

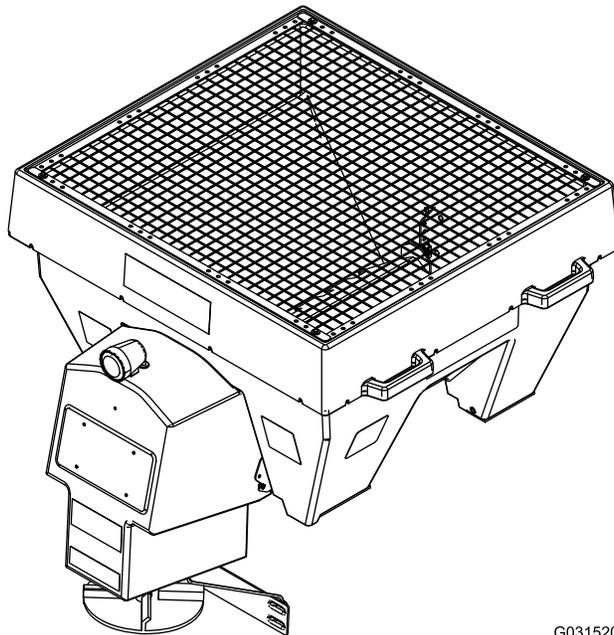


P.O. Box 787
Iron Mountain, MI 49801
United States

Owner's Manual

VBX 3000 V-Box Spreader

Part No. VBS19300



G031520



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.bossplow.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.

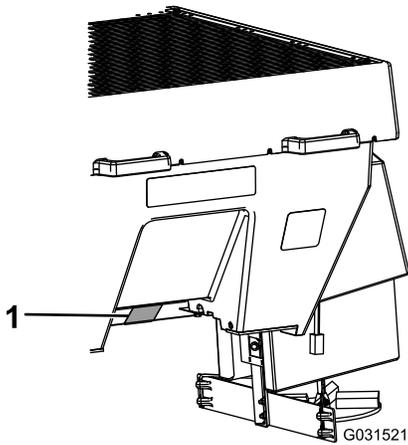


Figure 1

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.....	3
Safety and Instructional Decals	4
Setup	5
Installing the Wire Harness	5
Mounting the Spreader.....	6
Installing the Tie-Down D-Rings.....	6
Securing the Spreader.....	7
Installing the Spinner Assembly.....	7
Installing the Spreader Controller	8
Product Overview	9
Controls	9
Specifications	10
Operation	11
Loading the Spreader	11
Operating the Spreader	11
Freeing a Clog.....	11
Adjusting the Material Deflectors	12
Removing the Spinner Assembly	12
Unloading the Spreader	12
Operating Tips	13
Maintenance	14
Recommended Maintenance Schedule(s)	14
Lubrication	14
Greasing the Machine	14
Storage	14
Troubleshooting	15
Schematics	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 , which means: *Caution, Warning, or Danger*—personal safety instruction. Failure to comply with the instruction may result in personal injury or death.

Preparation

- Ensure that only trained personnel installs and performs maintenance on the equipment.
- 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.
- Overloading the spreader could result in an accident or damage. **Never** exceed the gross-vehicle-weight rating, the front or rear gross-axle-weight ratings, or the utility vehicle's bed capacity.
- 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.
- Mount the spreader to a vehicle when loading material.
- Install ratchet straps and keep them properly tightened at all times.
- The minimum utility vehicle bed length for the VBX 3000 is 85 cm (33-1/2 inches).

