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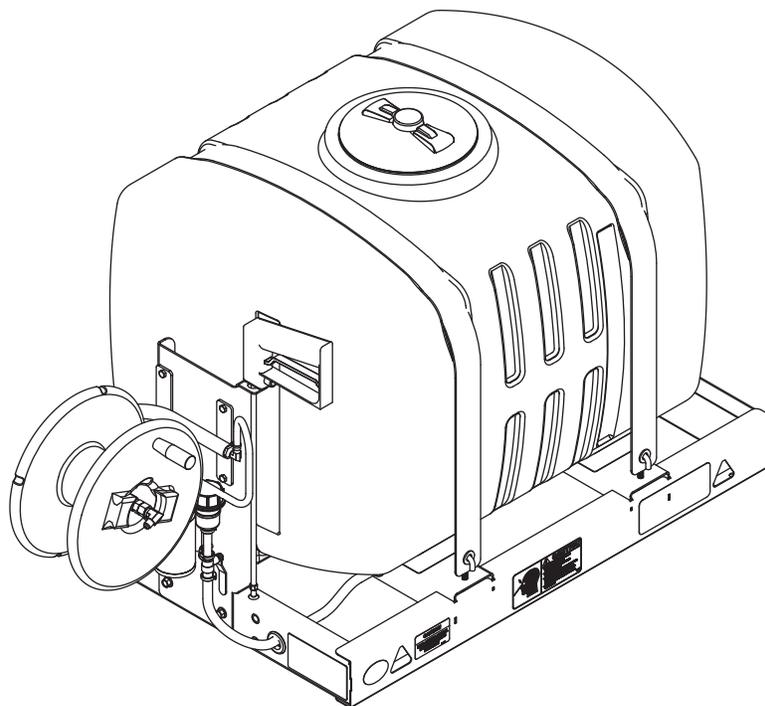


Sprayer System

US1000-1

Owner's Manual and Installation Instructions

Original Instructions



⚠ CAUTION

Read this document before operating
or servicing the equipment.

This manual and instructions are for US1000-1 Sprayer Systems
with serial numbers beginning with 181001 and higher.

This document supersedes all editions with an earlier date.

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PREFACE

This manual has been prepared to acquaint you with the safety information, operation, and maintenance of your new machine. Improper installation and operation could cause personal injury and/or equipment and property damage. Read and understand the Owner's Manual before installing, operating, or making adjustments. Keep this manual accessible.

When service is necessary, call TurfEx® Technical Service at 1-800-SALTERS (725-8377).

NOTE: This unit is designed to be used with fertilizer, pesticides, and herbicide solutions; the use of additives may impact performance.

NOTE: Do not modify or alter the machine. Altering the unit in any way will void the warranty.

The sprayer system is designed to spray chemicals, such as fertilizer, for different applications. Each unit consists of a holding tank, along with a pumping system and control.

WARRANTY REGISTRATION

Warranty registration is available online at www.SnowExproducts.com. Under "Support" click "Warranty Registration" and submit the form online.

OWNER'S INFORMATION

Owner's Name: _____

Date Purchased: _____

Outlet Name: _____ Phone: _____

Outlet Address: _____

Vehicle Model: _____ Year: _____

Equipment Model: _____ Serial #: _____

Length: _____ Weight: _____ lb/kg: _____

SAFETY

SAFETY DEFINITIONS

⚠ WARNING

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

⚠ CAUTION

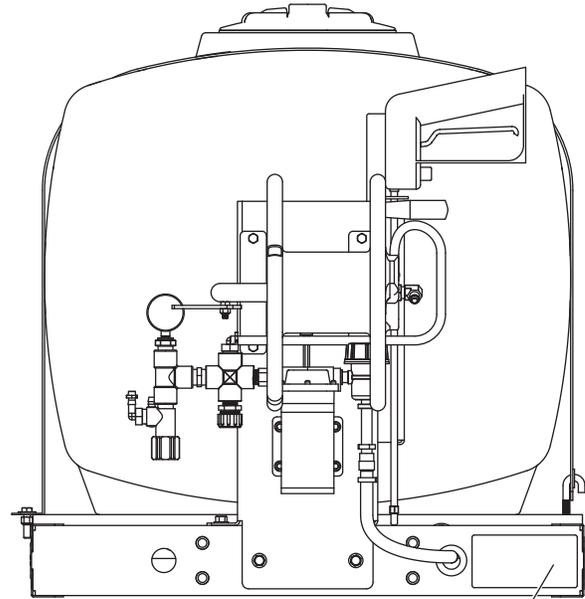
Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

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

WARNING/CAUTION LABELS

Become familiar with and inform users about the warning and caution labels on the machine.

