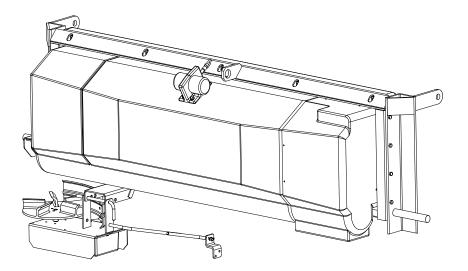
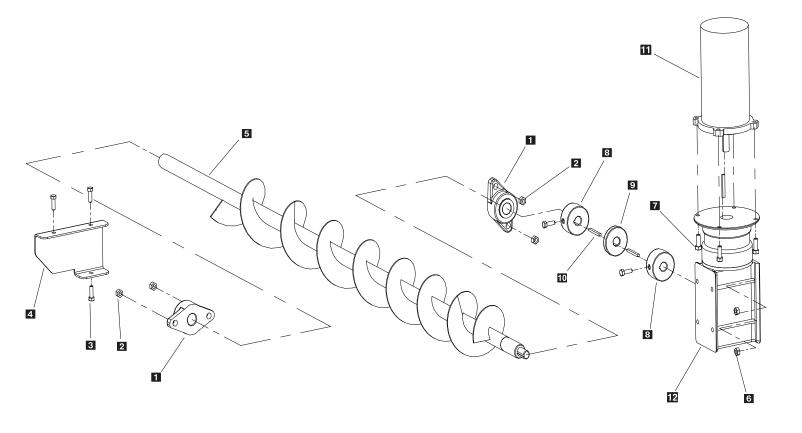
# Spreaders for Snow & Ice Control

FOR MODEL

# RTG-2400

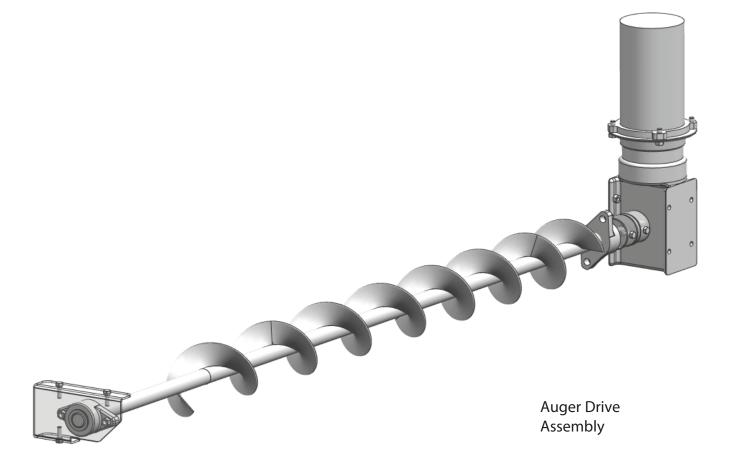




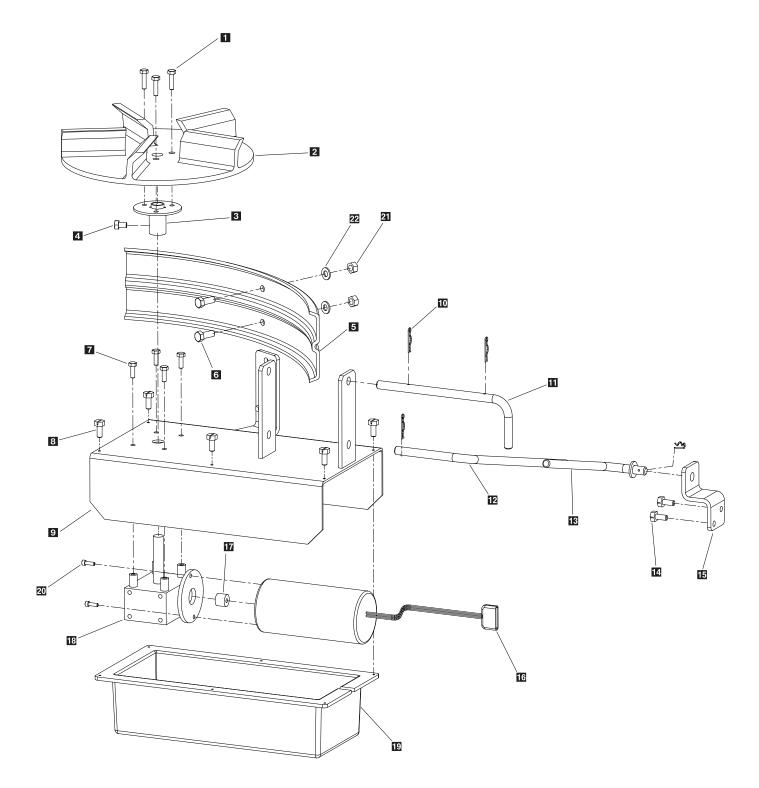




Key	Part No.	Description	Qty.
1	D5527	1" Bearing	2
2	D6584	3/8″ Flange Nut	4
3	D6453	5/16" x 1" Serrated 18-8 SS	3
4	D5702	Bearing Cover	1
5	D5709	6" Variable Pitch Auger	1
6	D5706	5/16" Serrated Flange Nut	4
7	D6452	3/8" Serrated HHCS	4
8	D6842	Love Joy Coupling	2
9	D6843	Urethane Spyder	1
10	D6873	3/16" Key Stock	3
11	D6825	12 Volt Auger Motor	1
12	D6894	Auger Transmission	1



