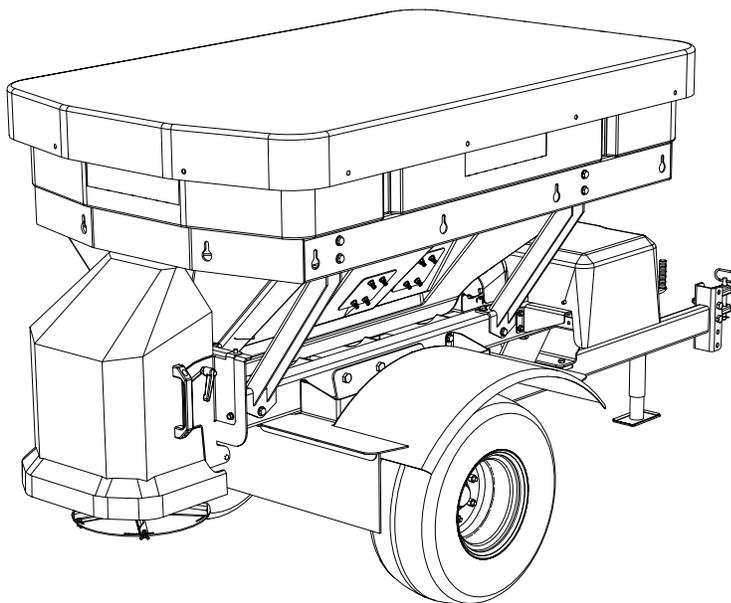


Owner's Manual

This Manual Must Be Read Before Operating The Equipment

SNOWEX[®]

LEADERS IN ICE CONTROL



SP-7000

Serial No. 140410300001SP-7000 and higher



Madison Heights, Michigan 48071
800-SALTERS
www.snowexproducts.com

CUSTOMER COPY

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Have a question or need assistance?

SnowEx Customer Support
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This manual is intended to help you to get to know your SP-7000 Tow Pro spreader and how to operate it safely, correctly and economically. If you observe these instructions, you will prevent hazards, reduce repair costs and breakdown times, and increase the reliability and service life of the machine.

The manual must be read and used by every person who will be working with or on the machine for:

- Operation (including preparation, repair during operation, & clean-up)
- Repairs (maintenance, inspection, overhaul), and/or
- Transport.

All regulations for safety and proper working practice must be observed in addition to this manual and any applicable regulations for the prevention of accidents. Should you lose your Owner's Manual or would like extra copies, they can be obtained from your SnowEx dealer or retrieved from the SnowEx website – www.snowexproducts.com.

SAFETY ALERT DEFINITION



This Safety Alert Symbol is used 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 safety and the safety of others is involved.



DANGER

An accident will occur, resulting in Serious Injury or Death if the instructions are not followed.



WARNING

An accident may occur, resulting in Serious Injury, perhaps Death, if the instructions are not followed.



CAUTION

An accident may occur, resulting in Minor or Moderate Injury if the instructions are not followed.



Important Information; Property or Equipment Damage may result if not followed.

IMPORTANT EQUIPMENT INFORMATION

Record important machine information here for quick reference. The SP-7000 Serial Number is found on the Serial Number Plate, located on the frame at the rear of the machine. The Control Serial Number is found on the bottom of the control pendant, by the plug; the Control Module Serial Number is found on the surface of the circuit board.

Model _____

Spreader Serial # _____

Control Serial # _____

Control Module Serial # _____

Date Purchased _____

Dealer where purchased _____

Example



Model # D5587
 Serial # 1234
 TRYNEX INTERNATIONAL
 1-800-725-8377

SERIAL NUMBER DEFINITION	
CODE	DEFINITION
YY	2-Digit Year
MM	2-Digit Month
DD	2-Digit Date
LL	2-Digit Location Code
####	4-Digit Sequential Number
PPPPP	5-Digit Assembly PN

Before attempting any procedure in this book, the safety information in this manual must be read and understood by all personnel who have any part in the installation, preparation, transport, service, repair or use of this equipment.

For your protection, safety and information decals have been placed on the spreader to remind the operator of safety precautions and particular hazards.

DANGER

Never exceed the Gross Vehicle Weight Rating, Hitch Capacity, or Towing Capacity. Failure to do so will result in unpredictable and unsafe vehicle handling.

Never operate equipment when under the influence of alcohol, drugs, or medications. These substances alter your judgement and slow your reactions.

Always keep hands, feet, clothing, jewelry, and hair away from moving parts. These items will catch and be pulled in by moving parts, causing serious personal injury.

