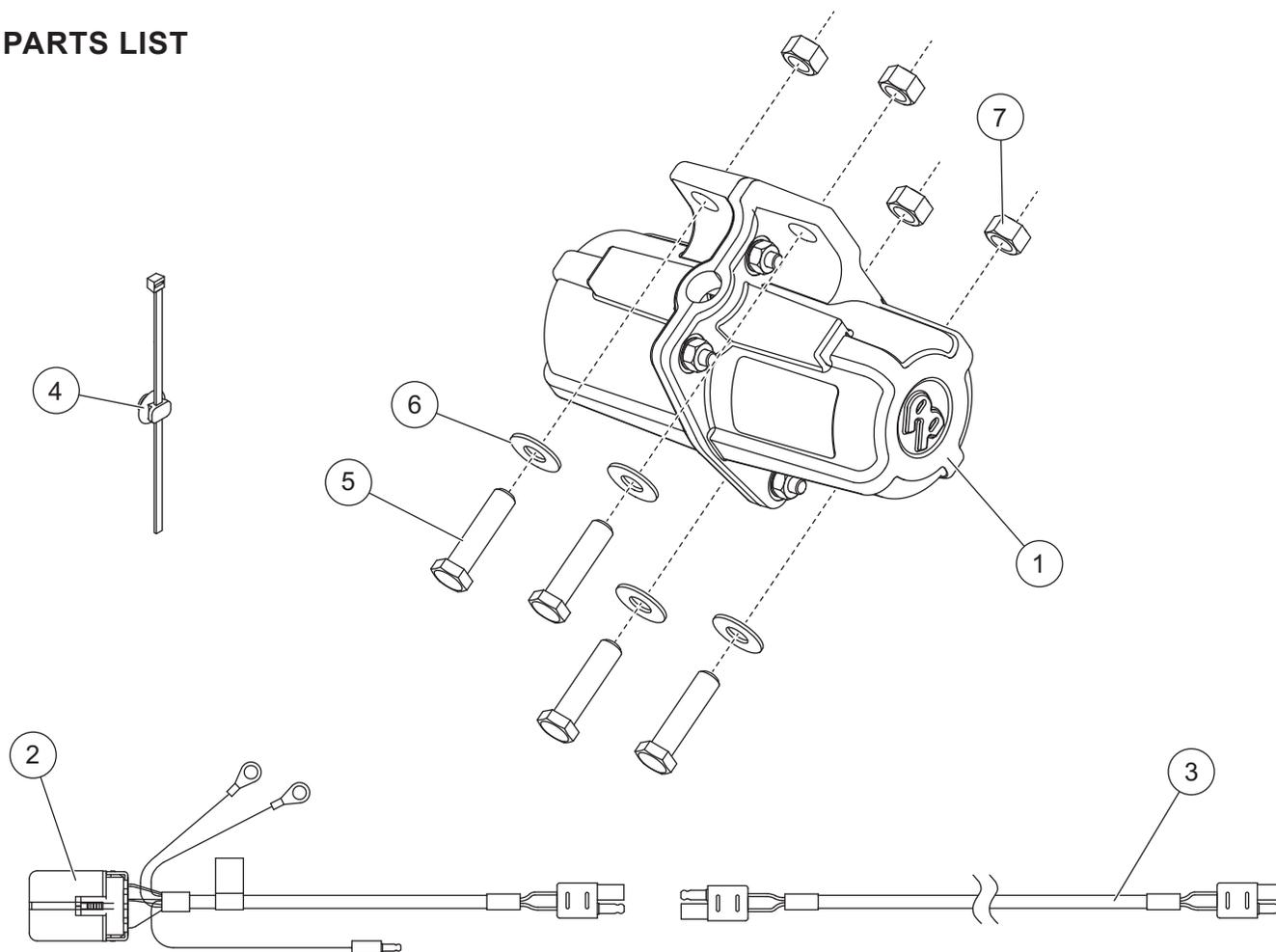


# Vibrator Kit

## Stainless Steel & Poly Hopper Spreaders with FLEET FLEX Electrical System

## PARTS LIST



Not drawn to scale.

76668 Vibrator Kit							
Item	Part	Qty	Description	Item	Part	Qty	Description
1	75673	1	Vibrator – Service Part	ns		4	Bundling Clip
2	78382	1	Relay/Fuse Harness Assy – Vibrator	ns	61536	10	Cable Tie – Long
3	78391	1	Harness Assy – Vibrator Extension	ns	95096	1	Bolt Bag
4		4	Fir Tree Mount w/Cable Tie				
95096 Bolt Bag							
5		4	3/8-16 x 1-1/2 Hex Cap Screw SS	ns		1	Spacer Plate
6		4	3/8 Flat Washer Wide SS	ns		1	5/8-11 x 4 Take-Up Bolt SS
7		4	3/8-16 Hex Locknut SS				
ns = not shown				SS = Stainless Steel			

## INSTALLATION INSTRUCTIONS

### **⚠ WARNING**

Do not exceed GVWR or GAWR ratings as found on the driver-side vehicle door cornerpost.

### **⚠ CAUTION**

Read this document before installing the vibrator kit.

### **⚠ CAUTION**

Use standard methods and practices when attaching spreader and installing accessories, including proper personal protective safety equipment.

### **⚠ CAUTION**

Contact with a vibrating surface can cause numbness, tingling, and loss of dexterity. Users should take breaks and wear gloves to limit vibrating exposure.

