# **Owner / Operator's Manual**





Madison Heights, Michigan 48071 800-725-8377 www.snowexproducts.com

© Trynex International 2011

**Customers Copy** 



### **Table of Contents**

General Information 3
Introduction 4
Safety 5
Warning Decal Position
Operating the Spreader 8
Spreader Maintenance
General Wiring Instructions
Control and Harness Diagrams 11-15
Mounting Instructions
Trobleshooting
Warranty 20
Spreader Views Model # SP-3000/SP-6000
Drive Assembly Parts Breakdown Model # SP-3000/SP-6000
Auger Assembly Parts Breakdown Model # SP-3000/SP-6000
Frame Assembly Parts Breakdown Model # SP-3000
Frame Assembly Parts Breakdown Model # SP-6000
Notes

Have a question or need assistance? **SnowEx Customer Care** (800) 725-8377

or (248) 586-3500 Monday through Friday 8:00 AM to 4:30 PM EST Fax: (248) 691-8378 E-Mail: customercare@trynexfactory.com Website: www.snowexproducts.com CE

#### **General Information**



#### **CONGRATULATIONS!**

The spreader you have purchased is an example of snow and ice control technology at its finest! Your spreader's self-contained design is a trademark of all SnowEx products. Here's why...

SIMPLICITY: Fewer moving parts manufactured of higher quality means minimal maintenance for your SnowEx spreader.

**RELIABILITY:** High impact linear low density polyethelyne hopper. State-of-the-art electronic dual variable speed control, custom engineered powder coated frame, maximum torque 12-volt motor coupled to a custom engineered transmission; found only on SnowEx products.

VERSATILITY: Multi-use capabilities allows spreading of a variety of materials for snow and ice control.

WARRANTY: Best in the industry, hands down! 2 years standard and now 5 year extended (optional).

The benefits you are about to recognize are that of time, money and effort. We welcome you to the world of SnowEx Performance.

#### **Registration**

Record the following information in this manual for quick reference.

Spreader Model Number	
Spreader Serial Number	Controller Serial Number
Date of Purchase	
Dealer Where Purchased	

When ordering Parts, the above information is necessary. This will help to see that you receive the correct parts.

At the right is a diagram of the ID tag. This tag on the spreader is located on the frame.

Please fill out the warranty card with all the necessary information to validate it. This will also give us a record so that any safety or service information can be communicated to you.



#### Introduction



This manual has been designed for your help. It will assist you and instruct you on the proper set-up, installation and use of this spreader.

Refer to the table of contents for an outline of this manual.

We require that you read and understand the contents of this manual completely (especially all safety information) before attempting any procedure contained herein.



#### THIS SIGN SHOULD ALERT YOU:

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 below are the SAFETY ALERT messages and how they will appear in this manual:



(RED) Information that, if not carefully followed, can cause death!



(ORANGE) Information that, if not carefully followed, can cause serious personal injury or death!



(YELLOW) Information that, if not carefully followed, can cause minor injury or damage to equipment

#### **Safety**









Before attempting any procedure in this book, these safety instructions must be read and understood by all workers who have any part in the preparation or use of this equipment.

For your safety warning and information decals have been placed on this product to remind the operator of safety precautions . If anything happens to mark or destroy the decals, please request new ones from SnowEx.



Never exceed the Gross Vehicle Weight Rating of vehicle. Failure to do so may limit a vehicles handling characteristics.

Never attempt to take a unit off a truck with material in it.



Always keep hands, feet, and clothing away from power driven parts.

Unit must be pinned and locked into position before operating vehicle.

Always shut off vehicle and power source before attempting to attach or detach or service unit Be sure vehicle/power source is properly braked or chocked.

Remember, most accidents are preventable and caused by human error. Exercising of care and precautions must be observed to prevent the possibility of injury to operator or others!

Never operate equipment when under the influence of alcohol, drugs, or medications that might alter your judgment and/or reaction time.

Before working with the spreader, secure all loose fitting clothing and unrestrained hair.

Always wear safety glasses with side shields when servicing spreader. Failure to do this could result in serious injury to the eyes.

Never allow children to operate or climb on equipment.

Always check areas to be spread to be sure no hazardous conditions or substances are in the area.

Always inspect unit for defects: broken, worn or bent parts, weakened areas on spreader.

Remember it is the owner's responsibility to communicate information on safe usage and proper maintenance of all equipment.

Always make sure personnel are clear of areas of danger when using equipment.

Never weld or grind on equipment without having a fire extinguisher available.

Inspect the unit periodically for defects. Parts that are broken, missing or worn out must be replaced immediately. The unit or any part of it can not be altered without prior written permission from the manufacturer.

Always inspect pins and latches whenever attaching or detaching spreader, and before operation of 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.

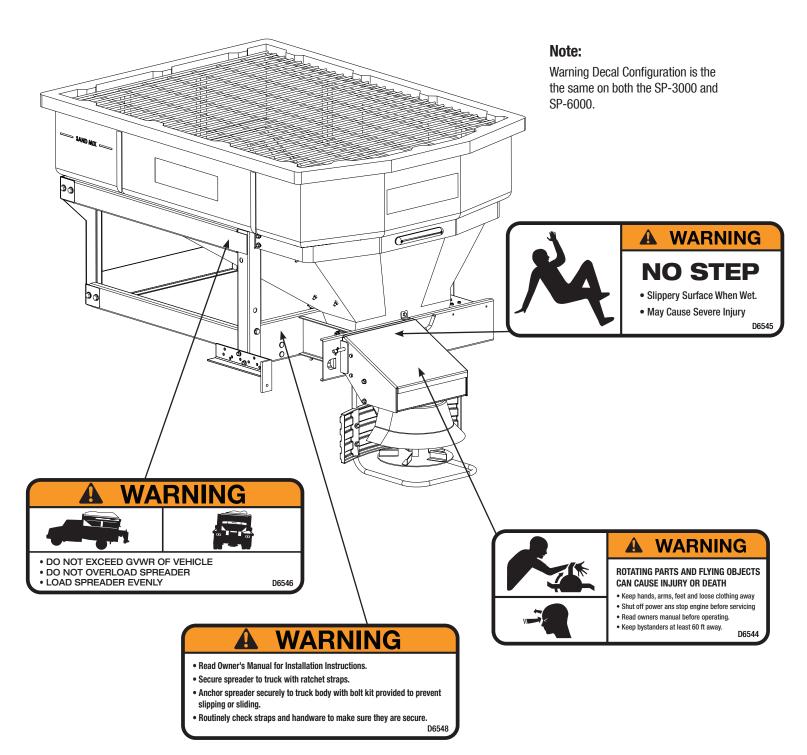


Never use wet materials or materials with foreign debris with any of these spreaders. These units are designed to handle dry, clean, free flowing material.

