



**OPERATOR'S MANUAL
& PARTS DRAWINGS**

SALT SPREADER

**MODEL SS300
SERIAL # AB1126-**





500 Venture Drive
Orrville, OH 44667
www.ventrac.com

To the Owner Contact Information and Product Identification

If you need to contact an authorized Ventrac dealer for information on servicing your product, always provide the product model and serial numbers.

Please fill in the following information for future reference. See the picture(s) below to find the location of the identification numbers. Record them in the spaces provided.

Date of Purchase: _____

Dealer: _____

Dealer Address: _____

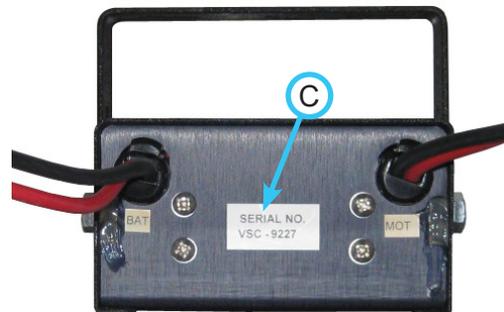
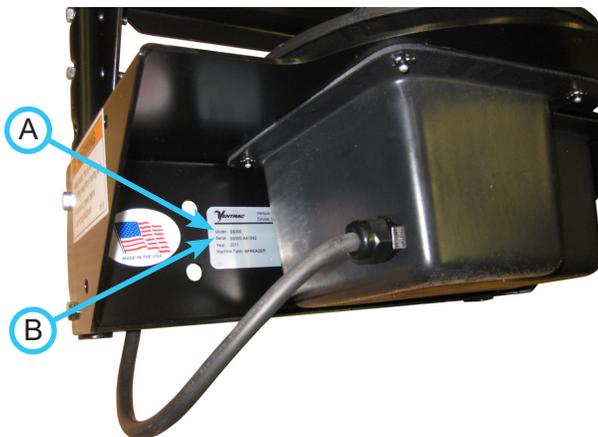
Dealer Phone Number: _____

Dealer Fax Number: _____

Spreader Model # (A) _____

Spreader Serial # (B) _____

Controller Serial # (C) _____



Venture Products Inc. reserves the right to make changes in design or specifications without obligation to make like changes on previously manufactured products.

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INTRODUCTION



Venture Products Inc. is pleased to provide you with your new Ventrac salt spreader! We hope that Ventrac equipment will provide you with a ONE Tractor Solution.

Listed below are just some of the items that can provide you *versatility* as you use your SS300 salt spreader. Please visit our web site, or contact your authorized Ventrac dealer for a complete list of items available for your new salt spreader.

Accessories	Item Description	Part Number
	3100/3200 Spreader Install Kit	70.8125
	3400 Spreader Install Kit	70.8128
	Drop Curtain Kit	70.8131
	SS300 Gate Kit	70.8132
	SS300 Vibrator Kit	70.8134

Product Description

The Ventrac SS300 salt spreader is designed to spread bagged rock salt* and calcium flake. An optional gate kit allows the spreader to use bagged ice melt products and calcium pellets. An optional vibrator kit allows the spreader to use bulk rock salt. The SS300 salt spreader features a 3 cubic foot (.085 cubic meter) volume capacity and 240 pound (109 kilogram) weight capacity. An electronic control box comes standard and features a variable electronic speed control and On/Off switch. The SS300 salt spreader is for use on 3000 series Ventrac power units.

*Optional vibrator kit (70.8120) may be needed, depending on the properties and condition of the rock salt.

An optional drop curtain kit is available for spreading materials in tight quarters such as sidewalks, cart paths, and more.

Why Do I Need an Operator's Manual?

This manual has been created to help you gain the important knowledge of what is needed to safely operate, maintain, and service your machine. It is divided into sections for convenient reference of the appropriate section.

You must read and understand the operator's manual for each piece of Ventrac equipment you own. Reading the operator's manual will help you become familiar with each specific piece of equipment. Understanding the operator's manual will help you, as well as others, avoid personal injury and/or damage to the equipment. Keep this manual with the machine at all times. The manual should remain with the machine even if it is sold. If this manual becomes damaged or unreadable, it should be replaced immediately. Contact your local Ventrac dealer for a replacement.

When using a Ventrac attachment, be sure to read and follow the safety and operating instructions of both the power unit and the attachment being used to ensure the safest operation possible.

The information in this manual provides the operator with the safest procedures to operate the machine while getting the maximum use out of the unit. Failure to follow the safety precautions listed in this manual may result in personal injury and/or damage to the equipment.

INTRODUCTION

Using Your Manual

Throughout this manual, you will encounter special messages and symbols that identify potential safety concerns to help you as well as others avoid personal injury or damage to the equipment.

SYMBOL DEFINITIONS



ATTENTION

This symbol identifies potential health and safety hazards. It marks safety precautions. Your safety and the safety of others is involved.

There are three signal words that describe the level of safety concern: Danger, Warning, and Caution. Safety should always be the #1 priority when working on or operating equipment. Accidents are more likely to occur when proper operating procedures are not followed or inexperienced operators are involved.

Note: Right-Hand and Left-Hand orientations may be referred to at different places throughout this manual. Right-Hand and Left-Hand is determined as if sitting on the power unit seat facing forward.

SIGNAL WORD DEFINITIONS

⚠ DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme cases.

⚠ WARNING

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

⚠ CAUTION

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

Manual Glossary

Power Unit A Ventrac tractor or other Ventrac engine powered device that may be operated by itself or with an attachment or accessory.

Attachment A piece of Ventrac equipment that requires a Power Unit for operation.

Accessory A device that attaches to a Power Unit or Attachment to extend its capabilities.

Machine Describes any "Attachment" or "Accessory" that is used in conjunction with a power unit.

SAFETY

Safety Decals

The following safety decals must be maintained on your SS300 salt spreader.

Keep all safety decals legible. Remove all grease, dirt, and debris from safety decals and instructional labels. If any decals are faded, illegible, or missing, contact your dealer promptly for replacements.

When new components are installed, be sure that current safety decals are affixed to the replacement components.



A  **WARNING**

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

D6194

B  **WARNING**

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

D6192



Decal	Description	Part Number	Quantity
A	Warning, Read Owners Manual	07.3D6194	1
B	Warning - Hands & Feet	07.3D6192	1
C	CE Safety	07.3D5788	1

SAFETY



General Safety Procedures for Ventrac Power Units, Attachments, & Accessories



Training Required

- The owner of this machine is solely responsible for properly training the operators.
- The owner/operator is solely responsible for the operation of this machine and prevention of accidents or injuries occurring to him/herself, other people, or property.
- Do not allow operation or service by children or untrained personnel. Local regulations may restrict the age of the operator.
- Before operating this machine, read the operator's manual and understand its contents.
- If the operator of the machine cannot understand this manual, then it is the responsibility of this machine's owner to fully explain the material within this manual to the operator.
- Learn and understand the use of all controls.
- Know how to stop the power unit and all attachments quickly in the event of an emergency.



Personal Protective Equipment Requirements

It is the responsibility of the owner to be sure that the operators use the proper personal protective equipment while operating the machine. Required personal protective equipment includes, but is not limited to, the following list.