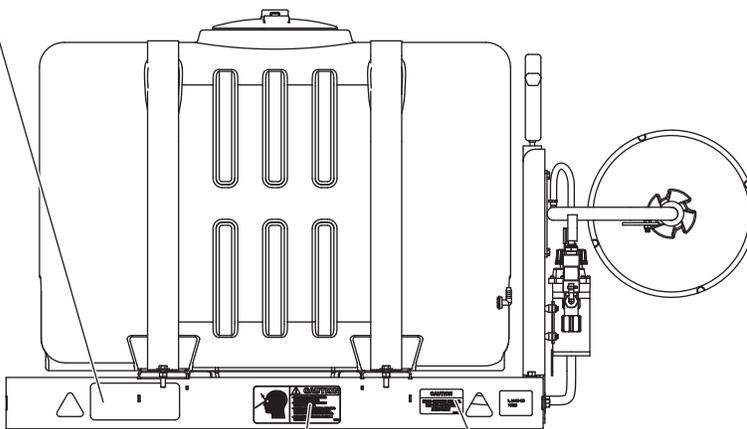
If labels are missing or cannot be read, call **1-800-SALTERS (725-8377)**.



⚠ WARNING

- DO NOT EXCEED GVWR OF VEHICLE
- DO NOT OVERLOAD SPREADER
- LOAD SPREADER EVENLY

D6546



Both Sides

⚠ WARNING

Vehicles <10,000 lb GVWR

Obstructing the visibility from the vehicle's rear camera could result in serious injury or damage. An auxiliary camera system shall be installed if the vehicle's rear camera is removed or blocked.

11169.05

⚠ CAUTION

- WEAR SAFETY GOGGLES WHEN OPERATING EQUIPMENT.
- WEAR SAFETY GOGGLES WHEN FILLING EQUIPMENT.
- DO NOT EAT, DRINK, SMOKE, RUB YOUR EYES OR TOUCH BARE SKIN WHILE HANDLING CHEMICALS OR SPRAYING.
- NEVER POINT SPRAY GUN AT PEOPLE OR ANIMALS.

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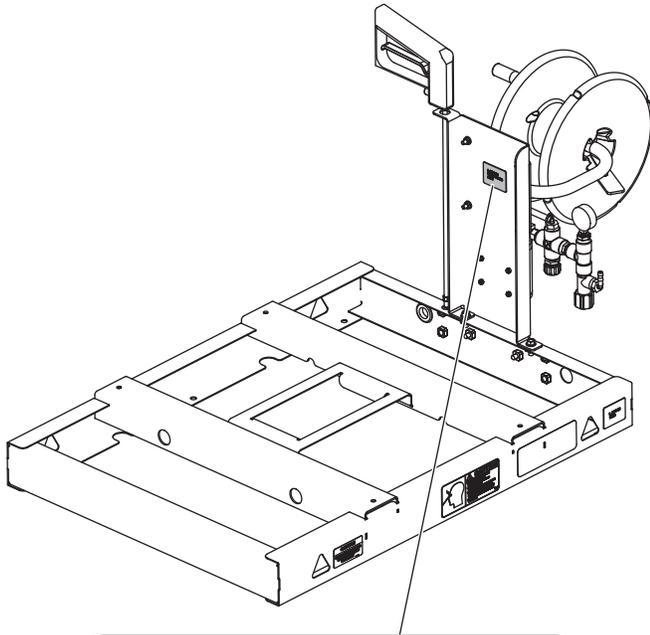
CAUTION

READ OWNERS MANUAL
BEFORE OPERATING
EQUIPMENT

D4112

SAFETY

SERIAL NUMBER LABEL



SNOWEX TrynEx International
 531 Ajax Drive
 Madison Heights, MI 48071
 www.snowexproducts.com

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

YYMMDLLXXXZZZZZZ



Code	Definition
YY	2-Digit Year
MM	2-Digit Month
DD	2-Digit Day
LL	2-Digit Location Code
XXXX	4-Digit Sequential Number
ZZZZZZ	Model #

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.

⚠ WARNING

- Before working with the equipment, secure all loose-fitting clothing and unrestrained hair.
- Before operating the sprayer system, verify that all safety guards are in place.
- Always shut vehicle OFF before attempting to attach, detach, or service sprayer system.
- Never attempt to take a unit off a truck with liquid in it.
- Do not climb into or ride on the machine.

⚠ 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 spraying material.

⚠ WARNING

Securely bolt and strap unit into place on the vehicle bed. Unit must be strapped down and bolted into position before operating or transporting.

⚠ WARNING

Vehicle handling and characteristics will change with the unit installed. Avoid any sudden steering maneuvers, starts, or stops that could create sloshing and instability.

