

# **SNO-WAY**®

**SNOW & ICE CONTROL EQUIPMENT**

## **INSTALLATION & OWNER'S MANUAL**

### **REVOLUTION™ V-BOX SPREADER**

**MODEL RVB10 - 10 CUBIC FEET**

**MODEL RVBD10 - 10 CUBIC FEET**

**MODEL RVB500 - 0.5 CUBIC YARD**

**MODEL RVBD500 - 0.5 CUBIC YARD**

**MODEL RVB750 - 0.75 CUBIC YARD**

**MODEL RVB1500 - 1.5 CUBIC YARD**

**MODEL RVB2000 - 2 CUBIC YARD**

**MODEL RVB2500 - 2.5 CUBIC YARD**

**MODEL RVB3000 - 3 CUBIC YARD**

**MODEL RVB3500 - 3.5 CUBIC YARD**

**MODEL RVB4300 - 4.3 CUBIC YARD**

**MODEL RVBS2000 - 2 CUBIC YARD**

**MODEL RVBS2500 - 2.5 CUBIC YARD**

#### **SPREADERS WITH SERIAL NUMBERS AFTER:**

**1RVB100000, 1RVBD100000, 50RVB100000, 50RVBD100000,  
75RVB100000, 150RVB100000, 200RVB100000, 250RVB100000,  
300RVB100000, 350RVB100000, 430RVB100000, 200RVBS100000,  
250RVBS100000**

#### **CHUTES WITH SERIAL NUMBERS AFTER:**

**LC100000, SC100000, L3C100000, S3C100000**

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# INTRODUCTION

This manual was written for the assembly, installation and maintenance of your new Sno-Way® Revolution™ RVB/RVBS Series V-Box Spreader. Most importantly, this manual provides an operating plan for safe use. Refer to the Table of Contents for an outline of this manual.

Please keep this manual with your machine at all times as reference material and so it can be passed on to the next owner if the machine is sold.

We require that you read and understand the contents of this manual COMPLETELY, especially the chapter on SAFETY, before attempting any procedure contained in this manual.



The Society of Automotive Engineers has adopted this SAFETY ALERT SYMBOL to pinpoint characteristics that, if NOT carefully followed, can create a safety hazard. When you see this symbol in this manual or on the machine itself, BE ALERT!, your personal safety and the safety of others, is involved.

• Defined in the next column, are the SAFETY ALERT messages and how they will appear in this manual.

	<b>WARNING</b>
INDICATES A HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.	

	<b>CAUTION</b>
INDICATES A HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN MINOR OR MODERATE INJURY.	

<b>NOTICE</b>
IS USED TO ADDRESS PRACTICES NOT RELATED TO PHYSICAL INJURY. FAILURE TO FOLLOW COULD LEAD TO PROPERTY DAMAGE.

*NOTE: Additional information concerning the equipment or the procedure that may or may not be contained elsewhere in this manual.*

**BE AWARE!** It is illegal to remove, deface or otherwise alter the safety decals mounted on this equipment.

Record the Spreader Serial Number and Spreader Model Number in the space provided below as a handy record for quick reference. The Serial Number decal is located on the drivers side frame support farthest from the discharge end. This decal contains information that your Dealer needs to answer questions, order replacement parts or to complete warranty work, if needed, for your unit.

We reserve the right to make changes or improve the design or construction of any part(s) without incurring the obligation to install such parts or make any changes on any unit previously delivered.

<b>NAME PLATE DATA</b>	
SPREADER MODEL NUMBER _____	
SPREADER SERIAL NUMBER _____ RVB _____ <small>(Located on Front Support Bracket - DS)</small>	
CHUTE SERIAL NUMBER:	
SC (SHORT CHUTE) _____	
LC (LONG CHUTE) _____	
(FILL IN)	

<b>DEALER</b>	
NAME _____	
ADDRESS _____	
CITY _____ STATE _____ ZIP _____	
PHONE ( ) - _____	
(FILL IN)	

<b>ORIGINAL PURCHASER</b>	
NAME _____	
ADDRESS _____	
CITY _____ STATE _____ ZIP _____	
PHONE ( ) - _____	
(FILL IN)	

Graphics and illustrations may be used which may show equipment and/or options not included in every installation without incurring the obligation to install such parts or make changes on units previously delivered.

Sno-Way Service Parts Manuals are available on-line or at your authorized Sno-Way dealer. Request part number 97102062 & 97101915 for the RVB series spreaders, or part number 97102500 for the RVBS series spreaders.

Factory contact information is available at [www.snoway.com](http://www.snoway.com).

# SAFETY

**BEFORE ATTEMPTING ANY PROCEDURE IN THIS BOOK, READ AND UNDERSTAND ALL THE SAFETY INFORMATION CONTAINED IN THIS SECTION. IN ADDITION, ENSURE ALL INDIVIDUALS WORKING WITH YOU ARE ALSO FAMILIAR WITH THESE SAFETY PRECAUTIONS.**

**For your safety Warning and Information Decals have been placed on this product to remind the operator to take safety precautions. It is important that these decals are in place and are legible before operation begins. New decals can be obtained from Sno-Way or your local dealer.**

**REMEMBER The careful operator is the best operator. Most accidents are caused by human error. Certain precautions must be observed to prevent the possibility of injury to operator or bystanders and/or damage to equipment.**

**FIRST TIME OPERATION** When running for the first time or after the unit has not been used for a long period of time, run and inspect the auger system without spinner and chute assembly attached.

**NEVER** operate spreader when under the influence of alcohol, drugs or other medications that could hamper your judgement and reactions. An accident may result in serious injury or death to other persons or yourself.

**ALWAYS** operate vehicle in a well-ventilated area. The carbon monoxide in exhaust gas is highly toxic and can cause injury or death.

**NEVER** wear wrist watches, rings or other jewelry when working on the vehicle or individual equipment. These things can catch on moving parts or cause an electrical short circuit that could result in personal injury.

**ALWAYS** wear safety goggles when working on the vehicle to protect your eyes from battery acid, gasoline, and dust or dirt from flying off of moving engine parts.

**ALWAYS** wear safety glasses with side shields when striking metal against metal! In addition, it is recommended that a softer (non-chipable) metal material be used to cushion the blow. Failure to heed could result in injury to the eye(s) or other parts of the body.

**NEVER** allow children or unauthorized person to operate this spreader.

**NEVER** exceed 45 m.p.h. when loaded spreader is attached to vehicle. Braking distances may be increased and handling characteristics may be impaired at speeds above 45 m.p.h.

**ALWAYS** lock the vehicle when unattended to prevent unauthorized operation.

**ALWAYS** check the job site for terrain hazards, obstructions and people.

**ALWAYS** check surrounding area for hazardous obstacles before operating this unit.

**ALWAYS** make sure personnel are clear of area being spread. Material is discharged from spreader at a high rate of speed and could injure bystanders.

**NEVER** leave materials in hopper for long periods of time. Remember salt is hygroscopic and will attract enough atmospheric moisture to cause it to “cake”.

**NEVER** work on the vehicle without having a fully serviced fire extinguisher available. A 5 lb or larger CO<sup>2</sup> or dry chemical unit specified for gasoline, chemical or electrical fires, is recommended.

**ALWAYS** make sure that all safety guards are in place before operating the spreader.

**ALWAYS** shut off the vehicle, unplug spreader, place the vehicle transmission in “Park”, turn the vehicle and spreader ignition switches to “OFF” position and firmly apply the parking brake of the vehicle before servicing or making any adjustments to the spreader.

**ALWAYS** wait for all movement to stop before servicing or adjusting the spreader.

**NEVER** climb on or allow others to climb on the spreader.

**ALWAYS** reassemble any parts or hardware removed for cleaning or adjusting before operating the spreader.

**ALWAYS** remove any tools and other materials from the spreader before operating the spreader

**ALWAYS** use auxiliary warning lights, except when prohibited by law, when operating the spreader.


**NEVER** allow hands, hair or clothing to get near any moving part of the spreader. Never wear neckties or loose clothing when working on the spreader or the vehicle.

**ALWAYS** be aware of and avoid contact with hot surfaces such as engine and exhaust.

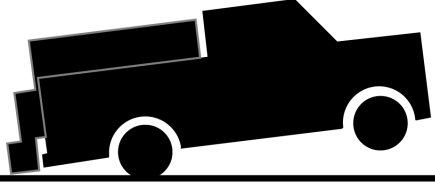
**ALWAYS** inspect the unit periodically for defects. Parts that are broken, missing or plainly worn must be replaced immediately. Never operate the unit when in need of maintenance.