- Wear a certified ear protection device to prevent loss of hearing.
- Prevent eye injury by wearing safety glasses while operating the machine.
- Closed toe shoes must be worn at all times.
- Long pants must be worn at all times.
- When operating in dusty conditions, it is recommended that a dust mask be worn.

Operation Safety

- Inspect machine before operation. Repair or replace any damaged, worn, or missing parts. Be sure guards and shields are in proper working condition and are secured in place. Make all necessary adjustments before operating machine.
- Some pictures in this manual may show shields or covers opened or removed in order to clearly illustrate any instructions. Under no circumstance should the machine be operated without these devices in place.
- Alterations or modifications to this machine can reduce safety and could cause damage to the machine. Do not alter safety devices or operate with shields or covers removed.
- Before each use, verify that all controls function properly and inspect all safety devices. Do not operate if controls or safety devices are not in proper working condition.
- Check parking brake function before operating. Repair or adjust parking brake if necessary.
- Observe and follow all safety decals.
- All controls are to be operated from the operator's station only.
- Always wear a seat belt if the machine has a roll cage/bar installed and in upright position.
- Ensure the attachment or accessory is locked or fastened securely to the power unit before operating.
- Ensure that all bystanders are clear of the power unit and attachment before operating. Stop machine if someone enters your work area.
- Always be alert to what is happening around you, but do not lose focus on the task you are performing. Always look in the direction the machine is moving.
- Look behind and down before backing up to be sure of a clear path.
- If you hit an object, stop and inspect the machine. Make all necessary repairs before operating machine again.
- Stop operation immediately at any sign of equipment failure. An unusual noise can be a warning of equipment failure or a sign that maintenance is required. Make all necessary repairs before operating machine again.

SAFETY



General Safety Procedures for Ventrac Power Units, Attachments, & Accessories



Operation Safety (continued)

- If equipped with a high/low range feature, never shift between high and low range while on a slope. Always move the machine to level ground and engage the parking brake before shifting range.
- Do not leave machine unattended while it is running.
- Always park the machine on level ground.
- Always shut off engine when connecting attachment drive belt to the power unit.
- Never leave the operator's station without lowering the attachment to the ground, setting the parking brake, shutting off the engine, and removing the ignition key. Make sure all moving parts have come to a complete stop before dismounting.
- Never leave equipment unattended without lowering the attachment to the ground, setting the parking brake, shutting off the engine, and removing the ignition key.
- Only operate in well-lit conditions.
- Do not operate when there is a risk of lightning.
- Never direct the discharge of any attachment in the direction of people, buildings, animals, vehicles, or other objects of value.
- Never discharge material against a wall or obstruction. Material may ricochet back towards the operator.
- Use extra caution when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
- Do not run the engine in a building without adequate ventilation.
- Do not touch the engine or the muffler while the engine is running or immediately after stopping the engine. These areas may be hot enough to cause a burn.
- Do not change the engine governor settings or over-speed the engine. Operating engine at excessive speed may increase the hazard of personal injury.
- To reduce the hazard of fire, keep the battery compartment, engine, and muffler areas free of grass, leaves, excessive grease, and other flammable materials.

Preventing Accidents



- Clear working area of objects that might be hit or thrown from machine.
- Keep people and pets out of working area.
- Know the work area well before operation. Do not operate where traction or stability is questionable.
- Reduce speed when you are operating over rough ground.
- Equipment can cause serious injury and/or death when improperly used. Before operating, know and understand the operation and safety of the power unit and the attachment being used.
- Do not operate machine if you are not in good physical and mental health, if you will be distracted by personal devices, or are under the influence of any substance which might impair decision, dexterity, or judgment.
- Children are attracted to machine activity. Be aware of children and do not allow them in the working area. Turn off the machine if a child enters the work area.



Keep Riders Off

- Only allow the operator on the power unit. Keep riders off.
- Never allow riders on any attachment or accessory.

SAFETY

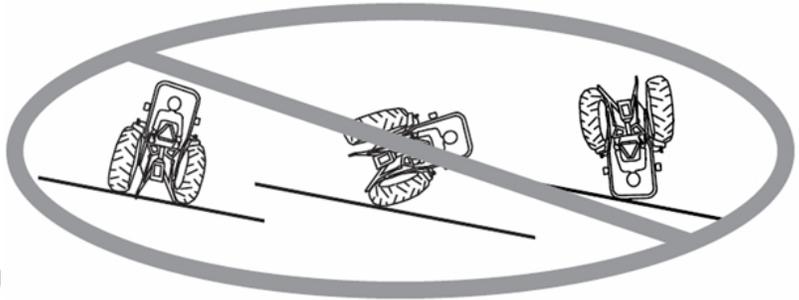


General Safety Procedures for Ventrac Power Units, Attachments, & Accessories



Operating On Slopes

- Slopes can cause loss-of-control and tip-over accidents, which can result in severe injury or death. Be familiar with the emergency parking brake, along with the power unit controls and their functions.
- If power unit is equipped with a fold down roll bar, it must be locked in the upright position when operating on any slope.
- Use low range (if equipped) when operating on slopes greater than 15 degrees.
- Do not stop or start suddenly when operating on slopes.
- Never shift between high and low range while on a slope. Always move the power unit to level ground and engage the parking brake before shifting range or placing the power unit in neutral.
- Variables such as wet surface and loose ground will reduce the degree of safety. Do not drive where machine could lose traction or tip over.
- Keep alert for hidden hazards in the terrain.
- Stay away from drop-offs, ditches, and embankments.
- Sharp turns should be avoided when operating on slopes.
- Pulling loads on hills decreases safety. It is the responsibility of the owner/operator to determine loads that can safely be controlled on slopes.
- Transport machine with attachment lowered or close to the ground to improve stability.
- While operating on slopes, drive in an up and down direction when possible. If turning is necessary while driving across slopes, reduce speed and turn slowly in the downhill direction.
- Assure a sufficient supply of fuel for continuous operation. A minimum of one-half tank of fuel is recommended.



Roadway Safety

- Operate with safety lights when operating on or near roadways.
- Obey all state and local laws concerning operation on roadways.
- Slow down and be careful of traffic when operating near or crossing roadways. Stop before crossing roads or sidewalks. Use care when approaching areas or objects that may obscure vision.
- If there is doubt of safety conditions, discontinue machine operation until a time when operation can be performed safely.
- When operating near or on roadways, have a Slow Moving Vehicle Emblem clearly displayed.



Truck Or Trailer Transport

- Use care when loading or unloading machine into a truck or trailer.
- Use full width ramps for loading machine into a truck or trailer.
- The parking brake is not sufficient to lock the machine during transport. Always secure the power unit and/or attachment to the transporting vehicle securely using straps, chains, cable, or ropes. Both front and rear straps should be directed down and outward from the machine.
- Shut off fuel supply to power unit during transport on truck or trailer.
- If equipped, turn the battery disconnect switch to the Off position to shut off electrical power.