⚠ WARNING

Always make sure personnel are clear of areas of danger when using equipment. Maintain 60' distance from all bystanders when operating the sprayer system.

SAFETY

⚠ 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).

⚠ WARNING

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

⚠ WARNING

Vehicles <10,000 lb GVWR: Obstructing the visibility from the vehicle's rear camera could result in serious injury or damage. An auxiliary camera system shall be installed if the vehicle's rear camera is removed or blocked.

⚠ CAUTION

During the sprayer system installation we recommend the addition of an OSHA compliant Backup Alarm. This alarm is required for OSHA governed employers.

⚠ CAUTION

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

⚠ CAUTION

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

⚠ CAUTION

Do not leave material in the unit for long periods of time.

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 sprayer system.
- Wear protective clothing, eye protection, and chemical-resistant gloves when filling, using, and cleaning the sprayer. Wear additional protective gear, such as face mask or apron, as recommended on the chemical label.
- Do not wear jewelry or a necktie, and secure long hair.
- Wear safety goggles to protect your eyes from brine, battery acid, gasoline, dirt, and dust.
- Do not eat, drink, smoke, rub your eyes, or touch bare skin while spraying.
- 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.
- Never point spray wand at people or animals.

FIRE AND EXPLOSION

⚠ 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.

SAFETY

VENTILATION

⚠ 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

⚠ 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.

TORQUE CHART

⚠ CAUTION

Read instructions before assembling. Fasteners should be finger tight until instructed to tighten according to the Torque Chart. Use standard methods and practices when installing equipment, including proper personal protective safety equipment.

Recommended Fastener Torque Chart					
Inch Fasteners Grade 5 and Grade 8					
Size	Torque (ft-lb)		Size	Torque (ft-lb)	
	 Grade 5	 Grade 8		 Grade 5	 Grade 8
1/4-20	8.4	11.9	9/16-12	109	154
1/4-28	9.7	13.7	9/16-18	121	171
5/16-18	17.4	24.6	5/8-11	150	212
5/16-24	19.2	27.3	5/8-18	170	240
3/8-16	30.8	43.6	3/4-10	269	376
3/8-24	35.0	49.4	3/4-16	297	420
7/16-14	49.4	69.8	7/8-9	429	606
7/16-20	55.2	77.9	7/8-14	474	669
1/2-13	75.3	106.4	1-8	644	909
1/2-20	85.0	120.0	1-12	704	995
Metric Fasteners Class 8.8 and 10.9					
Size	Torque (ft-lb)		Size	Torque (ft-lb)	
	 Class 8.8	 Class 10.9		 Class 8.8	 Class 10.9
M6 x 1.00	7.7	11.1	M20 x 2.50	325	450
M8 x 1.25	19.5	26.9	M22 x 2.50	428	613
M10 x 1.50	38.5	53.3	M24 x 3.00	562	778
M12 x 1.75	67	93	M27 x 3.00	796	1139
M14 x 2.00	107	148	M30 x 3.50	1117	1545
M16 x 2.00	167	231	M33 x 3.50	1468	2101
M18 x 2.50	222	318	M36 x 4.00	1952	2701
These torque values apply to fasteners except those noted in the instructions.					

SAFETY

⚠ WARNING

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

⚠ WARNING

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

⚠ WARNING

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

⚠ WARNING

Always shut vehicle OFF before attempting to attach, detach, or service sprayer system.

CHEMICAL SAFETY

Immediate response is necessary in the event of sprayer leaks, bodily chemical contact, poisoning, or spills. See instructions below:

Sprayer Leak	If the sprayer develops a leak, immediately stop spraying. Turn OFF power to the sprayer and follow directions below, as applicable.
Bodily Chemical Contact	<p>Personal contamination can occur when chemicals splash, spill, or spray directly onto a person.</p> <ol style="list-style-type: none"> Immediately follow First Aid instructions on chemical label. <ul style="list-style-type: none"> <u>General procedures include:</u> 1a. Eyes – immediately flush with water. 1b. Skin – wash all contaminated skin surfaces with soap and water. 1c. Clothing – remove contaminated clothing. Dispose of heavily contaminated clothing per chemical label instructions. Seek medical advice if instructed on the label or if the victim experiences symptoms of harmful effects. Bring the chemical label for reference.
Poisoning by Ingestion or Inhalation	<p>In case of poisoning from ingestion or inhalation:</p> <p>If the victim has collapsed or is not breathing, <u>call 911</u>. Otherwise:</p> <ol style="list-style-type: none"> If you are the victim, immediately seek assistance from nearby personnel, because you may become incapacitated. Immediately follow First Aid instructions on chemical label. Call a poison control center for further advice. In the U.S., call 1-800-222-1222. Have the chemical label available for reference.
Chemical Spills	<p>Chemical spills must quickly be contained and properly cleaned up. Refer to the chemical label for any specific clean-up instructions.</p> <p>General procedures include:</p> <ol style="list-style-type: none"> Control the spill by stopping the source of the spill. Contain the spill so that it does not spread and get into water sources. Clean up the spill immediately. Seek additional advice from: <ul style="list-style-type: none"> – <u>Chemical manufacturer</u>: See chemical label for contact information. – <u>State pesticide regulatory agency</u>: In the U.S., call the National Pesticide Information Center at 1-800-858-7378 for assistance in contacting your state's agency.

