## **Owner / Operator's Manual**



FOR MODELS

**SD-600** Serial # X2-100000 and higher

**SD-1400** Serial # X3-100000 and higher



**Customer Copy** 

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

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## 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



## **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 fo	r quick	reference.
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Spreader Model Number	
Spreader Serial Number	
Handheld Control Pendant Serial Number	Control Board 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.

Please register your system for warranty at your local Snowex Dealer. This will also give us a record so that any safety or service information can be communicated to you.

The Serial Number can be found on the Tank Assembly and will appear as at right.





## 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

**Examples of Warning Decals To Indicate Operational Awareness** 

## **WARNING**

- Read owners manual before operating equipment.
- Never remove spreader with material in hopper.

D6194

## WARNING

- Keep hands, feet & loose clothing away from moving parts.
- Disconnect power before servicing equipment.

D6192









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 vehicle 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.

## **Operating the Spreader**



Model # SD-600 / SD-1400

#### **Spreader Operation**

Mounting:

The SD-600 and SD-1400 Drop Spreader models are designed with an integrated three-point-mount. Simply align the three-point-hitch of implement with the Attachment Points on the Spreader Frame. Insert the Hitch Pins (included with the spreader) into the holes. Secure Hitch Pins with the included Snap Ring Pins.

The SD-600 can be fitted to a truck. Call your Snowex Dealer or Snowex Customer Care to determine the correct hitch adapter.

Wiring:

See Page 8 for Wiring Instructions.

#### Spreading:

- 1. Push On/Off button.
- 2. Press the Start/Stop button. Material Distribution Shaft will begin to turn, spreading material.
- 3. Use dial in center of Control Pendant to adjust Material Distribution Shaft speed. This will change the spread rate at constant speed.
- 4. Use the Blast button to momentarily spread a heavier pass.
- 5. Press Start/Stop to stop spreader.
- 6. Turn off Spreader by pushing the On/Off button.

#### **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.

#### **Spreading Tips**

For a heavier pass:

Decrease vehicle speed Increase Feeder speed

For a lighter pass:

Increase vehicle speed Decrease Feeder speed

Spread ice melters with the storm to prevent unmanageable levels of ice.

Never exceed 10 miles per hour when spreading.

Calculate spread pattern when near vegetation and other vehicles.

Never operate spreader near pedestrians.

## **Operating the Spreader**



#### Model # SD-600 / SD-1400

#### **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 and pivots as needed.
- After first use, tighten all nuts and bolts on spreader and mount.
- Store Spreader out of the elements to prevent damage from excess exposure to sun and precipitation..

## **Wiring Instructions**



#### Model # SD-600 / SD-1400

- Step 1: Route Vehicle Harness Assembly and route from the rear of vehicle to 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 it catches from the tires. Important: Apply a small amount of dielectric grease to the plug.
- 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: Find a location along the firewall where the Control Module can be attached. Mount Control Module to firewall with included hardware.
- Step 5: Connect Harness to Control Module and to Vehicle Battery.
- **Step 6**: Drill a hole in the firewall or use an existing hole; Route Data Cable from Control Module into the cab. Secure as needed to prevent the Data Cable getting caught in moving parts.
- Step 7: Plug Control Pendant into Data Cable. Push "ON" Button to test for power.
- Step 8: Stick Hook-and-Loop ("Velcro") to back of Pendant and to Dash.



