Owner / Operator's Manual



Spreaders for Snow & Ice Control

FOR MODEL

SP-2200

For use on vehicles with a GVW of 26,000 or higher.



CUSTOMER COPY

Madison Heights, MI 48071-2429 Protected by the following patents, #6,089,478, #6,088,865, #Des.425,915 and other pending U.S. and foreign patent applications.

Lit. No. 96487, Rev. 01 1 July 15, 2017

Table of Contents



ntroductionntroduction	3
General Information and Registration	4
Safety Information	5-8
Spreader Assembly and Exploded Views	9-17
nstallation Instructions	18
Electrical System Information	
Spreader Mounting System	23-24
Work Light Assembly & Spreader Operating Information	25-28
Troubleshooting Information	29-31
Spreader Maintenance	32
Determine Vehicle Payload Chart	33
Warranty	34

Have a question or need assistance? SnowEx® Customer Service (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



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.

General Information



CONGRATULATIONS!

The spreader you have purchased is an example of snow and ice control technology at its finest! Your spreader's innovative, self-contained design is a trademark of all TrynEx® 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 polyethylene 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 a 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 TrynEx Performance.

	• .		•
$D \wedge A$		レヘキ	\sim
$R \mapsto C$		141	
Req	יטעון	IUL	

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 insure 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 may be communicated to you.



SAFETY DEFINITIONS

A WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

A CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTE: Indicates a situation or action that can lead to damage to your snowplow and vehicle or other property. Other useful information can also be described.

SAFETY PRECAUTIONS

Improper installation and operation could cause personal injury and/or equipment and property damage. Read and understand labels and the Owner's Manual before installing, operating, or making adjustments.

A WARNING

- Driver to keep bystanders minimum of 60 feet away from operating spreader.
- Before working with the spreader, secure all loose-fitting clothing and unrestrained hair.
- Before operating the spreader, verify that all safety guards are in place.
- Before servicing the spreader, wait for conveyor, auger, and spinner to stop.
- · Do not climb into or ride on spreader.

A WARNING

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

A WARNING

Unit must be strapped down and locked into position before operating or transporting.

A WARNING

- Always make sure personnel are clear of areas of danger when using equipment.
- · Never attempt to lift a unit with material in it.
- Always inspect unit for defects and replace any broken, missing or worn parts immediately.
- Always check areas to be spread to be sure no hazardous conditions or substances are in the area.

A WARNING

Never exceed 45 mph (72 km/h) when loaded spreader is attached to vehicle. Braking distances may be increased and handling characteristics may be impaired at speeds above 45 mph (72 km/h).

A WARNING



Overloading could result in an accident or damage. Do not exceed GVWR or GAWR ratings as found on the driver-side vehicle door

cornerpost. See Loading section to determine maximum volumes of spreading material.

A WARNING

Do not install the control for this product in the deployment path of an air bag. Refer to vehicle manufacturer's manual for air bag deployment area(s).

A CAUTION

If rear directional, CHMSL light, or brake stoplights are obstructed by the spreader, the lights shall be relocated, or auxiliary directional or brake stoplights shall be installed.

A CAUTION

During the hopper installation we recommend the addition of an OSHA compliant Backup Alarm. This alarm is required for OSHA governed employers. (continued)



A CAUTION

- Do not operate a spreader in need of maintenance.
- Before operating the spreader, reassemble any parts or hardware removed for cleaning or adjusting.
- Before operating the spreader, remove materials such as cleaning rags, brushes, and hand tools from the spreader.
- Before operating the spreader, read the engine owner's manual, if so equipped.
- While operating the spreader, use auxiliary warning lights, except when prohibited by law.
- Tighten all fasteners according to the Torque Chart. Refer to Torque Chart for the recommended torque values.

A CAUTION

Disconnect electric and/or hydraulic power and tag out if required before servicing or performing maintenance.

A CAUTION



DO NOT leave unused material in hopper. Material can freeze or solidify, causing unit to not work properly. Empty and clean after each use.

A CAUTION

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

NOTE: Lubricate grease fittings after each use. Use a good quality multipurpose grease.

FUSES

The electrical system contains several blade-style automotive fuses. If a problem should occur and fuse replacement is necessary, the replacement fuse must be of the same type and amperage rating as the original. Installing a fuse with a higher rating can damage the system and could start a fire. Fuse Replacement, including fuse ratings and locations, is located in the Maintenance section of this Owner's Manual.

PERSONAL SAFETY

- Remove ignition key and put the vehicle in park or in gear to prevent others from starting the vehicle during installation or service.
- Wear only snug-fitting clothing while working on your vehicle or spreader.
- Do not wear jewelry or a necktie, and secure long hair
- Wear safety goggles to protect your eyes from battery acid, gasoline, dirt, and dust.
- Avoid touching hot surfaces such as the engine, radiator, hoses, and exhaust pipes.
- Always have a fire extinguisher rated BC handy, for flammable liquids and electrical fires.

FIRE AND EXPLOSION

A WARNING

Gasoline is highly flammable and gasoline vapor is explosive. Never smoke while working on vehicle. Keep all open flames away from gasoline tank and lines. Wipe up any spilled gasoline immediately.

Be careful when using gasoline. Do not use gasoline to clean parts. Store only in approved containers away from sources of heat or flame.

CELL PHONES

A driver's first responsibility is the safe operation of the vehicle. The most important thing you can do to prevent a crash is to avoid distractions and pay attention to the road. Wait until it is safe to operate Mobile Communication Equipment such as cell phones, text messaging devices, pagers, or two-way radios.

Snow

(continued)

VENTILATION

A WARNING

Vehicle exhaust contains lethal fumes. Breathing these fumes, even in low concentrations, can cause death. Never operate a vehicle in an enclosed area without venting exhaust to the outside.