**REMEMBER it is the owner’s responsibility for communicating information on the safe use and proper maintenance of this machine.**

# GENERAL INFORMATION



## WARNING



**Check the vehicle's load rating certification sticker for the maximum vehicle capacity, and DO NOT overload beyond the vehicle GVWR or GAWR. Overloading could result in an accident, or damage to the vehicle.**

**FAILURE TO FOLLOW CAN RESULT IN DEATH OR SERIOUS INJURY.**

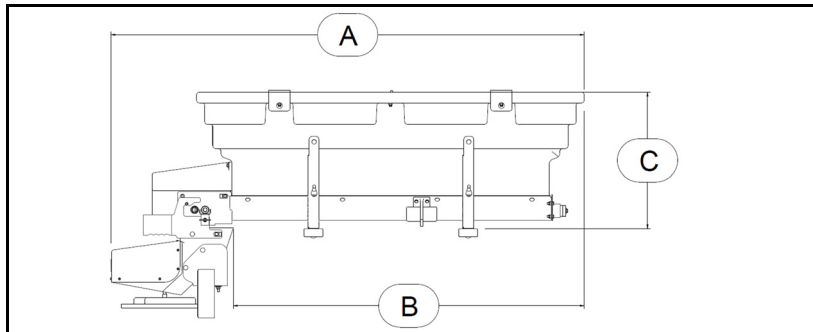
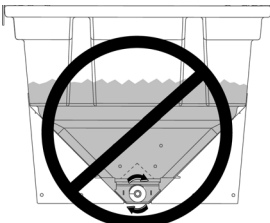


Figure 1-1

SPREADER MODEL	CAPACITY	OVERALL LENGTH (A)	BODY SIDE LENGTH (B)	OVERALL HEIGHT (C)	WIDTH	AUGER DIAMETER	EMPTY WEIGHT (No Chute)	RECOMMENDED USE
<b>RVB 10, RVBD 10</b>	10 cu. ft. (0.28 m <sup>3</sup> )	57 in. (1448 mm)	35 in. (889 mm)	28.5 in. (724 mm)	44 in. (1118 mm)	3 in. (76.2 mm)	185 lb (83.9 kg)	UTV and Larger
<b>RVB 500, RVBD 500</b>	0.5 cu. yd. (0.38 m <sup>3</sup> )	75.8 in. (1926 mm)	53.2 in. (1350 mm)	25 in. (635 mm)	39 in. (991 mm)	3 in. (76.2 mm)	215 lb (97.5 kg)	Light Duty and Larger
<b>RVB 750</b>	0.75 cu. yd. (0.57 m <sup>3</sup> )	87.9 in. (2232 mm)	65.2 in. (1656 mm)	25 in. (635 mm)	39 in. (991 mm)	3 in. (76.2 mm)	244 lb (110.8 kg)	1/2 Ton and Larger
<b>RVB 1500</b>	1.5 cu. yd. (1.14 m <sup>3</sup> )	104.8 in. (2662 mm)	82 in. (2083 mm)	32 in. (813 mm)	49.25 in. (1251 mm)	3 in. (76.2 mm)	337 lb (152.8 kg)	3/4 Ton and Larger
<b>RVB 2000</b>	2 cu. yd. (1.53 m <sup>3</sup> )	104.8 in. (2662 mm)	82 in. (2083 mm)	38.4 in. (975 mm)	49.25 in. (1251 mm)	3 in. (76.2 mm)	352 lb (159.7 kg)	1 Ton and Larger
<b>RVB 2500</b>	2.5 cu. yd. (1.91 m <sup>3</sup> )	111.6 in. (2834 mm)	89 in. (2260 mm)	41 in. (1041 mm)	50.75 in. (1289 mm)	3 in. (76.2 mm)	370 lb (167.8 kg)	1 Ton and Larger
<b>RVB 3000</b>	3 cu. yd. (2.29 m <sup>3</sup> )	111.6 in. (2834 mm)	89 in. (2260 mm)	48.5 in. (1232 mm)	50.75 in. (1289 mm)	3 in. (76.2 mm)	445 lb (201.8 kg)	1 Ton and Larger
<b>RVB 3500</b>	3.5 cu. yd. (2.67 m <sup>3</sup> )	133 in. (3378 mm)	110 in. (2794 mm)	48 in. (1219 mm)	52 in. (1320 mm)	6 in. (152 mm)	825 lb (374.2 kg)	*Class 6 and Class 7 Trucks
<b>RVB 4300</b>	4.3 cu. yd. (3.29 m <sup>3</sup> )	133 in. (3378 mm)	110 in. (2794 mm)	57 in. (1448 mm)	52 in. (1320 mm)	6 in. (152 mm)	875 lb (396.9 kg)	*Class 6 and Class 7 Trucks
<b>RVBS 2000</b>	2 cu. yd. (1.53 m <sup>3</sup> )	108.5 in. (2756 mm)	85.7 in. (2176 mm)	38 in. (965 mm)	51.8 in. (1315 mm)	3 in. (76.2 mm)	600 lb (272.1 kg)	1 Ton and Larger
<b>RVBS 2500</b>	2.5 cu. yd. (1.91 m <sup>3</sup> )	108.5 in. (2756 mm)	85.7 in. (2176 mm)	41 in. (1041 mm)	51.8 in. (1315 mm)	3 in. (76.2 mm)	671 lb (304.3 kg)	1 Ton and Larger

NOTE: \*Class 6 = 19,500 - 26,000 lbs. (8,845 - 11,793 kg) Class 7 = 26,000 - 33,000 lbs. (11,793 - 14,968 kg)

## NOTICE



**Proper spreader operation depends on material selection and usage.**

- Spreading material, when left in the hopper overnight, may settle or accumulate moisture, become solid and jam the spreader auger. **ALWAYS** empty the spreader when not in use.
- If improper materials are fed through the spreader or if materials are used improperly, constant circuit breaker tripping may result.

**These conditions, resulting in burnt out electric motors will not be covered under warranty.**

# INSTALLATION

## Inverted-V Set-Up

The inverted-v is a sectional design that can have sections disassembled and will flow numerous types of material depending on how it is orientated. Review the classifications of material and which types of material will be used in the spreader.

### Material Weight:

Use the following table as a guide to calculate the weight of material placed in the spreader:

## WARNING

Material weights given are average weights for DRY materials. Depending on moisture content of material, weights will vary. NEVER load the vehicle this Spreader is installed on beyond the vehicle manufacturers maximum Gross Vehicle Weight Rating.

**FAILURE TO FOLLOW CAN RESULT IN DEATH OR SERIOUS INJURY.**

Estimate - Number of Bags at 75 lbs/Cubic Foot			
Spreader	Struck Capacity	Using 40 lb Bags	Using 80 lb Bags
RVB 10, RVBD 10	10 cu. ft. (0.28 m <sup>3</sup> )	18.5 Bags	9.5 Bags
RVB 500, RVBD 500	0.5 cu. yd. (0.38 m <sup>3</sup> )	25 Bags	12.5 Bags
RVB 750	0.75 cu. yd. (0.57 m <sup>3</sup> )	38 Bags	19 Bags
RVB 1500	1.5 cu. yd. (1.14 m <sup>3</sup> )	76 Bags	38 Bags
RVB/RVBS 2000	2 cu. yd. (1.53 m <sup>3</sup> )	101 Bags	50.5 Bags
RVB/RVBS 2500	2.5 cu. yd. (1.91 m <sup>3</sup> )	126 Bags	63 Bags
RVB 3000	3 cu. yd. (2.29 m <sup>3</sup> )	152 Bags	76 Bags
RVB 3500	3.5 cu. yd. (2.67 m <sup>3</sup> )	177 Bags	89 Bags
RVB 4300	4.3 cu. yd. (3.29 m <sup>3</sup> )	218 Bags	109 Bags
<b>Example: 14 Bags x 80 lbs = 1,120 lbs</b>			

### Material Classification:

**High Flow Material:** Materials that do not bridge. Very dry and free flowing.

Examples:

- Dry Fine Bulk Salt
- Dry Bagged Salt
- Dry Salt with Calcium Chloride Flakes
- Pea Gravel
- Dry Coarse Bulk Salt

**Medium Flow Material:** Materials that may bridge. Not completely dry and will clump a little in your hand if you try to form it into a ball.

Examples:

- Damp Coarse Bulk Salt
- Very Coarse Bulk Salt

**Low Flow Material:** Materials that will bridge. Damp, coarse or fine, material that will clump and form a ball in your hands.

Examples:

- Sand / Salt Mix
- Sand
- Damp Fine Bulk Salt
- Magic Salt
- Cinders

Temporarily remove the screen off the spreader, then set-up the inverted-v based on the classification of material that will be used and design of inverted-v you have.

## High Flow Material

Top baffles closed and side baffles half raised except for the section closest to the discharge end. The section nearest the chute should be rotated to prevent excess material from flowing out of the spreader during transport. The remaining side baffles can be lowered or raised if more flow or restriction is desired (See Figure 1-2).