### **⚠ CAUTION**

Plants can be damaged when exposed to vibrating surface.

## REMOVING THE SPREADER

### For Stainless Steel Hopper Spreaders

If necessary for installation, the spreader may be removed from the vehicle.

1. Unplug the chute motor plug from the hopper body (passenger's side of the chute).
2. Remove and retain the chute attachment pins.
3. Remove the chute and set it on its side on the ground or work bench. If lifting the full-size chute, two people are recommended for this step, as the full-size chute weighs more than 70 lb.
4. Remove and retain the hopper mounting bolts and tie-downs for reinstallation.

### **⚠ CAUTION**

Before lifting, verify that hopper is empty of material. The lifting device must be able to support the spreader's weight.

5. Attach slings to the four corner lift points and, using a hoist, lift the hopper out of the vehicle. Move the spreader to the storage location with the hoist or lower it onto blocks and use a forklift to move it to a secure location.
6. Use blocking to ensure that the spreader is stable.

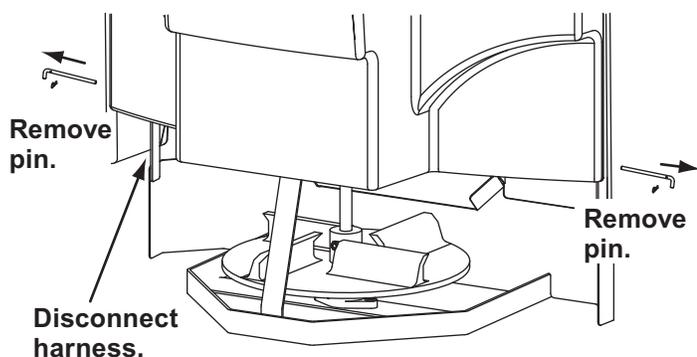
## For Poly Hopper Spreaders

The spreader can be removed from the vehicle bed either by lifting the spreader by the four molded-in handles located on the corner legs or by sliding it out of the vehicle bed and onto the ground.

### **⚠ CAUTION**

**Before lifting, verify that hopper is empty of material. The lifting device must be able to support the spreader's weight.**

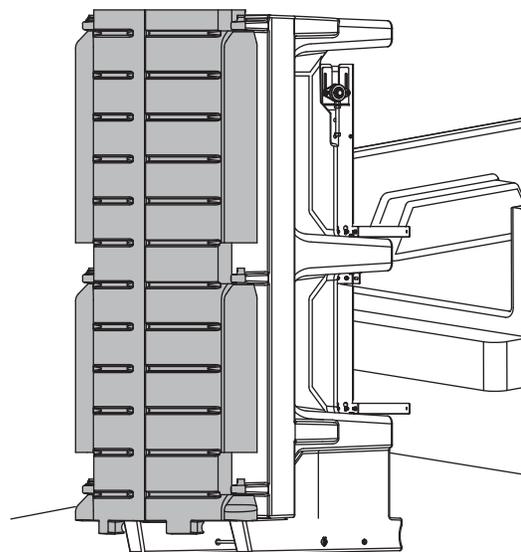
1. Before removing the spreader from the vehicle, remove the chute and empty all material from the hopper.
  - a. Remove the two pins that hold the chute to the hopper body.



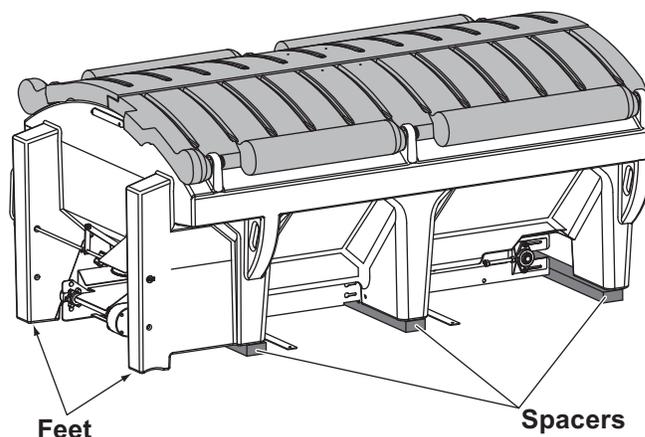
- b. Disconnect the spinner motor connector.
  - c. Grasp the chute, raise it, and remove it from the hopper body.
  - d. Operate the hopper to convey all material from the spreader.
2. Disconnect the electrical connections at the spreader.
3. Remove any means used to attach the spreader to the vehicle bed and ensure that the lids are closed securely.

Retain any fasteners and tie-downs for reinstallation.

4. To remove the spreader without a lifting device, two or more people are recommended. Move spreader rearward until it balances at the rear of the bed. Carefully lower the back of the spreader to the ground so it is resting on its feet.
5. Tip the spreader up so that it is fully supported by the feet.



6. **Do not leave an unsecured spreader standing on its feet.** Lower the spreader so that it is resting on its six legs and place spacers under the legs so that the feet at the rear of the spreader are off the ground.