SAFETY



General Safety Procedures for Ventrac Power Units, Attachments, & Accessories



Maintenance

- Keep all safety decals legible. Remove all grease dirt, and debris from safety decals and instructional labels.
- If any decals are faded, illegible, or missing, contact your dealer promptly for replacements.
- When new components are installed, be sure that current safety decals are affixed to the replacement components.
- If any component requires replacement, use only original Ventrac replacement parts.
- Always turn the battery disconnect to the Off position or disconnect the battery before performing any repairs. Disconnect the negative terminal first and the positive terminal last. Reconnect the positive terminal first and the negative terminal last.
- Keep all bolts, nuts, screws, and other fasteners properly tightened.
- Always lower the attachment to the ground, engage parking brake, shut off engine, and remove the ignition key. Make sure all moving parts have come to a complete stop before cleaning, inspection, adjusting or repairing.
- If the power unit, attachment, or accessory requires repairs or adjustments not instructed in the operator's manual, the power unit, attachment, or accessory must be taken to an authorized Ventrac dealer for service.
- Never perform maintenance on the power unit and/or attachment if someone is in the operator's station.
- Always use protective glasses when handling the battery.
- Check all fuel lines for tightness and wear on a regular basis. Tighten or repair them as needed.
- To reduce the hazard of fire, keep the battery compartment, engine, and muffler areas free of grass, leaves, and excessive grease.
- Do not touch the engine, the muffler, or other exhaust components while the engine is running or immediately after stopping the engine. These areas may be hot enough to cause a burn.
- Allow the engine to cool before storing and do not store near an open flame.
- Do not change the engine governor settings or over-speed the engine. Operating engine at excessive speed may increase the hazard of personal injury.
- Springs may contain stored energy. Use caution when disengaging or removing springs and/or spring loaded components.
- An obstruction or blockage in a drive system or moving/rotating parts may cause a buildup of stored energy. When the obstruction or blockage is removed, the drive system or moving/rotating parts may move suddenly. Do not attempt to remove an obstruction or blockage with your hands. Keep hands, feet, and clothing away from all power-driven parts.
- Dispose of all fluids in accordance with local laws.

Fuel Safety



- To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.
- Do not refuel machine while smoking or at a location near flames or sparks.
- Always refuel the machine outdoors.
- Do not store machine or fuel container indoors where fumes or fuel can reach an open flame, spark, or pilot light.
- Only store fuel in an approved container. Keep out of reach of children.
- Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
- Remove machine from the truck or trailer and refuel it on the ground. If this is not possible, refuel the machine using a portable container, rather than from a fuel dispenser nozzle.
- Never remove fuel cap or add fuel with the engine running. Allow engine to cool before refueling.
- Never remove fuel cap while on a slope. Only remove when parked on a level surface.
- Replace all fuel tank and container caps securely.

SAFETY



General Safety Procedures for Ventrac Power Units, Attachments, & Accessories



Fuel Safety (continued)

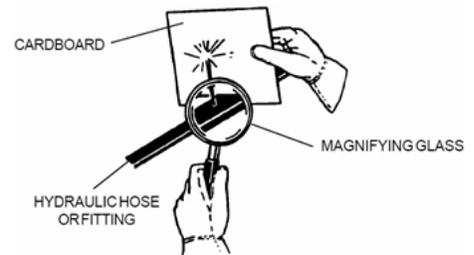
- Do not overfill fuel tank. Only fill to bottom of fuel neck, do not fill fuel neck full. Overfilling of fuel tank could result in engine flooding, fuel leakage from the tank, and/or damage to the emissions control system.
- If fuel is spilled, do not attempt to start the engine. Move the power unit away from the fuel spill and avoid creating any source of ignition until fuel vapors have dissipated.
- If the fuel tank must be drained, it should be drained outdoors into an approved container.
- Dispose of all fluids in accordance with local laws.
- Check all fuel lines for tightness and wear on a regular basis. Tighten or repair them as needed.
- The fuel system is equipped with a shut-off valve. Shut off the fuel when transporting the machine to and from the job, when parking the machine indoors, or when servicing the fuel system.

Hydraulic Safety

- Make sure all hydraulic connections are tight and all hydraulic hoses and tubes are in good condition. Repair any leaks and replace any damaged or deteriorated hoses or tubes before starting the machine.
- Hydraulic leaks can occur under high pressure. Hydraulic leaks require special care and attention.
- Use a piece of cardboard and a magnifying glass to locate suspected hydraulic leaks.



- Keep body and hands away from pinhole leaks or nozzles that eject high pressure hydraulic fluid. Hydraulic fluid escaping under high pressure can penetrate the skin causing serious injury, leading to severe complications and/or secondary infections if left untreated. If hydraulic fluid is injected into the skin, seek immediate medical attention no matter how minor the injury appears.



- Hydraulic system may contain stored energy. Before performing maintenance or repairs on the hydraulic system, remove attachments, engage parking brake, disengage weight transfer system (if equipped), shut off engine, and remove ignition key. To relieve pressure on the auxiliary hydraulic system, shut off the power unit engine and move the hydraulic control lever left and right before disconnecting the auxiliary hydraulic quick couplers.
- Dispose of all fluids in accordance with local laws.

SAFETY



SS300 Safety Procedures



- Spreader must be pinned and locked into position before operating power unit and spreader.
- Never exceed the recommendations in the weight capacity charts in the operation section, which specifies the material weight that can be used with different attachments. Exceeding the weight recommendation for your front attachment may result in loss of steering or front wheel traction.
- Do not operate power unit with SS300 spreader on slopes greater than 10 degrees. Operation on slopes greater than 10 degrees may result in loss of steering or front wheel traction.
- Never attempt to remove a spreader from the power unit while there is material in the spreader hopper.
- Always make sure personnel are clear of areas of danger when using equipment. Maintain 60' distance from all bystanders when operating the spreader.
- Never use with foreign debris in the spreader. The spreader is designed to handle only clean, free-flowing material.
- Before working with the spreader, secure all loose fitting clothing and unrestrained hair.
- Always wear safety glasses with side shields when servicing spreader.
- Read lead labels before attaching wire harness to power source or ground.
- Do not splice any other device into the wire harness.

SPREADER SETUP & INSTALL KITS

SS300 Setup Instructions

WARNING

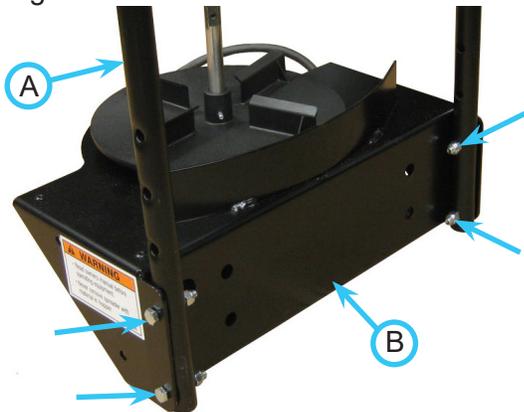
Safety glasses must be worn during installation.



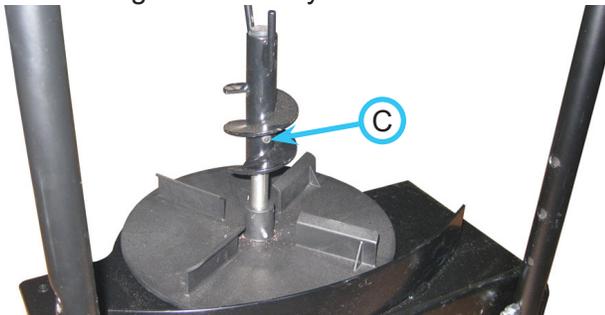
Attention

To prevent thread galling, hand tools and a thread lubricant are recommended when tightening stainless steel fasteners. Do not use air or electric power tools as this increases the potential of thread galling.