BATTERY SAFETY

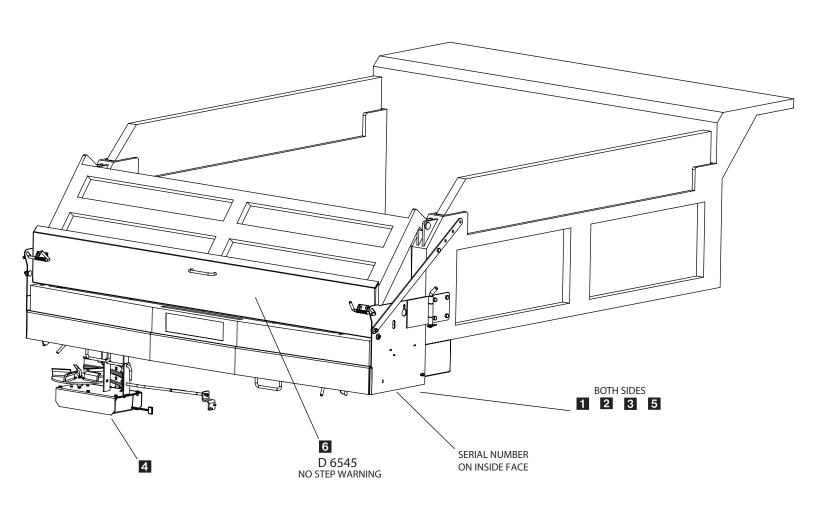
A CAUTION

Batteries normally produce explosive gases which can cause personal injury. Therefore, do not allow flames, sparks, or lit tobacco to come near the battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

- Batteries contain sulfuric acid, which burns skin, eyes, and clothing.
- Disconnect the battery before removing or replacing any electrical components.