## VIBRATOR INSTALLATION

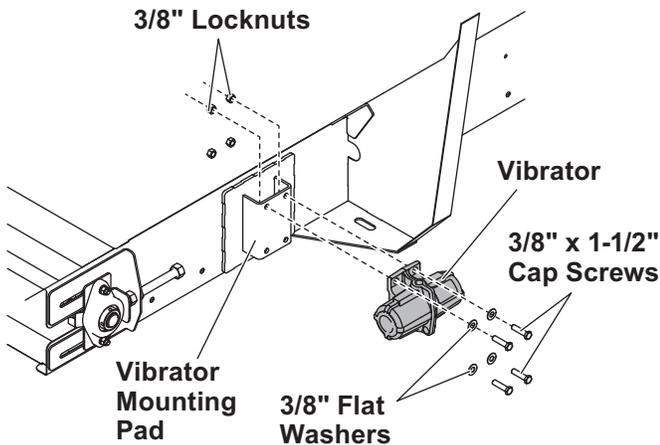
### For Stainless Steel Hopper Spreaders

**Gas and Hydraulic Spreaders:** The Accessory Harness and Bracket Kit must be installed before the vibrator accessory can be installed.

**Stainless Steel Electric Spreaders:** The vibrator relay/fuse harness assembly will be installed in the existing electrical enclosure.

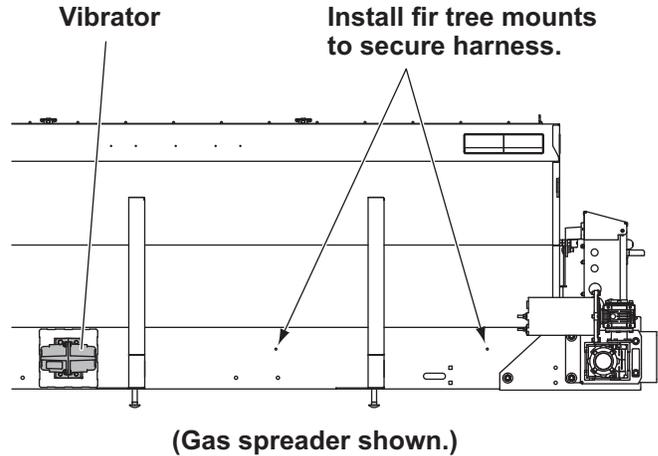
The vibrator can be mounted on either side of the hopper. A mounting pad and holes to secure the harness are provided on both sides of the hopper sill. The illustrations below show the vibrator being mounted on the passenger's side.

1. Park the vehicle on a smooth, level, hard surface, such as concrete. Turn the vehicle ignition to the "OFF" position and remove the key.
2. Attach the vibrator to its mounting location using the supplied 3/8" x 1-1/2" cap screws, 3/8" flat washers, and 3/8" locknuts.



3. Route the vibrator extension harness through the openings in the hopper legs and along the sill. Plug the harness into the vibrator lead.

4. Install fir tree mounts into the holes along the sill and secure the 90" harness using the fir tree mount cable ties.



**⚠ CAUTION**

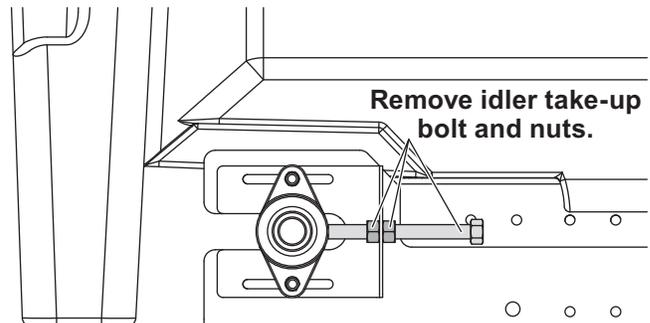
**Before drilling any holes, check both sides of the material for any wires, fuel lines, fuel tanks, etc., that may be damaged by drilling.**

An additional fir tree mount is supplied for use if needed. Drill a 1/4" hole at the desired location to install the additional fir tree mount.

### For Poly Hopper Spreaders

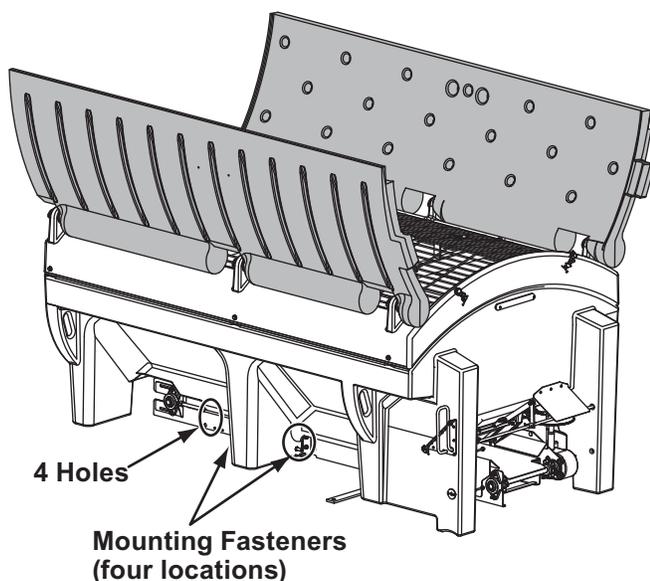
1. Remove the 5/8" x 6" idler take-up bolt and nuts from the driver-side bracket on the forward end of the sill.

Retain nuts for reinstallation in Step 4. The idler take-up bolt will be replaced with a shorter take-up bolt from the kit.