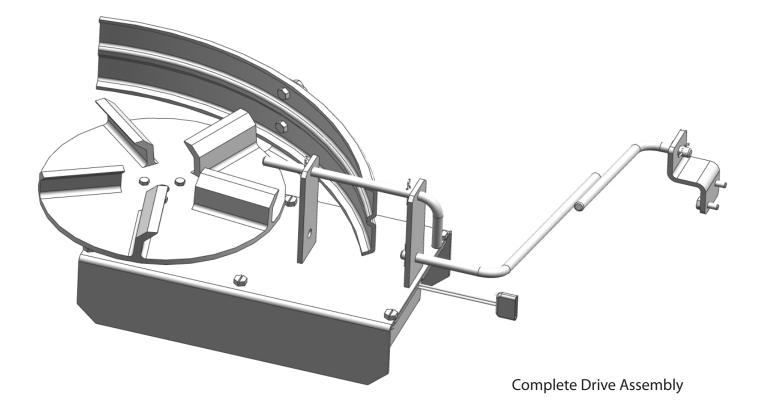






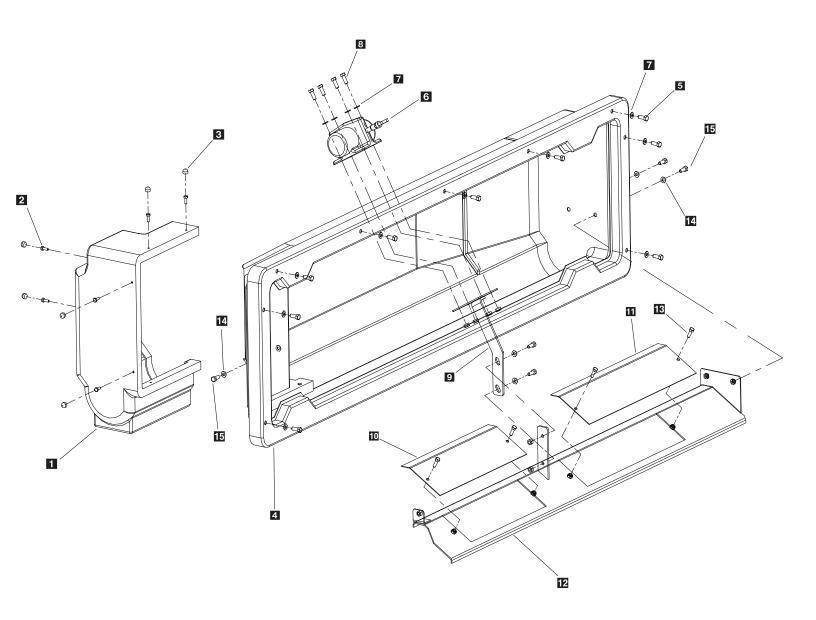


Key	Part No.	Description	Qty
1	D6854	1/4-20 x 1" HWH Serrated	3
2	D6823	Urethane Spinner	1
3	D5718	Spinner Mounting Hub	1
4	D6133	5/16-18 x 1/2" Hex Bolt	1
5	D6327	Spinner Deflector	1
6	D4121	3/8"-16 x 1" HHCS	2
7	D6131	1/4-20 x 1/2" SS HWH Serrated TCS	4
8	D6877	#8 x 3/4 Self Driller HWH	6
9	D5721	Spinner Drive Enclosure	1
10	D4135	5/16 Hair Pin Clip	۷
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	
18	D5723	Spinner Transmission	
19	D5715	Spinner Motor Cover	1
20	D6135	#10-32 x 5/8" HMS	2
21	D4124	3/8" Lock Nut	2
22	D4125	3/8″ Flat Washer	2