Model # SP-2200













3 D 5704

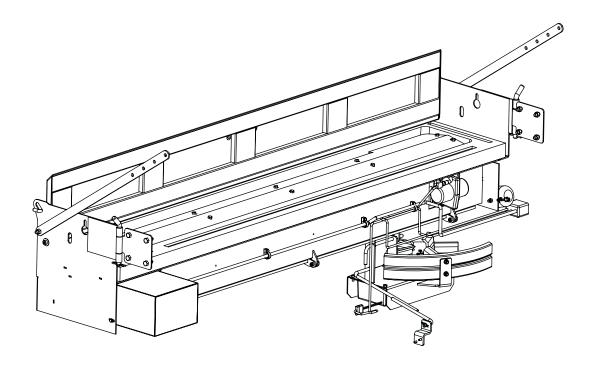


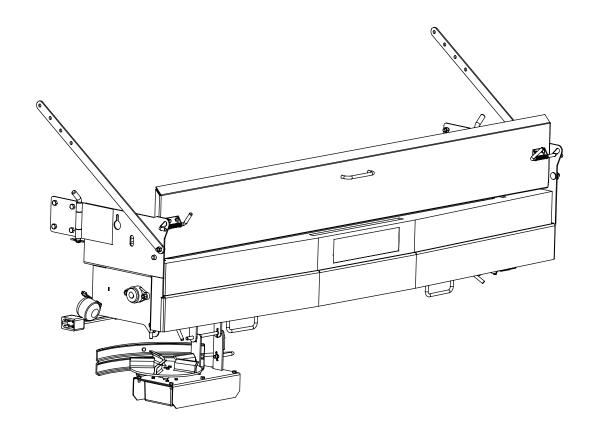
4 D 6544

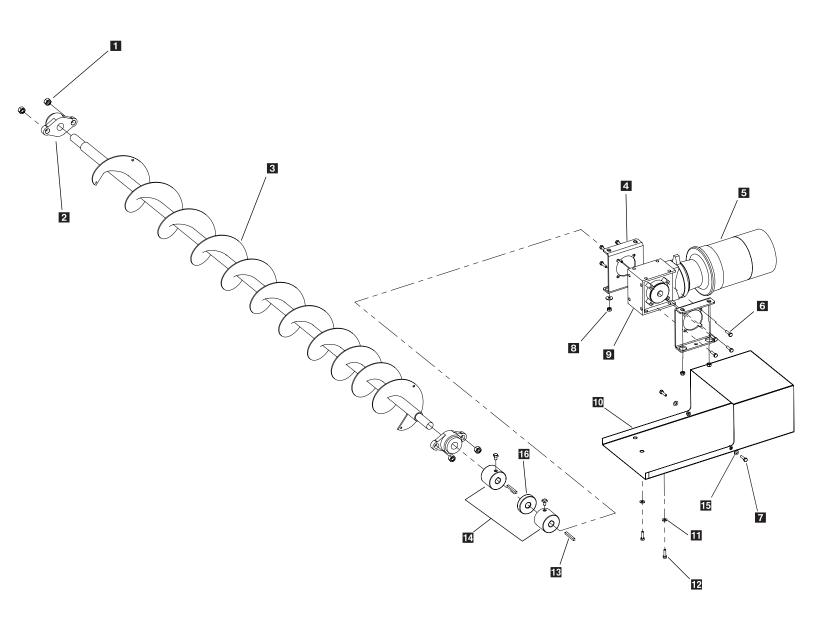


5 D 6335

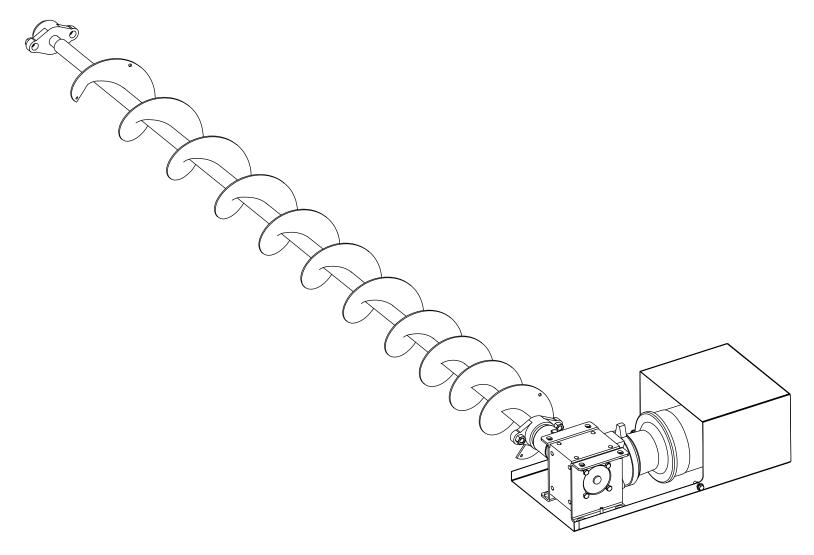






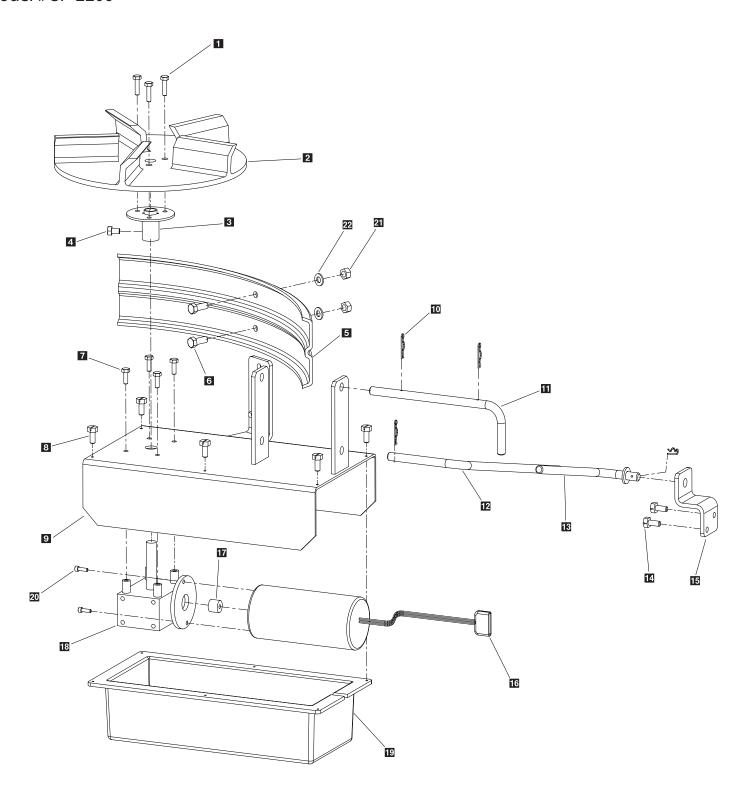






Key	Part No.	Description	Qty.
1	D4124	3/8" Nylock Nut	4
2	D5527	Bearing	2
3	D5313	Auger Weldment	1
4	D5305	Transmission Mounting Bracket	2
5	D6825	Auger Motor	1
6	D5753	Transmission Bracket Mounting Bolt	8
7	D6132	1/4-20 x 3/4 SS HH Serrated Flange Bolt	2
8	D5706	5/16 Serrated Flange Bolt	4
9	D6894	Auger Transmission	1
10	D5306	Auger Motor Cover	1
111	D4313	Lock Washer	2
12	D6133	5/16-18 x 1/2 HH Bolt	2
13	Ref Only	3/16 Key Stock	2
14	D6842	Auger Motor Coupler	2
15	T15014	1/4" Flat Washer	2
16	D5776	Auger Coupler Spyder	1

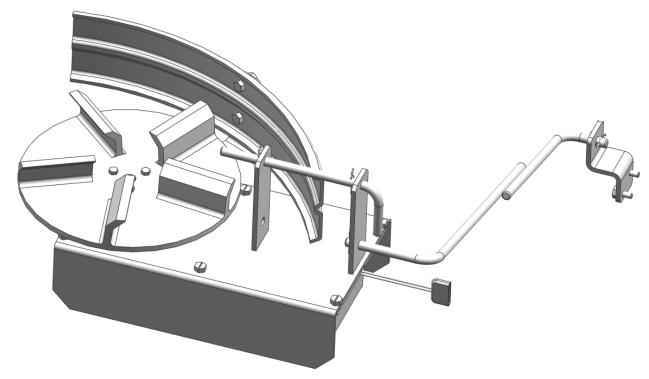




Spinner Drive Assembly Parts Breakdown Model # SP-2200

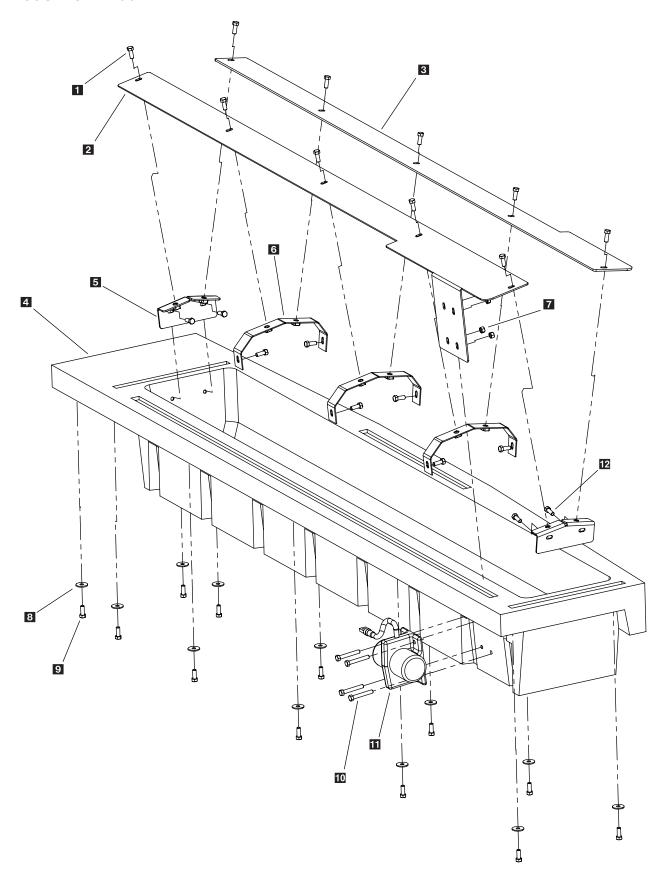


Key	Part No.	Description	Qty.
1	D6854	1/4-20 x 1" HWH Serrated	3
2	D6823	Urethane Spinner	1
3	D5718	Spinner Mounting Hub	1
4	D6133	5/16-18 x 1/2" Hex Bolt	1
5	D6327	Spinner Deflector	1
6	D4121	3/8"-16 x 1" HHCS	2
7	D6131	1/4-20 x 1/2" SS HWH Serrated TCS	4
8	D6877	#8 x 3/4 Self Driller HWH	6
9	D5721	Spinner Drive Enclosure	1
10	D4135	5/16 Hair Pin Clip	4
11	D5739	Spinner Drive Pin	1
12	D5741	Long Leveler Rod	1
13	D5740	Short Leveler Rod	1
14	D6447	5/16"x 1" Self Driller	2
15	D5738	Leveler Mount Bracket	1
16	D5722	Spinner Motor	1
17	D6232	Motor Coupler	1
18	D5723	Spinner Transmission	1
19	D5715	Spinner Motor Cover	1
20	D6172	#10-32 x 5/8" Serrated Flange Bolt	2
21	D4124	3/8" Locknut	2
22	D4125	3/8" Flat Washer	2