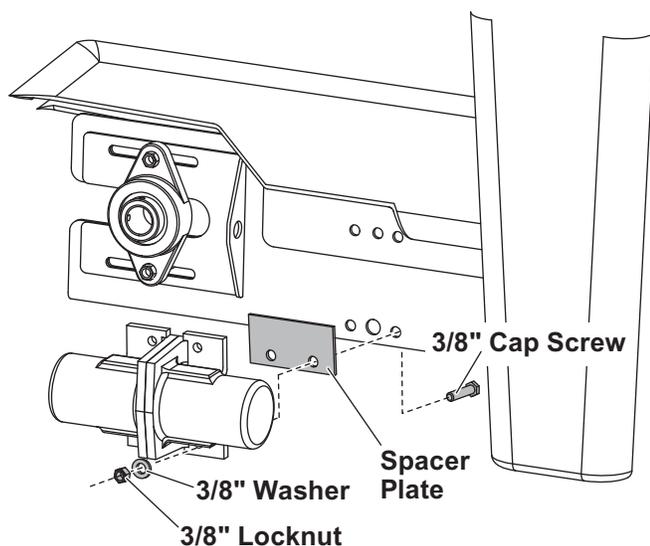


2. Locate the four mounting holes approximately 12-3/8" from the forward end of the driver-side sill.

Confirm that the vibrator will fit beside the center hopper leg. If there is not sufficient clearance, loosen the fasteners holding the hopper body on the sill and reposition the hopper to provide enough space to mount the vibrator.



3. Position the vibrator so that the wire lead is up. Install the vibrator spacer plate into the four holes using 3/8" x 1-1/2" cap screws, 3/8" washers, and 3/8" locknuts. Insert the 3/8" cap screws from the inside through the sill and into the vibrator. Secure with 3/8" washers and 3/8" locknuts on the vibrator side as shown.



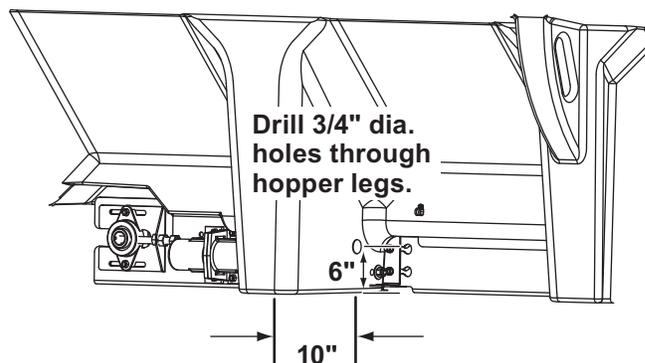
4. Install the 5/8" x 4" take-up bolt provided in the kit in place of the 6" bolt removed in Step 1, using the nuts retained in Step 1.

### ⚠ CAUTION

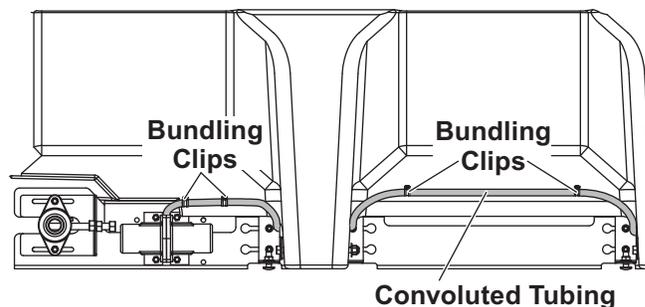
Before drilling any holes, check both sides of the material for any wires, fuel lines, fuel tanks, etc., that may be damaged by drilling.

5. Drill a 3/4" hole through each side of the center and rear legs of the poly hopper as shown.

The hole in the rear leg should be positioned approximately 6" above the vehicle bed and 10" from the outer edge of the poly hopper leg so that the harness will feed into the opening at the front of the large electrical enclosure.



6. Route the vibrator harness through the four holes drilled the poly hopper legs, and connect the molded plug to the vibrator lead.
7. Secure the molded plugs to the hopper body using bundling clips within 2" of each side of the plug connection.
8. Secure the convoluted tubing to the hopper body using bundling clips. Drill 1/4" pilot holes as needed.

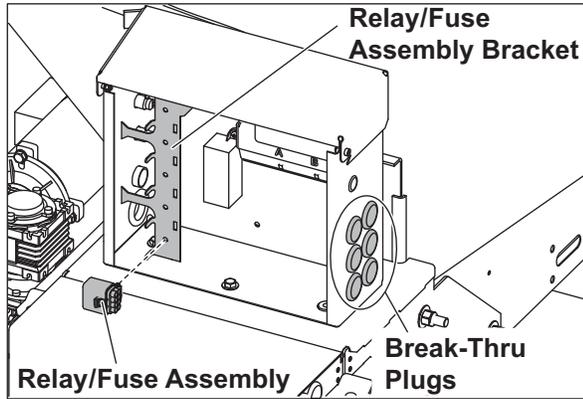


**ELECTRICAL CONNECTIONS**

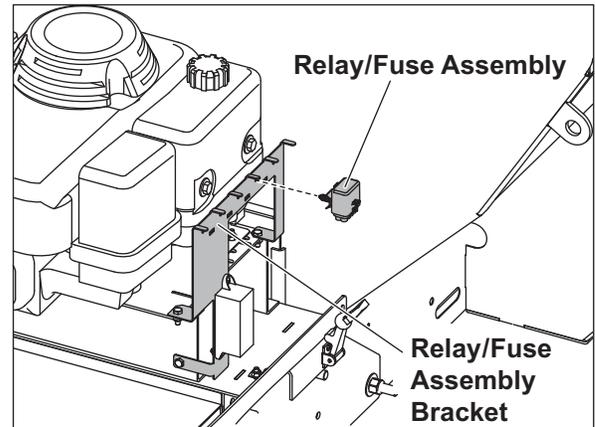
**Stainless Steel Electric or Hydraulic Spreader:** Cut a hole in one of the break-thru plugs and feed the vibrator extension harness into the enclosure. The hole should be sized to form a tight seal around the harness.