LOADING

This Owner's Manual covers vehicles that have been recommended for carrying the sprayer system. Please see your local dealer for proper vehicle applications.

CERTIFICATION

⚠ WARNING

New untitled vehicle installation of a sprayer system requires National Highway Traffic Safety Administration altered vehicle certification labeling. Installer to verify that full sprayer does not exceed GVWR or GAWR rating label and complies with FMVSS.

⚠ WARNING

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

⚠ CAUTION



Read and adhere to manufacturer's fertilizer material package labeling, including Safety Data Sheet requirements.

SPECIFICATIONS

Sprayer System		
Tank Model	US1000-1	
Capacity (gal)	100	
Tank and Pump Dimensions (in)	Length	55
	Width	31
	Height	55
Empty Unit Weight (lb)	179	

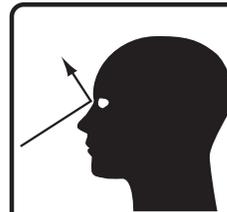
FIRST TIME FILLING

⚠ WARNING

Always shut vehicle OFF before attempting to attach, detach, or service sprayer system.

⚠ CAUTION

Always use appropriate personal protective equipment, including gloves and safety goggles, when filling sprayer.



⚠ CAUTION

- WEAR SAFETY GOGGLES WHEN OPERATING EQUIPMENT.
- WEAR SAFETY GOGGLES WHEN FILLING EQUIPMENT.
- DO NOT EAT, DRINK, SMOKE, RUB YOUR EYES OR TOUCH BARE SKIN WHILE HANDLING CHEMICALS OR SPRAYING.
- NEVER POINT SPRAY GUN AT PEOPLE OR ANIMALS.

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1. Install the sprayer and any optional equipment. See the Installation Instructions section of this manual for details.
2. Install or attach any other equipment that will be on the vehicle while the sprayer will be in use (step bumper, trailer hitch, snowplows, etc.) and fill gas tanks.
3. Obtain the Gross Vehicle Weight Rating (GVWR), Front Gross Axle Weight Rating (FGAWR), and Rear Gross Axle Weight Rating (RGAWR) from the certification label typically located inside the driver-side door.
4. With the occupants in the truck for normal sprayer operation, weigh the vehicle to obtain gross vehicle weight (GVW).
5. Subtract the GVW from the GVWR to determine the available material payload.

NOTE: Full Unit Weight is dependent upon the material used in the tank. The user is responsible for ensuring that the GVWR is not exceeded.

INSTALLATION INSTRUCTIONS

ASSEMBLY / INSTALLATION

During assembly, check and test completed assembly as directed in this manual. Serious injury could result from chemical leaks if sprayer is improperly assembled.

IMPORTANT: DO NOT modify sprayer design.

⚠ 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 Specifications section to determine maximum volumes of spraying material.

⚠ WARNING

New untitled vehicle installation of a sprayer system requires National Highway Traffic Safety Administration altered vehicle certification labeling. Installer to verify that full sprayer does not exceed GVWR or GAWR rating label and complies with FMVSS.

⚠ WARNING

Always shut vehicle OFF before attempting to attach, detach, or service sprayer system.