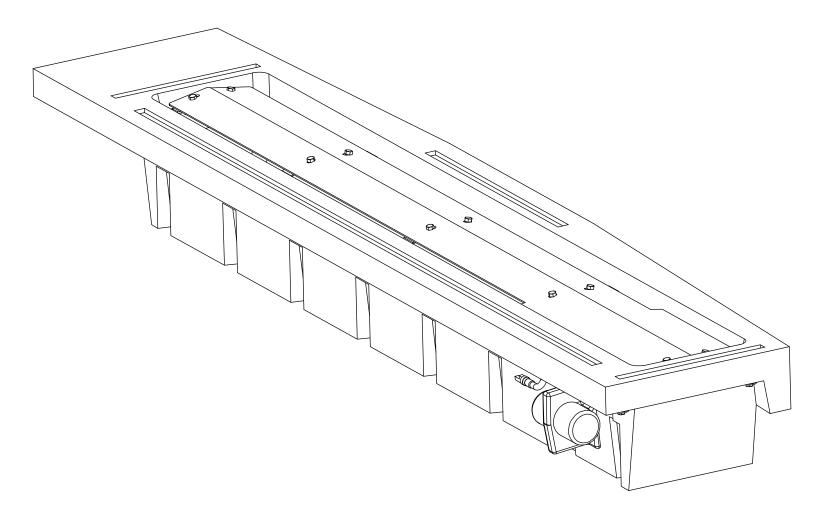


Complete Drive Assembly D5707



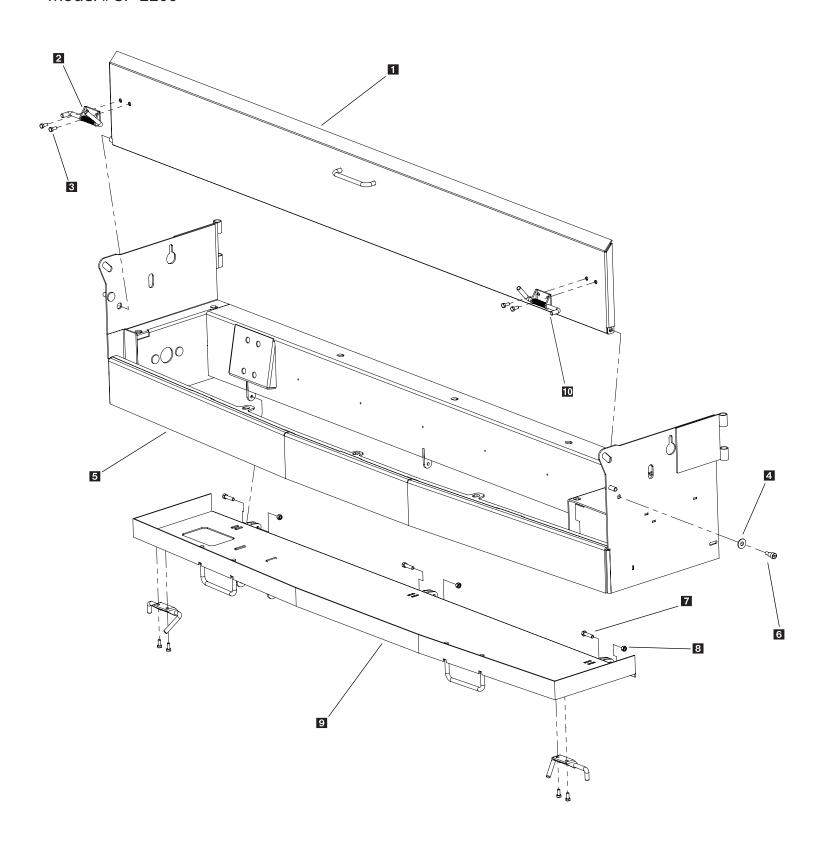




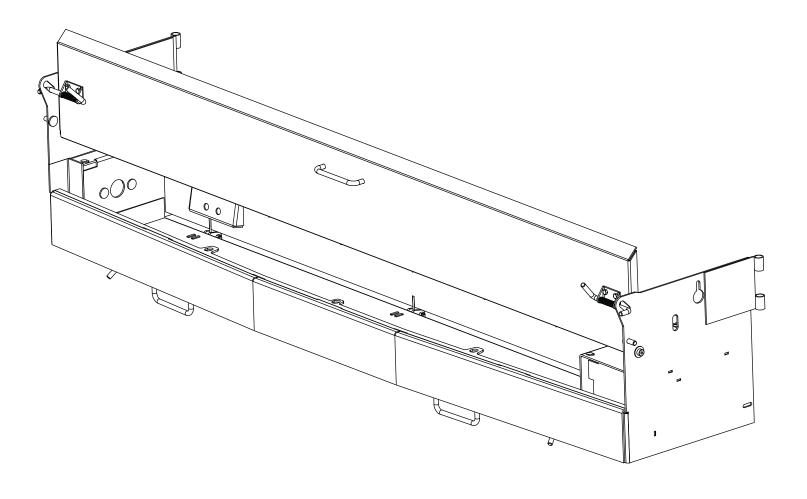


Key	Part No.	Description	Qty.
1	D 6978	3/8-16 x 3/4" HHCS SS	20
2	D 5319	Front Baffle	1
3	D 5320	Rear Baffle	1
4	D 5300	SP-2200 Hopper	1
5	D 5322	Baffle End Bracket	2
6	D 5321	Baffle Support Bracket	3
7	D 4124	3/8"-16 Nylock	4
8	D 4318	3/8" Fender Washer	24
9	D 6452	3/8"-16 x 1" Serrated Hex Head	12
10	D 6160	3/8"-16 x 2" Hex Head	4
111	D 6515	Heavy Duty Vibrator	1
12	D 4121	3/8-16 x 1" Hex Bolt	12









Key	Part No.	Description	Qty.
1	D 5307	Lid	1
2	D 5325	Latch left Hand	2
3	D 4121	3/8-16 x 1" Hex Bolt	2
4	D 6169	3/8" Stainless Washer	2
5	D 5301	Main Frame	1
6	D 5330	1/2" x 5/8" Shoulder Bolt Stainless Steel	1
7	D 6160	3/8"-16 x 2" Hex Bolt	3
8	D 4124	3/8"-16 Nylock Nut	3
9	D 5304	Cleanout Pan	1
10	D 5326	Right Hand Latch	2

Vehicle Harness Wiring Instructions



Model # SP-2200

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 above hitch plate using supplied bolts, locate between hinges (important). Make sure wiring and plug are clear of dump body pinch points. Apply a small amount of dielectric grease to contacts.

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: Drill a 1-1/4 hole in the firewall or use existing access hole (check to make sure you are clear on the other side you intend to drill. Route connector and harness through hole. The power harness from control box to battery will need to be routed from the inside of the cab to the battery – this results from the large amperage connector. Route leads with lugs to battery, do not connect power at this time.

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 as 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 confirmed turn power OFF. The electrical portion of the installation is complete.