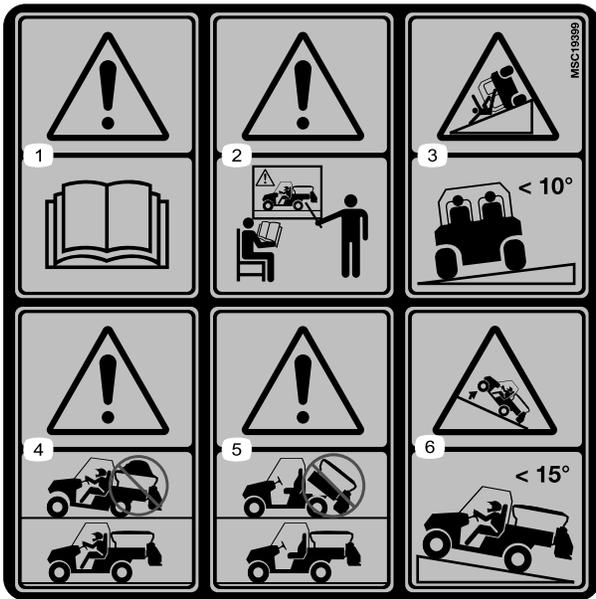
Operation

- Read the *Operator's Manual* before operating or servicing the spreader.
- Use a 1/2 ton minimum lifting device to move heavy spreader components.
- This spreader has an operating sound level below 70 dBA.
- **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.
- Material safety data sheets (MSDS) are available at 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 22.5 km/h (14 mph) while spreading.
- **Do not** attempt to mount or remove the spreader with material in it.
- Turn the 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.
- **Do not** store material in the hopper.

Safety and Instructional Decals

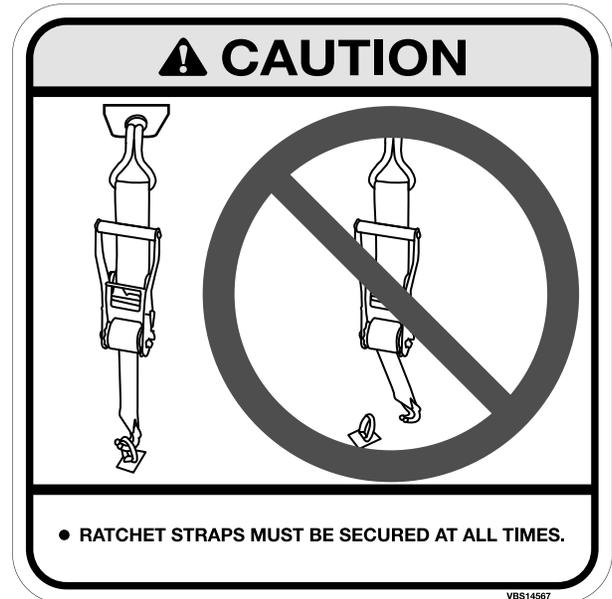


Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or lost.



MSC19399

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



MSC19312



MSC19405

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.

Stop 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.

1. Secure the vehicle-side spreader connectors to the left side of the rear bumper using cable ties (Figure 3).

2. Route the wire harness along the driver-side frame-rail and next to the battery. Secure the wire harness with cable ties.

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

3. Center the battery connectors near the battery, and route the controller connector end of the wire harness into the engine compartment (Figure 3).

4. 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.

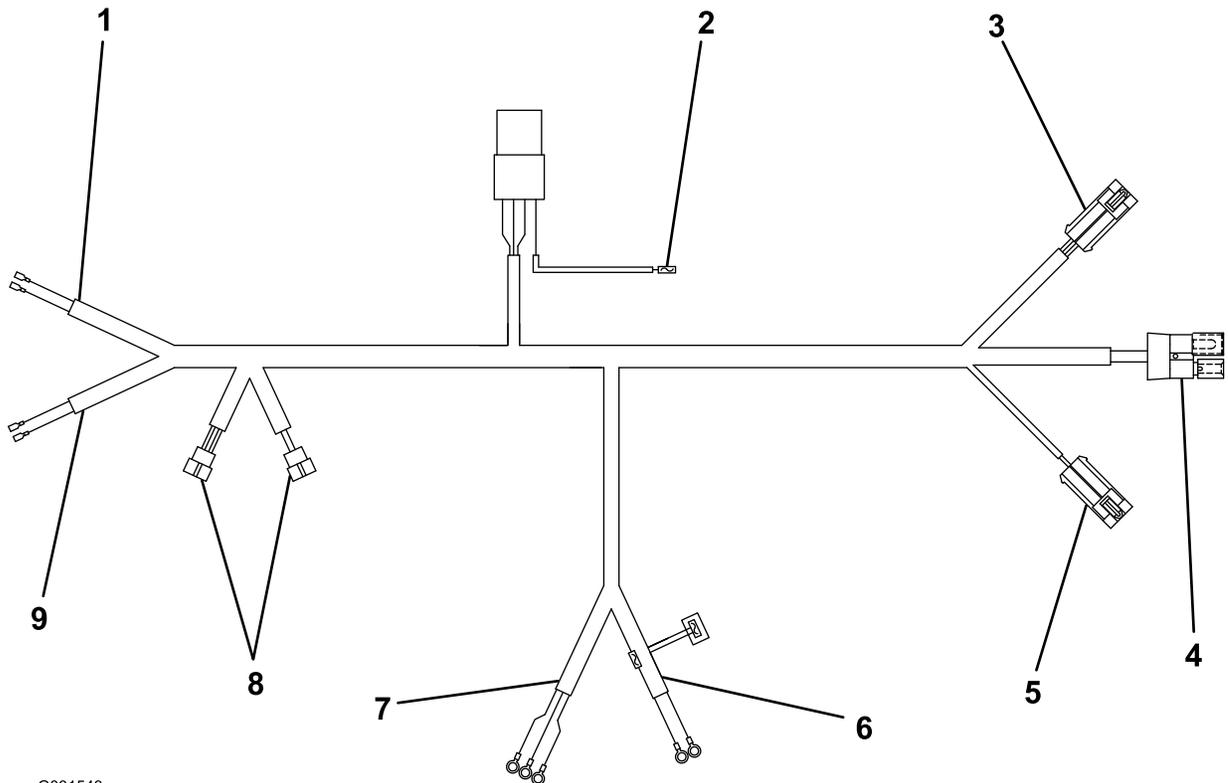
5. Connect the red battery cables to the positive (+) battery post (Figure 3).