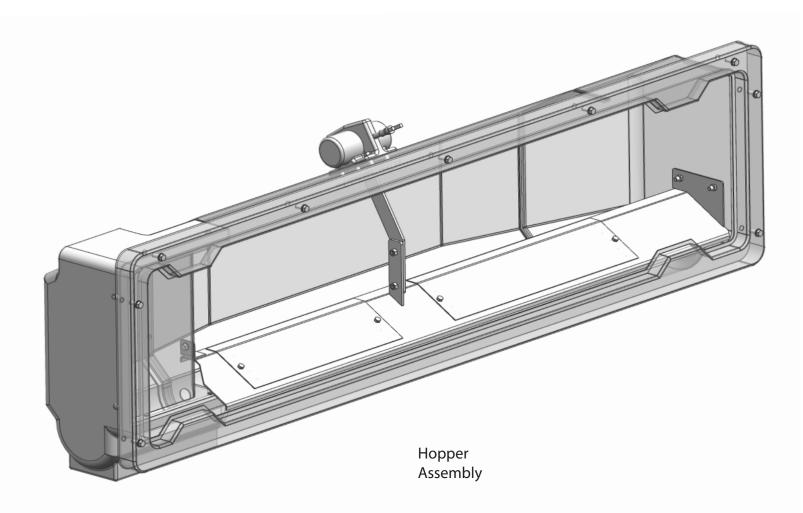




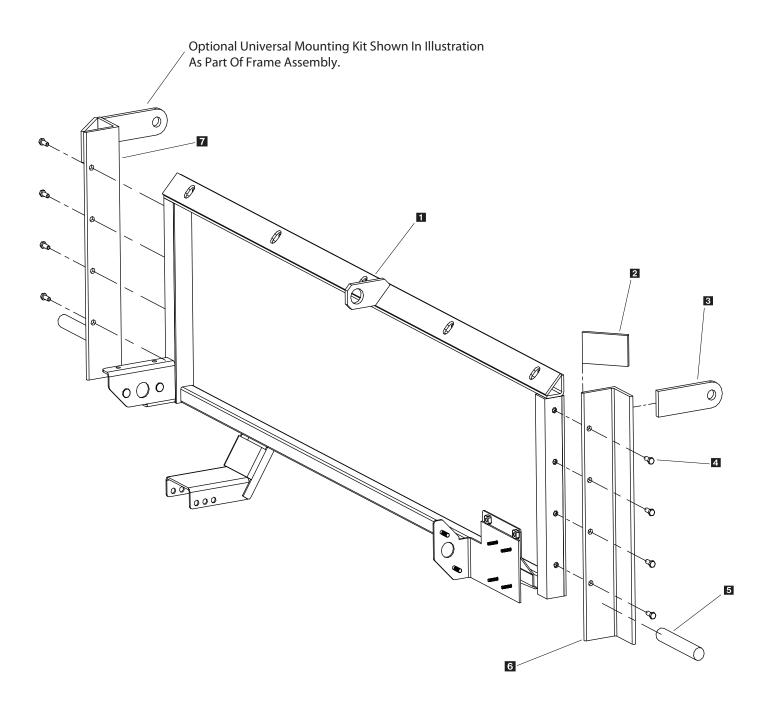
# RTG-2400 Hopper Assembly Parts Breakdown



Key	Part No.	Description	Qty.
1	D 5710	Hopper Auger Motor Cover	1
2	D 6131	1/4-20 x 1/2" SS HWH Serrated TCS	6
3	D 5720	Auger Cover Screw Cap	б
4	D 5700	RTG Hopper	1
5	D 5724	3/8-16 x 2-3/4 HHCS	9
6	D 6515	Heavy Duty Vibrator	1
7	D 4125	3/8" Flat Washer	15
8	D 4122	3/8-16 x 1-1/2 HHCS	4
9	D 5711	Vibrator Link Arm	1
10	D 5713	Short Baffle Plate	1
11	D 5714	Long Baffle Plate	1
12	D 5712	Interior Main Baffle Support Frame	1
13	D 6453	5/16 x 1" Serrated 18-8 SS	4
14	D 6165	5/16 Flat Washer	3
15	D 4121	5/16-18 x 1" HHCS	3

