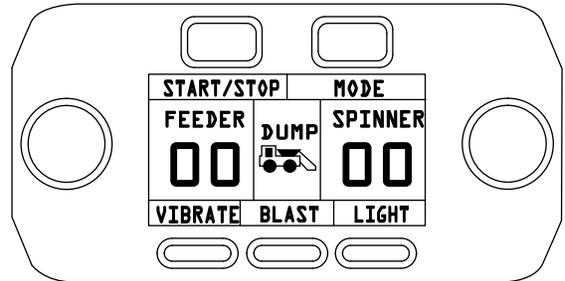


Figure 32

G029514

- LIGHT BULB icon—indicates that a rear light is burnt out or disconnected. The icon will indicate if 1 or both of the lights are burnt-out

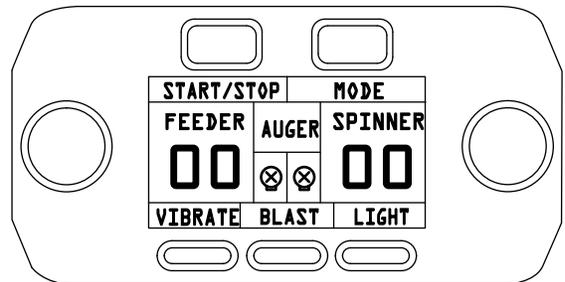
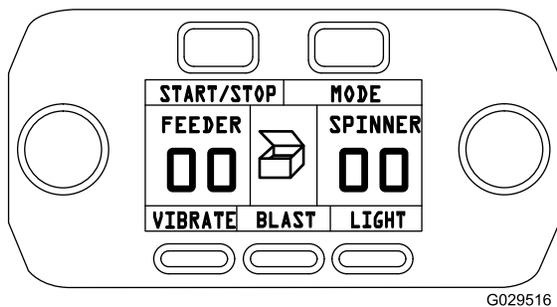


Figure 33

G029515

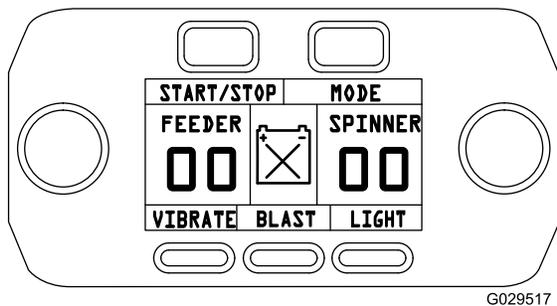
- OPEN BOX icon—indicates that the top screen is open. The spreader does not run until the screen is closed.

**Note:** You must press the START/STOP button again to start the machine.



**Figure 34**

- LOW VOLTAGE icon—indicates that the vehicle is not supplying enough voltage to run the spreader continuously



**Figure 35**

# Cleaning

## Cleaning the Machine

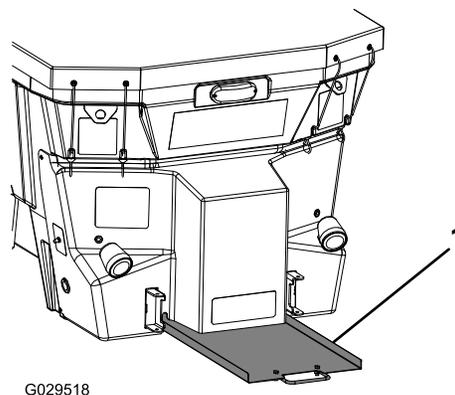
**Service Interval:** Before each use or daily

Empty the cleanout tray after every use.

**Important:** Leaving any material in the spreader could damage the machine.

1. Remove the spinner assembly; refer to [Removing the Spinner Assembly \(page 18\)](#).
2. Disconnect the power/ground cable and main harness from the wire harness.
3. Lift up on the cleanout tray handle to clear the mount holes and slide the tray out ([Figure 36](#)).

**Note:** This step will require at least 2 people.



**Figure 36**

1. Cleanout tray
- 
4. Remove any material from the tray.
  5. Insert the tray into the spreader.
  6. Connect the power/ground cable and main harness to the wire harness.