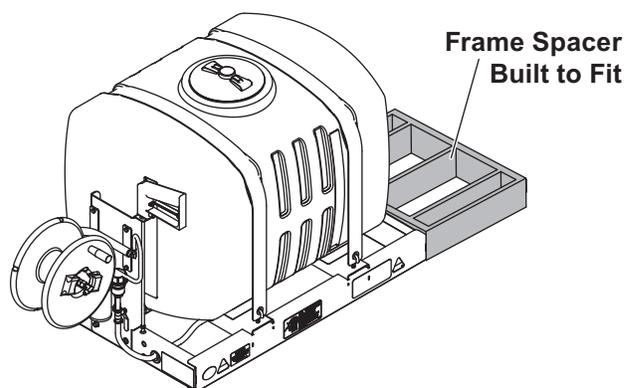
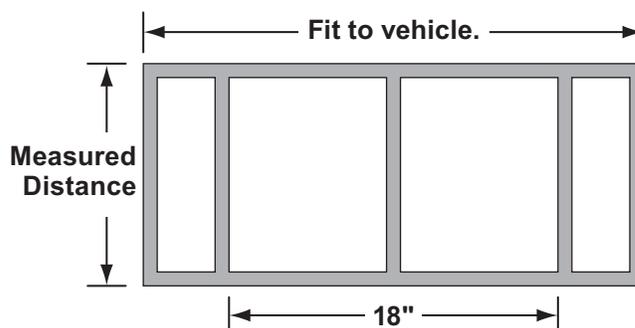
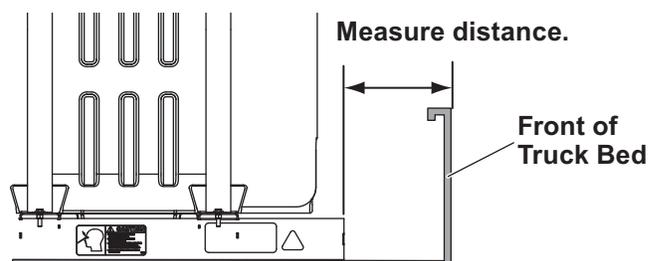
⚠ WARNING

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

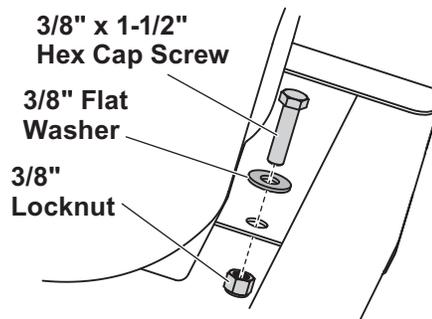
NOTE: To prevent leaks, use a thread-sealing compound on all threaded connections. Do not use Teflon® tape, as fragments will clog the spray nozzle. Clamped connections may require periodic retightening.

1. Lift main assembly using the four lift points and position onto vehicle. Center sprayer system left to right on the vehicle.
2. **Construct Sill Spacer:** Measure the distance from the front end of the sprayer frame to the front of the vehicle bed and make a spacer from 2" x 8" lumber to fit that area. **Failure to install this spacer could result in damage to the sprayer.**

Teflon® is a registered trademark of E. I. du Pont de Nemours and Company.



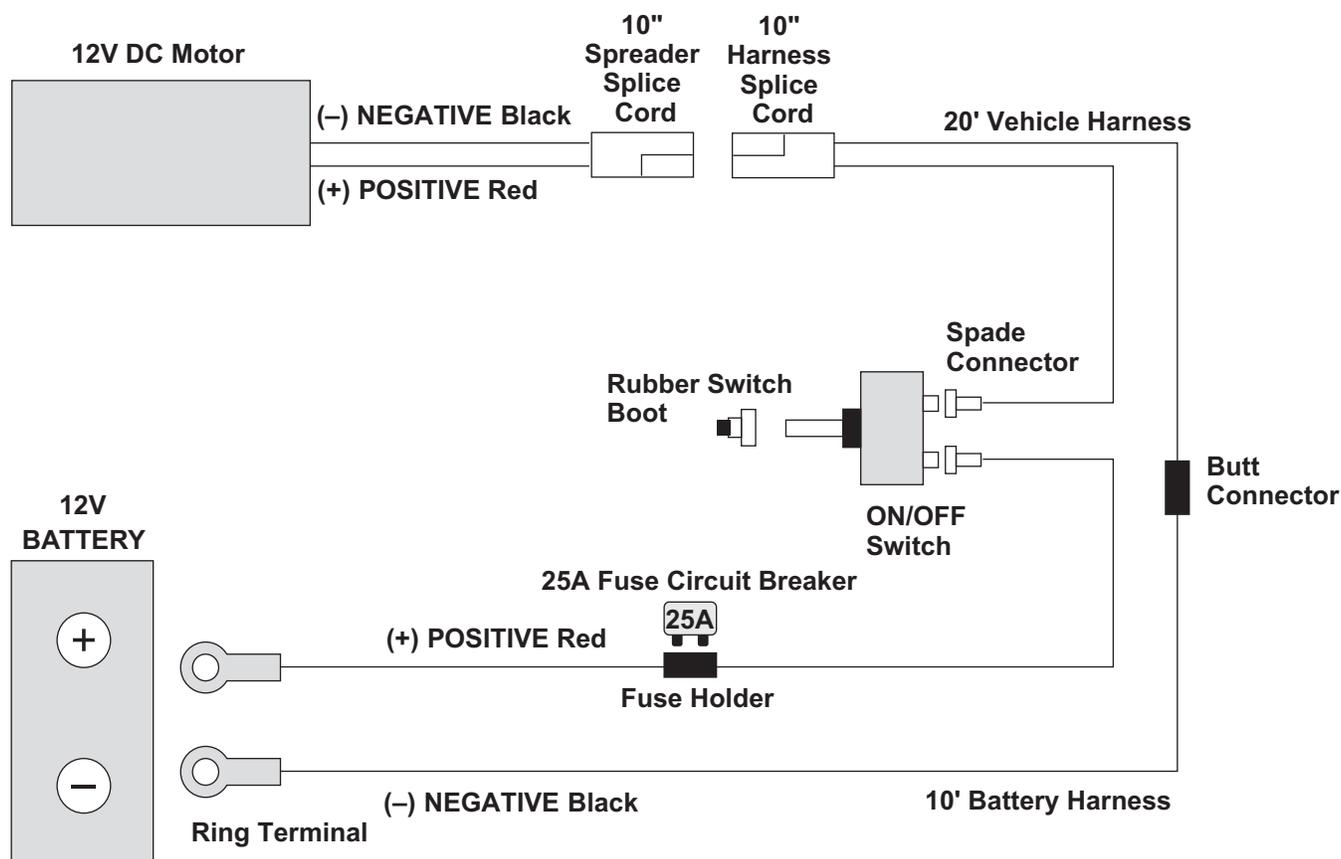
3. Secure sprayer frame in place with supplied 3/8" x 1-1/2" hex cap screws, 3/8" flat washers, and 3/8" locknuts. **If the mounting holes are not directly over the truck box supports, the truck bed must be braced to the frame to prevent buckling or deforming the truck bed.**