Model # SD-600 / SD-1400

## **F50574 Control Pendant**



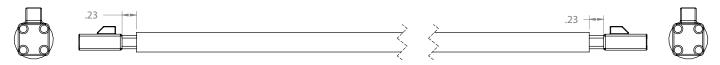
## **F50596 Spreader Control**



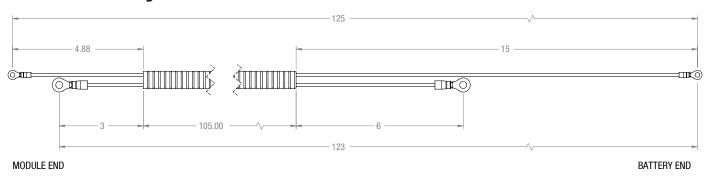


Model # SD-600 / SD-1400

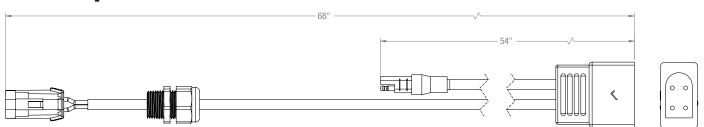
## F50578 Data Cable



## **F50601 Battery Harness**



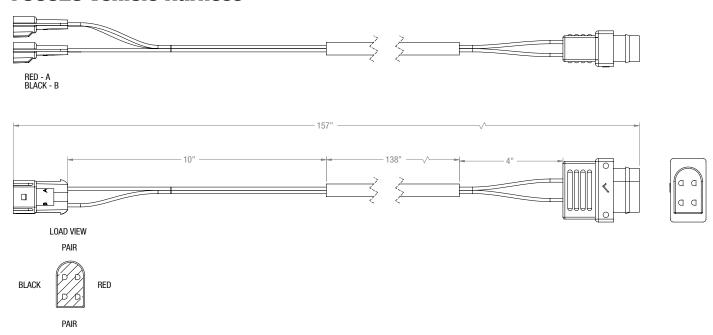
## **F50616 Spreader Harness**





Model # SD-600 / SD-1400

### **F50625 Vehicle Harness**



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

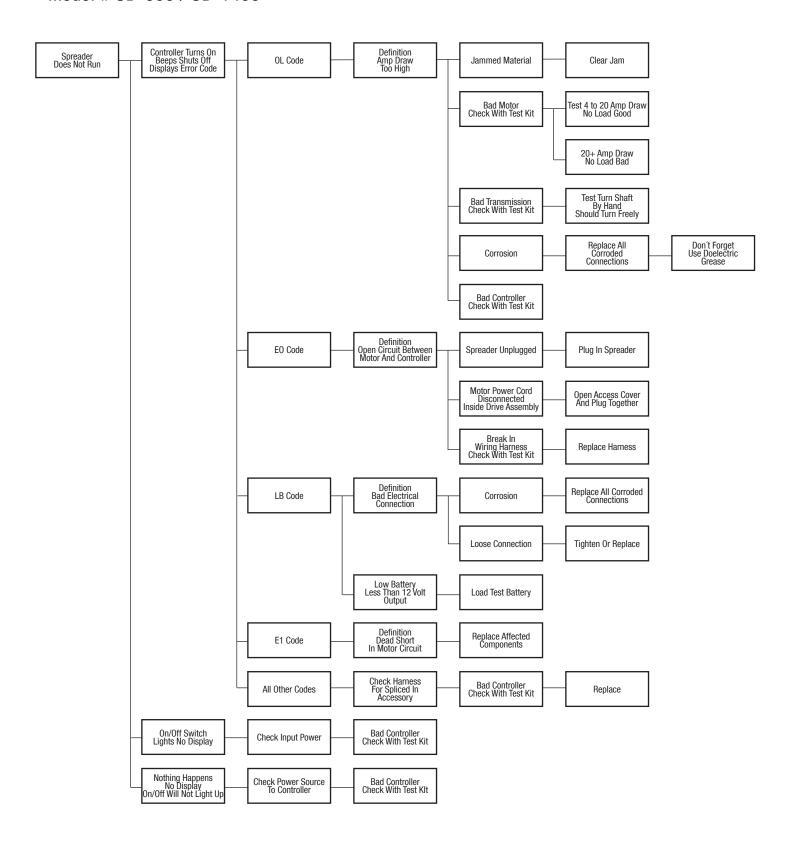
#### Special Notes:

- 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.