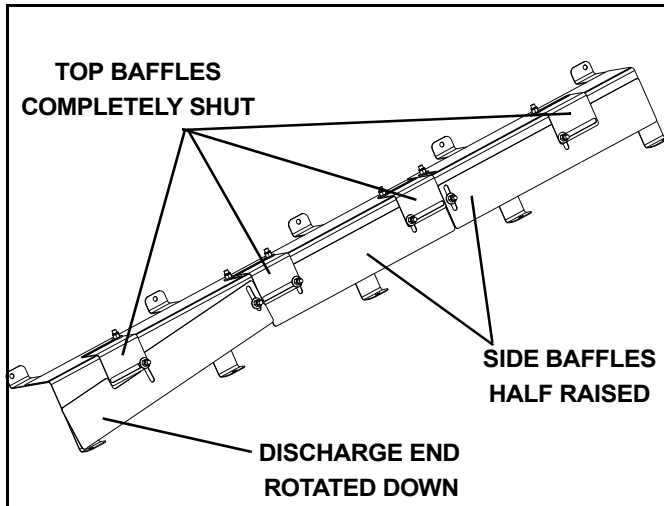


Figure 1-2

## Medium Flow Material

Set up varies depending on the series of spreader you have.

### RVB/RVBS 500/750/1500/2000/2500/3000

Top baffles closed and side baffles fully raised (See Figure 1-3). The top baffles can be partially or fully open depending on desired flow to the auger. The top baffles can be opened partially or fully, if increased flow is needed.

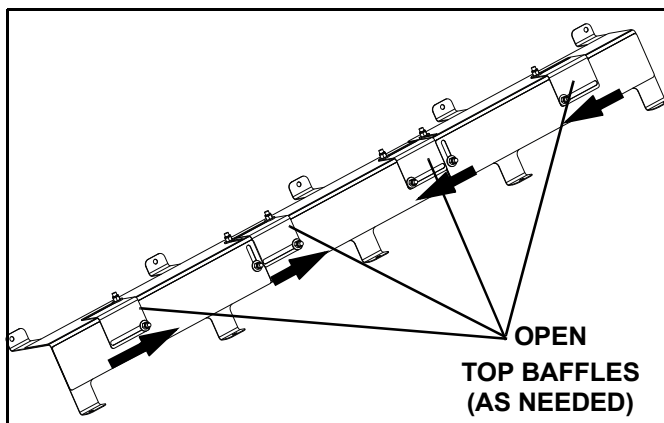


Figure 1-3

### RVB 3500/4300

There are no top baffles to open. The only way to increase flow is to raise the side baffles. (See Figure 1-7)

## Low Flow Material

Set up varies depending on the series of spreader you have.

### RVB/RVBS 1500/2000/2500/3000

Remove the four bolts holding the center section of the inverted-v to the end sections. Then, temporarily remove the two bolts holding the center section to the hopper. Open the top baffles of the center section. Entirely remove the center section and re-install the bolts that were in the hopper. Keep the center section in case the type of material being spread changes. The remaining sections of the inverted-v should have the top baffles completely open and side baffles fully raised (See Figure 1-4).

*NOTE: An additional vibrator (99101247) is needed to flow this type of material.*

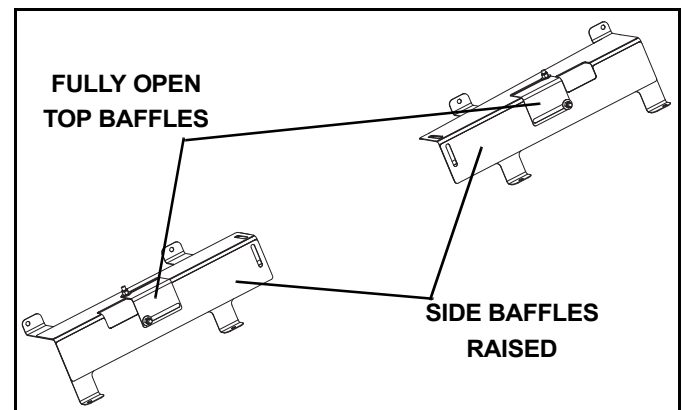


Figure 1-4

### RVB 750

Remove the four bolts holding the center section of the inverted-v to the end sections. Then, temporarily remove the four bolts holding the end sections to the hopper. Entirely remove the end sections and re-install the bolts that were in the hopper. Keep the end sections in case the type of material being spread changes. The remaining section of the inverted-v should have the top baffles completely open and side baffles fully raised (See Figure 1-5).

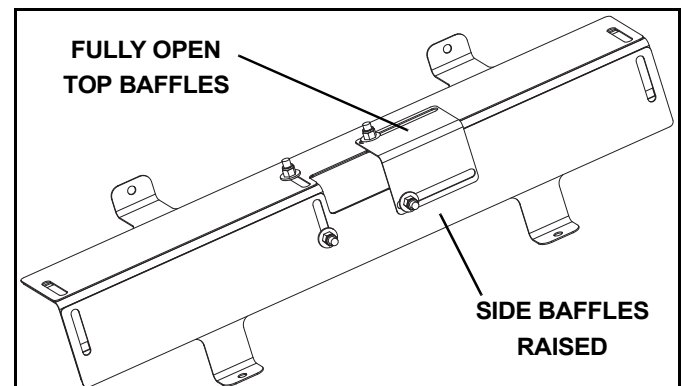


Figure 1-5

## RVB 500

Remove the four bolts holding the center section of the inverted-v to the end sections. Entirely remove the center section. Keep the center section in case the type of material being spread changes. The remaining sections of the inverted-v should have the top baffles completely open and side baffles fully raised (See Figure 1-6).

*NOTE: RVBD10 and RVBD500 do not have inverted v's.*

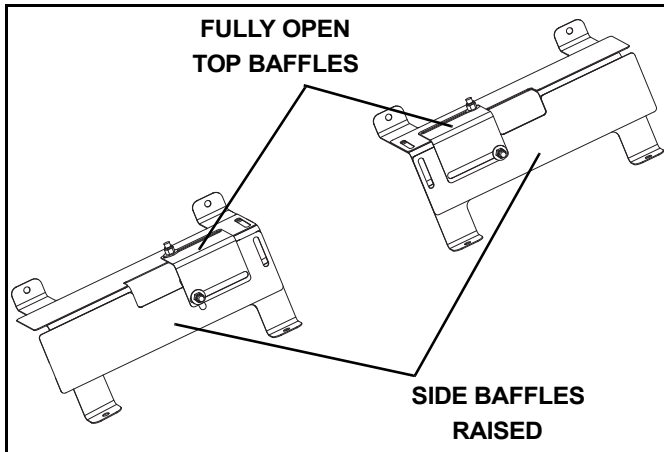


Figure 1-6

## RVB 3500/4300

Raise the side baffles as high as they can go, to get the max flow out of the material. Leave all inverted V's in place; they are not removable. (See Figure 1-7)

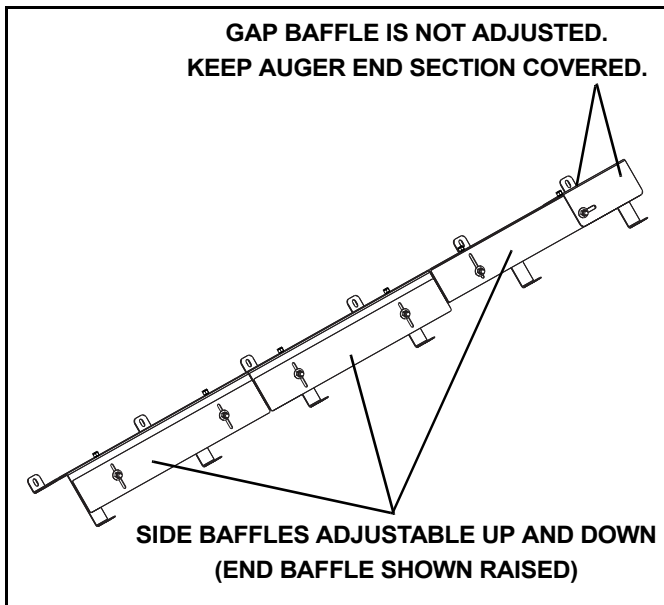
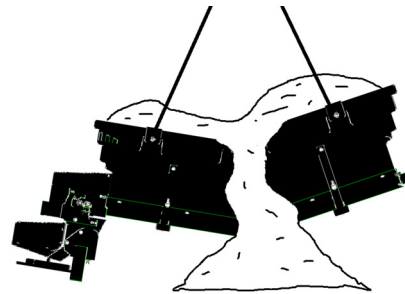


Figure 1-7

## Lifting the Spreader Onto the Vehicle



## WARNING



Before lifting, check that the hopper is empty of material. The lifting device must be capable of supporting the spreader's weight. See charts for spreader weights.

**FAILURE TO FOLLOW CAN RESULT IN DEATH OR SERIOUS INJURY.**

## RVB/RVBS 10/500/750/1500/2000/2500/3000

### Option 1:

1. Remove the tailgate from the truck.
2. Attach two lift straps through the top grate to the front and rear spreader cross supports (See Figure 1-8).

## NOTICE

**DO NOT** attach the lift straps directly to the top grate. Pass the lift straps through the grate and attach them directly to the front and rear cross supports.