Always shut off vehicle before attempting to attach, detach, or service the spreader. Be sure vehicle is properly braked, chocked, and on level ground.

Use caution when driving and drive at a sensible speed, where braking distances are safe and safe handling characteristics are maintained.

The tires on this equipment are not highway rated. Do not exceed 15 MPH.

WARNING

Before working with the spreader, secure all loose clothing and hair. Clothing and hair could get caught in moving parts.

Always wear safety glasses with side protection when servicing spreader or near where salt/ice melter is being spread.

Never allow children to operate or climb/play on or around equipment.

Always make sure people are clear of where you will be using equipment. Always check areas to be spread to ensure no hazardous conditions or substances are in the area.

Inspect the spreader before and after operating for defects. Parts that are broken, missing or worn out must be replaced before operating.

Do not modify the spreader without written permission from SnowEx. Modifying the spreader or its mount can affect performance and safety.

CAUTION

Remember most accidents are preventable and caused by human error. Exercise care and observe precautions to prevent injury to yourself and others.

Never use wet materials or materials with foreign debris with the spreader. The spreader is designed to spread dry, clean, free-flowing material.

Never leave material in hopper between storms, or when storing. Ice melters are hygroscopic and will attract moisture and harden up.

Empty the spreader and clean it after each use to prevent ice melter from building up and covering metal parts, causing corrosion.

Towing/Loading

TOWING

Back up the tow vehicle to the SP-7000 so the vehicle's drawbar and the clevis hitch are aligned. Pin the clevis to the drawbar.

Connect the Spreader and Vehicle plugs.

Adjust the jack; pivot out of the way and lock.

LOADING SPREADER

Do not overload vehicle. Use the chart below to calculate the weight of spreader and material to comply with Vehicle Weight Ratings and Towing Capacities.

This spreader is compatible with the following materials:

- 50/50 sand/salt mix
- Bagged ice melters
- Bagged rock salt
- Bulk salt
- Calcium flakes
- Calcium chloride pellets
- Sand

Empty weight of spreader:

985 lbs.

Approximate capacity:

37.8 cu.ft./1.4 cu.yd.

Use this chart when estimating the net weight of the spreader.

MATERIAL DENSITY CHART	
MATERIAL	DENSITY
Rock Salt	80-90 lbs./cu. ft.
	2160-2430 lbs./cu. yd.
Calcium Chloride	75-85 lbs./cu. ft.
	2025-2295 lbs./cu. yd.
Sand	95-120 lbs./cu.ft.
	2565-3240 lbs./cu.yd.
50/50 Sand/Salt Mix	90-110 lbs./cu.ft.
	2430-2970 lbs./cu.yd.

This chart is only intended for estimating Gross Vehicle Weight. It is not intended for calibration. To calibrate, you must measure and weigh your specific material.

Leave the screen in the hopper when loading to prevent large chunks, debris, and foreign objects from entering the hopper and damaging the spreader.

Operating Control



Use the ON and OFF buttons to control the main power to the spreader.

Use START/STOP to turn the spinner and auger on and off. Use this as a pause button between passes or jobs.

Adjust SPINNER and AUGER speeds with the two sets of arrows. Speed will be displayed on the screens. Adjust to get your desired spread width and application rate – ‘Spread Pattern.’

Use the Vibrator to loosen ‘bridged’ material and improve flow to the auger with the VIBRATE button. The vibrator does not have to be on continuously.

BLAST turns both spinner and auger to max for as long as the button is held.

Turn the spreader OFF when you are done spreading and the machine is parked. The settings will remain for next time the spreader is used.

Spreading Tips

The application rate, which is the amount of material spread on a given area, depends on three variables – Vehicle Speed, Spinner Speed and Auger Speed.

For consistency in spreading results, it is best to drive at a constant speed.

The Spinner Speed changes the spread width. This determines how much area the same material fed by the auger will cover.