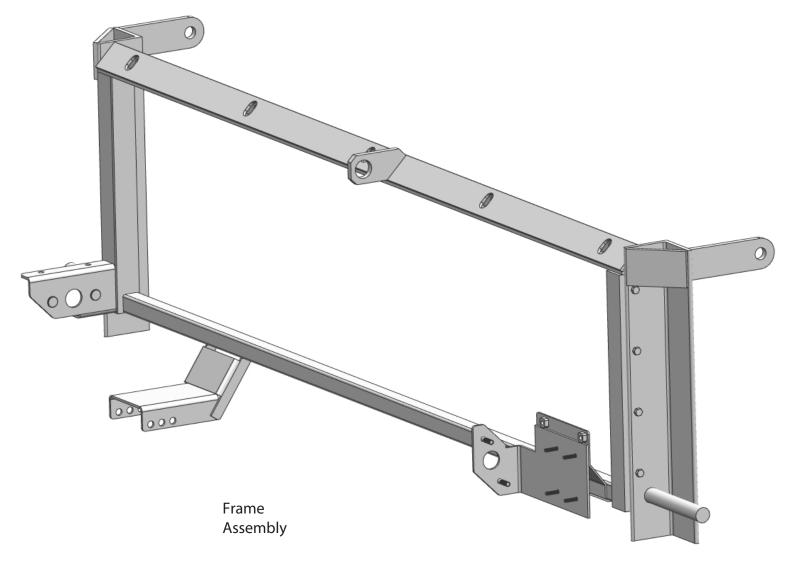








	Part No.	Description	Qty.
1	D 5705	2400 Frame Weldment	1
2	D 5736	Upper Gussett (UMK -175 Kit)	2
3	D 5728/29	Upper Pin Bracket 1.125 & 1.0 (UMK- 175 Kit)	2 ea.
4	D 4122	3/8-16 x 1-1/2 HHCS	8
5	D 5730/31/32	Lower Pin 1.25, 1.0, .750 (UMK - 175 Kit)	2 ea.
6	D 5735	Right Hand Main Bracket (UMK - 175 Kit)	1
7	D 5734	Left Hand Main Bracket (UMK - 175 Kit)	1



FRAME SHOWN WITH OPTIONAL UMK MOUNTING KIT



**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 high amperage connector. Route leads with lugs to battery do not connect power at this time.

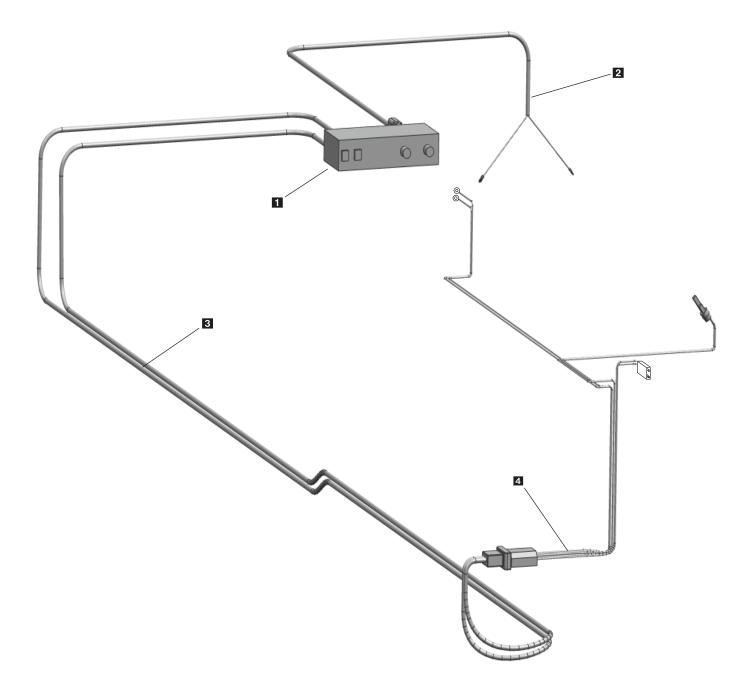
**Step 5:** Connect harness to the back of the controller and mount to a suitable location. NOTE: You may want to contact customer before mounting controller, some prefer not to have holes drilled into the dashboard. Ty-wrap loose controller harness and move to the engine compartment. Do not mount close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



# RTG-2400 Electrical System Parts Breakdown



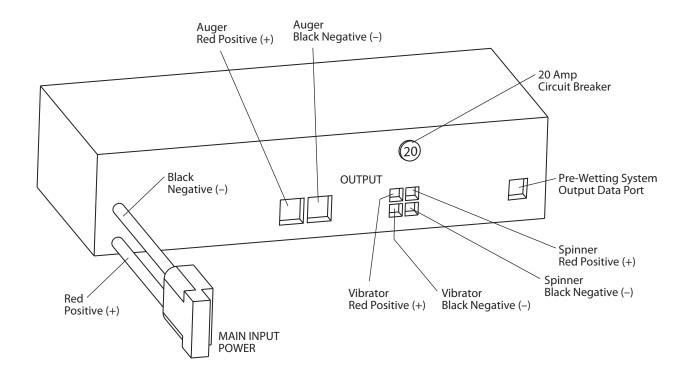
Key	Part No.	Description	Qty.
1	D 6835	Spreader Speed Control	1
2	D 6837	Control Power Harness	1
3	D 6896	Vehicle Harness	1
4	D 5708	Spreader Harness	1