Never leave material in hopper for long periods of time. Be aware that all ice melters are hygroscopic and will attract atmospheric moisture and harden up.

#### **Warning Decal Positions**





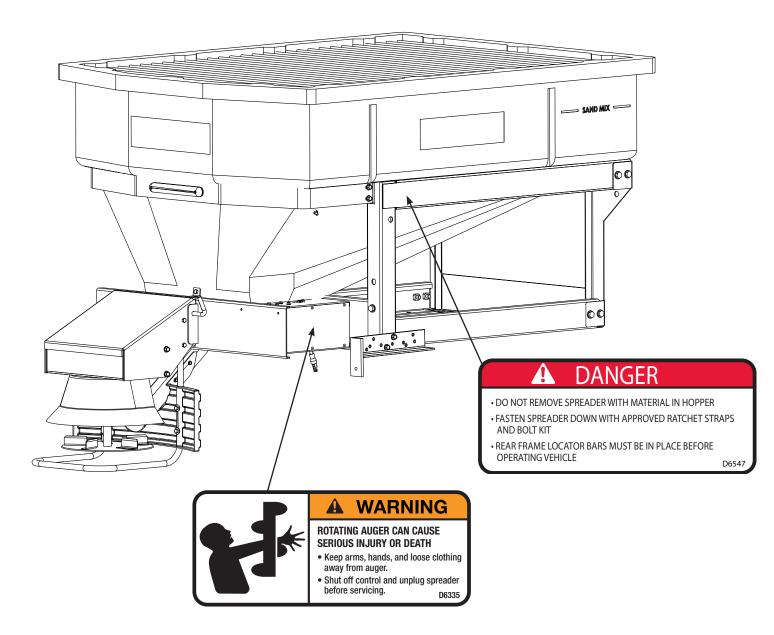
#### **Warning Decal Positions**



Model # SP-3000/SP-6000

#### Note:

Warning Decal Configuration is the the same on both the SP-3000 and SP-6000.



#### **Operating the Spreader**



Model # SP-3000/SP-6000

#### **SPREADER LOADING**

WARNING – Do not overload vehicle. Use chart below to calculate weight of material. Weights of material are an average for dry materials.

<u>Material</u>	Weight Per Cubic Ft.
Rock Salt	80-90 lbs.
Sand/Salt Mix	95-120 lbs.

• Warning – Never leave material in hopper for long periods of time as salt is hygroscopic and will attract atmospheric moisture and harden up. When spreading sand mix, a 1:1 ratio for Sand/Salt mix is recommended to prevent the material from freezing.

#### **Spreader Operation**

- The Dual Variable Speed Controller has dual finger-tip dials for maximum performance, digital system status with warning protection and builtin Vibrator Switch.
- To start, press power switch on controller and spreader will accelerate to speed set on spinner and auger dials.
- To stop, press power on controller to off position.
- · Speed of Auger and Spinner may be adjusted separately to get desired flow and spread distance
- The Vibrator Switch is needed for dense material or to increase the flow to the Auger. This eliminates bridging of material in hopper.
- A Material Baffle has been installed in your spreader to stop fine material from free flowing. If using dense or damp material, or if more flow is desired, remove Material Baffle. However, it is recommended that the Material Baffle remain in place if using bulk salt.
- It is important that the Inverted Vee not be removed except when servicing.
- If there are any problems while operating the spreader, refer to Troubleshooting Guide.

#### **Spreading Tips**

- Spread ice melters with the storm to prevent unmanageable levels of ice.
- Never exceed 10 m.p.h. when spreading.
- For a wider pass, increase spinner speed.
- · For a heavier pass, drive slower or increase auger speed.
- Never operate spreader near pedestrians.
- Calculate spread pattern when near vegetation.

#### **Auto-Reverse "AR" Function**

- If your controller displays "OL" this could indicate a jammed auger
- To engage the Auto-Reverse "AR" function:
  - Step1: Shut off Main Power Switch for 3 seconds.

Step2: Turn the Main Power Switch On. When the machine starts to back up the "AR" sequence will automatically start and the auger will reverse for several rotations to clear the jam.

- After a pause of several moments, the auger will automatically return to correct rotation.
- If the jam is still not cleared, the controller will again display "OL" code.
- You may repeat Steps 1 & 2 for a second and third time.
- If after the third attempt the controller displays "OL" code, you Must extract the material that is causing the problem.
- Follow all Warning directions when clearing jams.

#### **Spreader Maintenance**



Model # SP-3000/SP-6000

#### **Spreader Maintenance**

- WARNING When servicing is necessary, perform it in a protected area Do not use power tools in rain or snow because of danger of electrical shock or injury. Keep area well lighted. Use proper tools. Keep the area of service clean to help avoid accidents.
- WARNING: Never remove spreader with material in hopper.
- WARNING: Disconnect electricity to spreader before servicing.
- CAUTION: When replacing parts use only original manufacturer"s parts. Failure to do so will void warranty.
- CAUTION: The controller is a solid state electronic unit and is not serviceable. Any attempt to service will void warranty.
- CAUTION: There are no serviceable parts in the motor/transmission assembly. Any attempt to service will void warranty.
- CAUTION: Spinner motor is not designed for continuous duty. Allow motor to cool between long cycle times.
- CAUTION: When pressure washing motor enclosure area, stay at least 36" away from motor enclosures.
- ATTENTION: Store control in cool dry place during the off season.
- Use dielectric grease on all electrical connections to prevent corrosion at the beginning and end of the season and each time power plugs are disconnected.
- Wash unit after each use to prevent material build-up and corrosion.
- Paint or oil all bare metal surfaces at the end of the season.
- Apply small amount of light oil to latches as needed.
- If motor cover is removed for any reason, use silicone sealant to ensure weather proofing of enclosure.
- After first use, tighten all nuts and bolts on spreader and mount.
- Grease Bearings after every 20 hours of use.