# Storage

1. Unload the spreader; refer to [Unloading the Spreader \(page 18\)](#).
2. Remove the spreader from the truck using the lift bars ([Product Overview \(page 13\)](#)).
3. Wash and rinse the entire unit.
4. Clean and grease all of the bearings.
5. Clean and grease the pintle-chain for models VBS14210, BS15310, and VBS15160.
6. Clean all exposed connectors and apply dielectric grease to them.
7. Remove the controller from the truck and store it in a clean, dry place.

# Troubleshooting

Problem	Possible Cause	Corrective Action
The controller has no power (the display is not on).	<ol style="list-style-type: none"> <li>1. The controller is not on.</li> <li>2. The battery connections are loose or corroded.</li> <li>3. The 2 A inline fuse in the vehicle side harness is not functioning.</li> <li>4. The controller is not plugged into the vehicle side harness.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn the ON/OFF switch to the ON position.</li> <li>2. Tighten or clean the battery connections.</li> <li>3. Replace the fuse.</li> <li>4. Plug in the controller.</li> </ol>
There is a large X in the center of my controller screen.	<ol style="list-style-type: none"> <li>1. The spreader and vehicle wire harnesses are not connected.</li> <li>2. The power/ground cable is not connected to the spreader.</li> <li>3. The controller is not communicating with the control module.</li> <li>4. The connection between the gearbox and driveshaft is bad.</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect the wire harnesses.</li> <li>2. Connect the power/ground cable to the spreader.</li> <li>3. Check the power/ground cable connection at the bumper and the control module.</li> <li>4. Contact your Authorized Service Dealer.</li> </ol>
The LOW VOLTAGE icon is on my controller screen.	<ol style="list-style-type: none"> <li>1. The battery or alternator is bad.</li> </ol>	<ol style="list-style-type: none"> <li>1. Charge or replace the battery or alternator.</li> </ol>
The BUTTON STUCK icon is on my controller screen.	<ol style="list-style-type: none"> <li>1. The controller is not connected properly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect the controller. Replace the controller if the connections are fine.</li> </ol>
My controller screen says FEEDER JAM or SPINNER JAM.	<ol style="list-style-type: none"> <li>1. There is a clog in the feeder or spinner.</li> </ol>	<ol style="list-style-type: none"> <li>1. No action needs to be taken. Do not turn off the spreader.</li> </ol>
My controller screen says FEEDER JAM STUCK or SPINNER JAM STUCK.	<ol style="list-style-type: none"> <li>1. The feeder or spinner is unable to free the clog.</li> </ol>	<ol style="list-style-type: none"> <li>1. Press the START/STOP button to try again.</li> </ol>
There is a fan on my controller screen and it says FEEDER MOTOR COOL or SPINNER MOTOR COOL.	<ol style="list-style-type: none"> <li>1. The feeder or spinner motor is resting for 3 minutes.</li> </ol>	<ol style="list-style-type: none"> <li>1. Wait 3 minutes until attempting to operate the spreader.</li> </ol>
There is 1 light bulb icon on my controller screen.	<ol style="list-style-type: none"> <li>1. 1 of the rear lights 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>
There are 2 light bulb icons on my controller screen.	<ol style="list-style-type: none"> <li>1. Both of the rear lights are burnt out or disconnected.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the connections, and replace the bulbs if necessary.</li> </ol>
My controller screen says VIB ERROR.	<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>
My controller screen says FEEDER ERROR or SPINNER ERROR.	<ol style="list-style-type: none"> <li>1. The feeder or spinner motor is disconnected or there is a circuit issue</li> </ol>	<ol style="list-style-type: none"> <li>1. Disconnect the motor power, then connect it again. If the problem persists, contact your Authorized Service Dealer.</li> </ol>
There is an open box icon in the center of my controller screen, but my top screen is closed.	<ol style="list-style-type: none"> <li>1. The distance between the screen latch and the plastic plate is more than 13 mm (1/2 inch).</li> </ol>	<ol style="list-style-type: none"> <li>1. Reposition the latch, and replace the latch if necessary.</li> </ol>
The feed motor is running but the auger does not move.	<ol style="list-style-type: none"> <li>1. There is no connection between the gearbox and driveshaft.</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact your Authorized Service Dealer.</li> </ol>

**Notes:**

# BOSS Products Commercial Warranty

**What this warranty covers:**

This warranty covers defects in material and workmanship except as set forth below.