**Stainless Steel Gas Spreader:** Route the vibrator extension harness into the engine compartment coming in from the passenger's side on the forward (hopper) side of the engine. Make sure that the engine cover will not contact the harness when the cover is closed.

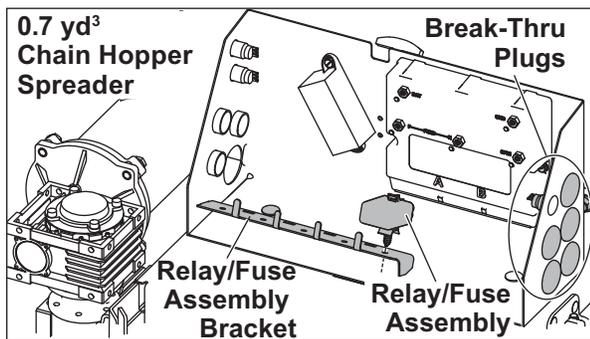
**Stainless Steel Electric Spreader (full size)**



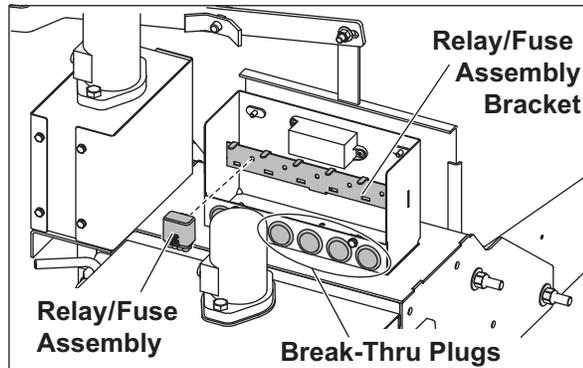
**Stainless Steel Gas Spreader (full size)**



**Stainless Steel Electric Spreader (0.7 & 0.35 yd<sup>3</sup>)**



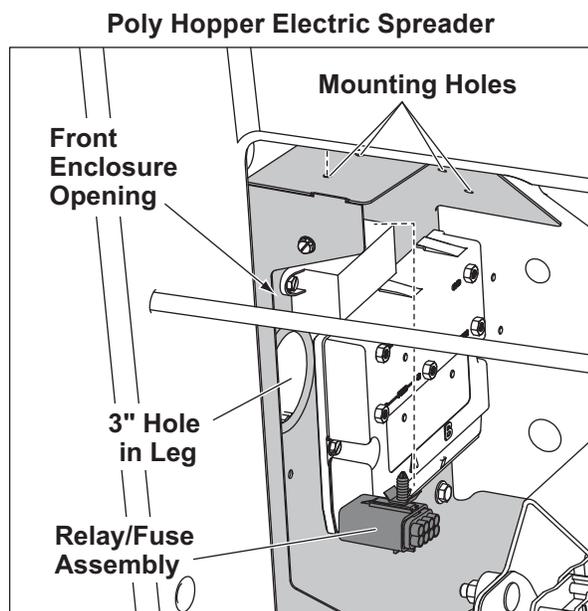
**Stainless Steel Hydraulic Spreader (full size)**



(Electrical enclosure covers not shown.)

**Poly Hopper Electric Spreader:** Route the harness into the large electrical enclosure through the hole that was drilled through the rear leg.

1. Mount the relay/fuse harness assembly to the relay/fuse assembly bracket or enclosure by pushing the connector clip on the back of the assembly into one of the holes in the bracket or enclosure. Secure the relay/fuse assembly to the bracket by running a cable tie through the slots in the bracket and around the assembly.
2. Plug the vibrator extension harness 2-pin connector into the relay/fuse harness assembly.
3. Remove the cover from the isolated stud block. Connect the red wire from the relay/fuse harness assembly to the POSITIVE (+) terminal and the black wire to the NEGATIVE (-) terminal of the isolated stud block.
4. Replace the isolated stud block cover, being careful not to pinch any wires. (On spreader installations with multiple accessories, it may be necessary to notch the sides of the isolated stud block cover to accommodate all the wires.)



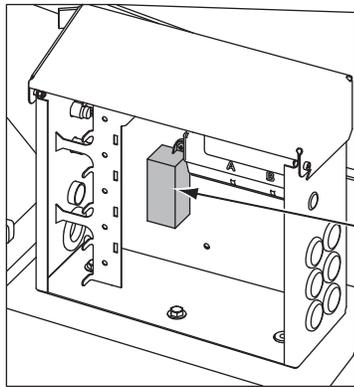
(Electrical enclosure covers not shown.)

**Stainless Steel Hopper Electric Spreaders (all sizes):** Connect the single-pin terminal on the relay/fuse harness assembly (blue wire) to the blue wire coming from port A of the spreader module.