#### **General Wiring Instructions**



Model # SP-3000/SP-6000

Step 1: Take harness assembly and route from the rear of the vehicle to the front. Route harness along frame and attach to frame holes and frame supports. It is not recommended to attach to fuel or brake lines for obvious reasons. Do not route close to exhaust system or engine, even though Snowex uses high temperature wiring, it still could melt under extreme heat and short the spreader electrical system, as well as the vehicle electrical system.

Step 2: Mount rear plug on bumper using supplied bolts, locate towards the center of the bumper to reduce the amount of debris the tires will throw to the rear. Important: Apply a small amount of dielectric grease to the plug. Also try to mount so plug faces upward to help keep plugs tightly sealed.

Step 3: Secure harness from the rear to the front using heavy duty ty-wraps or frame clips along the frame and lighter duty ty-wraps everywhere else.

**Step 4:** Layout harness portion that connects to the battery along the re wall and fender well. Do not connect power leads to battery yet. Drill a 3/4" hole in the fire wall, or use existing access hole, for the control portion of the harness and route connector and harness through hole. Be sure to check the area on the other side of the fire wall to make sure you are not going to dri II into the vehicle harness or a control module. Generally you can drill on either side of the steering wheel for a good location.

Step 5: Connect harness to the back of the controller and mount to a suitable location. NOTE: You may want to contact customer before mounting controller, some prefer not to have holes drilled into the dashboard. Ty-wrap loose controller harness and move to the engine compartment. Do not mount close to any heater vents.

Step 6: Connect power leads to the battery: Red + Positive, Black – Negative, always connect to the primary battery if using a dual battery system, secure loose loom to any other large or medium vehicle harness with medium duty ty-wraps; this will secure wiring harness.

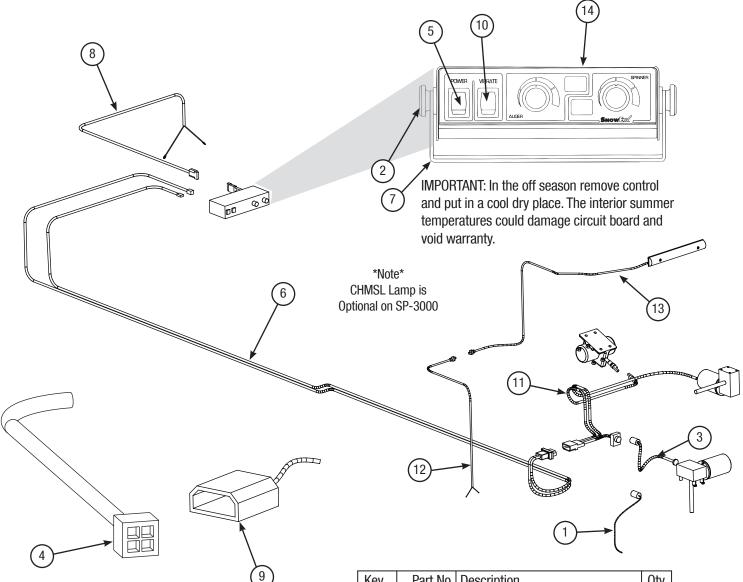
Step 7: Push the ON/OFF button on the controller to check for power, when that has been conrmed turn power OFF. The electrical portion of the installation is complete.

NOTE: If adding an inline fuse use a 60 amp slow blow (time delay) or a 60 amp relay.



#### **Control and Harness Diagram**

Model # SP-3000/SP-6000



# IMPORTANT: Do Not modify harness length. Any modifications will void warranty.

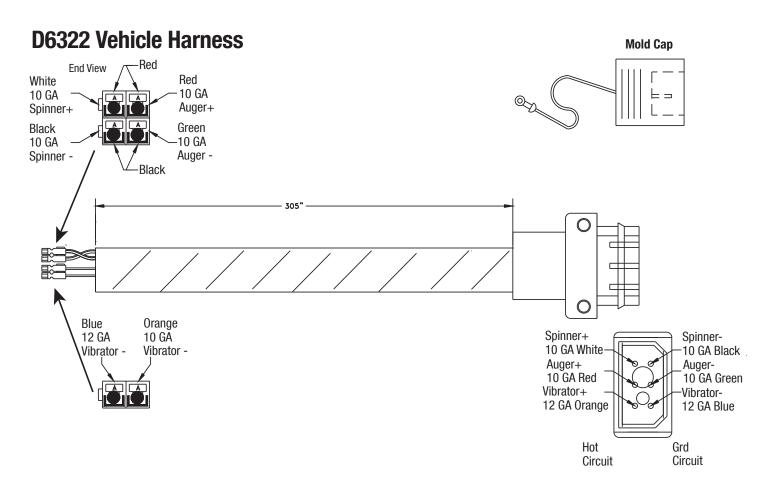
**Special Notes:** 

- 1) All external connections must have dielectric grease.
- 2) Read lead labels before attaching to power source or ground.
- 3) No other devices may be spliced into wiring harness.
- 4) Any repairs to wiring harness must be done with heat shrink butt connectors.
- 5) If inline fuse is installed, use a 60 amp maxi fuse or circuit breaker.