Work Light Wiring Instructions

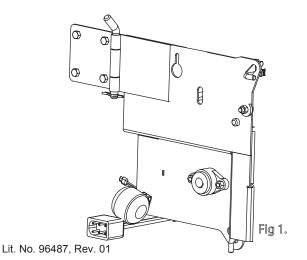
Step 1: Take light kit harness and route from the rear of the vehicle (left side) to the front. Follow main spreader wire route into vehicle cab and locate next to control mounting position.

Step 2: Mount rear power plug next to main spreader power plug. Install work light onto spreader (see fig. 1 below) and also connect adapter to light assembly. Do not connect light adapter to main vehicle harness at this point.

Step 3: Attach Vehicle harness (pos +) lead to supplied switch. Next attach (pos +) lead coming off main control input power lead to switch. The final connection will be to connect the (neg -) wire from the vehicle harness to the main control input power lead. Both the (pos +) and (neg -) connection points will be male/female insulated spade terminals.

18

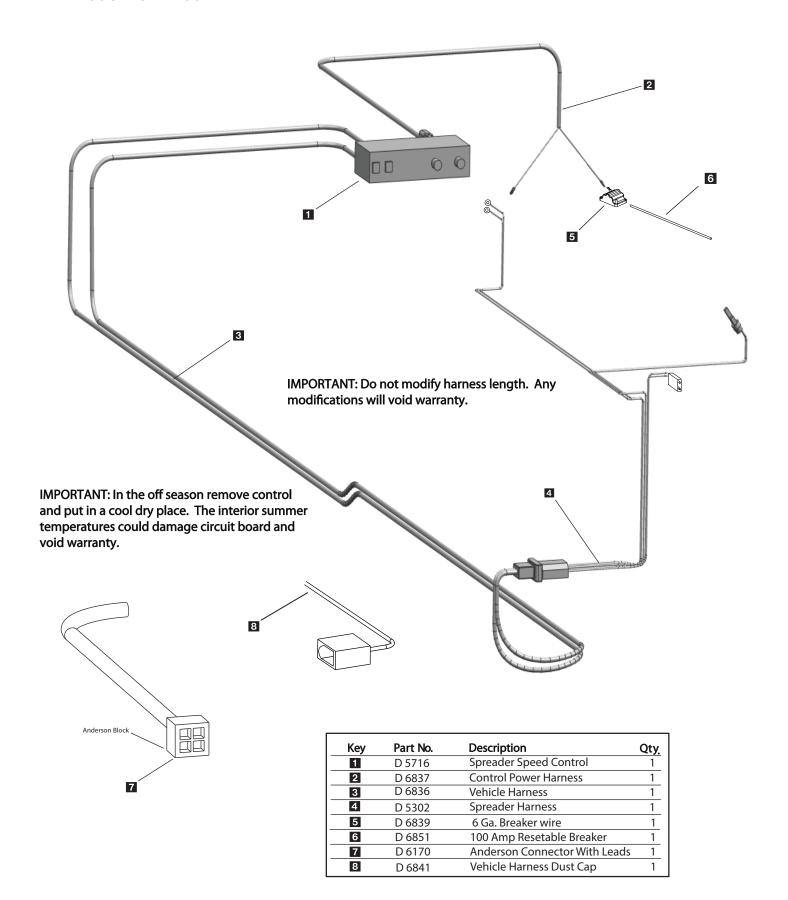
Step 4: Connect work light adapter to vehicle plug, test work light by switching toggle on/off.



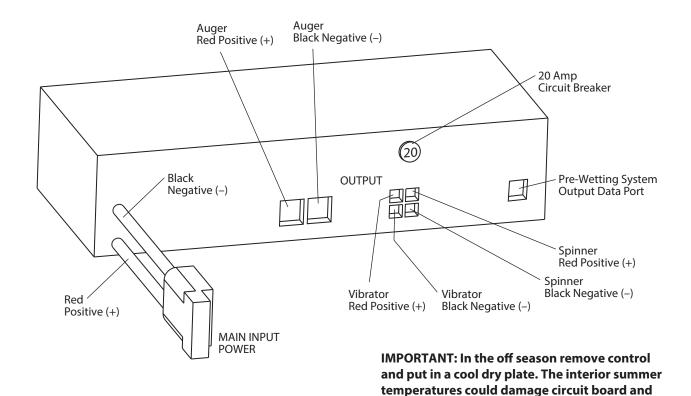
IMPORTANT: Do not modify harness length. Any modifications will void warranty.

July 15, 2017



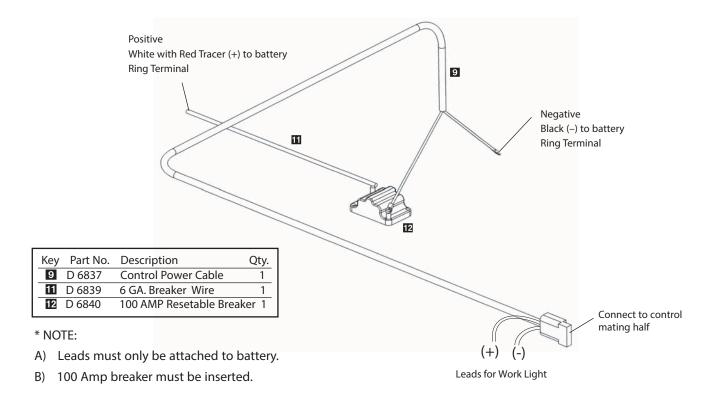






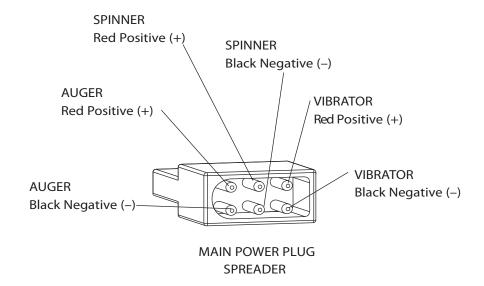
void warranty.