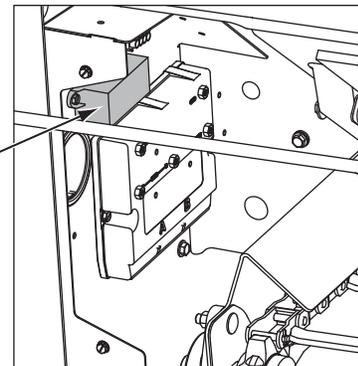
**Stainless Steel Hopper Gas or Hydraulic Spreaders:** Connect the single-pin terminal on the

relay/fuse harness assembly (blue wire) to the blue wire coming from the previously installed hopper accessory cable assembly.

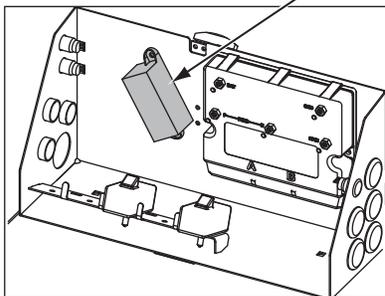
**Poly Hopper Electric Spreaders:** Connect the single-pin terminal on the relay/fuse harness assembly (blue wire) to the blue wire coming from port A of the spreader module.



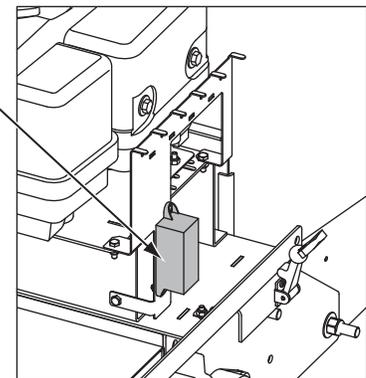
**Stainless Steel Hopper Electric Spreader (full size)**



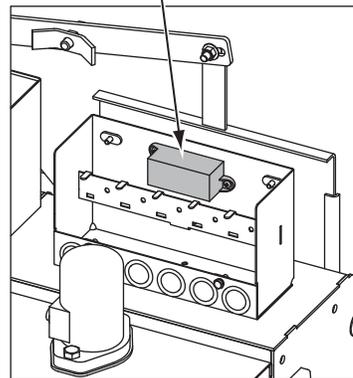
**Poly Hopper Electric Spreader**



**Stainless Steel Hopper Electric Spreader (0.35 & 0.7 yd<sup>3</sup>)**



**Stainless Steel Hopper Gas Spreader (full size)**



**Stainless Steel Hopper Hydraulic Spreader (full size)**

**Isolated Stud Block**

## REINSTALLING THE SPREADER

### For Stainless Steel Hopper Spreaders

**NOTE:** Periodically throughout the snow and ice control season, verify that mounting devices are secure.

#### **⚠ CAUTION**

Before lifting, verify that hopper is empty of material. The lifting device must be able to support the spreader's weight.

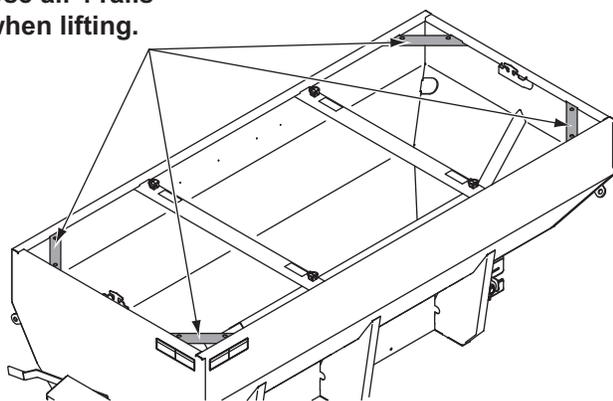
1. Remove the top screens and set them aside. Remove any debris from inside the hopper.
2. If the material chute has been stored inside the hopper, remove the chute and set it aside.

**For full-size spreaders**, two or more people are recommended for this step, as the chute weighs more than 70 lb.

**For 0.7 yd<sup>3</sup> and 0.35 yd<sup>3</sup> spreaders**, remove the chute before lifting the spreader.

3. Lift the spreader by the four diagonal corner rails, as shown, using slings or chains. Move the spreader into the vehicle bed.

Use all 4 rails  
when lifting.



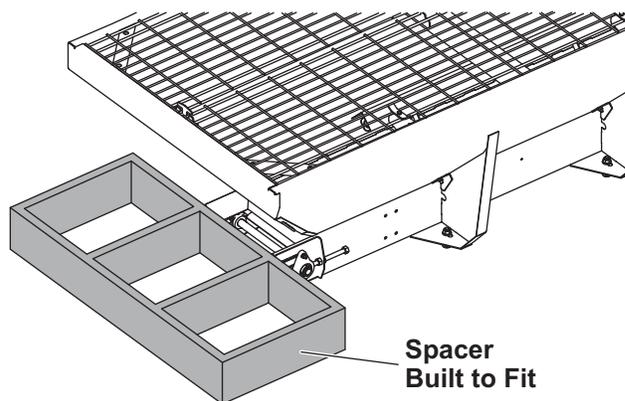
#### **⚠ WARNING**

Spreader shall be bolted to vehicle frame. Do not rely on the tie-down chains or straps alone to hold spreader in vehicle.

4. Adjust the spreader position to align the holes in the hopper support legs with the mounting holes in the vehicle bed. Install the spreader to the vehicle bed using retained fasteners.

**NOTE:** Pay special attention when drilling or clamping dissimilar metals to aluminum bodies. Galvanic corrosion can occur if not handled properly. Contact vehicle manufacturer for recommended attachment practices.