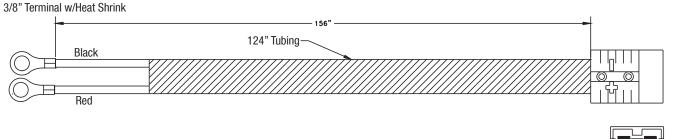
Key	Part No.	Description	Qty
1	D6118	Dust Cover   Standard	1
2	D6124	Bracket Knob	2
3	D6162	Power Cable   26-1/2"	1
4	D6170	Connector Adapter   6" Anderson	1
5	D6237	Power Switch   5 Terminal	1
6	D6322	Vehicle Harness   311"	1
7	D6329	Controller Mounting Bracket   Pro	1
8	D6341	Control Power Cable   156" Pro	1
9	D6343	Dust Cover   Pro	1
10	D6354	Vibrator Switch   3 Terminal Red	1
11	D6511	Spreader Harness   42"	1
12	D6513	Vehicle Harness   CHMSL	1
13	D6514	CHMSL Brake Light	1
14	D6527	Spreader Control   Pro	1



Model # SP-3000/SP-6000



#### **D6341 Control Power Cable**



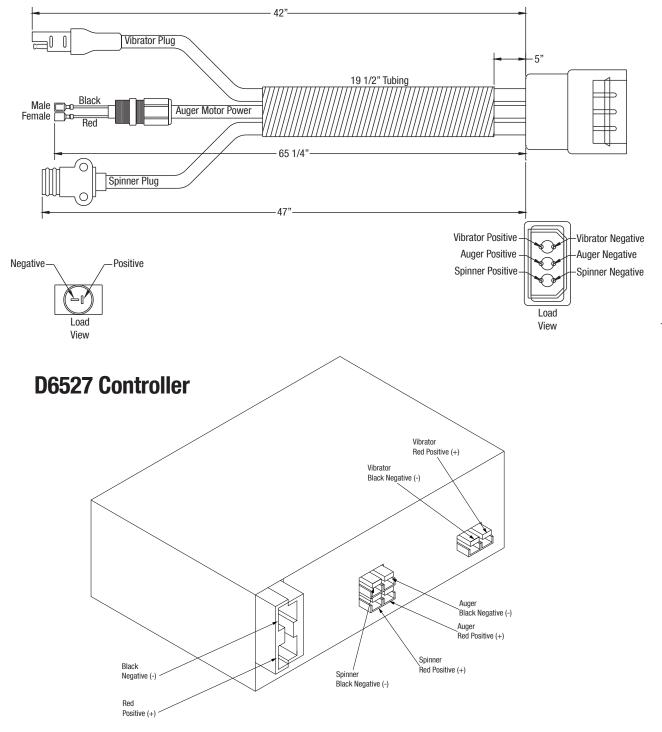
Front View Red to Black to Positive + Negative -



#### Harness Diagram

Model # SP-3000/SP-6000

### **D6511 Spreader Harness**

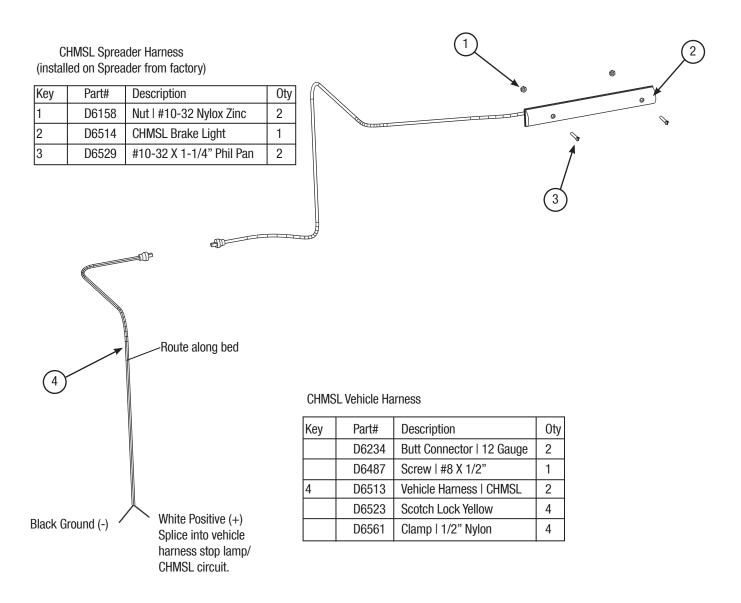


### **Center High Mount Stop Lamp (CHMSL)**



Model # SP-6000 Only

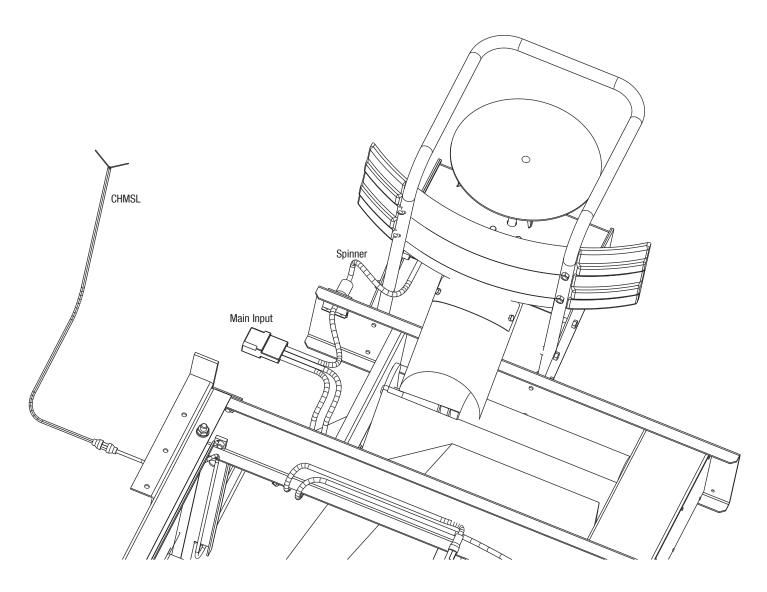
- With spreader mounted on vehicle, plug vehicle (CHMSL) harness into spreader stop lamp harness.
- Using supplied harness clamps and screws, route harness along side wall lower corner or so that harness will be out of the way when spreader is in use.
- Locate vehicle ground wire and stop lamp power wire at rear of vehicle. Use supplied wire taps to connect harness to vehicle electrical system. Once wire taps are installed check to make sure stop lamp works when brake pedal is pressed. Properly complete installation by tying up any loose wires with ty-wraps, also add electrical tape over both connections to insure a solid electrical connection. Some newer trucks have auxiliary stop lamp power leads already at the rear for these types of applications.