**FAILURE TO FOLLOW COULD LEAD TO PROPERTY DAMAGE.**

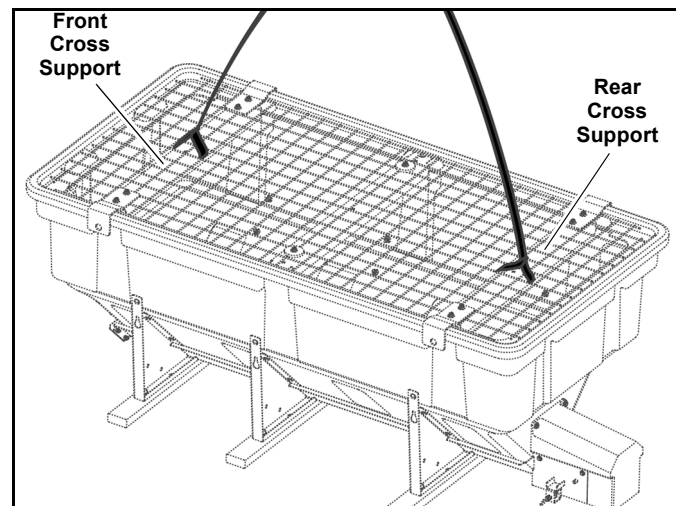


Figure 1-8



3. Attach the free ends of the lift straps to a suitable lifting device and lift the spreader slowly. Maintain the spreader horizontal position as it is lifted. (See Figure 1-9)



Figure 1-9

**Option 2:**

1. If not equipped with wetting system, use the rectangular holes in the legs to lift from the end using a fork lift. Insert the forks from the discharge end of the spreader and engage at least two sets of legs.

**RVB 3500/4300, RVBS 2000/2500**

Use the four hold downs (two on each side) to attach the lifting straps (See Figure 1-10).

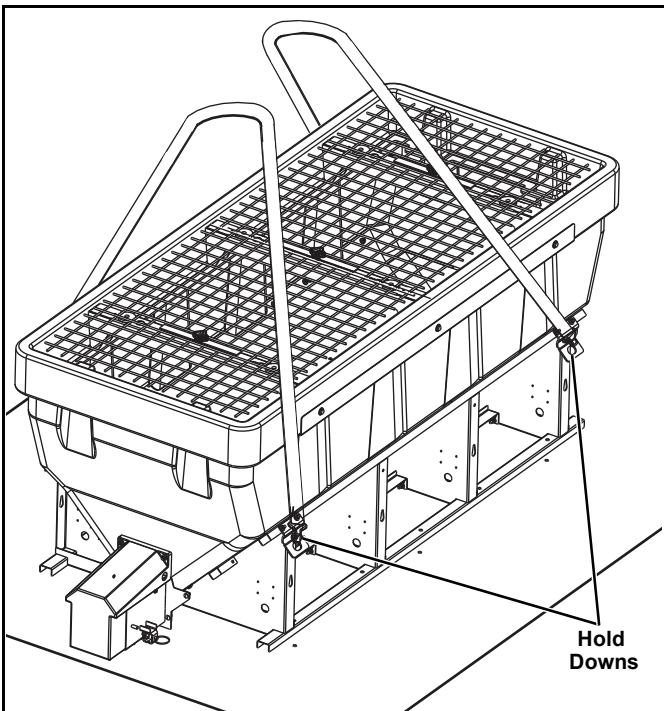


Figure 1-10 RVB 3500 Shown

**NOTICE**

Lift Spreader by attaching straps **ONLY** to the four tie downs.

**FAILURE TO FOLLOW COULD LEAD TO PROPERTY DAMAGE.**

**Mounting the Spreader Onto the Vehicle**

1. Center the spreader on the vehicle with the rear auger motor housing clear of all vehicle rear obstructions (e.g., bumper, trailer hitch, etc.).

2. Using suitable tie-down straps or chain, secure the spreader to the vehicles factory installed anchor points using two tie-down brackets on each side of the spreader hopper (See Figure 1-11).

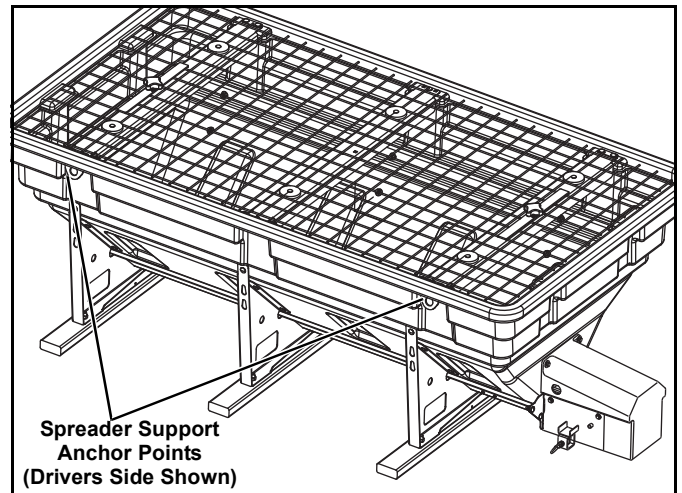


Figure 1-11

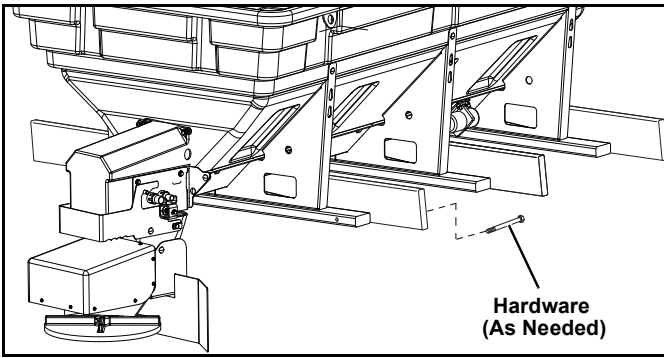


**WARNING**

Check the tie-down devices every time the spreader is placed on the truck and loaded with material to make sure they are secure.

**FAILURE TO FOLLOW CAN RESULT IN DEATH OR SERIOUS INJURY.**

3. Once the spreader is setting in its proper spot, screw boards into each of the wood runners on the spreader. (See Figure 1-12) The ends of the board should just touch the side of the bed. The length typically ranges from 24 to 36 inches, depending on the width of the truck bed. The boards can be 2x4, 2x6, or any standard piece of lumber. These boards are supplied by the end user.

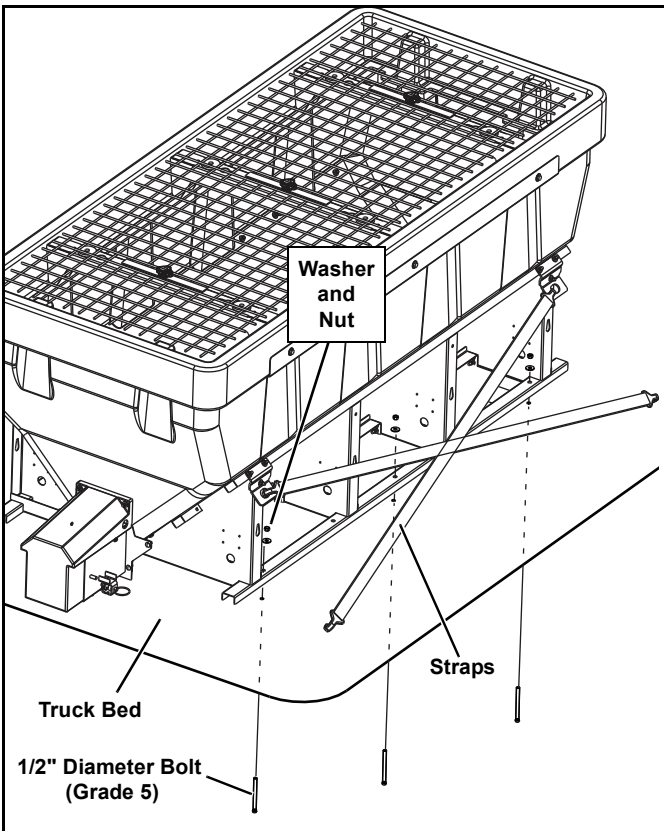


**Figure 1-12**

This will restrict any side shifting of the spreader in the bed of the vehicle. If this is not followed, tie-down straps could loosen. For spreaders like the RVB 1500 or larger, secure to the vehicle by bolting through each spreader frame leg and to the truck bed.

**RVB 3500/4300 Only**

The RVB 3500 and RVB 4300 need to be bolted to the bed of the truck with three sets of hardware on each side. Use 1/2" Diameter Grade 5 Bolts. Use washers and nuts to retain hardware at spreader interface. Use straps in conjunction with hardware. (See Figure 1-13).