## **Troubleshooting**



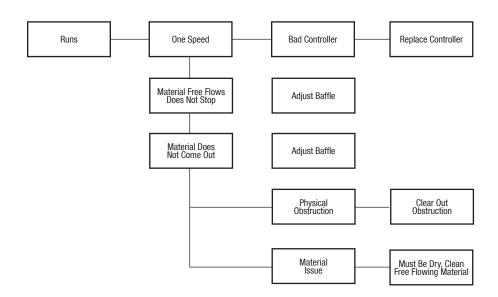
Model # SD-600 / SD-1400



## **Troubleshooting**



Model # SD-600 / SD-1400





## **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.

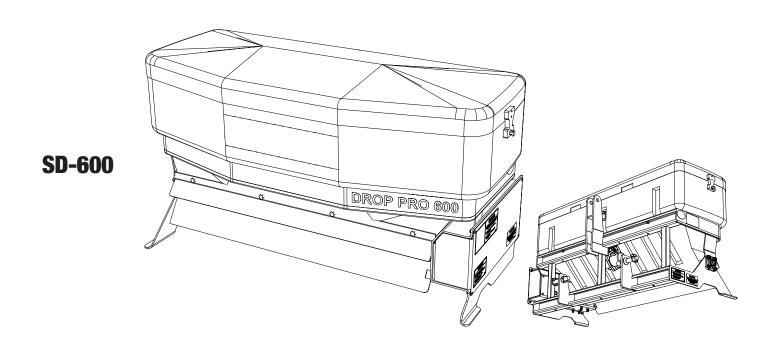
The WARRANTY REGISTRATION CARD must be returned to the manufacturer for this warranty to become effective. This warranty applies to the original retail purchaser only. This warranty does not cover damages caused by improper installation, misuse, lack of proper maintenance, alterations or repairs made 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.

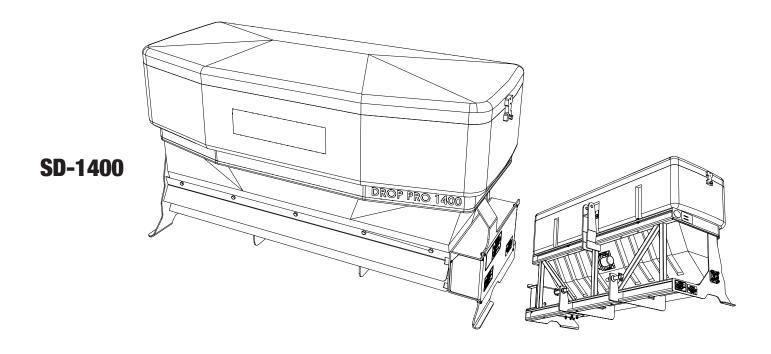
#### LIMITATION OF LIABILITY

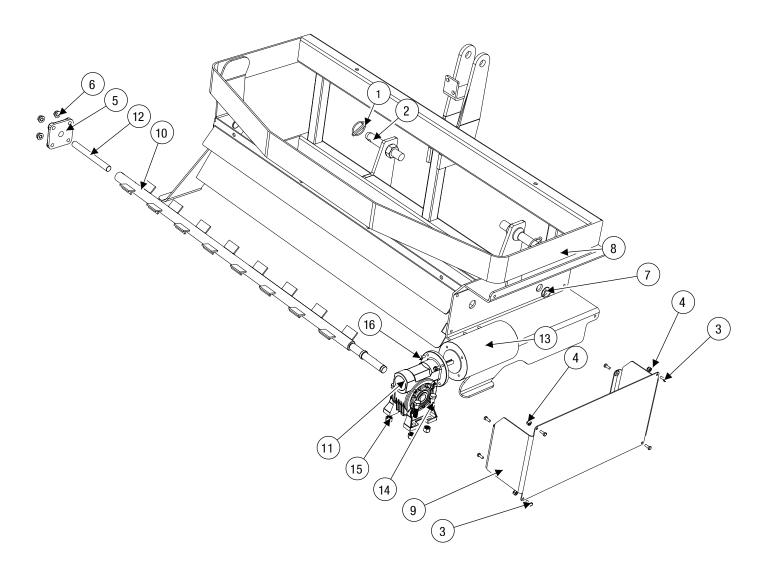
Neither Snowex, nor any company affiliated with it, makes any warranties, representations for promise as to the performance or quality other than what is herein contained. The liability of Snowex to the purchaser for damages arising out of the manufacture, sale, delivery, use or resale of this spreader 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.