# Table of Contents

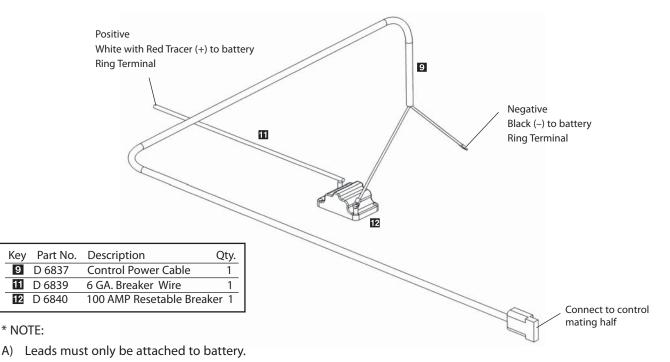


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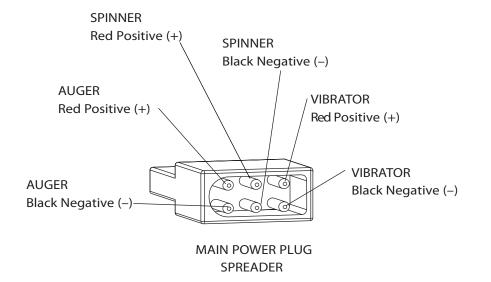
# D6837 Control Power Cable with D6840 Breaker

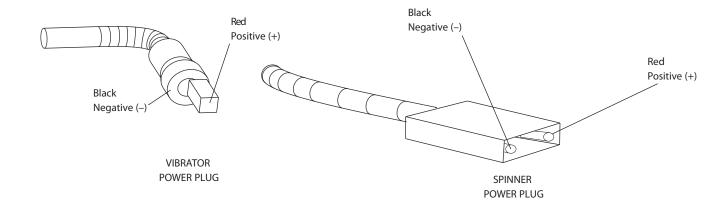


B) 100 Amp breaker must be inserted.

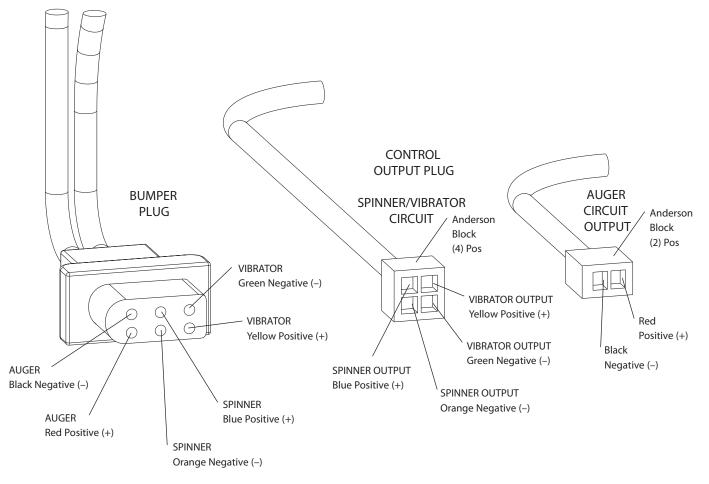


# D5708 Spreader Power Harness Circuit Diagram



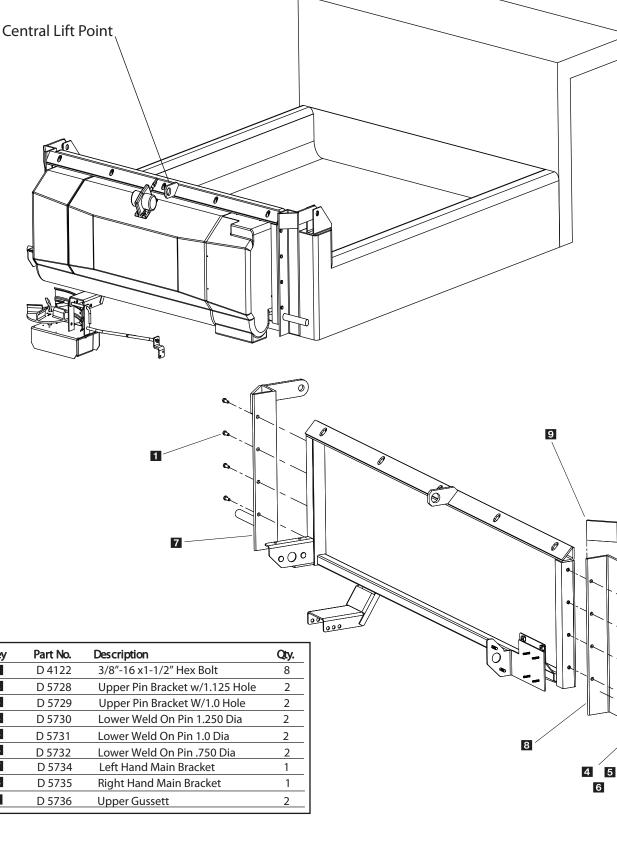






\* NOTE: Reference Bumper Plug for Color Code





Key

1

2

3

4

5

6

7

8

9

6

2 3

0)