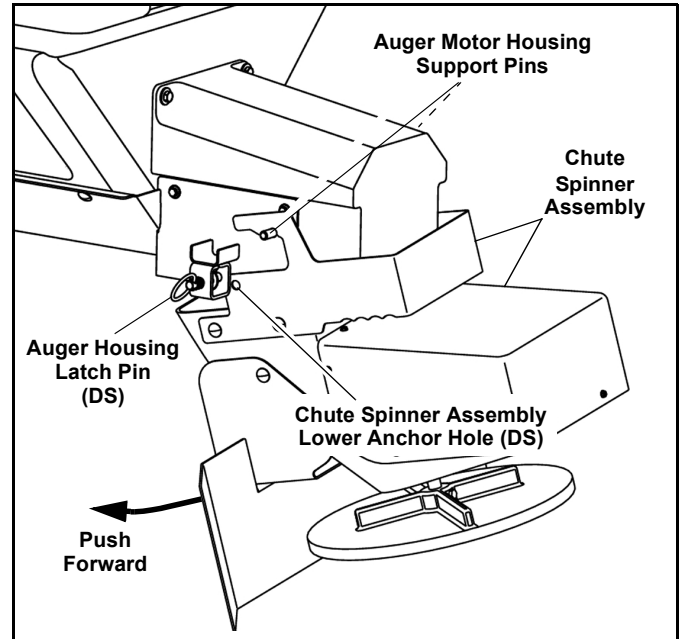


**Figure 1-13**

**Attach Chute**

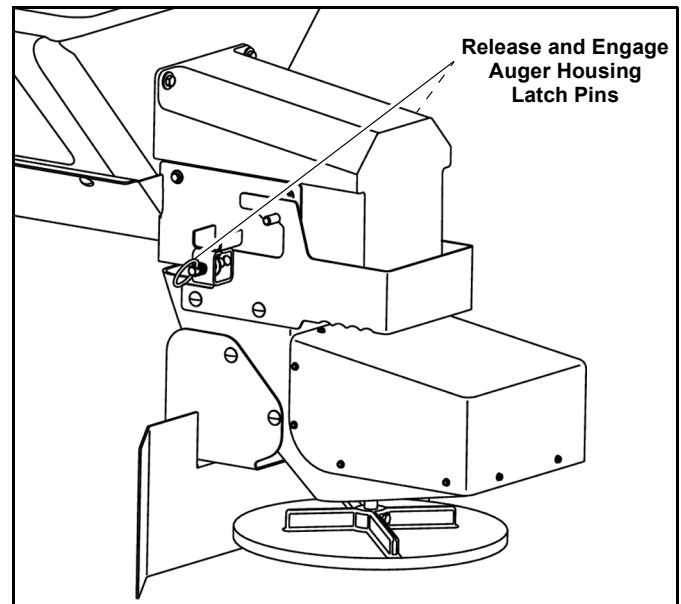
Pull out each auger motor housing latch pin and rotate counter-clockwise to engage detent.

1. Position the chute spinner assembly on the auger housing support pins and push the bottom of the unit forward (See Figure 1-14).



**Figure 1-14**

2. As the lower anchor holes align with the auger motor housing pins, pull each pin out and rotate clockwise to disengage the detent. Rotate each pin slightly as it engages the lower anchor holes on the chute spinner assembly. (See Figure 1-15)



**Figure 1-15**

3. Plug the spinner wiring harness into the spreader harness on the right side of the auger motor housing.

**Spreader Control and Wiring Installation**

Follow the instructions supplied with the controller package.

# THEORY OF OPERATION

## Auger Drive System

The Auger is driven by a 12V DC Gear Motor. Using the control, the auger's RPM can be increased or decreased. When the RPM is decreased, less material will be delivered to the spinner. When the RPM is increased, more material will be delivered to the spinner. The amount to material that can be delivered to the spinner is limited by how much material can pass by the inverted v and down into the trough of the spreader.

## Spinner Drive System

The Spinner is driven by a 12V DC Gear Motor. Using the control, the spinner's RPM can be increased or decreased. When the RPM is decreased, the distance the material can spread will decrease. When the RPM is increased, the distance the material can spread will increase.

## Shield Adjustment

The flow pattern of the material is dependent on material type and density. The spreader is designed for free flowing materials that should spread evenly in an arc pattern behind the vehicle.

Bend the internal baffle in the chute housing "Up" or "Down" to adjust the directional flow of material (See Figure 2-1).

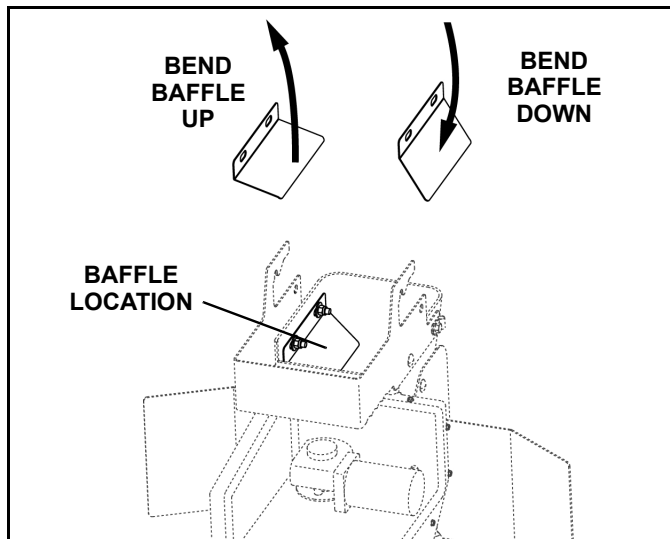


Figure 2-1

• To adjust the flow of the material to the passenger side (PS) of the vehicle, manually bend the internal baffle on the chute assembly in the "UP" position (See Figure 2-2).

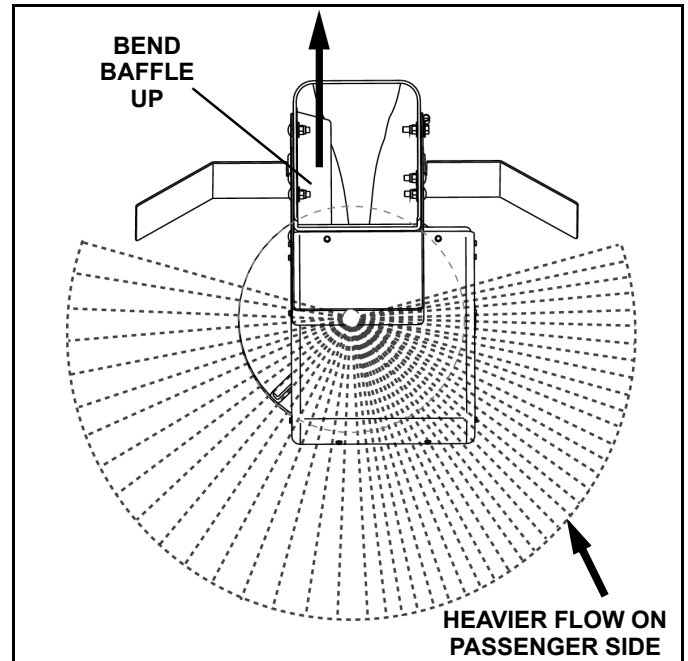


Figure 2-2

• To adjust the flow of the material to the drivers side (DS) of the vehicle, manually bend the internal baffle in the "DOWN" position (See Figure 2-3).

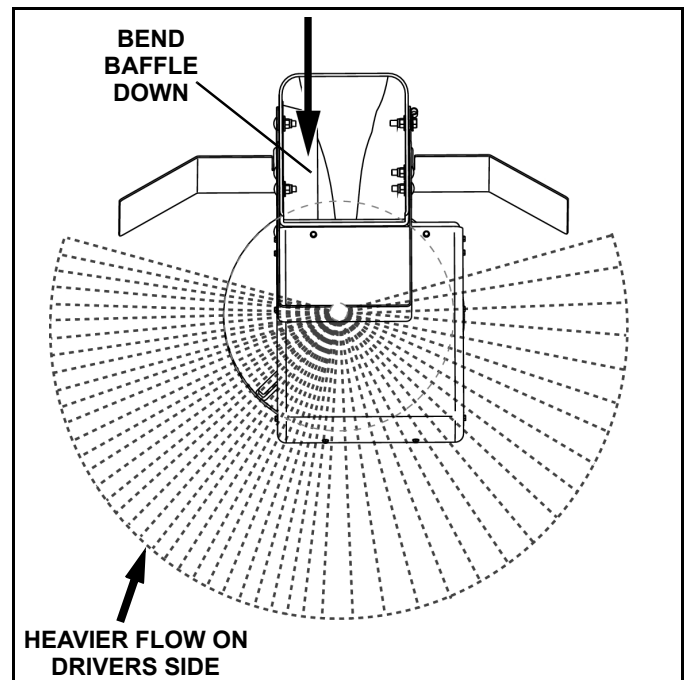


Figure 2-3

# Drop Spreader System

The Drop Spreader System is an accessory that is designed specifically as an attachment that allows a V-box spreader normally used for spreading in large areas, such as parking lots, to be used on paths and sidewalks. The attachment can easily be removed and stored to resume spreading on large areas again.

The drop spreader system utilizes a standard chute with a special deflection shroud that directs material to the pavement with a maximized width of 60 inches. This width is suited best for sidewalks and works well with RVBD10 and RVBD500 spreaders. The RVBD10 and RVBD500 have special gearboxes that reduce the auger speed to provide the optimum material dispersion. Other spreader types can be used, i.e. RVB750, however the material dump rate may be too concentrated wasting materials.