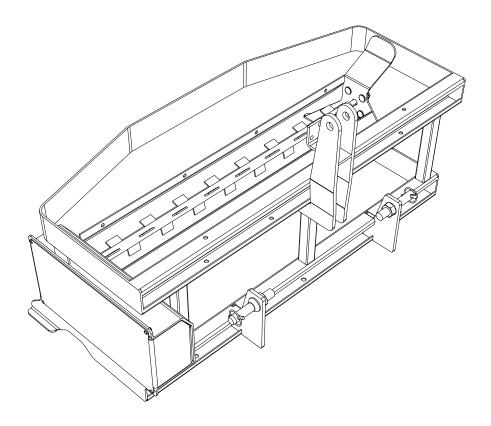






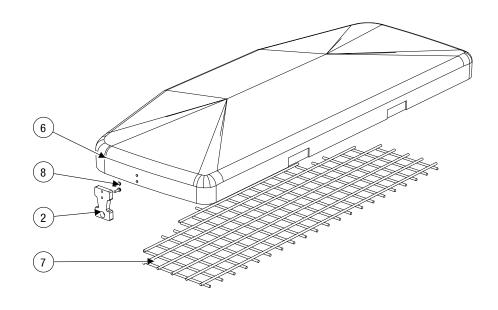


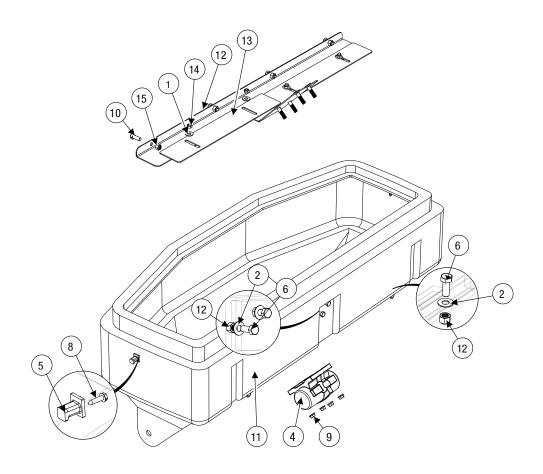
# Frame and Spreading Assembly Parts Breakdown SNOW Model # SD-600



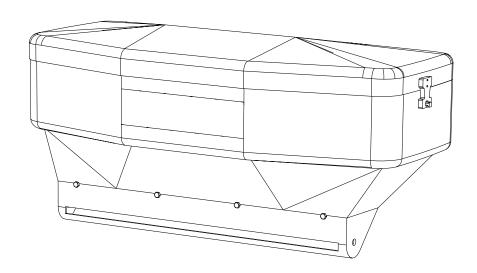
BOM ID	Description	Description	Qty
1	D4133	Linch Pin   5/16" X 1-9/16" Zinc	2
2	D4137	Lift Arm Pin   7/8" X 5-1/2"	2
3	D5905	Bolt   #10-32 X 1/2" Hex Head MS Stainless	8
4	D5948	Nut   #10-32 Nylox Waxed Stainless	4
5	D6332	Bearing   5/8" 4 Bolt Flange	1
6	D6584	Nut 3/8"-16 Serrated Flange	4
7	D6781	Nut   1/2" NPT Black Nylon	1
8	F50482	Main Frame	1
9	F50483	Auger Motor Cover	1
10	F50484	Material Distribution Shaft	1
11	F50582	Transmission	1
12	F50597	Drum Shaft   Bearing End 5/8" X 6"	1
13	F50684	Motor   1/3HP 1750 RPM	1
14	T30727	Bolt   3/8"-16 X 1-1/2" Hex Head Stainless	4
15	T30728	Nut   3/8"-16 Nylox Stainless	4
16	T30735	Bolt   M5-0.80 X 12MM Serrated Flange	4