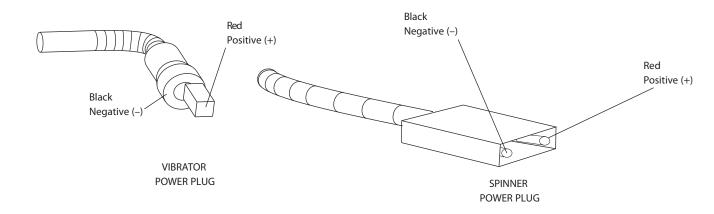
Control Power Cable

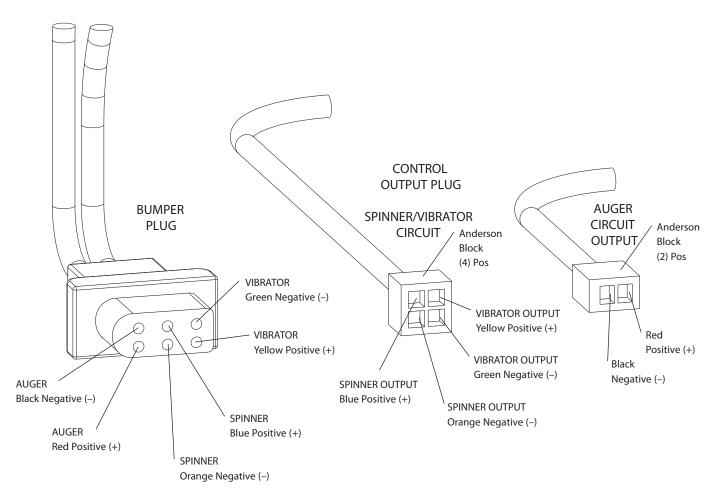


Spreader Power Harness Circuit Diagram Model # SP-2200



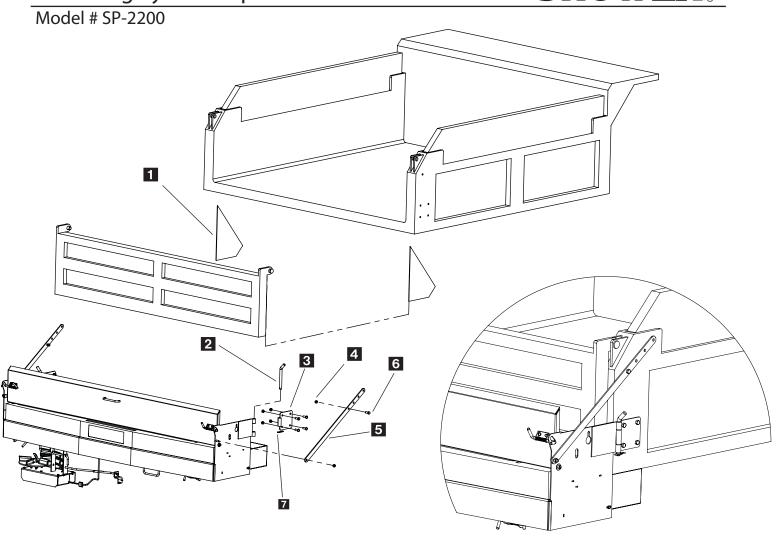




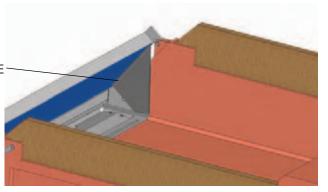


* NOTE: Reference Bumper Plug for Color Code



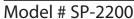


TRIM SIDE PLATES AS NEEDED TO ALLOW GATE TO SWING OPEN.



Key	Part No.	Description	Qty.
1	D5308	Salt Shield	2
2	D5309	Hinge Pin	2
3	D5303	Hinge Truck Side	2
4	D5535	1/2-13 Nylox Nut	10
5	D5312	Mounting Strap	2
6	D6143	1/2-13 x 1-1/4 Serrated Flange Bolt	10
7	D4135	Hair Pin Clip	1

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: Use a lifting strap to position the spreader up against the rear of truck and level unit.

Step 2: Drill and bolt or weld the remaining half of the hinges to the rear corner post of the dump body. The clearance from the bottom of the tailgate or tailgate latch (whichever is lower) to the top of the spreader lid should be between 1/4" and 5/8". If dumping over tailgate, please check for clearance of tailgate over spreader lid. Also install the support bars from the spreader to the rear corner post of the dump body.

Step 3: Install mounting strap on spreader and position on dump body corner post at a 45 degree angle if possible. Mark and drill upper hole in corner post and bolt into position. Repeat for other side.

Step 4: If welding brackets in place then disregard bolting steps.

Step 5: Install salt shields on tailgate by tack welding in place and slowly swing gate open to make contact with spreader top cover. You may have to trim shield slightly to allow proper gate swing. Make sure shield will block off salt from escaping when tailgate is opened. Verify clearance and dump body tailgate operation before permanently attaching the salt shields. Complete welding operation when proper clearances are achieved.

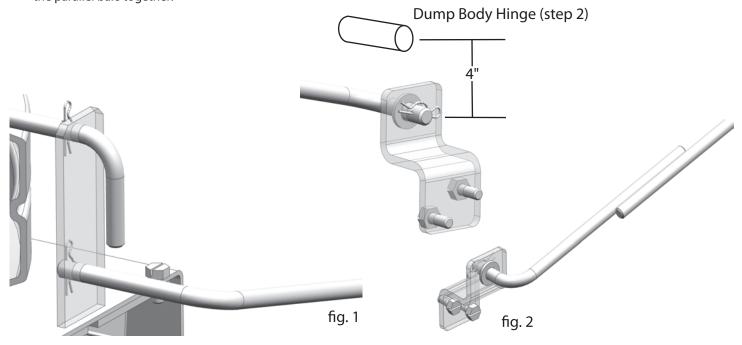
Mounting Instructions for self leveling spinner bracket

Step 1: Secure long leveling rod D5741 to spinner enclosure through bottom hole in bracket with hairpin clip through hole in pin (see fig 1).

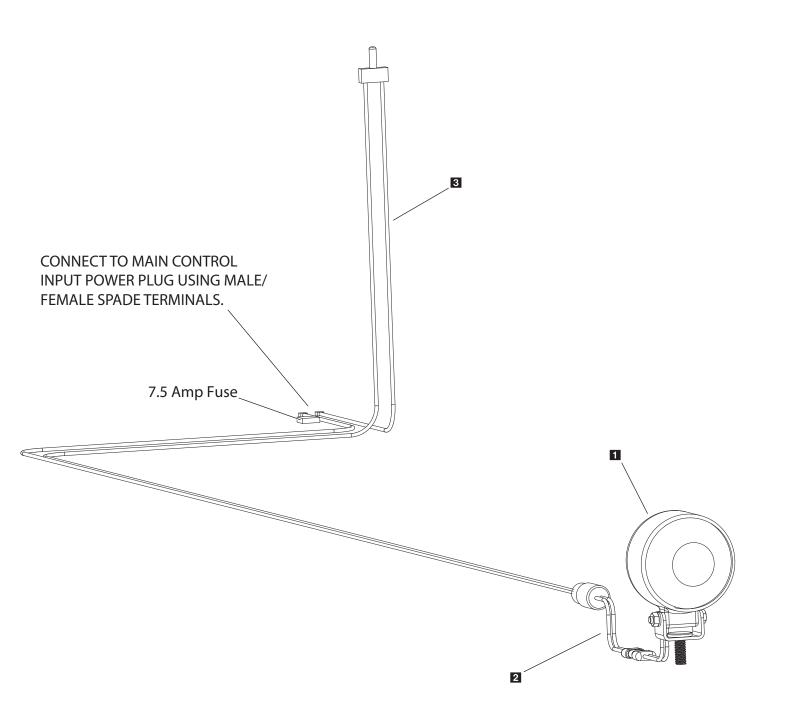
Step 2: Mount drive leveling bracket D5738 to frame rail 4" below center of hinge. Weld or bolt in place (see fig 2).