The material is deflected off of the spinner directly down to the pavement, and eliminates overspray. The material width can be altered by slowing the spinner down, this essentially allows the material to drop off the edge of the spinner to a minimum width of around 30 inches.

1. Mount Drop Spreader Shroud onto the motor spinner assembly. (See Figure 2-4 and Figure 2-5.) Refer to Drop Spreader installation instructions (97102152) for further details.

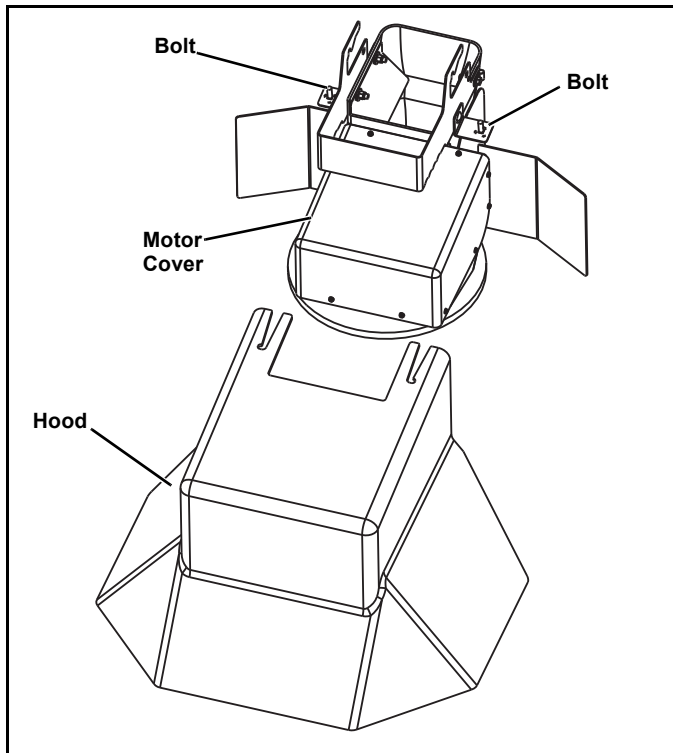


Figure 2-4

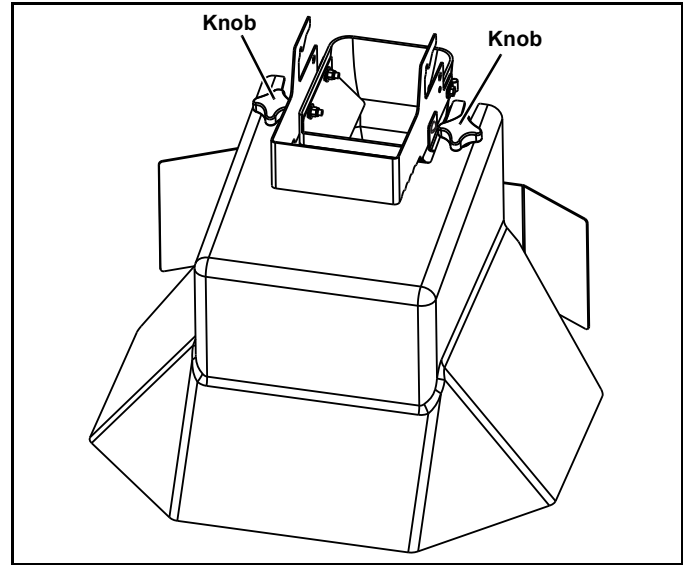


Figure 2-5

2. Turn on Auger and Spinner Controls.
3. Turn up auger for more concentrated flow.
4. Turn up spinner for wider flow (maximum 60 inches). Turn down spinner for a smaller width variance (minimum 30 inches).
5. Adjustment of internal baffle will concentrate the flow to desired areas; To the passenger side (more centrally located) and to the driver's side. (See Figure 2-6)

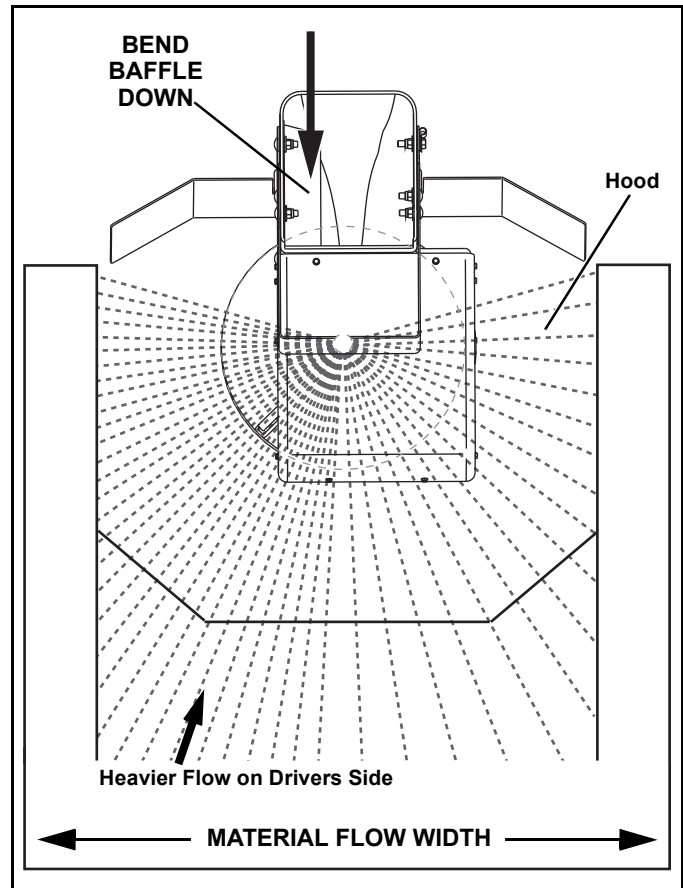


Figure 2-6 Driver Side Heavier Flow Shown

# MAINTENANCE

## Auger Jam Release

In the case of auger jam the auger must be freed of material impaction as follows:

- Disconnect the vehicle harness from the spreader.
- Remove the Spinner Chute Assembly.
- Remove the Hopper Screen.
- Dig out the hopper down to the Inverted-V.

*NOTE: The relief tool cross bolt and nut can remain installed in the auger shaft, but the relief tool should be removed from the shaft after use, and stored for reuse if required.*

- Once any auger jam is relieved, reassemble the screen back onto the hopper.
- Put Spinner Assembly back onto the spreader.
- Reconnect Harness.
- Resume Spreading materials.



### WARNING

Disconnect the vehicle harness from the spreader before the installation and use of the auger relief tool.

**FAILURE TO FOLLOW CAN RESULT IN DEATH OR SERIOUS INJURY.**

## Auger Relief Tool (Optional)

*NOTE: The Auger Relief Tool is an optional accessory that is designed to free up a jammed auger for a RVB3000 or smaller spreader.*

Install the 96115106 relief tool cross bolt in the auger shaft at the front of the spreader, and secure with the provided locknut.

Insert the relief tool into the auger shaft and engage it into the cross bolt (See Figure 2-7).

Using the relief tool with a 3/4" socket or hand wrench, manually turn the auger counter-clockwise (CCW). The auger should spin freely with the tool.



### WARNING

Do not try to move a hopper full or even partially full of material. The unit is not designed to be picked up or moved with material in it. The hopper must be emptied prior to moving the unit.

**FAILURE TO FOLLOW CAN RESULT IN DEATH OR SERIOUS INJURY.**

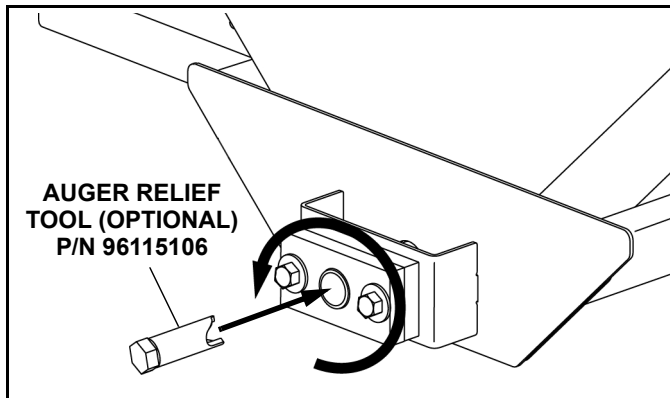
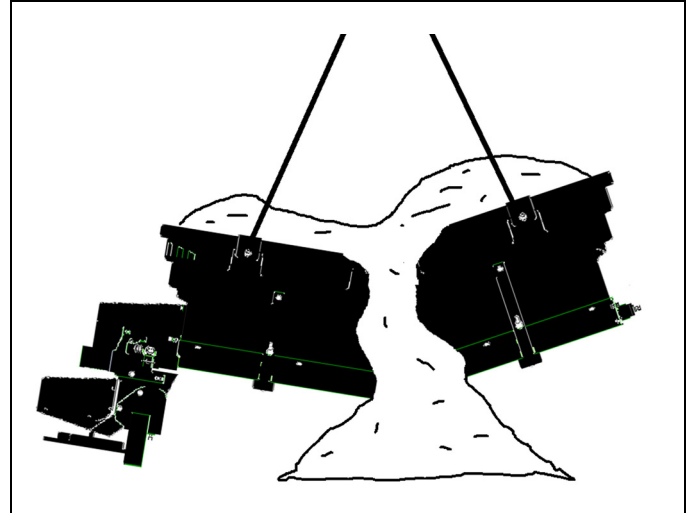


Figure 2-7

## General

- Use Sno-Way® (96108998) dielectric grease, PN3329 or an equivalent grease, on all electrical connections at the beginning and end of each season, and as required during the season.
- The auger main bearing is maintenance free, but does require periodic inspection. Be sure to check to see if the auger when running is rubbing on the bottom of the auger trough.
- Inspect auger for erratic rotation which may indicate that the auger is bent.
- Check the vibrator operation.
- Inspect the electrical connections and be sure to apply dielectric grease to them to prevent corrosion during both operation and storage.
- Empty the spreader when it is not in use to prevent the auger from becoming frozen.
- Wash out the spreader when it is not in use.