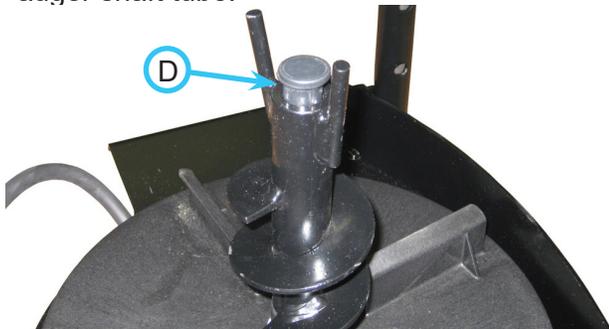
1. Install the hopper support tube (A) onto the transmission mount weldment (B) using 4) 5/16" x 2" bolts, 8) 5/16" washers, and 4) 5/16" locknuts. Do not tighten.



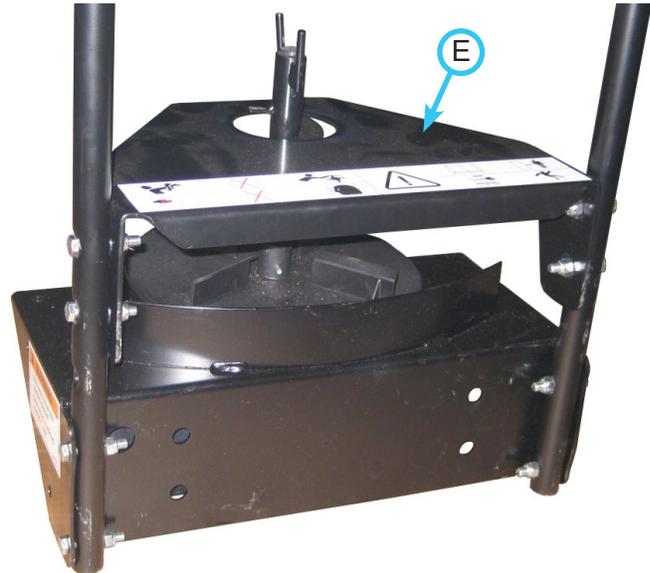
2. Install the auger onto the drive shaft. Align the 5/16" set screw (C) with the flat on the drive shaft and tighten securely.



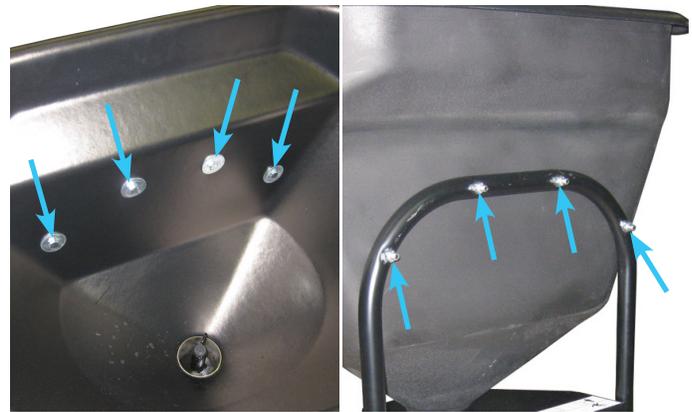
Press the plastic plug (D) into the top of the auger shaft tube.



3. Install the hopper support plate (E) onto the hopper support tube using 4) 5/16" x 2" bolts, 8) 5/16" washers, and 4) 5/16" locknuts. Do not tighten.



4. Insert the hopper throat into the hopper support plate and fasten the hopper to the hopper support tube using 4) 5/16" x 2" bolts, 5/16" x 1-1/2" fender washers, and 5/16" locknuts. Torque to 135 in-lbs (15 Nm).



5. Adjust the hopper support tube until there is clearance between the auger and the hopper throat. Torque the bolts that fasten the hopper support tube to the transmission mount weldment to 135 in-lbs (15 Nm).
6. Adjust the hopper support plate to support the hopper and prevent the hopper throat from moving. Torque the bolts to 135 in-lbs (15 Nm).
7. Install the weather cover onto the hopper. Spreader setup is finished. Complete the spreader with the proper install kit for your power unit.

SPREADER SETUP & INSTALL KITS

SS300 Install 3100/3200 Kit

Document Number	Kit Number / Part Number	Model	Serial Number Range
09.700130	70.8125	SS300	All Units

⚠ WARNING

Before making repairs or adjustments set the parking brake, turn off engine, and remove ignition key.
Always disconnect the negative battery cable from the battery when working with electrical components. Always work in a manner that does not put safety at risk!

⚠ WARNING

Safety glasses must be worn during installation.
Ear (hearing) protection must be worn when using air or power tools.

Installation Notes: Right and left hand orientation referred to in these instructions is determined as if sitting on the tractor seat, facing forwards.

Installation Time (estimated) 1 hour

Tools Required: 3/8" socket 1/2" wrench* 1/2" socket* 9/16" wrench 9/16" socket
15/16" wrench 15/16" socket 12mm wrench* impact driver phillips screwdriver

*Not necessary for all setup configurations.

Power Unit Setup

1. Open the engine hood and disconnect the negative battery cable from the battery.
2. Remove the tunnel access cover and the steering column cover from the power unit.



box mount bracket hooked over the top edge of the steering column cover. Do not tighten.



3. Route the controller ends of the battery/controller wire harness and the motor/controller wire harness under the power unit's seat plate, through the tunnel area, and up through the steering column.
4. Place the steering column cover back onto the steering column using care not to pinch the wire harnesses. Do not fasten.
5. Place a 1/4" flat washer onto the 1/4" x 3/4" flange bolt and insert the flange bolt through the small hole in the control box mount bracket. Place another 1/4" flat washer onto the flange bolt and install in the right upper hole of the steering column cover with the flange of the control

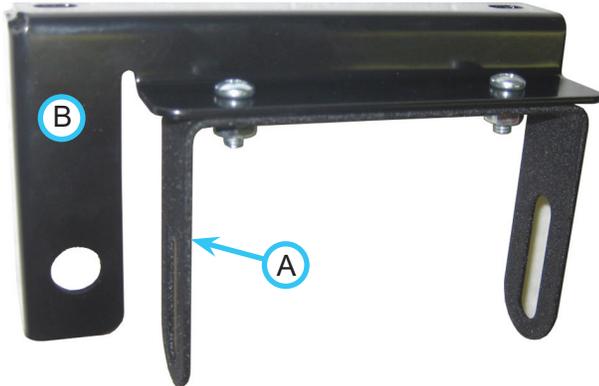
6. Place 2) disc springs onto a 3/8" x 1" bolt. Orient the disc springs so the peak of the coned disc is against the bolt head. Place a 3/8" flat washer onto the bolt and insert through the hole on the control box mount bracket as shown below. Place another 3/8" flat washer onto the bolt, install the control box bracket onto the bolt, and fasten with a 3/8" locking flange nut.