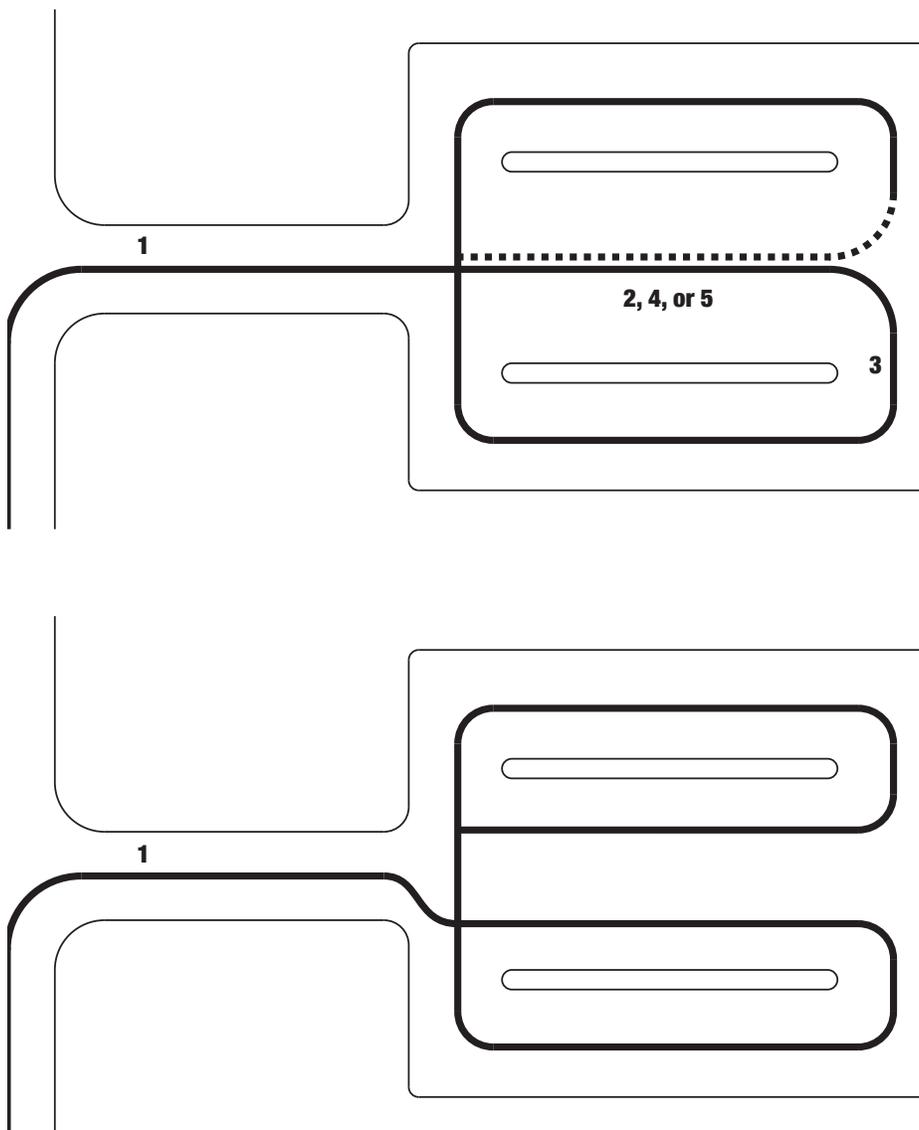
Auger Speed changes how much material is fed to the spinner. Changing this will change the amount of material being spread in the same area.

Wider Spread Patterns will spread the same material over a larger area, so the application rate will be decreased unless you increase your Auger Speed or drive slower. A Narrower Spread Pattern requires the opposite action: a slower Auger Speed or drive faster.

To maintain your application rate with a wider spread pattern, you can increase your auger speed, drive slower, or spread the area twice.

To maintain your application rate with a narrower spread pattern, you can decrease your auger speed or drive faster.

EXAMPLES:



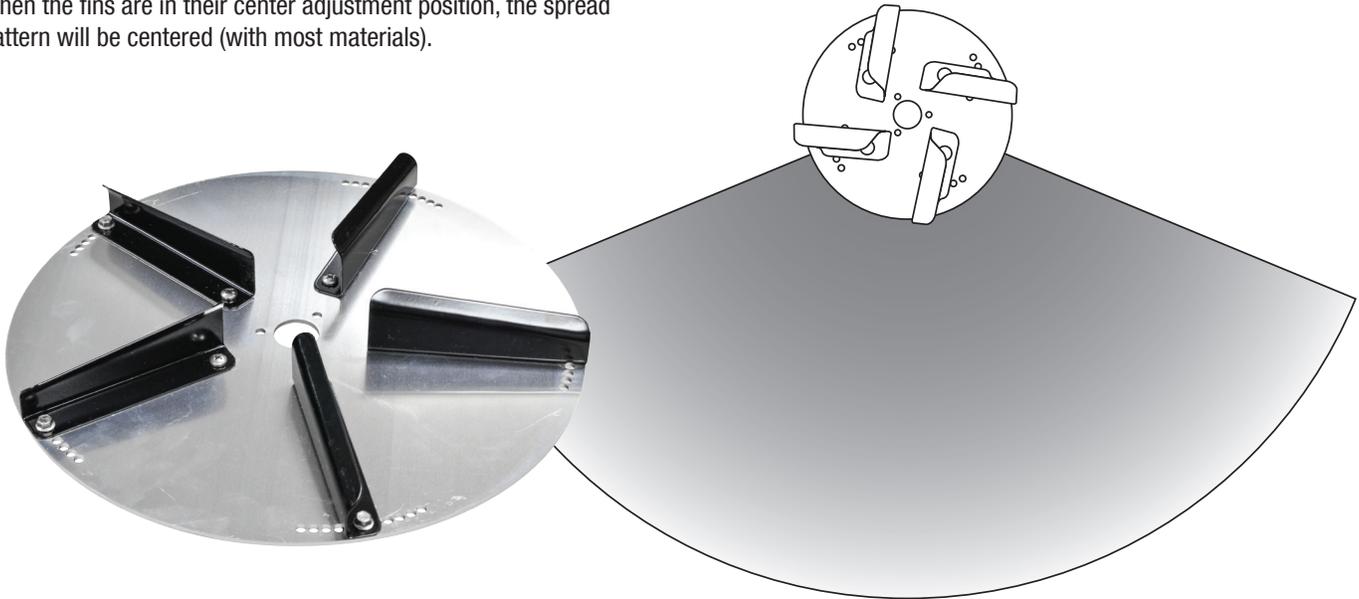
Key

1. Constant Speed. Desired application rate is set.
2. Increase Spinner and Auger speeds to maintain application rate with a wider spread pattern.
3. Decrease Spinner and Auger speeds to maintain application rate with a narrower spread pattern.
4. Increase Spinner Speed and drive slower.
5. Increase Spread Width and spread second pass on the way out of the parking lot.

Adjustable Spinner

Your spreader is equipped with an adjustable spinner to assist in precise material application. The spinner plate gives the operator control of whether the material spreads toward the right, left, or is centered. Before operating the spreader, spread some material in a clear area where you can easily observe the spread pattern and how it changes with fin adjustment. Use the instructions below as a guide to get the spread pattern you desire. The position of the fins may need changed when using different materials or spreader settings.

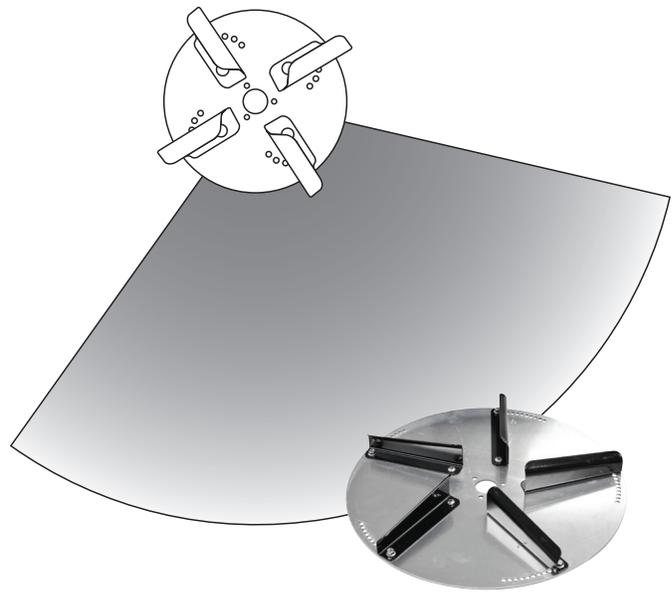
When the fins are in their center adjustment position, the spread pattern will be centered (with most materials).



When looking down at the spinner, moving the fins clockwise will adjust the spread pattern toward the left side of the spreader.



When looking down at the spinner, moving the fins counter-clockwise will adjust the spread pattern toward the right side of the spreader.



Maintenance/Cleaning/Preventing Corrosion/Storage



WARNING

- Perform service indoors or in a sheltered area.
- Avoid Electric Shock. Do not use power tools in rain or snow.
- Disconnect electricity to spreader before servicing.
- Do not attempt to service controls, motors, or transmissions.
- Use Genuine TrynEx Parts.

MAINTENANCE

- Recharge batteries after each use.
- Use dielectric grease on all electrical connections. Apply at the beginning and end of each season; and after washing the spreader.
- Wash equipment after each use. Do not use pressure washers near bearings, transmissions, and motors.
- Paint or oil all bare metal at the end of the season, and periodically throughout the season.
- Lubricate bearings and pivots every twenty hours of use.
- Tighten hardware after first use.