# RTG-2400

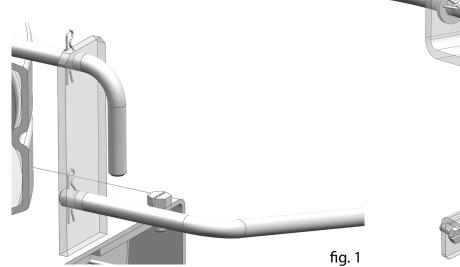


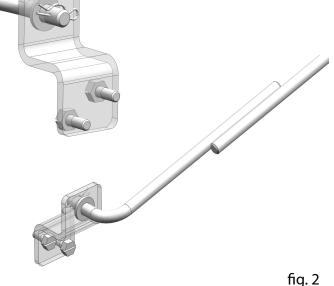
## Mounting Instructions for UMK-175 (optional mtg kit)

- Step 1: Use centrally located lifting point on spreader frame. Hang spreader in center of dump body opening, (note) spreader opening must be level with dump floor.
- Step 2: Using bolts Provided in kit, mount left and right main angle to spreader frame.
- Step 3: Mark and trim angles to appropriate width to match tailgate, remount angles to spreader frame.
- Step 4: Using correct pin size provided in kit for lower latch pin, measure and cut pin to correct length. Clamping pins in correct location, tack weld pins to angles securely and lock lower hinge point.
- Step 5: Using correct pin/ears provided for upper hings point, measure and cut to correct length. Clamping ears in correct location, tack weld securely to the left and right main angles (see page 8-23) and secure upper hinge point.
- Step 6: Double check that spreader will remove and install with ease.
- Step 7: If using ears for upper hinge point support, upper gussetts must be welded directly behind mounting ears. (see page 8-23)
- Step 8: Complete welding pins and ears to angle fully.
- Step 9: Remove angles from spreader for paint and reinstall.

### Mounting Instructions for self leveling spinner bracket

- Step 1: Secure long leveling rod D-5741 to spinner enclosure through bottom hole in bracket with hair pin clip through hole hole in pin (see fig 1)
- Step 2: Mount drive leveling bracket D-5738 to frame rail 4" below center of hinge. Weld or bolt in place (see fig 2)
- Step 3: Connect D-5740 short leveling rod to drive leveling bracket with hair pin clip. Align both rods next to each other (see fig2) and weld togther.







#### PREPARATION

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.

MaterialWeight Per Cubic Ft.Rock Salt35-40 lbs.Sand/Salt Mix95-120 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.

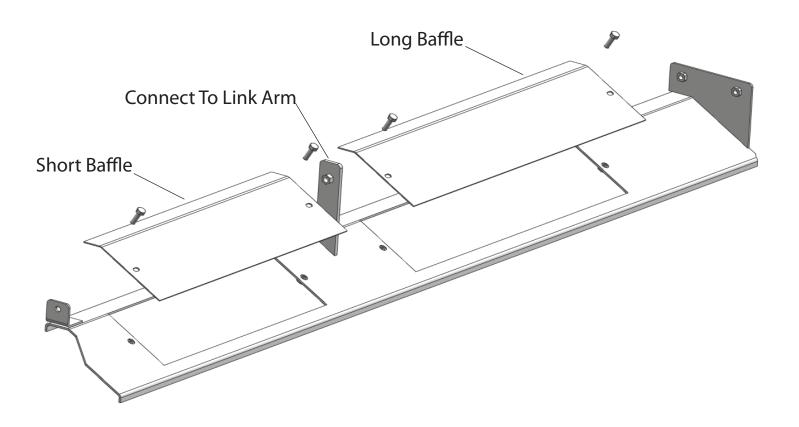
#### 7500 CONTROL OPERATION

- 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.



## **RTG INTERIOR BAFFLE & INVERTED-V INSTRUCTIONS**

- The 2400 uses a multi-function baffle systm over the auger area.
- This twin bafle 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.
- There are to covers provided one long and one short. They can be removed in different combinations depending on the material type or moisture content. Ultimately they aid in controling material flow to the auger area, however for wet sand both baffles should remain in place.
- The baffle system is also connected to the vibrator link arm assembly to assist with material flow. Make sure vibrator bolts and link arm hardware are tight before operating spreader
- WARNING: Always disconnect power source before attempting to remove material baffle.





### 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 cor rected. If display reads "E 0" this means that the motor is not getting any power. Check all connections. If display reads "LB" the vehicl e 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.