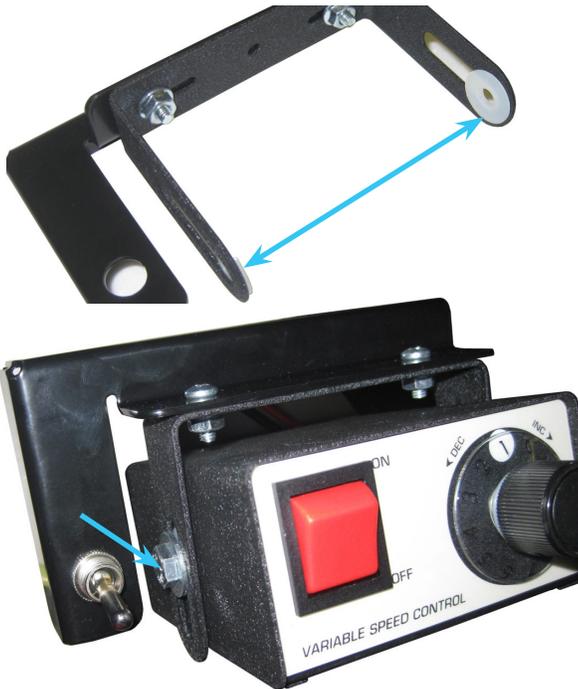
Tighten until the control box bracket is held in place, but can still be adjusted, if necessary.

SPREADER SETUP & INSTALL KITS

7. Fasten the controller bracket (A) to the control box mount bracket (B) using 2) #10-32 x 1/2" machine screws and #10-32 flange nuts.



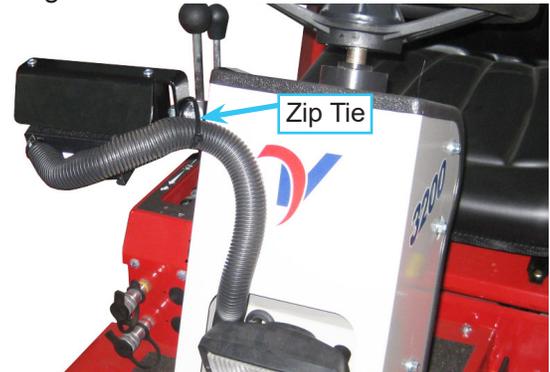
8. Place the nylon washers on the inside of the controller bracket and install onto the controller using the 1/4" bolts and flat washers. Tighten the bolts until the controller pivots with resistance.



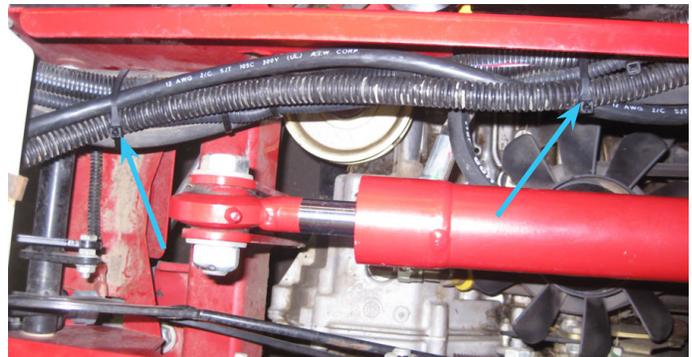
9. Install the control box mount bracket onto the control box bracket using 2) #10-32 x 1/2" machine screws and flange nuts.



10. Connect the battery/controller harness to the battery lead on the controller.
11. Connect the motor/controller harness to the motor lead on the controller.
12. Install the wire loom over the wire harnesses and connectors and fasten to the control box mount bracket with a zip tie to prevent interference with the parking brake.



13. Pull any excess slack down through the steering column and install the original bolts and washers in the remaining three holes of the steering column. Torque 4) bolts to 100 in-lbs (11 Nm).
14. Use 2) zip ties to fasten the wire harnesses to the wire and hose bundle on the right side of the tunnel area.



15. Route the wire harnesses through the center pivot area and fasten to the existing wire harness under the seat with a zip tie. Check to ensure that all linkages and moving parts do not interfere with the wires. Correct if necessary.

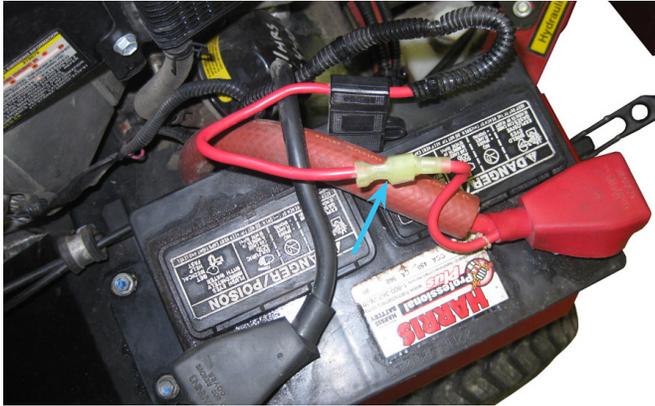


SPREADER SETUP & INSTALL KITS

Note: The wire routing for the rear of the power unit will differ depending on the model. Refer to the section that applies to your model.

3100 Rear Wire Routing

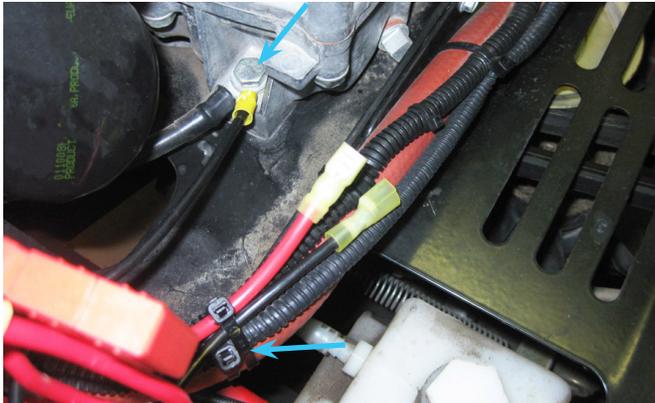
1. Disconnect the wire harness from the positive lead at the battery.



2. Plug the fused, split wire assembly into the positive lead at the battery and plug the original harness into the lead that splits from the new wire assembly. Use a zip tie to fasten the excess wire from the original harness to the new wire assembly.