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 attachment practices.

ELECTRICAL SYSTEM – WIRING INSTRUCTIONS

Electrical Diagram and Instructions



WIRING INSTRUCTIONS

1. Install switch at desired location. This will determine what the proper wire length should be.
2. Run spreader/vehicle harness from the rear of vehicle to switch area. Remove approximately 3" of the black outer jacket, exposing two single leads (red and black). Strip 1/4" off each lead. Crimp 1/4" female connector on red lead and crimp the butt connector to the black lead. Place the female spade/red wire to the ON/OFF switch and leave the black wire for the next step.
3. Route the power harness from the battery to the switch. This will determine proper length to cut wires. Repeat Step 2 regarding cable jacketing and connection points to the switch and butt connector.
4. Install an in-line 25A fuse on the POSITIVE (+) (red) lead from the battery to the switch. Locate an easily accessible place, out of the elements, for the fuse. Remove approximately 3" of the black outer jacket, exposing two single leads (red and black). Cut the red lead in half and strip a 1/4" off each lead. Insert into the fuse connector and crimp. Insert 25A blade fuse into connector.
5. At the battery end of the power harness, remove 8" of the black outer jacket, exposing two single leads (red and black). Strip 1/4" off each lead. Crimp a 3/8" lug terminal to each lead, and attach the red lead to the POSITIVE (+) side of the battery and the black lead to the NEGATIVE (-) side of the battery.
6. Install rubber weatherproof boot on switch before finishing installation.

OPERATING INSTRUCTIONS

⚠ WARNING

Always make sure personnel are clear of areas of danger when using equipment. Maintain 60' distance from all bystanders when operating the sprayer system.

⚠ WARNING

Vehicle handling and characteristics will change with the unit installed. Avoid any sudden steering maneuvers, starts, or stops that could create sloshing and instability.

⚠ WARNING

Before operating the sprayer, verify that all safety guards are in place.

⚠ WARNING

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

⚠ CAUTION

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

⚠ CAUTION

Starting the motor with no antifreeze will damage the seal in the pump. Check antifreeze levels before starting.

DURING OPERATION

IMPORTANT: Do not modify sprayer design.

- Read and follow each chemical label's instructions and warnings.
- Avoid inhaling, ingesting, or coming into contact with any chemicals.
- Know applicable licensing and regulatory requirements for the chemical(s) you plan to use.
- Know emergency procedures before handling chemicals. Carefully review the Chemical Safety section. Also see First Aid instructions on the chemical label.
- Wear protective clothing, eye protection, and chemical-resistant gloves when filling, using, and cleaning the sprayer. Wear additional protective gear, such as a face mask or apron, as recommended on the chemical label.
- Exercise extra caution around children and pets. Keep sprayer and spray materials away from them at all times.
- Do not mix or pour chemicals in an enclosed, unventilated area.
- Do not use flammable or corrosive chemicals in the sprayer.
- Flush the sprayer before switching chemicals in order to prevent dangerous chemical interactions.
- Store pesticides in a correctly labeled container, in a secure location.
- Monitor the health of operators frequently exposed to pesticides, as recommended by the chemical label or local/federal regulations.
- Do not allow anyone younger than 16 years of age to operate sprayer.