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

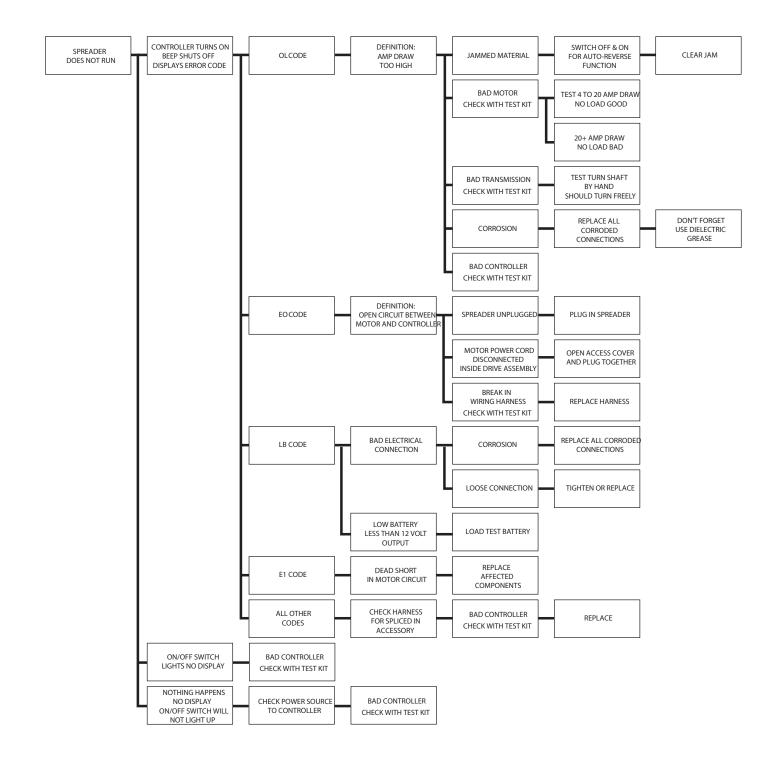
- Be sure all electrical connections are tight and clean.
- Be sure nothing is jammed in the hopper.

EM P	POSSIBLE CAUSE	SOLUTION		
doesn't run. L	Loose electrical connections.	Check all connections.		
В	Blown Fuse.	Replace fuse.		
٨	Motor Seized.	Replace motor.		
ller shut down. J	Jammed auger.	Carefully clear jammed material.		
Р	Poor electrical connections.	Clean or replace connectors. Use dielectric grease.		
E	Electrical short.	Check electrical connections. Check for bare wires.		
C	Controller failure.	Replace controller.		
	Empty hopper.	Fill hopper.		
opper. V	Wet material.	Replace with dry material.		
F	Frozen or coarse material.	Replace material.		
S	Spinner not turning.	Check drive assembly.		
Ą	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.		
V	Vibrator not working.	Replace vibrator		
e alarm beeping and J 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.		
e alarm beeping S v shows E1.	Short in system.	Turn off. Do not use until problem is corrected.		
e alarm beeping A v shows EO.	Motor is not getting power.	Turn off. Check all connections.		
	Vehicle battery is extremely low, or a poor connection exists.	Turn off. Charge battery.		
e alarm beeping A shows EO. e alarm beeping V	Motor is not getting power. Vehicle battery is extremely low,	Turn off. Do not use until problem is correcte Turn off. Check all connections.		



# Troubleshooting

RTG-2400



# 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!



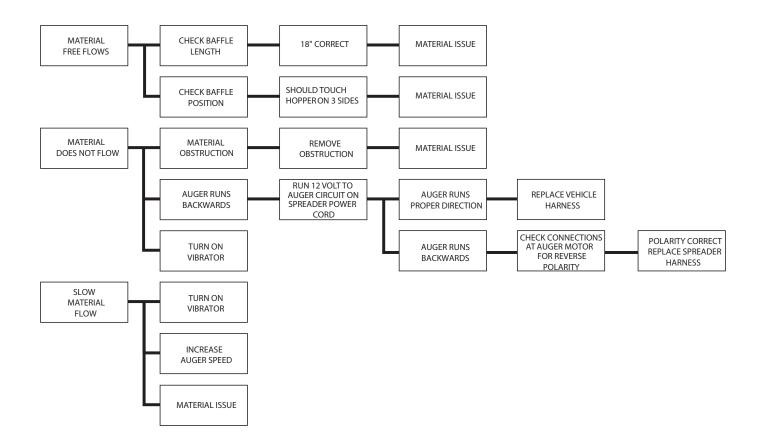
(ORANGE) Information that, if not carefully followed, can cause serious personal injury or death!



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

# Troubleshooting RTG-2400





\* Spreader capable of speading most granular bulk material.

# 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 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 diaelectric 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 hours use.
- After first use, tighten all nuts and bolts on spreader and mount.
- WARNING: Never remove spreader with material in hopper.





# **Determining Vehicle Payload**

Material Type	Example: Coarse Salt – Dry				
Equipment installed when vehicle was weighed	RTG-2400				
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) (Ib.)					
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 Grade 2		SAE 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 Gr	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



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# 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 that 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.



To initiate the warranty on your new SnowEx spreader and assure prompt warranty service, please complete the following warranty registration and customer survey, sign and mail it back to the factory within 30 days of purchase.