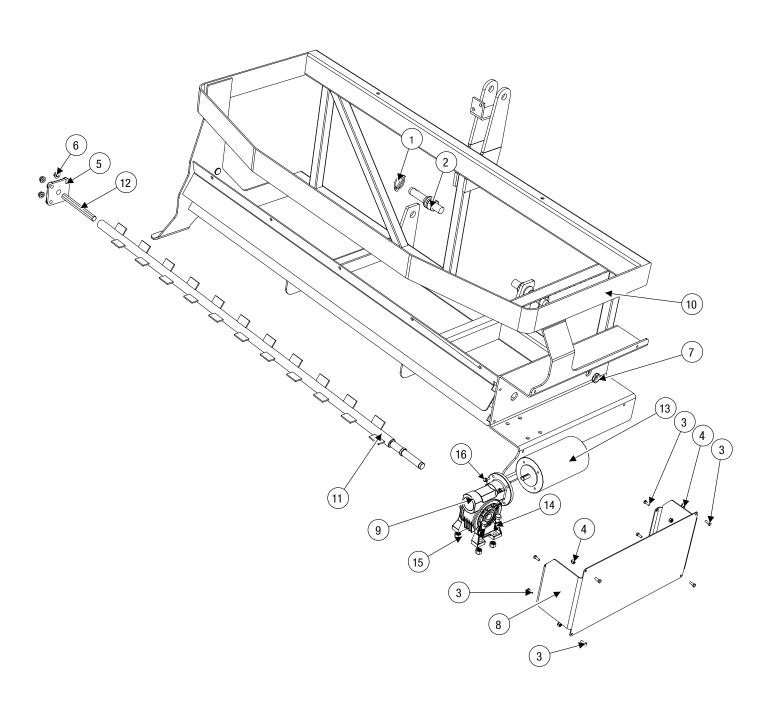




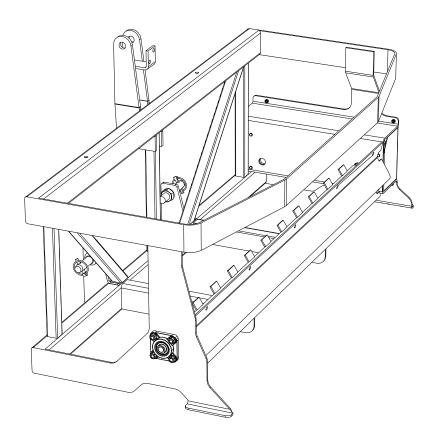


BOM ID	Description	Description	Qty
1	D5949	Washer   5/16" Flat Stainless	4
2	D6105	Flexible Draw Latch	2
3	D6169	Washer   3/8" Flat Stainless	4
4	D6174	Vibrator   DC 80	1
5	D6198	Latch Keeper	2
6	D6314	Lid Assembly   SP-1875	1
7	D6334	Top Screen	1
8	D6553	Screw   #10 X 3/4" HWH Slotted SMS Zinc	6
9	D6584	Nut 3/8"-16 Serrated Flange Zinc	4
10	F50110	Bolt   3/8"-16 X 1" Hex Head Stainless	8
11	F50477	Hopper   8.75 Cu. Ft. Yellow	1
12	F50557	Material Baffle	1
13	F50708	Adjustable Material Baffle	2
14	T15018	Nut 5/16"-18 Nylox Waxed Stainless	4
15	T30728	Nut   3/8"-16 Nylox Waxed Stainless	8