## Metri-Pack™ Connector Repair

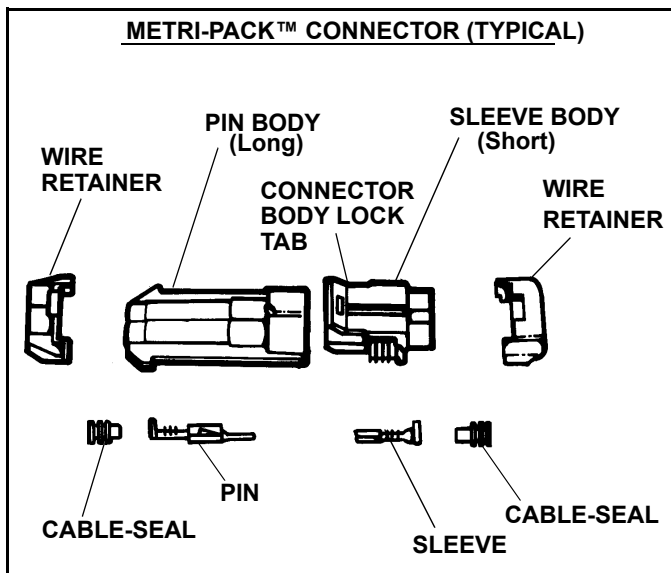


Figure 3-1

**IMPORTANT:** Identify wire number/color locations with connector terminal letters before disassembly.

### Terminal Removal

1. Lift connector body lock tab and pull to separate connector halves.
2. Remove wire retainer on sleeve body or pin body, as necessary, with a screwdriver and save for re-use (See Figure 3-2).

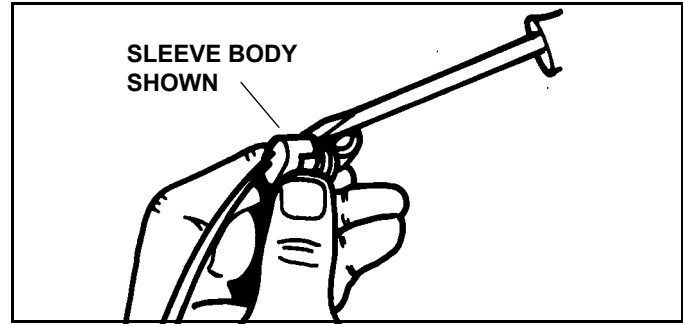


Figure 3-2

3. Push wire into connector as far as possible to release pressure on terminal locking tang.

4. Locate the terminal lock tang in the connector cavity by looking into the connector from the mating end. Use Terminal Removal Tool (#96102499) to depress the lock tang and gently pull wire to remove wire and terminal from connector body. (See Figure 3-3).

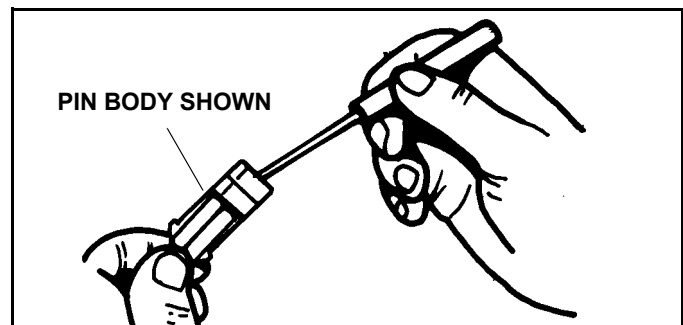


Figure 3-3

### Terminal Replacement

1. Cut wire as close as possible to old terminal and remove old cable seal. (See Figure 3-4).

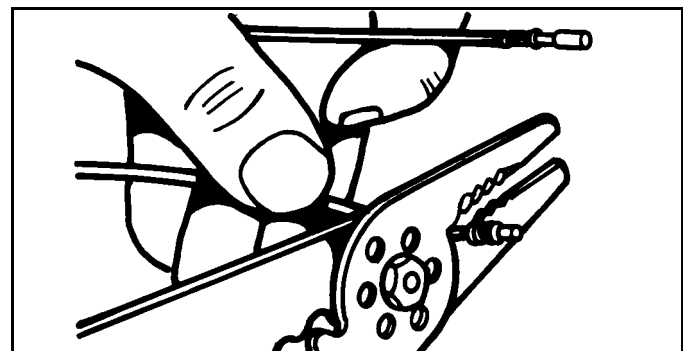


Figure 3-4

**IMPORTANT:** METRI PACK™ connectors are keyed A, B, C, etc. for proper contact mating. Be sure contacts and wire colors/numbers match and are in proper alignment.

2. Install new correct size cable seal on wire.

Cable seals are available for three sizes of wire:

- Large - 1.0 mm (16 gauge) wire
- Medium - 0.8 mm (18 gauge) wire
- Small - 0.5 mm (20 gauge) wire

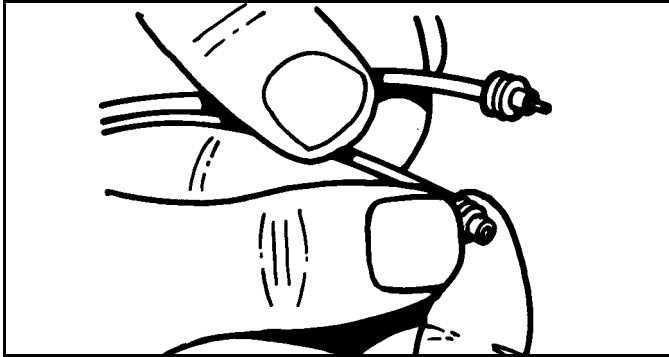


Figure 3-5

3. Strip insulation from wire to expose 6mm (1/4 in) and align cable seal with edge of insulation.

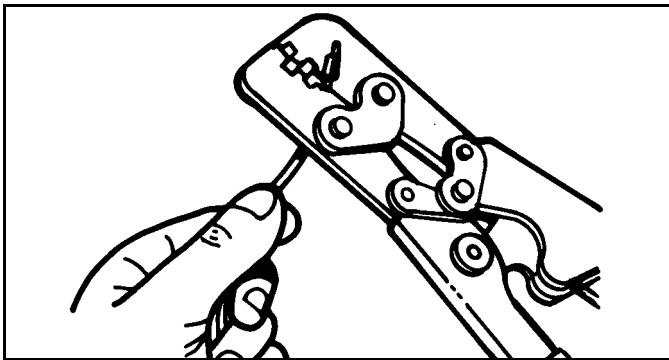


Figure 3-6

4. Place appropriate terminal on wire and use Crimper (#96102500) to secure contact in place with a "W" type crimp.

5. Use Crimper to secure cable seal to terminal.

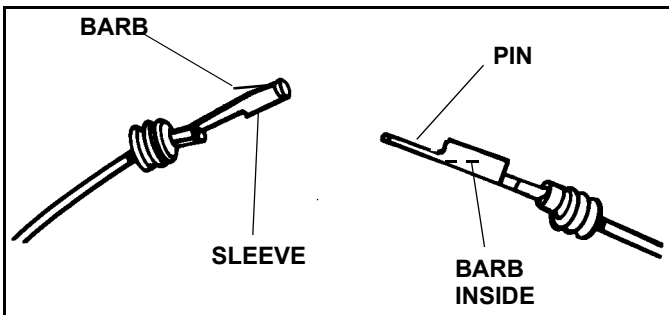


Figure 3-7

**IMPORTANT:** Proper barb location and orientation for installation of sleeve and pin is shown.

*NOTE:* Connector bodies are keyed for proper terminal mating. Be sure terminals are in proper alignment.