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

6. Connect the black and red wire with the inline fuse to a keyed fuse source on your vehicle (Figure 3).

7. Wrap all of the excess wire and secure it in the engine compartment.

8. Connect the black battery cables to the negative (-) battery post (Figure 3).



G031543

Figure 3

- | | | |
|---|---------------------------|------------------------------|
| 1. Work-light-switch connector | 4. Drive-motor connector | 7. Black battery connectors |
| 2. Connect to a keyed fuse source | 5. Vibrator connector | 8. Controller connectors |
| 3. Spinner motor and work light connector | 6. Red battery connectors | 9. Vibrator-switch connector |

Mounting the Spreader

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

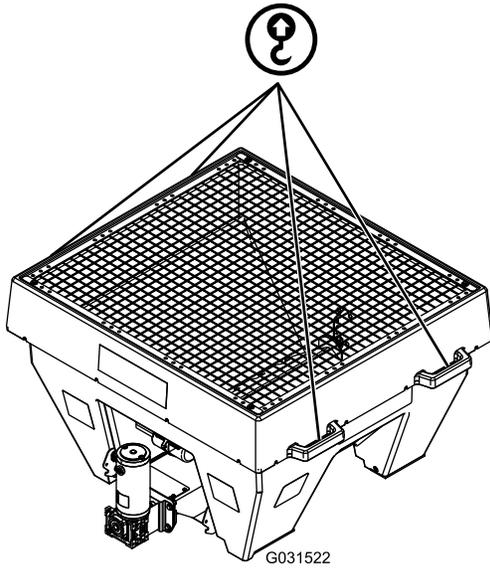


Figure 4

3. Slide the spreader toward the vehicle cab until the 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.

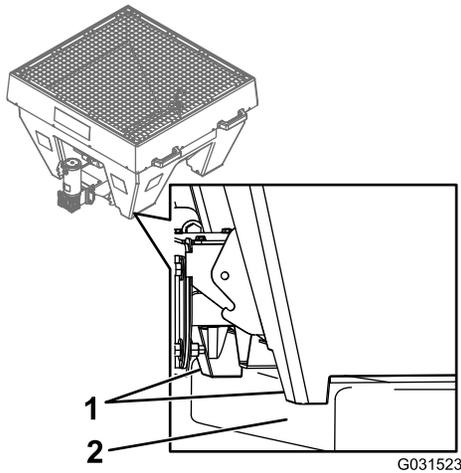


Figure 5

- | | |
|--------------|------------------------------------|
| 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.

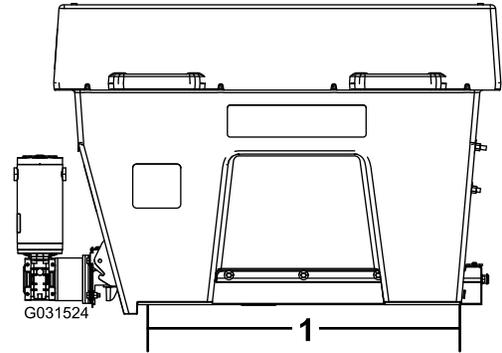


Figure 6

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).