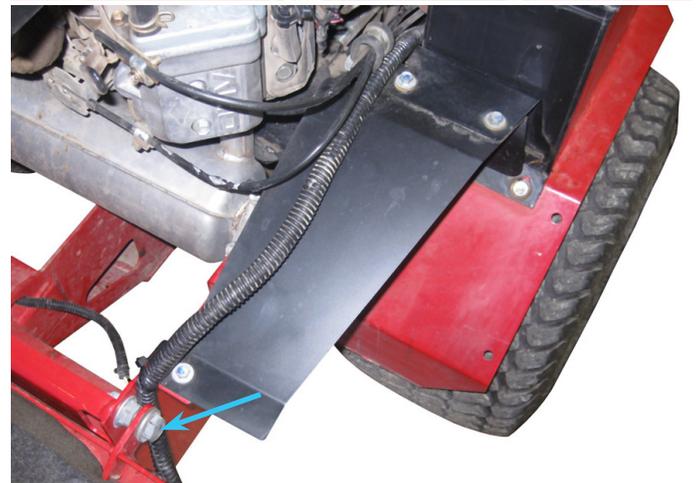


3. Install the negative wire assembly onto the engine ground bolt. Torque bolt to 210 in-lbs (24 Nm).

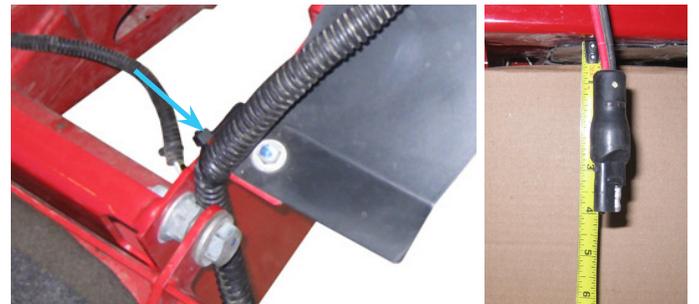


4. Use a zip tie to fasten both the positive and negative leads to the existing wire harness as shown above.

5. Route the motor/controller wire harness behind the wire harnesses coming from the battery, on top of the exhaust heat shield, and down between the heat shield and the engine hood hinge bolt. Use a zip tie to fasten the wire harness to the throttle and choke cables, leaving enough slack in the harness to prevent the wire harness from becoming taut when power unit is turned to the right or left.



6. Use a zip tie to fasten the motor/controller wire harness to the exhaust heat shield with the end of the motor connector plug approximately 4" below the bottom of the rear frame.



7. Coil any extra wire and use a zip tie to fasten to the tab and clamp on the exhaust heat shield behind the battery.
8. Connect the battery/controller harness to the

SPREADER SETUP & INSTALL KITS

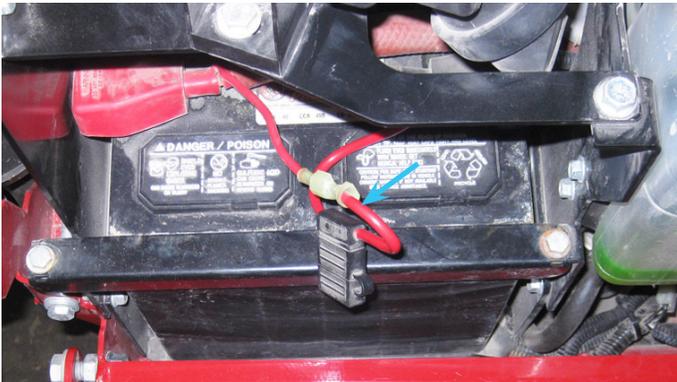
positive lead from the battery and the negative lead from the engine ground. Coil up the extra wire and fasten to the existing wire harness using 2) zip ties as shown below.



9. Install the circuit breaker into the fuse holder on the positive wire harness.
10. Connect the negative battery cable to the battery.
11. Reinstall the power unit's tunnel access cover.

3200 Rear Wire Routing

1. Disconnect the wire harness from the positive lead at the battery.

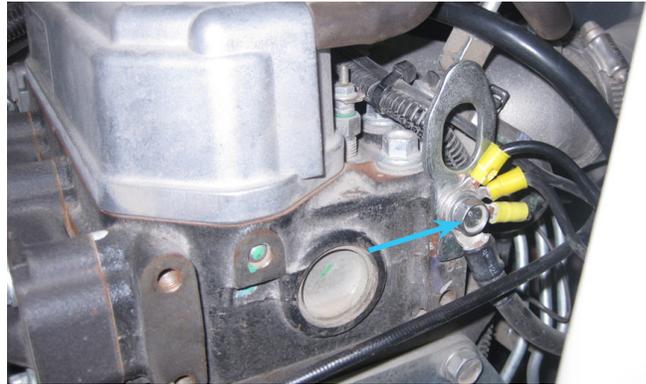


2. Plug the fused, split wire assembly into the positive lead at the battery and plug the original harness into the lead that splits from the new wire assembly. Use a zip tie to fasten the excess wire from the original harness to the new wire assembly and the air filter bracket.



3. Install the negative wire assembly onto the engine ground bolt and route down along the

negative battery cable towards the battery. Torque bolt to 210 in-lbs (24 Nm).



4. For European models, if the power unit is equipped with sound insulation panels, remove the right rear frame cover from underneath the rear frame.

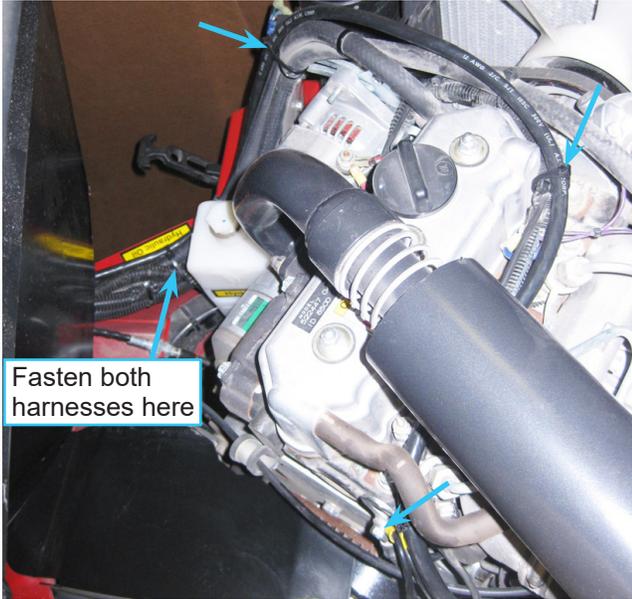


5. Route the motor/controller harness back along the power unit's rear wire harness, under the hydraulic oil reservoir, between the engine frame and the rear axle, and back up behind the engine.
6. Route the harness over the top edge of the frame and down between the rear frame flange and the engine hood hinge bolt. Use a zip tie to fasten the motor/controller wire harness to the rear frame flange with the end of the motor/controller plug approximately 4" below the bottom of the frame.



SPREADER SETUP & INSTALL KITS

7. Coil any extra wire and use a zip tie to fasten to the clamp on the inside of the rear frame underneath the radiator.
8. Route the battery/controller harness back along the power unit's rear wire harness and up beside the electrical panel. Route the harness on top of the engine, following the engine harness to the engine ground location, then follow the negative battery cable toward the battery.