Step 3: Connect D5740 short leveling rod to drive leveling bracket with hairpin clip. Align both rods next to each other (see fig 2).

Step 4: Verify leveling action by raising the dump. Be alert to any potential interference. Verify that the spinner does not contact the road with the dump body fully raised. After checking, weld or bolt the parallel bracket in place and weld or permanently fix the parallel bars together.







	Key	Part No.	Description	Qty.
١			Work Light Assembly	1
١	2	D 5726	Work Light Adapter	1
١	3	D 5719	Vehicle Harness W/Switch	1



SP-2200 INTERIOR BAFFLE INSTRUCTIONS

- The SP-2200 uses a multi-function baffle system over the auger area.
- This twin baffle design is used to reduce load on the auger drive train which controls amperage load to the electrical system. It must not be removed unless servicing the unit.
- . The baffle system is also connected to the vibrator to assist with material flow. Make sure vibrator bolts are tight before operating spreader.



Operating the Spreader



Model # SP-2200

PRFPARATION

CAUTION – Sweep area clear of foreign objects or obstacles that could cause personal injury. Keep other persons, children, or animals out of the area to be spread.

SPREADER LOADING

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

Material Weight Per Cubic Ft.
Rock Salt 35-40 lbs.
Sand/Salt Mix 95-120 lbs.

- Be sure to comply with manufacturer's maximum gross vehicle weight ratings.
- Warning
 — Never leave materials 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.

SPREADING TIPS

- 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.
- Spread ice melters with the storm to prevent unmanageable levels of ice.
- Calculate spread pattern when near vegetation.

2200 CONTROL OPERATION

- The Dual Variable Speed Control has dual finger-tip dials for maximum performance, digital system status with warning protection and built-in 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 switch on controller to off position.
- Speed of auger and spinner may be adjusted separately to get desired flow and spread distance from spreader.
- The Vibrator Switch is needed for dense material or to increase the flow to the auger. This eliminates bridging of material in hopper.

Operating the Spreader(continued)



Model # SP-2200

WARNING PROTECTION

- If audible beeping occurs, read display to identify problem. If display reads "OL" (overload) or "OH" (overheat), shut controller down and carefully clear jammed auger. If display reads "E1" this means there is a dead short in system. Do not use until problem is corrected. If display reads "E0" this means that the motor is not getting any power. Check all connections If display reads "LB" the vehicle battery is extremely low (possibly caused by a poor or corroded connection) and could damage the system.
- If there are any problems while operating the spreader, refer to Troubleshooting Guide.

AUTO-REVERSE "AR" FUNCTION

- If your controller displays "OL" this could indicate a jammed auger.
- To engage the Auto-Reverse "AR" function:
 - Step 1: Shut the Main Power Switch OFF for 3 seconds.
 - Step 2: Turn the Main Power Switch ON. When the machine starts 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".
- You may repeat Steps 1 & 2 for a second and third time.
- If after the third try the controller displays "OL" you must extract the material that is causing the problem.
- · Follow all warning directions when clearing jams.

Troubleshooting



Model # SP-2200

Whenever service is necessary, your local SnowEx® Dealer knows your Spreader best. Take your Spreader to your local dealer for any maintenance or service needs on your unit. If this is not possible, the Troubleshooting Guide below may assist you in identifying the problem.

Warning: First read all warning instructions and safety messages before servicing your spreader.