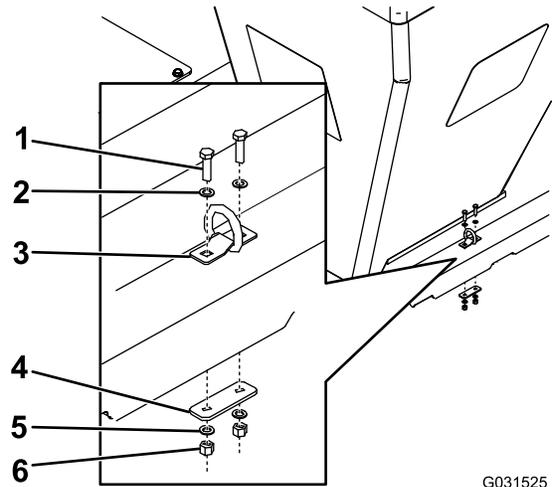


Figure 7

- | | |
|---------------------------|---------------------------|
| 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).

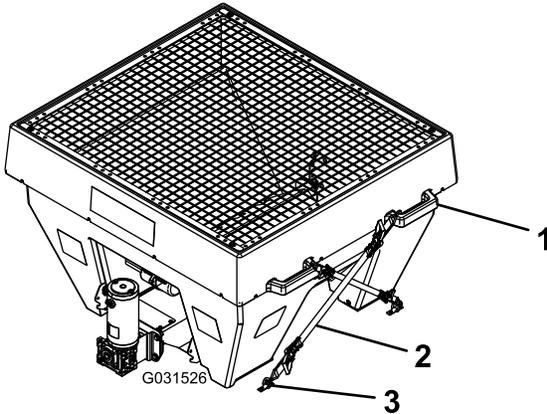


Figure 8

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).

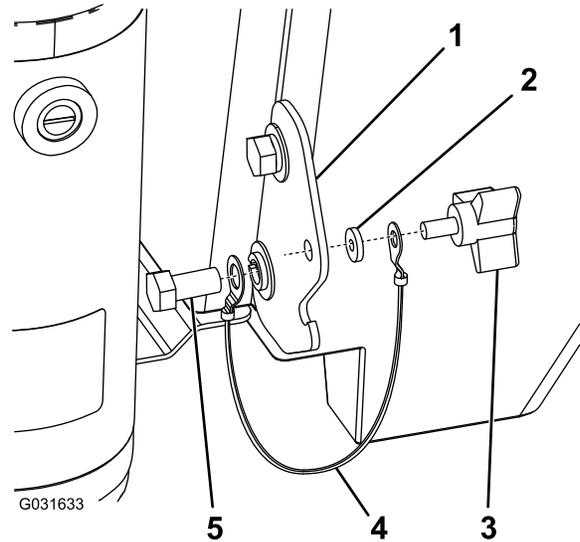


Figure 9

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

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

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

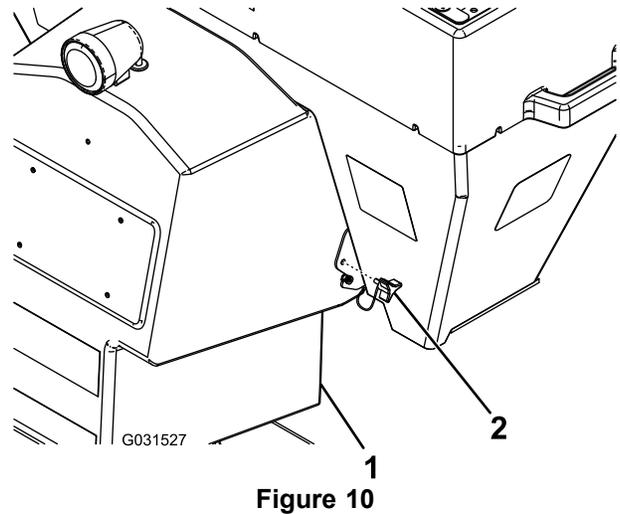


Figure 10

4. Connect the wire harness.

Installing the Spreader Controller

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

⚠ DANGER

The controller could cause serious injury if contacted during a crash.

Mount the controller in a location that vehicle occupants will not contact during a crash.