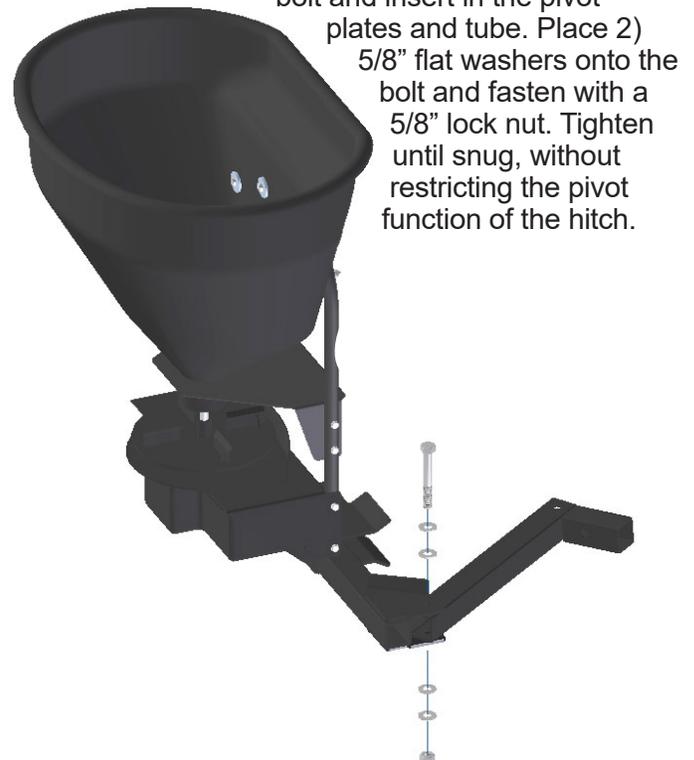
9. Fasten both wire harnesses to the power unit's wire harness on the rear frame using a zip tie as shown above. Fasten the battery/controller harness to the alternator bracket, the engine harness, and the lift plate at the engine ground location using 3) zip ties as shown above.
10. Connect the battery/controller harness to the positive lead from the battery and the negative lead from the engine ground and use a zip tie to fasten the harness and the negative wire assembly to the negative battery cable.
11. Install the circuit breaker into the fuse holder on the positive wire harness.
12. Connect the negative battery cable to the battery.
13. Reinstall the power unit's tunnel access cover.
14. Reinstall the power unit's right rear frame cover, if equipped with sound insulation panels.

SS300 Spreader Setup

1. Install the spreader pivot hitch onto the spreader using 4) 1/2" x 1-1/4" bolts and 4) 1/2" flat washers. Use Loctite 242 or equivalent thread locker on bolts. Torque to 45 ft-lbs (61 Nm).

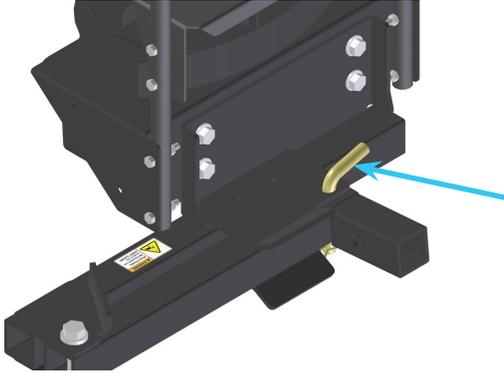


2. Install the spreader pivot hitch onto the tractor pivot hitch and align the holes in the spreader pivot plates with the hole in the tractor pivot tube. Place 2) 5/8" flat washers onto the 5/8" x 4-1/2" bolt and insert in the pivot plates and tube. Place 2) 5/8" flat washers onto the

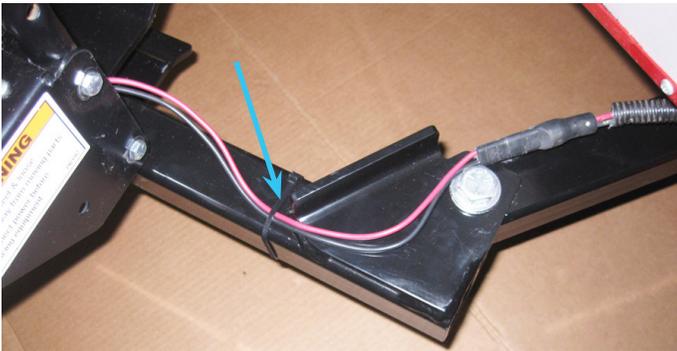


SPREADER SETUP & INSTALL KITS

3. Pivot the spreader hitch until the pivot lock holes are aligned and fasten with a 5/8" x 3" hitch pin.



4. Insert the tractor pivot hitch into the power unit's receiver hitch tube and fasten with a 5/8" x 3" hitch pin.
5. Connect the electrical plug from the spreader to the plug on the motor/controller wire harness and fasten the spreader wires to the spreader pivot hitch tube using a zip tie.



Installation is complete.

To access the power unit's engine area, remove the pivot lock pin from the pivot hitch. Rotate the spreader away from the power unit to provide room to open the engine hood.



SPREADER SETUP & INSTALL KITS

SS300 Install 3400 Kit

Document Number	Kit Number / Part Number	Model	Serial Number Range
09.700209	70.8128	SS300	All Units

⚠ WARNING

Before making repairs or adjustments set the parking brake, turn off engine, and remove ignition key.
Always disconnect the negative battery cable from the battery when working with electrical components. Always work in a manner that does not put safety at risk!

⚠ WARNING

Safety glasses must be worn during installation. Ear (hearing) protection must be worn when using air or power tools.

Installation Notes: Right and left hand orientation referred to in these instructions is determined as if sitting on the tractor seat, facing forwards.

Installation Time (estimated) 1.5 hours

Tools Required: 3/8" socket 1/2" wrench 9/16" wrench 9/16" socket 3/4" wrench
3/4" socket impact driver Phillips screwdriver needle nose pliers

Power Unit Setup

1. Park the power unit on a level surface.
2. Shut off the power unit's engine, set the parking brake, and remove the key from the ignition.
3. Turn the battery disconnect switch to the Off position.
4. Remove the tunnel access cover, the steering column cover, and the steering column base cover from the power unit.



5. Flip up the power unit's seat and remove the canvas cover from under the seat.

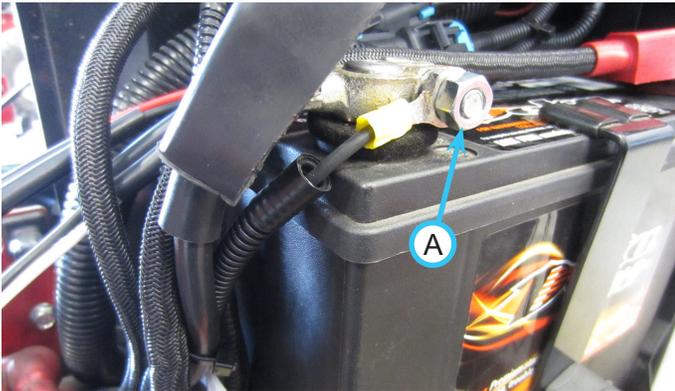
6. Open the right and left hood panels, remove the top hood panel, and remove the rear panel from the power unit.



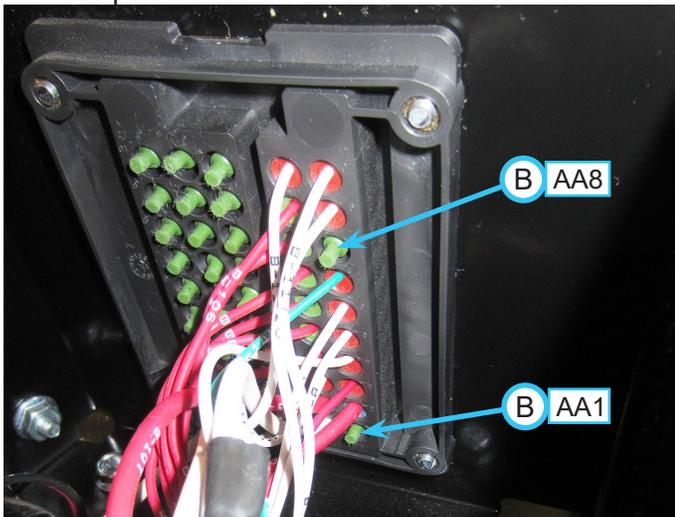
7. If the power unit is equipped with rear frame bottom covers (under the rear frame behind the transaxles), remove from the power unit.