**Who is covered:**

The original purchaser from an authorized dealer.

**For how long:**

**Complete Product:** 2 years from the date of purchase.

**Labor:** 2 years from the date of purchase for complete product.

**Parts:** 1 year from the date of purchase. (no Labor)

**What BOSS Products will do:**

BOSS Products will, at its sole option, repair or replace defective parts at no charge.

**What you must do for warranty service:**

To obtain warranty service, purchaser must return the defective product to any authorized BOSS Products dealer (preferably the one from whom the product was purchased) within the warranty period. Purchaser must be able to verify the original purchase date. All transportation costs to and from the dealer will be the responsibility of the purchaser. To locate the authorized BOSS dealer nearest to you, call toll free: (800) 286-4155.

**What is not covered:**

1. Expendable parts such as hoses, plow shoes, cutting edges, pins, nuts, bolts, blade guides, etc.
2. Products repaired or altered by anyone other than an authorized BOSS Products dealer.
3. Products which have been subject to misuse, negligence, accident, improper installation, maintenance, care, or storage.
4. Products mounted on vehicles other than those listed in the *BOSS Snowplow Application Chart and Selection Guide*.
5. BOSS Products does not assume liability for damage to your motor vehicle resulting from the attachment or use of any BOSS products. Vehicle risk is the sole responsibility of the purchaser.

**Limits of BOSS Products Liability are:**

**BOSS Products' liability is expressly limited to repair or replacement of defective parts. BOSS Products shall not be liable for consequential, incidental, or contingent damages whatsoever, even if damages are caused by the negligence or fault of BOSS Products. The foregoing warranties are exclusive and in lieu of all other express and implied warranties including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.**

This warranty does not apply if you purchased your product for personal, family, or household use. In this case, refer to the BOSS Products Limited Consumer Warranty.

BOSS Products is a division of  
The Toro® Company  
P.O.Box 787 2010 The BOSS Way  
Iron Mountain, MI 49801

(2016-2017)

# BOSS Products Consumer Warranty

**What this warranty covers:**

This warranty covers defects in material and workmanship except as set forth below.

**Who is covered:**

The original retail purchaser of a BOSS product who purchases it for personal, family, or household use.

**For how long:**

**Complete Product:** 2 years from the date of purchase.

**Labor:** 2 years from the date of purchase for complete product.

**Parts:** 1 year from the date of purchase. (no Labor)

**What BOSS Products will do:**

BOSS Products will, at its sole option, repair or replace defective parts at no charge.

**What you must do for warranty service:**

To obtain warranty service, purchaser must return the defective product to any authorized BOSS Products dealer (preferably the one from whom the product was purchased) within the warranty period. Purchaser must be able to verify the original purchase date. All transportation costs to and from the dealer will be the responsibility of the purchaser. To locate the authorized BOSS dealer nearest to you, call toll free: (800) 286-4155.

**What is not covered:**

1. Expendable parts such as hoses, plow shoes, cutting edges, pins, nuts, bolts, blade guides, etc.
2. Products repaired or altered by anyone other than an authorized BOSS Products dealer.
3. Products which have been subject to misuse, negligence, accident, improper installation, maintenance, care, or storage.
4. Products mounted on vehicles other than those listed in the *BOSS Snowplow Application Chart and Selection Guide*.
5. BOSS Products does not assume liability for damage to your motor vehicle resulting from the attachment or use of any BOSS products. Vehicle risk is the sole responsibility of the purchaser.

**Limits of BOSS Products Liability are:**

**BOSS Products' liability is expressly limited to repair or replacement of defective parts. BOSS Products shall not be liable for consequential, incidental, or contingent damages whatsoever, even if damages are caused by the negligence or fault of BOSS Products. The foregoing warranties are exclusive and in lieu of all other express and implied warranties including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.**

**State laws:**

Some states do not allow exclusion of incidental or consequential damages or the limitations on how long an implied warranty lasts, so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have the other rights which vary from state to state.

This warranty does not apply if you purchased your product for personal, family, or household use. In this case, refer to the BOSS Products Limited Consumer Warranty.

BOSS Products is a division of  
The Toro® Company  
P.O.Box 787 2010 The BOSS Way  
Iron Mountain, MI 49801

(2016-2017)