OPERATING INSTRUCTIONS

BEFORE SPRAYING

- Inspect and prepare sprayer before each use as directed in this manual.
- Do not start sprayer until ready to spray in order to avoid unintentional spray release.
- Wear protective clothing, eye protection, and chemical-resistant gloves when filling, using, and cleaning the sprayer. Wear additional protective gear, such as a face mask or apron, as recommended on the chemical label.
- Wear additional personal protective equipment if you will be spraying overhead. Wear chemical-resistant head and neck protection, full-face mask (or half-face mask with sealed goggles), and consider using a respirator.
- Do not spray when wind speed exceeds 4 mph in order to minimize spray drift.
- Keep sprayer and spray materials away from children and pets. Pesticides can be especially toxic to children and animals.
- Do not allow anyone younger than 16 years of age to operate sprayer since pesticides are especially toxic to children.

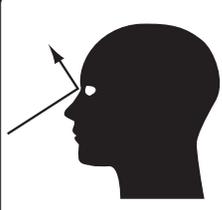
ADDING LIQUID

⚠ WARNING

Always shut vehicle OFF before attempting to attach, detach, or service sprayer system.

⚠ CAUTION

Always use appropriate personal protective equipment, including gloves and safety goggles, when filling sprayer.

	⚠ CAUTION
	<ul style="list-style-type: none">• WEAR SAFETY GOGGLES WHEN OPERATING EQUIPMENT.• WEAR SAFETY GOGGLES WHEN FILLING EQUIPMENT.• DO NOT EAT, DRINK, SMOKE, RUB YOUR EYES OR TOUCH BARE SKIN WHILE HANDLING CHEMICALS OR SPRAYING.• NEVER POINT SPRAY GUN AT PEOPLE OR ANIMALS. <small>T20317</small>

- Be sure that the pump switch is in the "OFF" position.
- Do not mix or pour chemicals in an enclosed, unventilated area.
- Do not use flammable or corrosive chemicals in the sprayer.
- Fill the tank to the desired level by filling through the tank lid. Use the markings on the tank for volume reference. During operation, if liquid is not coming out of the tank, check the Maintenance and Troubleshooting sections of this manual.

SPRAYER OPERATION

⚠ CAUTION

When using spray wand, never point it at objects (i.e., humans, vehicles, etc.). Keep at least 10 feet away from objects while using the spray nozzle.

1. Be sure that the pump switch is in the "OFF" position.
2. Fill the sprayer with liquid through the port on the top of the tank.
3. When ready to spray, turn the pump switch to the "ON" position.

OPERATING INSTRUCTIONS

4. Point the wand in the desired direction and pull the trigger. Hold the trigger until spraying is concluded.
5. When done spraying, be sure to turn the pump switch to the "OFF" position.
6. Flush the sprayer before switching chemicals, in order to prevent dangerous chemical interactions.

DURING SPRAYING

- Do not overapply pesticide. Apply at rate recommended by chemical manufacturer. Excess pesticide can be dangerous to humans and animals, damage desirable plants, and contaminate soil and water sources.
- Do not eat, drink, smoke, rub your eyes, or touch your bare skin while handling chemicals and/or spraying.
- Never point the spray wand at people or animals.
- Always hold the spray wand firmly when using it to spray at higher pressures in order to prevent wand from whipping. Keep good footing and balance at all times.
- Do not spray near open flames or sources of heat.
- Exercise extra caution when spraying near areas accessible to children and/or pets.
- Clean up spills immediately per instructions on the chemical label.
- Turn vehicle OFF and set brake or block wheels, turn sprayer OFF, and relieve system pressure before leaving sprayer unattended.
- See Troubleshooting section of this manual before attempting any repairs. Wear personal protective equipment and follow safety instructions.

AFTER SPRAYING

- Clean sprayer immediately after use according to the directions provided in this manual.
- Decontaminate yourself after you are done spraying and have cleaned the sprayer. Wash all exposed areas of the body with soap and water, and remove and launder clothing.
- Dispose of or store remaining chemicals in secure storage with correctly-marked container.