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

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

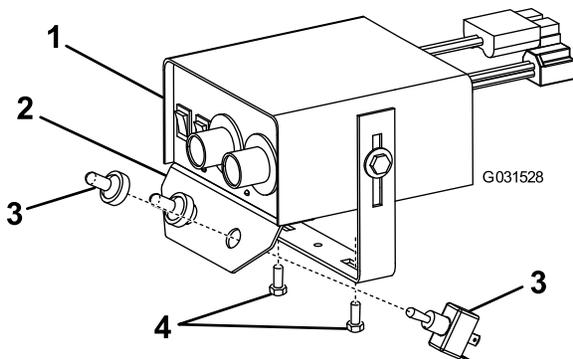


Figure 11

- | | |
|-----------------|-----------------------|
| 1. Controller | 3. Toggle switch |
| 2. Switch plate | 4. Sheet-metal screws |

2. Connect the switch plate to the controller (Figure 11).
3. Apply the switch-plate decal to the switch plate.
4. Install the 2 toggle switches to the switch plate (Figure 11).

Note: Ensure that the switches are correctly oriented.

5. Connect the toggle switches to wire harness.

Note: The solid colored wires connect to the positive switch spades, and the striped wires connect to the negative switch spades.

6. Connect the controller connector on the wire harness to the controller display.

Product Overview

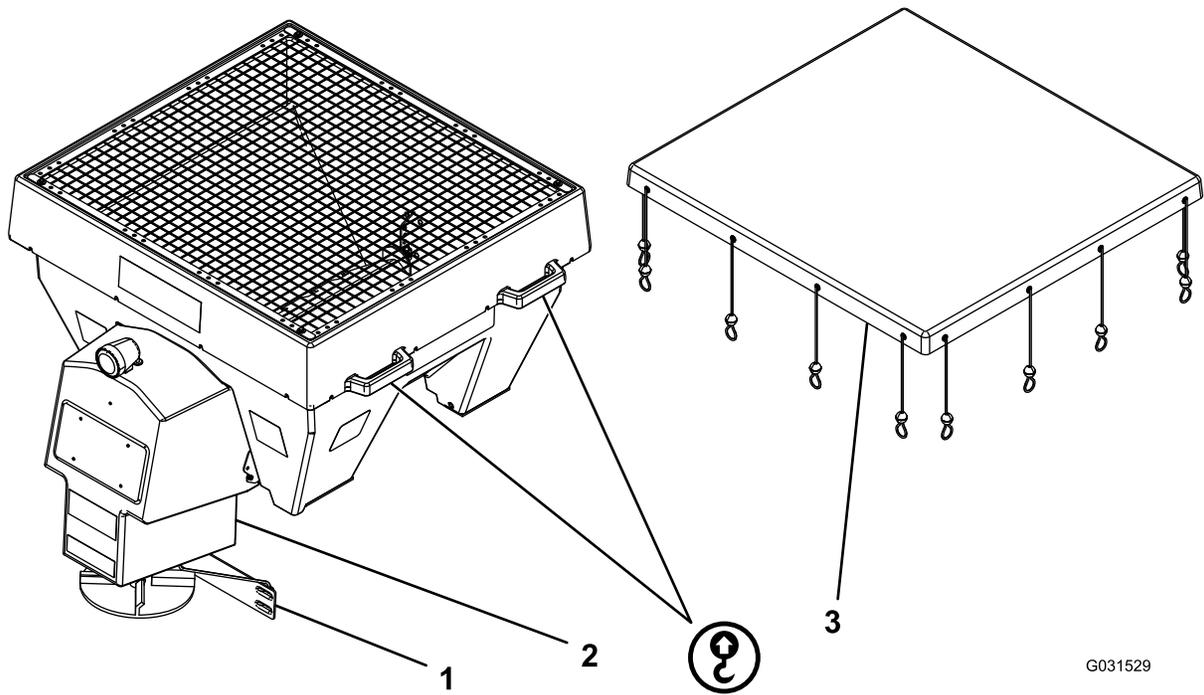


Figure 12

1. Material deflector
2. Spinner assembly

3. Hopper cover

G031529

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 \(page 12\)](#).

Spreader Controller

The spreader controller operates the spreader.