# **Electrical Routing**



Model # SP-3000-SP-6000



Auger and Vibrator (not supplied on drawing)

#### **Mounting Instructions**

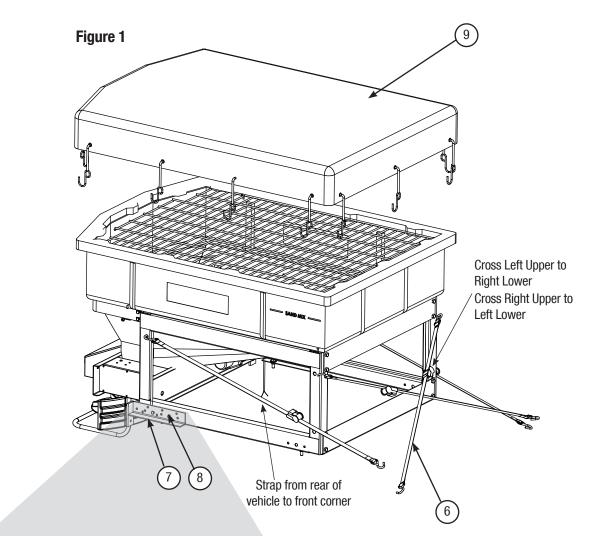


NOTE: Pay special attention when drilling or clamping dissimilar metals to aluminum bodies. Galvanic corrosion can occur if not handled properly. Contact vehicle manufacturer for recommended practices.

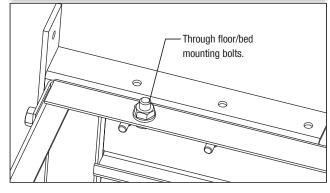
- Step 1: Remove tailgate from pickup bed.
- Step 2: Load spreader onto truck bed and mount spinner assembly.
- Step 3: Slide spreader forward until deector/chute assembly makes contact with vehicle. Then, slide spreader back approx. 1" to allow proper clearance.
- Step 4: Install stop bars using supplied hole patterns (see Fig.2). To achieve the best position, you may need to drill additional holes in bracket in order to properly position spreader.
- Step 5: Now that the spreader is positioned front to back, you will now center it left to right. Looking at the inside front and rear corner of the lower frame area, you will notice (4) holes in the bottom of the frame. Using a paint pen or similar marking device, mark hole locations.
- Step 6: Before drilling holes, look beneath the approximate area where each hole will be located. Make sure there are no vehicle components that will be in the path of the drill before doing this step. If there are interferences, you can relocate holes, making sure there are at least two forward and two rearward of the front to back centerline.
- Step 7: Install and tighten all (4) bolts.
- Step 8: Install ratchet straps (see Vee Pro 3000/6000 Mounting System: Strapping Techniques). It is very important for everyone's safety this strapping method be used as the standard mounting procedure. (Do not use ratchet straps exclusively.)
- Step 9: Connect the spreader power cord to vehicle main power plug mounted at rear of vehicle (see Electrical Installation).
- Step 10: Connect Center High Mount Stop Lamp (CHMSL) cord from the spreader to mating half attached to vehicle (see Electrical Installation).



### **Mounting Instructions**



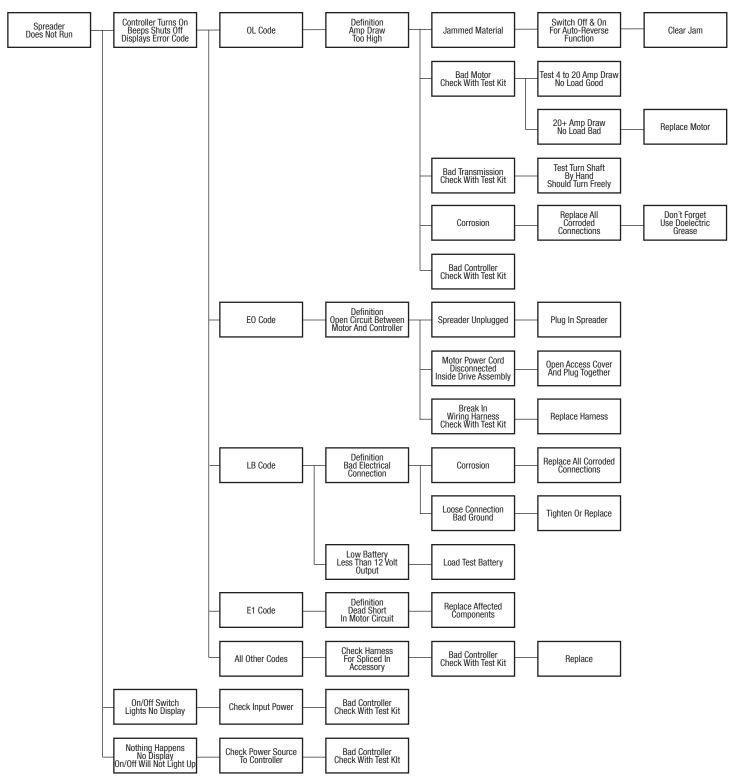




Key	Part No.	Description	Qty
1	D4116	Bolt   1/2"-13 X 1-1/2"	4
2	D4119	Washer   1/2" Flat	4
3	D4120	Nut   1/2"-13 Nylox	4
4	D4121	Bolt   3/8"-16 X 1"	4
5	D4124	Nut   3/8"-16 Nylox	4
6	D6503	Ratchet Strap(4PK)	1
7	D6536	Adjustable Stop Bracket   Right	1
8	D6537	Adjustable Stop Bracket   Left	1
9	D6499	Tarp Kit   SP-3000	1
	D6510	Tarp Kit   SP-6000	1

### **Troubleshooting**



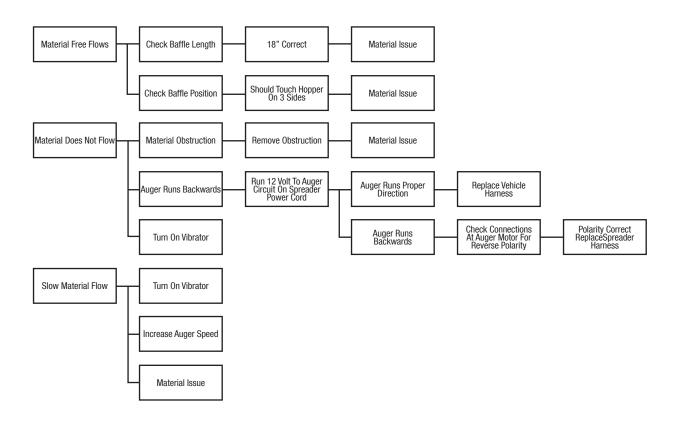






#### **Troubleshooting Material Flow**

Model # SP-3000/SP-6000



Snowex Diagnostic Test Kit (STK-080) Is Available To Accurately Diagnose Any Issues With Snowex Spreaders. Call Your Dealer For Details.