TRANSPORTING SAFETY

- Read safety instructions in your vehicle manual with regard to carrying heavy cargo loads.
- Do not ride on or transport cargo on the sprayer.
- Do not allow drivers younger than 16 to drive the vehicle with the filled sprayer attached.
- Make sure sprayer is securely attached to vehicle.
- Exercise caution in vehicle handling when driving with filled sprayer to avoid loss of control or rollover.
- Keep speed to a minimum so that you can maintain control. Reduce speed prior to making turns.
- Allow for more distance to stop.
- Avoid any sudden steering maneuvers, starts, or stops that could create instability from liquid sloshing in the sprayer.
- Slow down and exercise extra caution on sloped or uneven terrain. Pick the most level route possible across fields—drive up and down slopes when necessary, rather than across. Use a vehicle equipped with a roll-over protection system if you will be working on non-level terrain.
- Be aware that visibility may be reduced when making turns or backing up.
- Turn OFF both the sprayer and the vehicle, and set the brakes before leaving unattended.

MAINTENANCE

⚠ WARNING

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

⚠ WARNING

Always shut vehicle OFF before attempting to attach, detach, or service sprayer system.

⚠ WARNING

Do not operate a machine in need of maintenance.

⚠ CAUTION

Always use appropriate personal protective equipment, including gloves and safety goggles, when filling or emptying sprayer.

NOTE: To prevent leaks, use a thread-sealing compound on all threaded connections. Do not use Teflon® tape, as fragments will clog the spray nozzles. Clamped connections may require periodic retightening.

CLEAN OUT

- Read and follow each chemical label's instructions and warnings.
 - Wear protective clothing, eye protection, and chemical-resistant gloves when filling, using, and cleaning sprayer. Wear additional protective gear, such as face mask or apron, as recommended on the chemical label.
1. Disconnect nozzle assembly at quick-disconnect point.
 2. Make a hose with matching male quick-disconnect to hook up at quick-disconnect point.
 3. Install hose at quick-disconnect point and put the other end in the storage tank.
 4. Turn pump ON until the tank is empty.
 5. Check the chemical's Safety Data Sheet (SDS) for how to properly clean out the remaining solution in the tank and how to properly dispose of liquid.

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6. Add water to flush the tank.
7. Reinstall quick-disconnect from nozzle assemblies.
8. Run pump until clear liquid is running out of each nozzle.

PERIODIC MAINTENANCE

- When servicing, you may need to close the shut-off valve and/or the return valve, to prevent stored solution from exiting the holding tank.
- Wash unit after each use to prevent material build-up and corrosion.
- Use dielectric grease on all electrical connections to prevent corrosion each time power or signal plugs are disconnected.
- Paint or oil all bare metal surfaces as needed.
- Inspect unit for defects: broken, worn, or bent parts, and similar.
- Inspect all tubing, hoses, and harnesses for cracks and leaks.
- Clean the filter as needed. Close the shut-off valve and access the filter by unscrewing the top cap, then unscrewing the filter cover.
- Retighten bolts, screws, and other connections after first use and as needed.

END OF SEASON AND STORAGE

- Before long periods of storage, flush out the tank, pumping system, and spray wand to remove build-up and prevent corrosion.
- Do not leave unused material in the unit for a prolonged period of time.

NOZZLE MAINTENANCE

Remove nozzles by pushing in and rotating the nozzle cap counterclockwise and clean as necessary.

TROUBLESHOOTING

⚠ WARNING

Always shut vehicle OFF before attempting to attach, detach, or service sprayer system.

⚠ WARNING

Do not operate a machine in need of maintenance.

⚠ WARNING

Read all warning instructions and safety messages before servicing the sprayer.

⚠ WARNING

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

NOTE: To prevent leaks, use a thread-sealing compound on all threaded connections. Do not use Teflon® tape, as fragments will clog the spray nozzles. Clamped connections may require periodic retightening.

Whenever service is necessary, your local TurfEx® dealer knows your sprayer system best. Take your sprayer system 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.

Preliminary Checks:

- Make sure that all electrical connections are tight and clean.
- Make sure that nothing is obstructing the nozzle.

Problem	Possible Cause	Suggested Solution
Pump doesn't run.	Loose electrical connections.	Check all connections.
	Blown fuse.	Replace fuse.
	Pump seized.	Replace pump.
	Dead (or dying) battery.	Charge or replace battery.
Control shut down.	Poor electrical connections.	Clean or replace connectors. Use dielectric grease.
	Electrical short.	Check electrical connections. Check for bare wires.
	Dead (or dying) battery.	Charge or replace battery.
	Control failure.	Replace control.
Liquid not spraying.	Empty tank.	Fill tank.
	Full strainer.	Clean or replace element.
	Pump not running.	Refer to Problem 1 ("Pump doesn't run").
	Dead (or dying) battery.	Charge or replace battery.
	Obstructed nozzle.	Remove and clean.

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TrynEx International, LLC
531 Ajax Drive
Madison Heights, MI 48071-2429
www.TurfExproducts.com

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