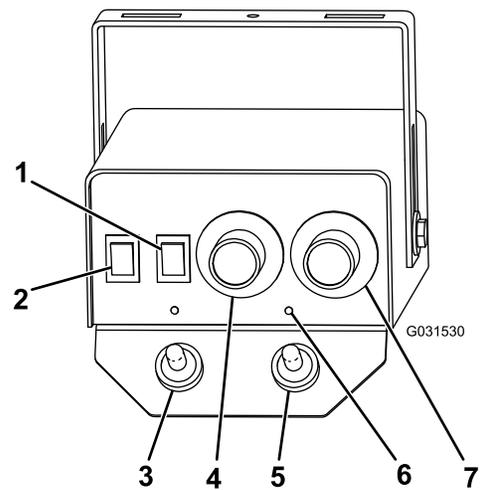


Figure 13

- | | |
|----------------------|-----------------------|
| 1. BLAST switch | 5. VIBRATOR switch |
| 2. ON/OFF switch | 6. JAM light |
| 3. WORK LIGHT switch | 7. SPINNER SPEED dial |
| 4. AUGER SPEED dial | |

- ON/OFF switch—turns the feeder and spinner on or off.
- BLAST switch—momentarily sends full power to the feed and spinner motors in 2 second bursts. The BLAST button

works only if the feed and spinner motors are set at less than maximum speed.

- AUGER SPEED dial—increases the auger motor speed when turned clockwise, and decreases the auger motor speed when turned counterclockwise. The auger speed determines how quickly material is pulled from the hopper.
- 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.
- JAM light—indicates a jam in the auger or spinner; refer to [Freeing a Clog \(page 11\)](#) for more information.
- WORK LIGHT switch—turns the rear lights on or off.
- VIBRATOR switch—switches the vibrator on or off.

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 ³ (12 ft ³)

Operation

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

Loading the Spreader

Important: Use only dry materials such as salt, sand, sand/salt, or cinder/salt mixes in the spreader. Other materials could damage the machine.

The density of materials you load into the spreader varies and therefore so will the amount of a given material that the spreader can carry before it reaches the maximum load.

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 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 ³ (70 to 80 lb/ft ³)
Coarse salt	721 to 961 kg/m ³ (45 to 60 lb/ft ³)
Coarse sand (dry)	1442 to 1762 kg/m ³ (90 to 110 lb/ft ³)
Coarse sand (wet)	1762 to 2082 kg/m ³ (110 to 130 lb/ft ³)
Cinders	641 kg/m ³ (40 lb/ft ³)

4. Fill the spreader evenly with your 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 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. Turn the controller dials to 0.
2. Start your vehicle.
3. Turn on the controller.

Note: Always check for bystanders before starting the spreader.

4. Use the controller dials to set your desired feed speed and spinner speed.

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

5. If the material in your hopper is bridging, activate the vibrator to break it up.

Note: Do not operate the vibrator when the auger and spinner motors are off.

6. While spreading, you can press the BLAST button to momentarily increase the speed of the feed and spinner motors.

7. Press the OFF switch when you are finished spreading to stop the spreader.

Note: You can leave the dials in place if you want to save your feed and spinner settings.

8. Empty the leftover materials from the spreader; refer to [Unloading the Spreader \(page 12\)](#).

Freeing a Clog

The JAM light blinks orange when debris starts to wedge in the auger 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 the clog is not cleared automatically, the JAM light illuminates red; disconnect the spreader wire harness and manually free the clog if this occurs.

Adjusting the Material Deflectors

You can adjust the material deflectors by inserting the deflector pins into the staggered holes around the spinner (Figure 14).

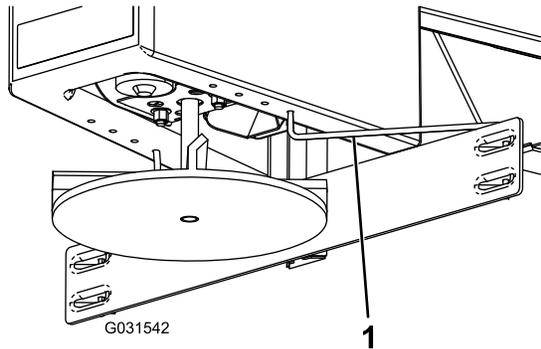
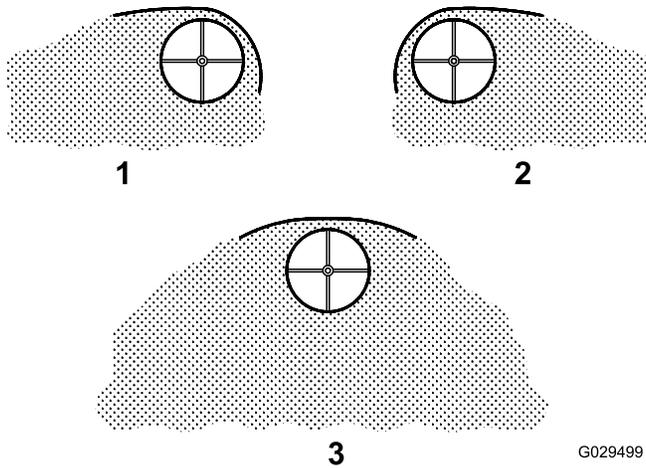