### Limited Warranty

Snowex products are warranted for a period of two years from the date of purchase against defects in material or workmanship under normal use and service, subject to limitations detailed below. Warranty period of two years begins on the date of purchase by the original retail user.

;/////\\&////\\&////\\&////\\&////\\&////\\&////\\&////\\&////\\&////\\&////\\&////\&////\&////\&////\&////\&////

The WARRANTY REGISTRATION CARD must be returned to the manufacturer for this warranty to become effective. This warranty applies to the original retail purchaser only. This warranty does not cover damages caused by improper installation, misuse, lack of proper maintenance, alterations or repairs made by anyone other than authorized Snowex dealers or Snowex personnel. Due to the corrosive properties of the materials dispensed by spreaders, Trynex does not warrant against damage caused by corrosion. Warranty claims by the user must be made to the dealer from where the product was purchased, unless otherwise authorized by Snowex. Snowex reserves the right to determine if any part is defective and to repair or replace such parts as it elects. This warranty does not cover shipping costs of defective parts to or from the dealer.

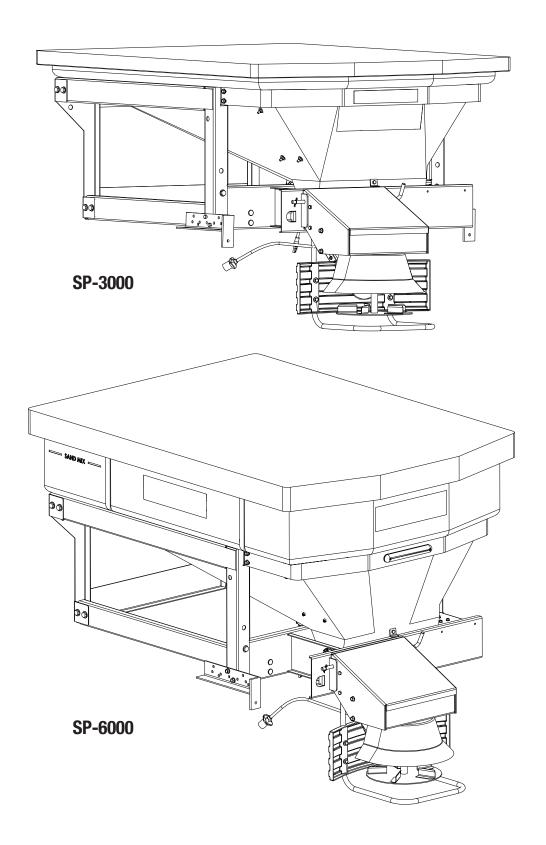
#### LIMITATION OF LIABILITY

Neither Snowex, nor any company affiliated with it, makes any warranties, representations for promise as to the performance or quality other than what is herein contained. The liability of Snowex to the purchaser for damages arising out of the manufacture, sale, delivery, use or resale of this spreader shall be limited to and shall not exceed the costs of repair or replacement of defective parts. Snowex shall not be liable for loss of use, inconvenience or any other incidental, indirect or consequential damages, so the above limitations on incidental or consequential damages may not apply to you.

NO DEALER HAS AUTHORITY TO MAKE ANY REPRESENTATION OR PROMISE ON BEHALF OF SNOWEX, OR TO ALTER OR MODIFY THE TERMS OR LIMITATIONS OF THIS WARRANTY IN ANY WAY.