1)	Date of Purchase:							
2)	Name:							
	Address:							
	Phone:							
3)	SnowEx Model Purchased:			Serial Number:				
4)	Is this your first Trynex Spreader?	🛾 Yes 🗳 No						
5)	What type of vehicle are you using							
	Make Moc			Dump Bo	ody Make	Model		
6)	What type of material are you using							
7)	SnowEx Dealer Name:							
	SnowEx Dealer Address:							
	SnowEx Dealer Phone:							
8)	Does your Trynex Dealer stock Tryn	iex replacement Parts	s? 📮 Yes	🗅 No 🛛 🛛 I don't kr	now			
9)	Do you feel your Trynex Dealer solo	d you the correct proc	duct for your needs	/application?	🛾 Yes 🗳 No			
10)	How would you rate your overall satisfaction with your SnowEx Dealer?	Uery Satisfied	☐ Satisfied	☐ Somewhat Satisfied	G Somewhat Dissatisfied	<b>D</b> issatisfied	Uery Very Dissatisfied	
11)	How would you rate your overall satisfaction with your SnowEx Product?	Uery Satisfied	□ Satisfied	C Somewhat Satisfied	C Somewhat Dissatisfied	Dissatisfied	Uery Very Dissatisfied	
12)	Would you purchase another Tryne	ex Product?	Yes 🗳 No					
13)	Please use the space below to conv	/ey your comments a	nd/or suggestions.					
	NOTE: I have read the owner's ma		recautions and I une	derstand that this ec	quipment could be c	langerous if not ope	era ted	
	with care and under the proper co	naitions.						
14)	Owner's signature: X							
	PLI	EASE FOLD AND	SEAL WITH TRA	NSPARENT TAPE	BEFORE MAILIN	IG.		

# **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: Two years from date of installation.

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 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 can be communicated to you.









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.



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



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.

WARNING

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 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 or mount.



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



Always keep hands, feet, and clothing away from power-driven parts. 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. Maintain 60' distance from all bystanders when operating the spreader.



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 should be altered without prior written permission from the manufacturer.



Never use the RTG-2400 with foreign debris in the spreader. These units are designed to handle clean, free-flowing material.

# Safety (continued)





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

**CAUTION** 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.



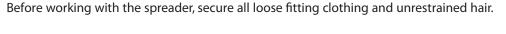
Remember, most accidents are preventable and caused by human error. Exercising of care and precautions must be observed to prevent the possibility of injury to operator or others!



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



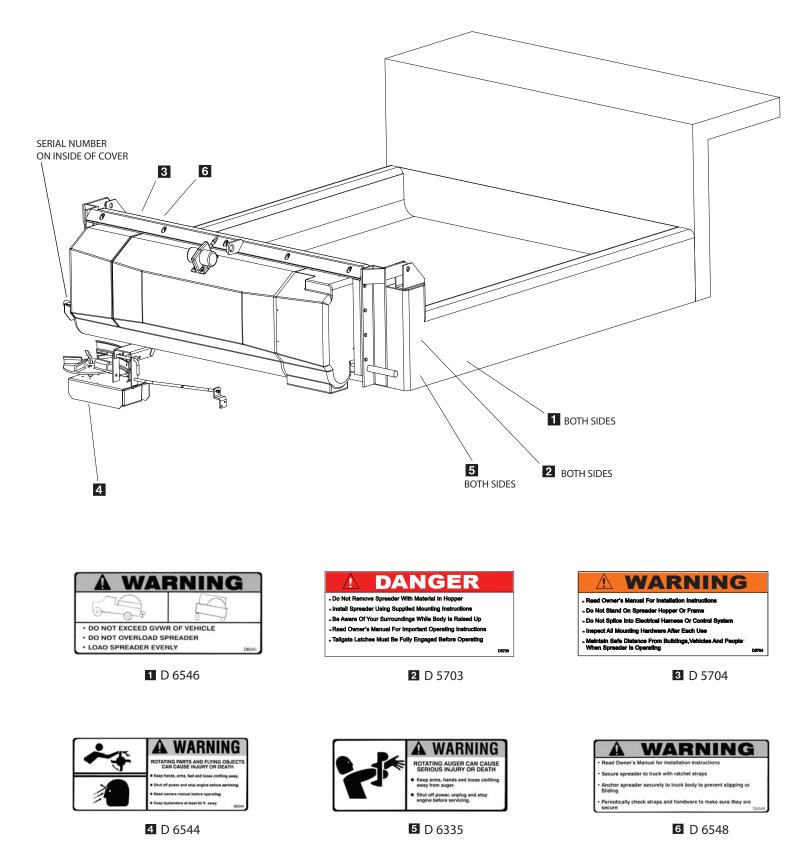
WARNING

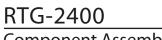


Always wear safety glasses with side shields when servicing spreader. Failure to do this could result in serious injury to the eyes.



Decal Package To Be Installed Before Delivery







# Component Assembly Views