5. Connect the vehicle-side harness to the hopper-side harness.
6. Reinstall the top screens.
7. Install the sill spacer between the end of the hopper sill and the front of the vehicle bed as shown. If you do not have a spacer, refer to the Hopper Spreader Installation Instructions for directions on building one. **Failure to install this spacer could result in damage to the spreader.**



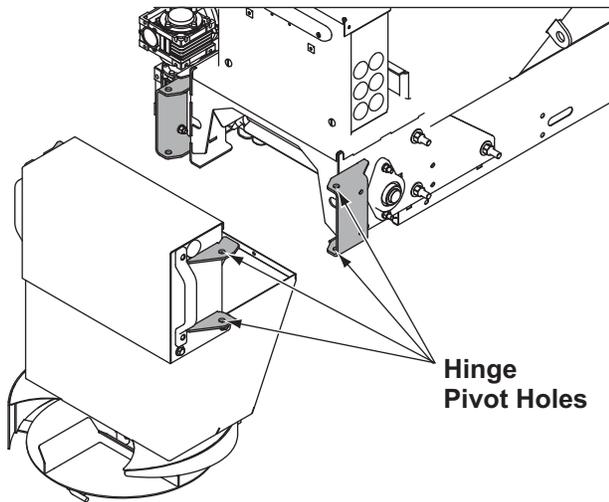
#### Tie-Down Straps

Reinstall tie-down straps from the tie-down loops on the spreader body to the vehicle frame. Use one strap per loop, pulling diagonally away from the hopper body.

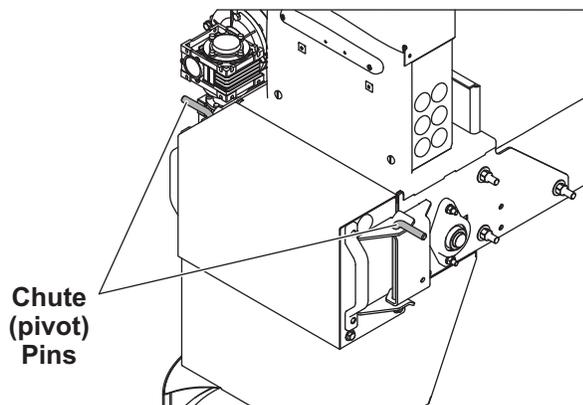
## Install Chute to Hopper

### For full-size stainless steel spreaders:

1. Two people are recommended for this step. Pick up the chute from each side and slide the chute hinges over the hopper hinges. Line up the hinge pivot holes.



2. Insert a 1/2" x 8-1/4" chute pin on each side and secure with a 3/32" x 2-1/4" cotter pin. The chute can pivot on either pin to provide access to the feed area of the hopper. An interlock prevents the feed system from running if the chute is rotated to either side or removed.

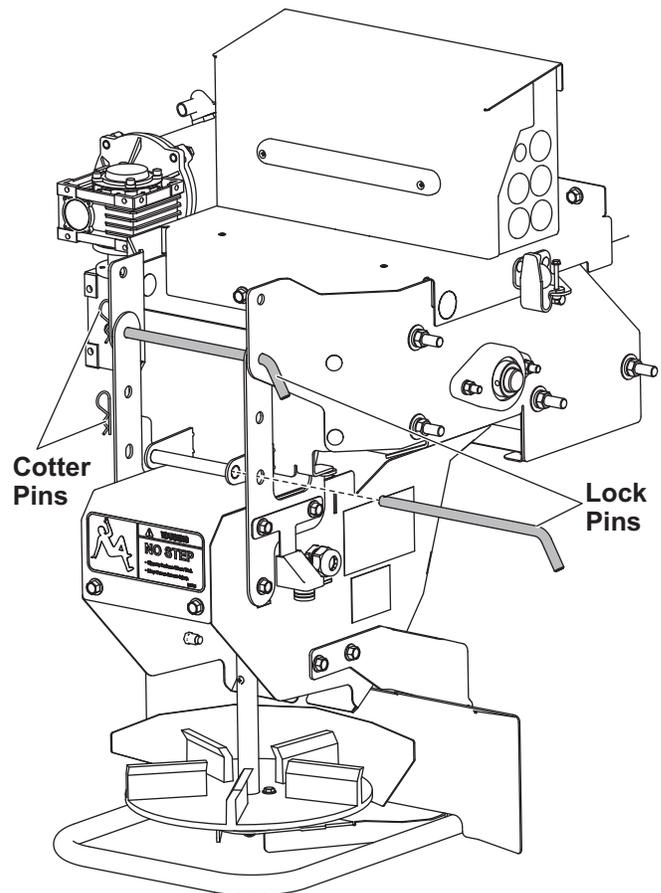


3. Connect the chute motor plug to the hopper harness plug.

### For 0.7 yd<sup>3</sup> and 0.35 yd<sup>3</sup> spreaders:

Move the spinner drive assembly to operating position:

1. Carefully set the spinner drive assembly on the ground. Orient it in operating position as shown below.
2. Install the lock pins found to the chute supports. *Install the top lock pin first*, using the lower holes in the chute supports. Secure each lock pin with a cotter pin.