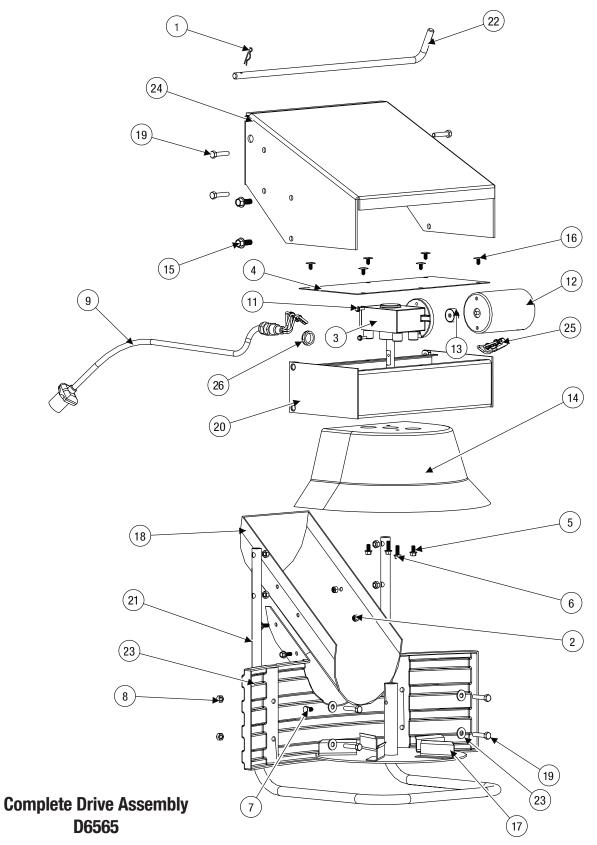






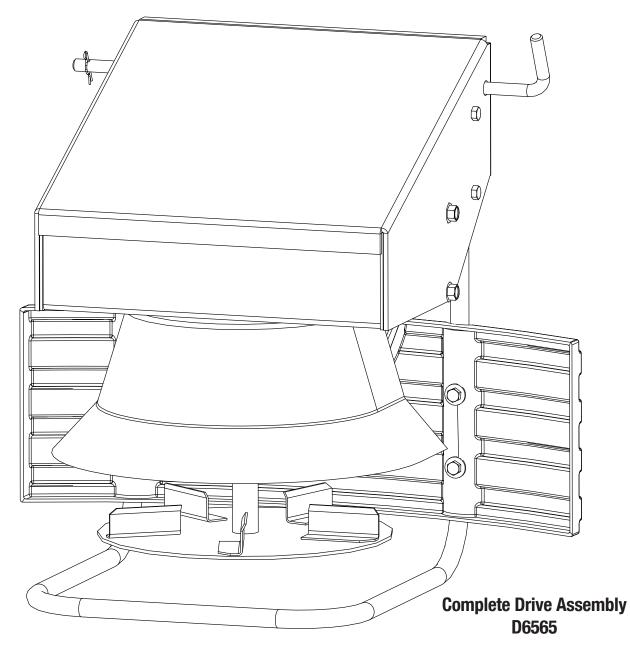


#### **Drive Assembly Parts Breakdown**





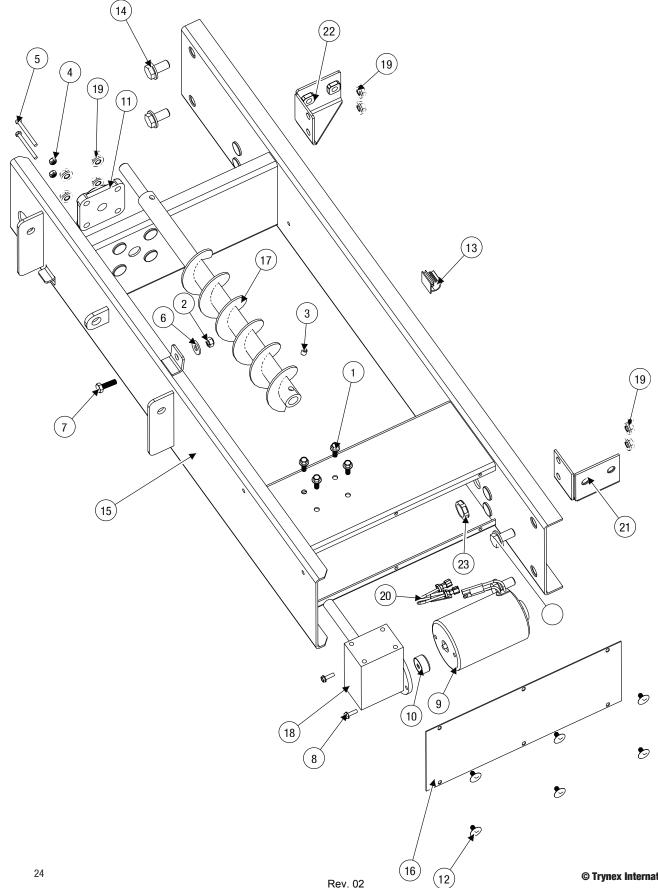
# **Drive Assembly Parts Breakdown**



ID #	Part #	Qty									
1	D4135	1	8	D6138	8	15	D6452	4	22	D6563	1
2	D4289	4	9	D6162	1	16	D6467	6	23	D6564	1
3	D6107	1	10	D6165	4	17	D6516	1	24	D6575	1
4	D6109	1	11	D6172	2	18	D6517	1	25	D6652	1
5	D6131	2	12	D6214	1	19	D6524	8	26	D6781	1
6	D6132	6	13	D6232	1	20	D6541	1			
7	D6133	1	14	D6362	1	21	D6543	1			