Figure 14

1. Deflector pin

You can adjust the spread pattern by positioning the deflectors as shown in Figure 15.



3
Figure 15
Deflection settings

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

Removing the Spinner Assembly

1. Unplug the spinner harness from the main wire harness.
2. Remove the 2 thumb screws securing the spinner assembly to the hopper (Figure 16).

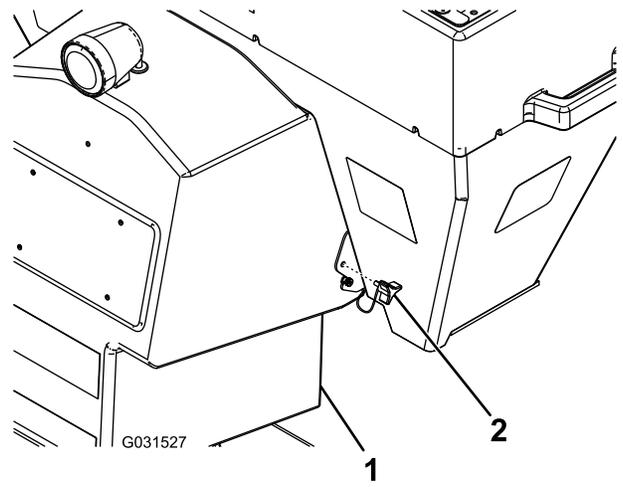


Figure 16

1. Spinner assembly
2. Thumb screw

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 thumb screws from the spinner assembly (Figure 16).
4. Remove the spinner assembly from the hopper (Figure 16).

⚠ 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. Turn the AUGER SPEED dial to 10 to unload the hopper.
6. Once the hopper is empty, attach the spinner assembly to the hopper and secure it with the previously removed thumb screws.
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 your spreader or vehicle.
- Do not let the ice build up; always start as soon as possible.
- Always wear your seatbelt and any other required safety gear when spreading.
- Always remember to spread at a safe speed. Spreading faster can be hard on the vehicle as its load is greatly increased.
- **Never** ride on or put 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">• Check the ratchet straps and tighten as necessary.
Every 20 hours	<ul style="list-style-type: none">• Clean the chute of any build-up.• Grease the bearings.• Tighten the hardware.
Before storage	<ul style="list-style-type: none">• Unload the spreader.• Clean and grease all of the bearings.

Lubrication

Greasing the Machine

Every 20 hours—Grease the bearings.

Grease all of the bearings with a general-purpose, lithium-based grease.