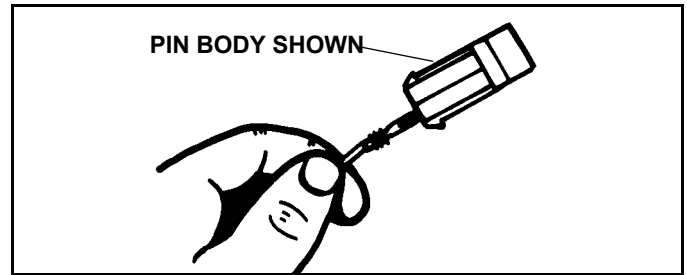


Figure 3-8

6. Push new terminal into connector body until fully seated.

7. Pull on wire slightly to be certain terminal is locked in place.

8. Install wire retainer.

9. Repeat as necessary to replace other terminals.

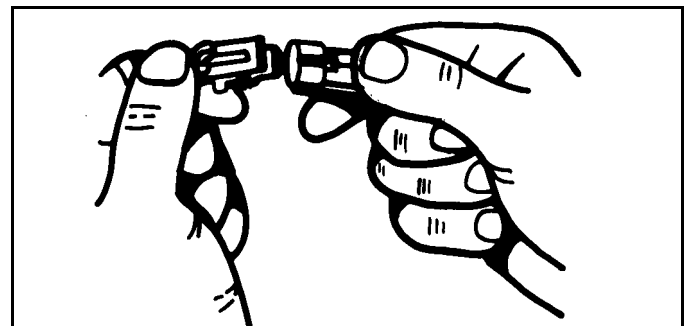
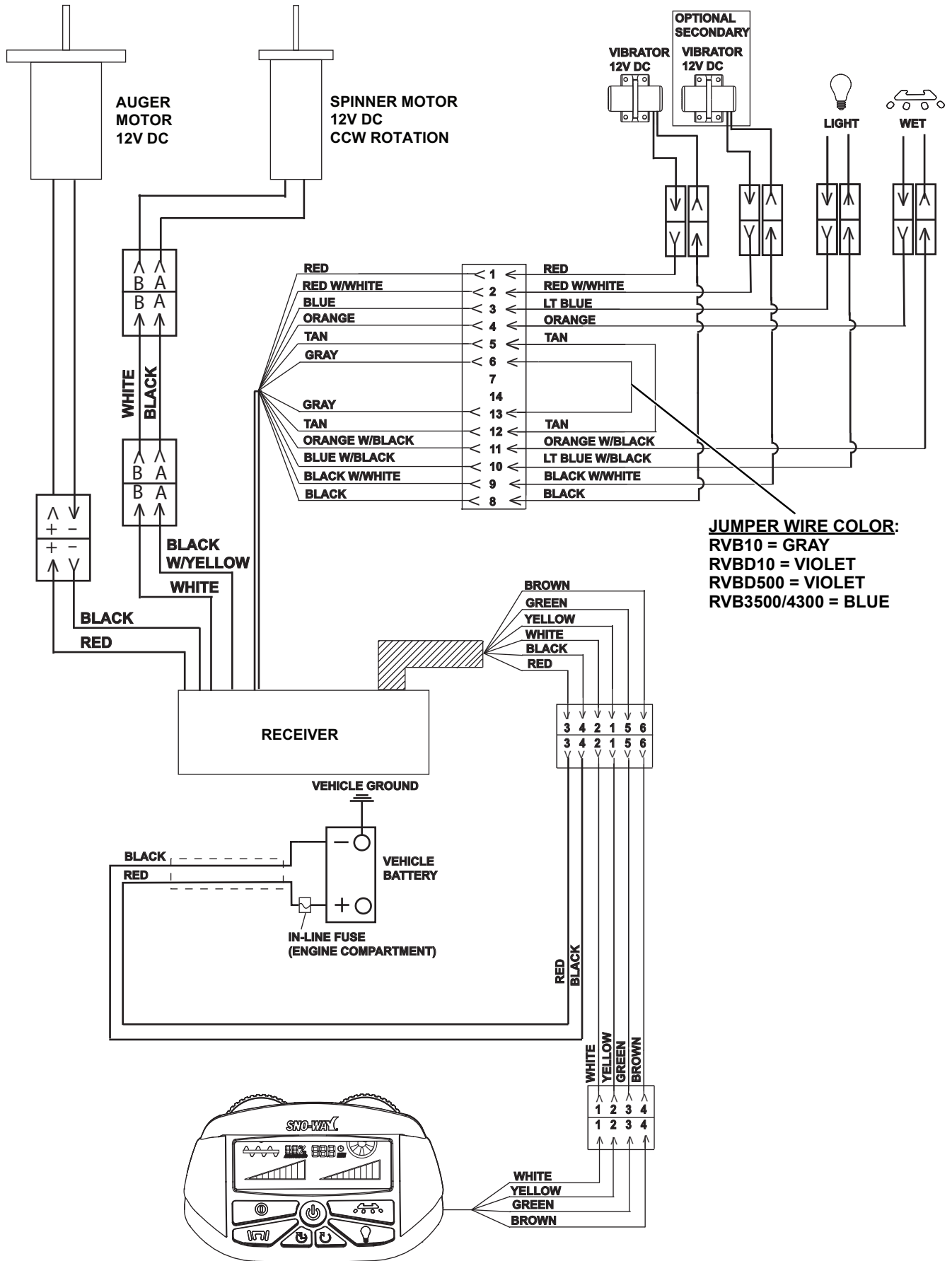


Figure 3-9









10. Close connector body.

# WIRING SCHEMATIC - RS SPREADER CONTROL





# TORQUE SPECIFICATIONS

<b>SAE Grade and Head Markings</b>	1 or 2 No Marks 	5    5.1    5.2 	8    8.2 
<b>SAE Grade and Nut Markings</b>	2 No Marks 	5  	8  

	Grade 1		Grade 2		Grade 5, 5.1 or 5.2		Grade 8 or 8.2	
	Lubricated <sup>a</sup>	Dry <sup>b</sup>	Lubricated <sup>a</sup>	Dry <sup>b</sup>	Lubricated <sup>a</sup>	Dry <sup>b</sup>	Lubricated <sup>a</sup>	Dry <sup>b</sup>
SIZE	lb-ft	lb-ft	lb-ft	lb-ft	lb-ft	lb-ft	lb-ft	lb-ft
10-24			21*	27*	32*	43*	45*	60*
1/4	2.8	3.5	4.5	5.5	7	9	10	12.5
5/16	5.5	7	9	11	15	18	21	26
3/8	10	13	16	20	26	33	36	46
7/16	16	20	26	32	41	52	58	75
1/2	25	31	39	50	63	80	90	115
9/16	36	45	56	70	90	115	130	160
5/8	50	62	78	100	125	160	160	225
<b>Metric Grade 8.8</b>								
SIZE	lb-ft		SIZE	lb-ft				
M6	7		M12	60				
M8	17		M14	95				

DO NOT use these values if a different torque value or tightening procedure is given for a specific application.

Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

<sup>a</sup> "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings.

<sup>b</sup> "Dry" means plain or zinc plated without any lubrication

\* Values with asterisk are in lb-in.

# NOTES

# NOTES

# DEALER PRE-DELIVERY CHECKLIST

The following inspections **MUST** be accomplished prior to delivering the SNO-WAY® RVB SERIES V-BOX DUAL ELECTRIC SPREADER to the customer.

Place an X ☒ in the box after accomplishing each item on this checklist.

## CHECK THAT:

- Parts have not been damaged in shipment. Repair or replace items that are loose, dented or missing.
- All covers, guards and decals are in place and attached securely.
- Controller and electrical wiring is properly installed.
- Inverted V is installed properly and all hardware is secure.
- Chute has been installed, harness connected and secured.
- Electric auger, spinner and vibrator motors are operating properly.

Start the vehicle engine and place an X ☒ in the box after accomplishing each item.

## CHECK THAT:

- Auger and spinner shafts rotate freely.
- Auger drive rotation is correct (auger rotation as viewed from bearing end is CCW).
- Spinner rotation is correct (spinner rotation as viewed from top of hopper is CCW).
- Speed can be adjusted through speed range with controller.
- Listen for abnormal noises or vibrations; Repair or replace as necessary.

# DELIVERY CHECKLIST

The following checklist is to be accomplished with the customer present, place an X ☒ in the box after accomplishing each item.

- After giving the customer his operating manual, instruct him to read it **PRIOR** to operating the spreader. If he has any questions or does not understand part(s) of the manual, ask him to contact the dealer for answers or explanations **BEFORE** operating the unit.
- Record the spreader and chute serial numbers, date of purchase, purchaser's name and address, and the dealers name, address and phone number in the space provided on page 1 of the owner's manual.
- Explain spreader installation and removal procedures.
- Demonstrate all controller functions.
- Fill out warranty Registration Card and provide the original to customer. Copy for your records. Register the warranty on-line prior to release to customer. NO warranty claims can be honored if the warranty is not registered and on file at the factory.

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SNO-WAY® INTERNATIONAL, INC.

**SNO-WAY**  
SNOW & ICE CONTROL EQUIPMENT

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