3. Connect the spinner motor harness to the female connector extending from the rear of the hopper.

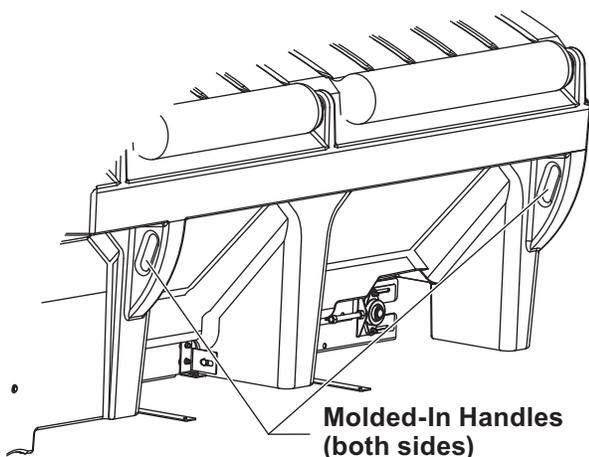
## For Poly Spreaders

**NOTE:** Periodically throughout the snow and ice control season, verify that mounting devices are secure.

### ⚠ CAUTION

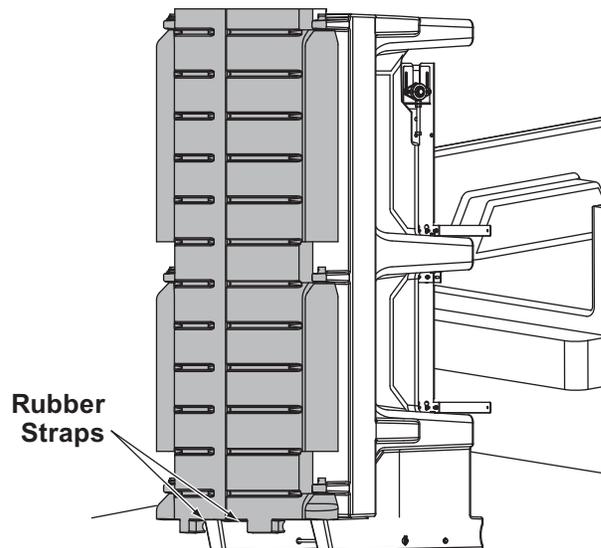
Before lifting, verify that hopper is empty of material. The lifting device must be able to support the spreader's weight.

1. The spreader can be moved into the vehicle bed either by lifting the spreader by the four molded-in handles located on the corner legs or by sliding the spreader into the vehicle bed from the ground.



2. To lift the spreader into the vehicle bed from the ground, stand the spreader up on the feet at the rear of the spreader. The chute must be removed.

3. Position spreader on its feet at the rear of the vehicle.

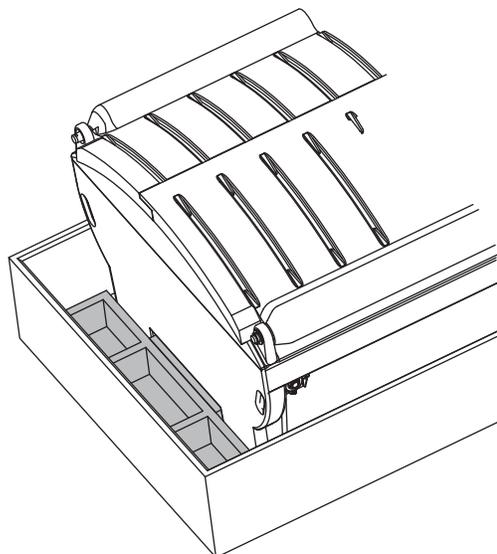


4. Tip the spreader toward the vehicle until the sill rests on the rear edge of the vehicle bed.
5. Lift the rear of the spreader and slide it into the vehicle bed. Two or more people are recommended for this task.

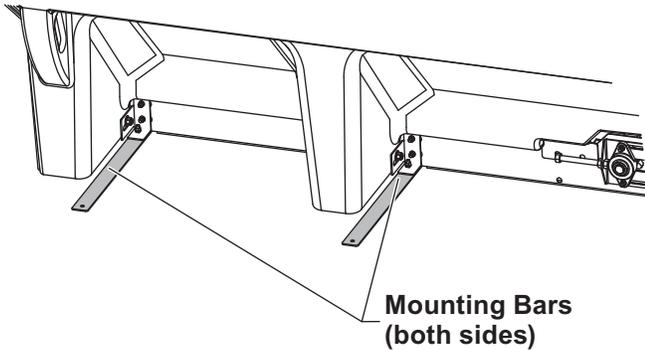
### ⚠ WARNING

Spreader shall be bolted to vehicle frame. Do not rely on the tie-down chains alone to hold spreader in vehicle.

6. Install the spacer between the end of the sill and the front of the vehicle bed as shown.



7. Center the spreader in the vehicle.
8. Fasten the spreader to the vehicle frame using the mounting bars and existing holes and hardware.



9. To assemble the chute to the spreader:
  - a. Select the height for the chute assembly. The upper chute position is typically used for vehicle installations.
  - b. Lift the chute onto the feed gate actuator bar and slide it down into place.
  - c. Align the holes in the hopper body with the threaded inserts in the chute, and install the pins to secure the chute to the hopper body.
  - d. Connect the spinner motor wiring harness.
10. Connect the vehicle and spreader wiring harnesses.

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**NOTE: Pay special attention when drilling or clamping dissimilar metals to aluminum bodies. Galvanic corrosion can occur if not handled properly. Contact vehicle manufacturer for recommended attachment practices.**

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