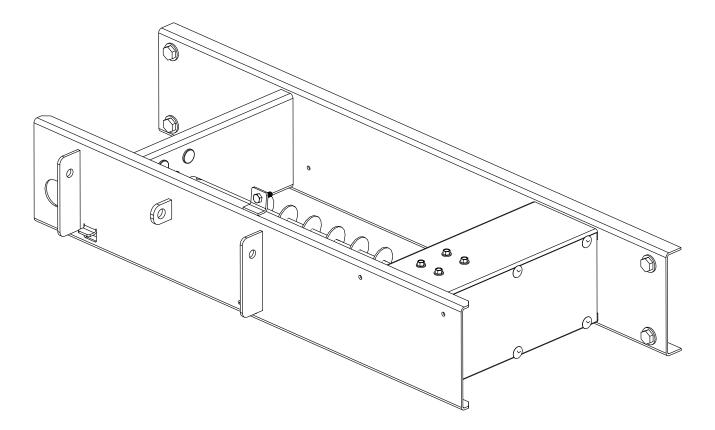


# Auger Assembly Parts Breakdown



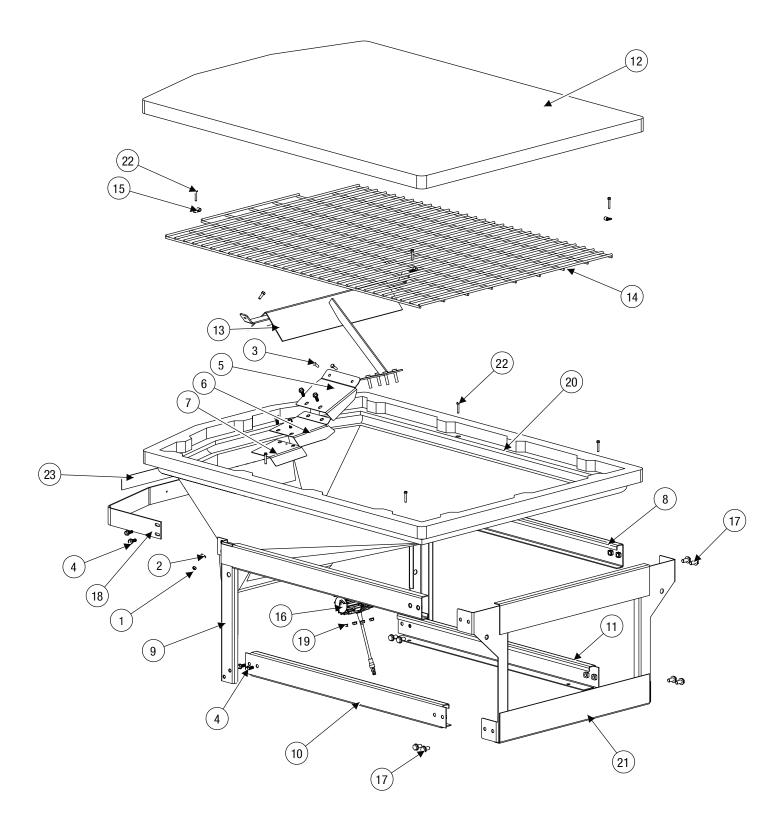


# Auger Assembly Parts Breakdown

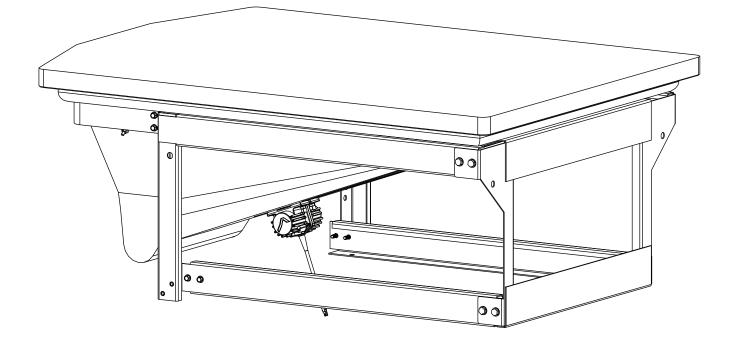


ID #	Part #	Qty									
1	D6132	4	7	D6166	1	13	D6469	1	19	D6584	8
2	D6138	1	8	D6172	2	14	D6528	4	20	D6651	1
3	D6140	1	9	D6214	1	15	D6534	1	21	D6736	1
4	D6158	2	10	D6232	1	16	D6535	1	22	D6737	1
5	D6159	2	11	D6332	1	17	D6562	1	23	D6781	1
6	D6165	1	12	D6467	6	18	D6566	1		ł	·









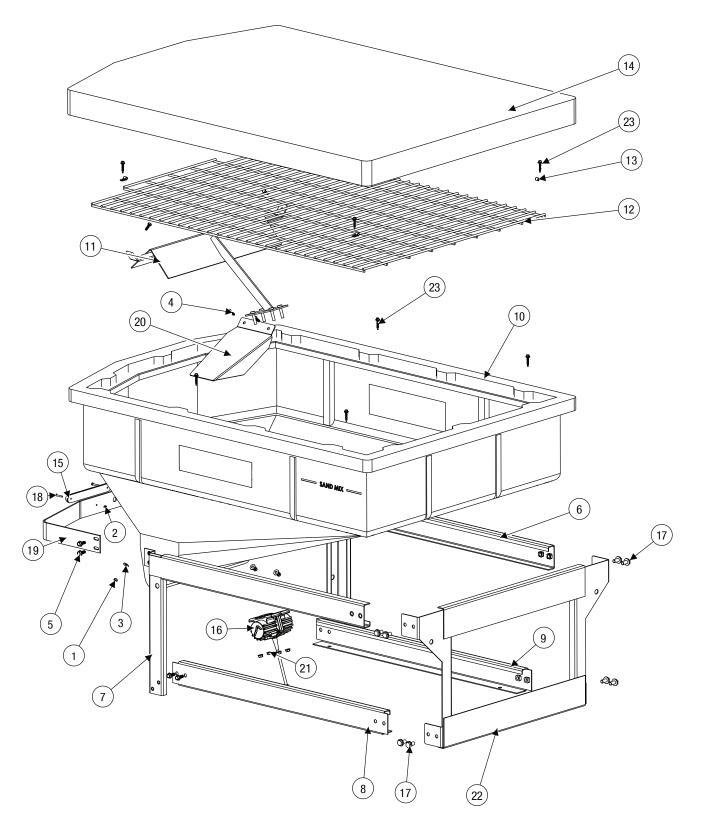
ID #	Part #	Qty
1	D6138	4
2	D6165	4
3	D6166	4
4	D6452	12
5	D6471	1
6	D6472	1

ID #	Part #	Qty
7	D6473	1
8	D6490	1
9	D6491	1
10	D6496	1
11	D6497	1
12	D6499	1

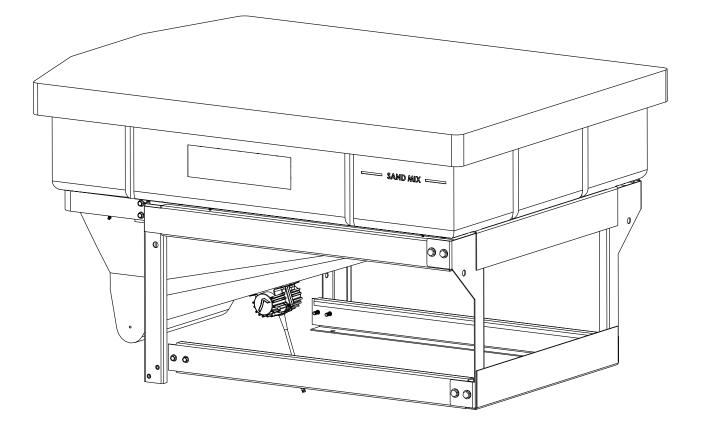
Part #	Qty
D6504	1
D6506	1
D6509	4
D6515	1
D6528	8
D6533	1
	D6504 D6506 D6509 D6515 D6528

ID #	Part #	Qty
19	D6584	4
20	D6585	1
21	D6738	1
22	D6874	8
23	D7277	1









ID #	Part #	Qty									
1	D6138	4	7	D6491	1	13	D6509	4	19	D6533	1
2	D6158	2	8	D6496	1	14	D6510	1	20	D6577	1
3	D6165	4	9	D6497	1	15	D6514	1	21	D6584	4
4	D6166	4	10	D6500	1	16	D6515	1	22	D6738	1
5	D6452	8	11	D6504	1	17	D6528	8	23	D6874	8
6	D6490	1	12	D6506	1	18	D6529	2	·		