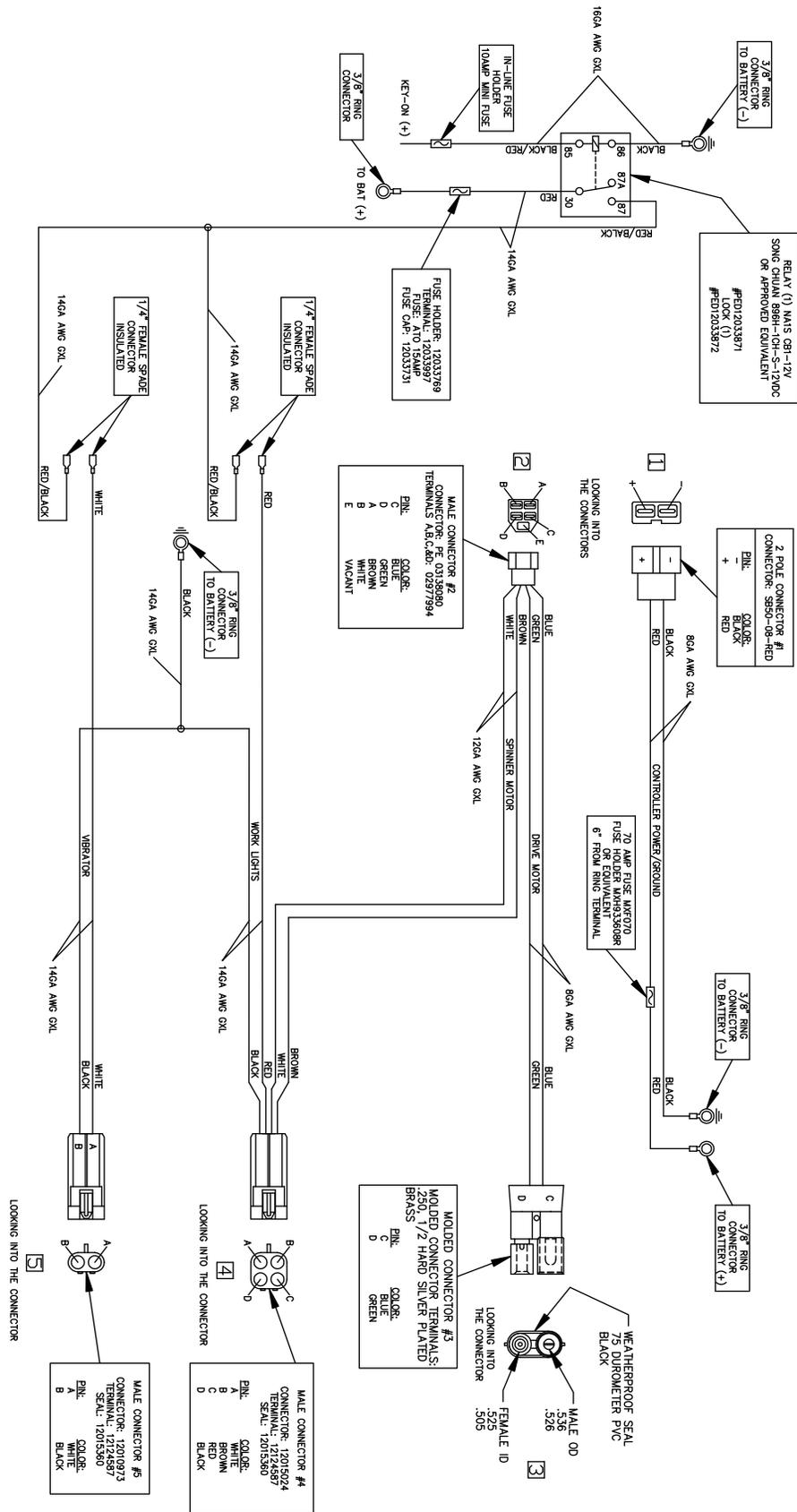
Storage

1. Unload the spreader; refer to [Unloading the Spreader \(page 12\)](#).
2. Remove the spreader from the vehicle using the lift handles; refer to [Mounting the Spreader \(page 6\)](#).
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 (the display is not on).	<ol style="list-style-type: none"> 1. The controller is not on. 2. The battery connections are loose or corroded. 3. The 2 amp inline fuse in the vehicle side harness is not functioning. 4. The controller is not plugged into the vehicle side harness. 	<ol style="list-style-type: none"> 1. Turn the ON/OFF switch to the ON position. 2. Tighten or clean the battery connections. 3. Replace the fuse. 4. Plug in the controller.
The JAM light is blinking orange on the controller.	<ol style="list-style-type: none"> 1. There is a clog in the auger or spinner. 	<ol style="list-style-type: none"> 1. No action needs to be taken. Do not turn off the spreader.
The JAM light is red on my controller and the auger is not moving.	<ol style="list-style-type: none"> 1. The feeder or spinner is unable to free the clog. 	<ol style="list-style-type: none"> 1. Turn off the spreader, unplug the wire harness, and manually free the jam inside the hopper.
The feed motor is running but the auger does not move.	<ol style="list-style-type: none"> 1. There is no connection between the gearbox and driveshaft. 	<ol style="list-style-type: none"> 1. Contact your Authorized Service Dealer.

Schematics



G031736

Electrical Schematic (Rev. A)

Notes:

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

(2015-2016)

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

(2015-2016)