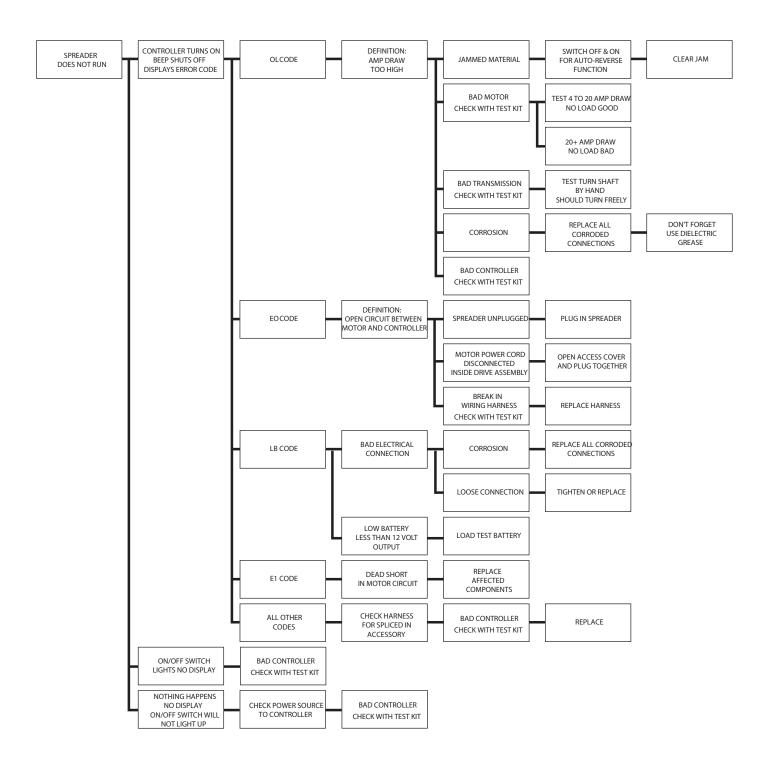
Preliminary Checks

- Be sure all electrical connections are tight and clean.
- Be sure nothing is jammed in the hopper.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Motor doesn't run.	Loose electrical connections.	Check all connections.
	Blown Fuse.	Replace fuse.
	Motor Seized.	Replace motor.
Controller shut down.	Jammed auger.	Carefully clear jammed material.
	Poor electrical connections.	Clean or replace connectors. Use dielectric grease.
	Electrical short.	Check electrical connections. Check for bare wires.
	Controller failure.	Replace controller.
Material not flowing from hopper.	Empty hopper.	Fill hopper.
пошпоррег.	Wet material.	Replace with dry material.
	Frozen or coarse material.	Replace material.
	Spinner not turning.	Check drive assembly.
	Auger loose on shaft.	Tighten locking bolt on the side of the auger. There is a flat machined on the driver shaft. Align the auger with this flat and tighten the bolt.
	Vibrator not working.	Replace vibrator
Audible alarm beeping and display shows OL or OH.	Jammed auger, overload shut down.	Turn off for three seconds, then restart. If shut down continues, turn off controller. Clear debris and lumps from auger areas.
Audible alarm beeping display shows E1.	Short in system.	Turn off. Do not use until problem is corrected.
Audible alarm beeping display shows EO.	Motor is not getting power.	Turn off. Check all connections.
Audible alarm beeping display shows LB.	Vehicle battery is extremely low, or a poor connection exists.	Turn off. Charge battery.

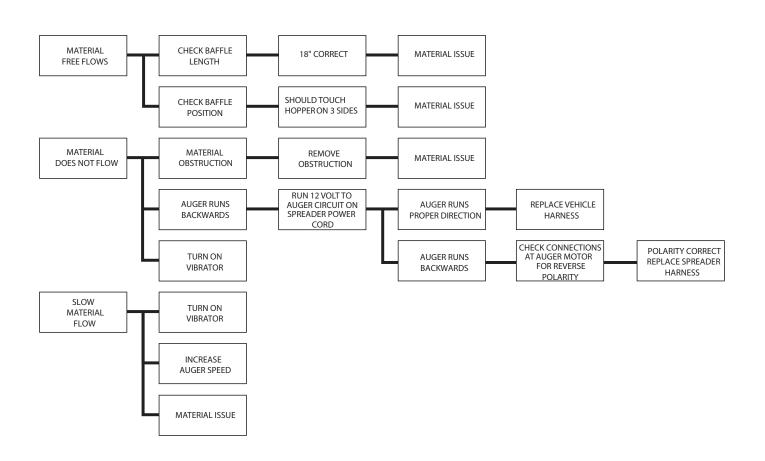
Snowex

Model # SP-2200



<u>Troubleshooting Material Flow</u> Model # SP-2200





Spreader Maintenance



Model # SP-2200

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 - Disconnect electricity to spreader before servicing.

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 – When replacing parts use only original manufacturer's parts. Failure to do so will void warranty.

Use dielectric grease on all electrical connections to prevent corrosion at the beginning and end of the season and each time plugs are disconnected.

Gently wash unit after each use to prevent material build-up and corrosion.

CAUTION – When pressure washing motor enclosure area, stay at least 36" away from all electrical items.

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.

Grease bearings after every 20 hour's use.

After first use, tighten all nuts and bolts on spreader and mount.

WARNING: Never remove spreader with material in hopper.

ATTENTION: Store control in cool dry place during the off season.

CAUTION – Spinner motor is not designed for continuous duty. Allow motor to cool between long cycle times.

CAUTION – Vibrator is not designed for continuous duty. Allow motor to cool between long cycle times.

CAUTION – Do not modify vehicle or spreader wiring harness. Doing so will void product warranty.

Model # SP-2200



Determining Vehicle Payload

Material Type	Example: Coarse Salt – Dry				
Equipment installed when vehicle was weighed	SP-2200				
Front Gross Axle Weight Rating (RGAWR)					
Rear Vehicle Weight Rating (GVWR) (lb.)	8600				
Gross Vehicle Weight (GVW) (lb.) (empty)	- 6500	-	-	-	-
Payload Available (lb.)	= 2100	=	=	=	=
Material Weight (lb /cu. yd.)	÷ 1431	÷	÷	÷	÷
Maximum Volume (cu. yd.)	= 1.47	=	=	=	=
Maximum Height (approximate) (in.)	24"				
Loaded Front Gross Axle Weight (FGAW) (lb.)					
Loaded Rear Gross Axle Weight (RGAW) (lb.)					
Loaded Gross Vehicle Weight (GVW) (lb.)					

Torque Chart

When tightening fasteners, refer to the Torque Chart below for the recommended fastener torque values.

Recommended Fastener Torque Chart (ftlb.)				
SIZE	SAE	SAE	SAE	
	Grade 2	Grade 5	Grade 8	
1/4-20	6	9	13	
5/16-18	11	18	28	
3/8-16	19	31	46	
3/8-24	24	46	68	
7/16-14	30	50	75	
1/2-13	45	75	115	
9/16-12	66	110	165	
5/8-11	93	150	225	
3/4-10	150	250	370	
7/8-9	202	378	591	
1-8	300	583	893	

Metric Grade 8.8 (ftlb.)			
SIZE	TORQUE	SIZE	TORQUE
M 6	7	M 12	60
M 8	17	M 14	95
M 10	35	M 16	155

These torque values apply to mount assembly fasteners except those noted in the instruction.

Material Weights

Refer to the table below for the weight per cubic yard of common spreading materials.

MATERIAL	WEIGHT (lb. per cubic yard)
Fine Salt – Dry	2,025
Coarse Salt – Dry	1,431
Sand/Salt Mix – Dry (50/50)	2,700
Cinders	1,080



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.

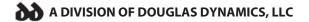
NO DEALER HAS AUTHORITY TO MAKE ANY REPRESENTATION OR PROMISE ON BEHALF OF SnowEx, OR TO ALTER OR MODIFY THE TERMS OR LIMITATIONS OF THIS WARRANTY IN ANY WAY.



THIS PAGE INTENTIONALLY LEFT BLANK



531 Ajax Drive Madison Heights, MI 48071-2429 www.snowexproducts.com



Copyright © 2017 Douglas Dynamics, LLC. All rights reserved. This material may not be reproduced or copied, in whole or in part, in any printed, mechanical, electronic, film or other distribution and storage media, without the written consent of TrynEx International, LLC. Authorization to photocopy items for internal or personal use by TrynEx International, LLC outlets or spreader owner is granted.

TrynEx International, LLC reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used. TrynEx International, LLC or the vehicle manufacturer may require or recommend optional equipment for spreaders. Do not exceed vehicle ratings with a spreader. Patent pending. TrynEx International, LLC offers a limited warranty for all spreaders and accessories. See separately printed page for this important information. The following are registered (®) or unregistered (TM) trademarks of Douglas Dynamics, LLC: SnowEx®, TrynEx®.

Printed in U.S.A.