CLEANING

To protect your spreader from corrosion and to increase its useful life, clean it after each storm. By cleaning after each storm, salt build-up will be less and the salt will be easier to remove. More importantly, it can prevent corrosion.

After each snow storm:

1. Run the spreader to empty the hopper. Either back up to your salt pile and spread into the pile; or put your spinner on the lowest setting and your auger on the highest setting until the hopper is empty (this way, the material will come out faster and the spinner will spread it in a smaller area) and clean up the salt into a bucket or Salt Box.
2. Turn the spreader control off and unplug the spreader before cleaning. Use water to rinse all of the salt residue away. Pay special attention to tight areas, enclosures and hard-to reach areas where salt build-up is likely to be a problem. Rinse these areas thoroughly. Avoid directly rinsing openings in transmissions/motors, such as where a shaft might come out of the housing. Use a car wash brush to clean salt and dirt that is stuck. Consider using a salt-removal product or spraying your spreader with a cleaning solution before rinsing. Rinse all cleaning solutions off thoroughly with water.
3. Sweep puddles of water from surfaces of the spreader. Make sure to remove water from the bottom of the hopper so the auger isn't frozen when you use your spreader again.

When you are done cleaning, grease bearings; put dielectric grease on plugs. Spray metal parts with a corrosion prevention product or a light oil. Avoid getting oil on the plastic – this will cause the plastic to degrade.

PREVENTING CORROSION

Corrosion/Rusting is a chemical reaction caused by presence of moisture, salt, and metal. Preventing any one of these ingredients from coming in contact with any other ingredient will prevent corrosion.

Here are some recommended measures to take:

- Store equipment indoors
- Clean/Rinse thoroughly after each use (especially areas where salt builds up)
- Lubricate moving parts
- Touch-Up/Oil chipped paint
- Use a spray-on car wash wax
- Use rust inhibitor

STORAGE

How you store your spreader can have a lot to do with how long it lasts and how well it performs. Store your spreader in a sheltered area, preferably indoors. If it must be stored outside, cover with a tarp. Before putting your spreader away, perform a very thorough cleaning, lubricate bearings, and spray oil on metal parts. Apply a protective plastic conditioner to the hopper and vinyl conditioner to the hopper cover. Instead of oil on the frame, you can use a rust inhibitor spray (read the label before using to make sure it is not damaging to paint). Put Dielectric Grease on all plugs and connections prior to storage.

Spreader

PROBLEM	POSSIBLE CAUSE	SOLUTION
Motor doesn't run	Loose electrical connections	Check all connections
	Motor seized	Replace motor
Material not flowing from hopper	Hopper is empty	Fill hopper
	Material is wet	Replace with clean, dry, free-flowing material
	Frozen material	Replace with clean, dry, free-flowing material
	Coarse material	Replace with clean, dry, free-flowing material
	Auger loose on shaft	Align/Tighten Coupler
		Tighten bearing
	Vibrator not working	Check connections
		Replace vibrator
	Chute in up position	Check/repair mechanical connection
		Check/repair electrical connection
		Bad actuator. Replace
Material free flows	Chute in down position	Check/repair mechanical connection
		Check/repair electrical connection
		Bad actuator. Replace
Poor spread pattern	Spinner fins	Adjust spinner fins

Control

PROBLEM	POSSIBLE CAUSE	SOLUTION
Control shut down	Jammed auger	Clear jammed auger. Use caution
	Poor electrical connections	Clean/replace connectors
		Use dielectric grease
	Electrical short	Check all connections
		Check for bare wires
	Control failure	Replace Control Module
OL/OH	Jammed auger	Switch off, then on (for Auto-Reverse)
		If it continues. Turn off. Clear jam
	Bad Connection	Check connections/Dielectric grease
		Clean/replace connectors
	Bad motor	Check with Test Kit
	Bad transmission	Replace
	Bad Control Module	Check with Test Kit
E0	Motor is not getting power	Turn Off. Check all connections
	Break in wiring harness	Repair/Replace
E1	Short in motor circuit	Turn off. Do not use until short is corrected
		Check/Replace connections
		Check for bad motor
LB	Low Battery	Turn off. Charge battery
	Poor connection	Turn Off. Check all connections
No Display. Nothing lights up	Bad Control or Bad Control Module	Check with Test Kit
	Bad Pendant Cord	Replace