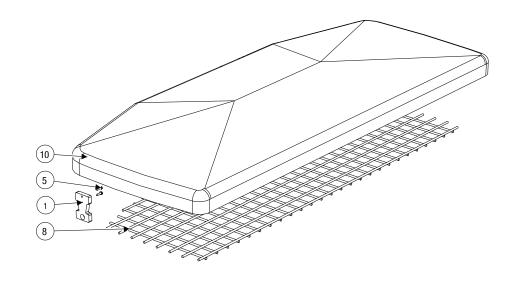


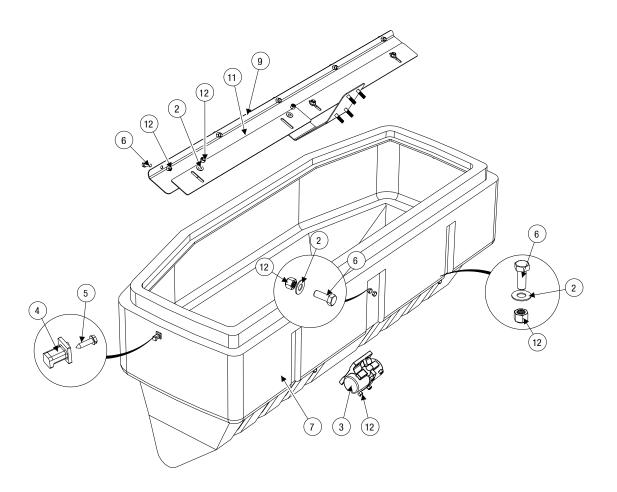




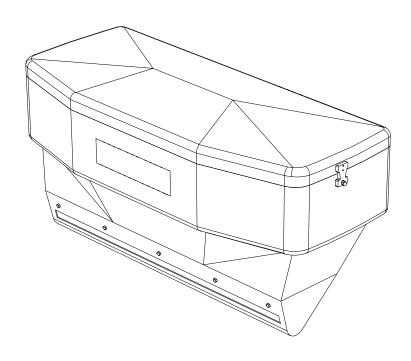
BOM ID	Description	Description	Qty
1	D4133	Linch Pin   5/16" X 1-9/16" Zinc	2
2	D4137	Lift Arm Pin   7/8" X 5-1/2"	2
3	D5905	Bolt   #10-32 X 1/2" Hex Head MS Stainless	8
4	D5948	Nut   #10-32 Nylox Waxed Stainless	8
5	D6332	Bearing   5/8" 4 Bolt Flange	1
6	D6584	Nut 3/8"-16 Serrated Flange Zinc	4
7	D6781	Nut   1/2" NPT Black Nylon	1
8	F50483	Auger Motor Cover	1
9	F50582	Transmission   100:1	1
10	F50585	Main Frame	1
11	F50593	Material Distribution Shaft	1
12	F50597	Drum Shaft   Bearing End 5/8" X 6"	1
13	F50684	Motor   1/3HP 1750RPM	1
14	T30727	Bolt   3/8"-16 X 1-1/2" Hex Head Stainless	4
15	T30728	Nut   3/8"-16 Nylox Waxed Stainless	4
16	T30735	Bolt   M5-0.80 X 12mm Serrated Flange	4











BOM ID	Description	Description	Qty
1	D6105	Flexible Draw Latch	4
2	D6169	Washer I 3/8" Flat Stainless	10
3	D6174	Vibrator   DC 80	9
4	D6198	Latch Keeper	10
5	D6553	Screw   #10 X 3/4" Slotted	7
6	F50110	Bolt   3/8"-16 X 1" Hex SS	13
7	F50508	Hopper   14.0 Cu. Ft. Yellow	2
8	F50588	Top Screen   52.35 X 18.25	2
9	F50589	Material Baffle	2
10	F50592	Hopper Lid	2
11	F50712	Adjustable Material Baffle	3
12	T30728	Nut   3/8"-16 Nylox SS	18