SPREADER SETUP & INSTALL KITS

8. Install the wire adapter harness ground wire with the ring terminal onto the negative battery cable using the included 5/16" nut (A).

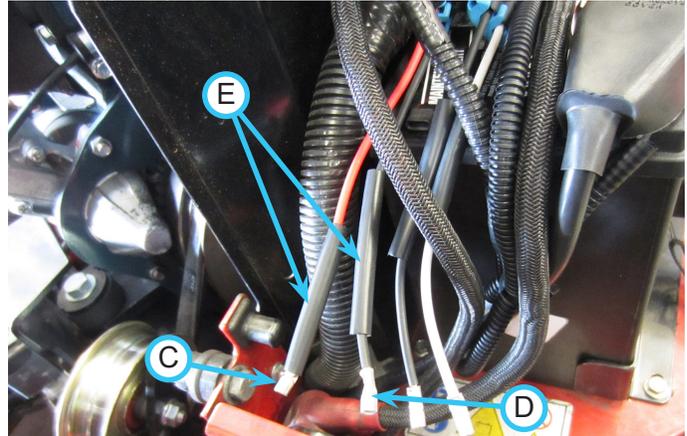


9. Use a needle nose pliers to remove the green plugs (B) from positions AA1 & AA8 on the rear fuse panel.



10. Install the terminal on the red wire into position AA1 in the fuse panel. Install the terminal on the white wire into position AA8 in the fuse panel. NOTE: the terminal can only be installed one way. Orient the terminal with the hole pointing toward the engine compartment and insert into the fuse panel. The terminal needs to snap into place. If necessary, use a needle nose pliers to push the terminal in, being careful not to damage the wire insulation. Double check the connection by tugging gently on the wire with your hand.
11. Use a plastic zip tie to secure the adapter harness ground wire to the negative battery cable.
12. Route the end of the battery/controller harness with the weatherpack connector down between the engine and frame to the rear frame behind the transaxle following the main wire harness.
13. Cut the push-on terminals off the other end of the battery/controller harness and strip 1/4" (6 mm) of insulation off the end of each wire.

14. Locate the adapter harness plug with the red and black wires. Insert the red wire from the battery/controller harness into the butt connector on the red wire (C) from the adapter harness and crimp in place. Insert the black wire from the battery/controller harness into the butt connector on the black wire (D) from the adapter harness and crimp in place.



15. Slide the heat shrink tube (E) over the butt connectors and use a heat gun to shrink in place.
16. If the spreader is being used without a vibrator, fold the white and black wires with butt connectors back along the connector and harness and tape in place.
17. Use a 10-32 x 1-1/2" machine screw (F) and #10 flange nut to attach the tether on the power cord cap to the plug on the motor/controller harness.

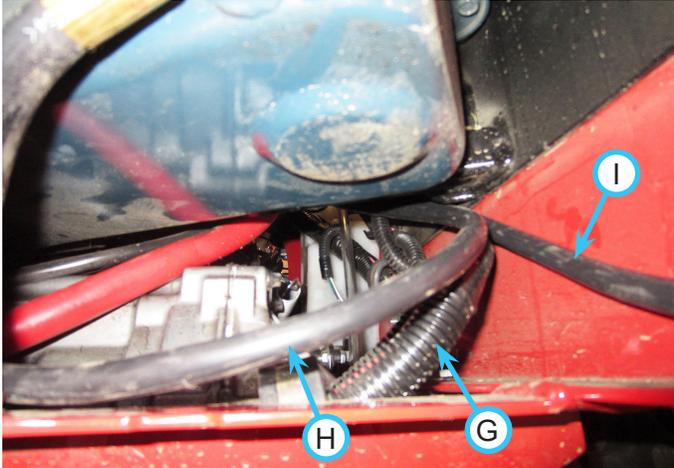


18. Insert the end of the motor/controller harness with the weatherpack connector through the hole in the lower right corner of the rear frame.



SPREADER SETUP & INSTALL KITS

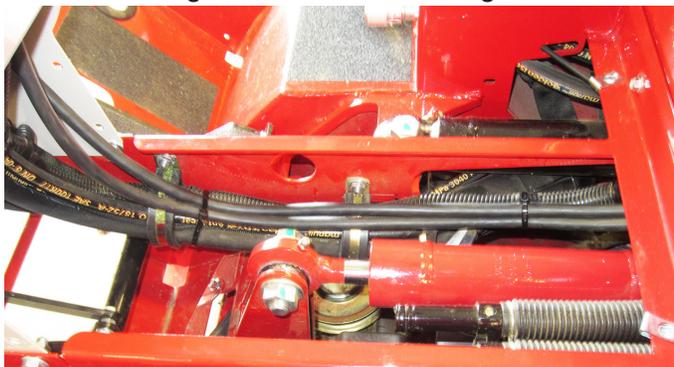
19. Route the battery/controller harness over to the right side of the rear frame following the main harness (G) behind the rear transaxle.



20. Route the battery/controller harness (H) and the motor/controller harness (I) together up in front of the engine and through the cutout in the hood front cover.
21. Route the harnesses through the center pivot area and down under the main harness and seat pivot into the tunnel area.



22. Follow the front wire harness through the tunnel area and up through the steering column, exiting the steering column at the head light mount.



23. Place the steering column cover back onto the steering column using care not to pinch the wire harnesses. Do not fasten.

24. Place a 1/4" flat washer onto the 1/4" x 3/4" flange bolt and insert the flange bolt through the small hole in the control box mount bracket. Place another 1/4" flat washer onto the flange bolt and install in the right upper hole of the steering column cover with the flange of the control box mount bracket hooked over the top edge of the steering column cover. Do not tighten.

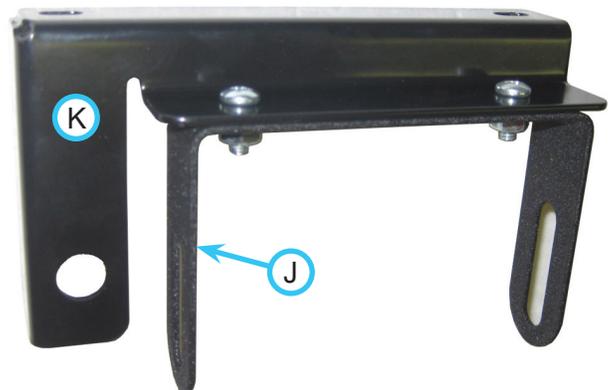


25. Place 2) disc springs onto a 3/8" x 1" bolt. Orient the disc springs so the peak of the coned disc is against the bolt head. Place a 3/8" flat washer onto the bolt and insert through the hole on the control box mount bracket as shown below. Place another 3/8" flat washer onto the bolt, install the control box bracket onto the bolt, and fasten with a 3/8" locking flange nut.



Tighten until the control box bracket is held in place, but can still be adjusted, if necessary.

26. Fasten the controller bracket (J) to the control box mount bracket (K) using 2) #10-32 x 1/2" machine screws and #10-32 flange nuts.



SPREADER SETUP & INSTALL KITS

27. Place the nylon washers on the inside of the controller bracket and install onto the controller using the 1/4" bolts and flat washers. Tighten the bolts until the controller pivots with resistance.



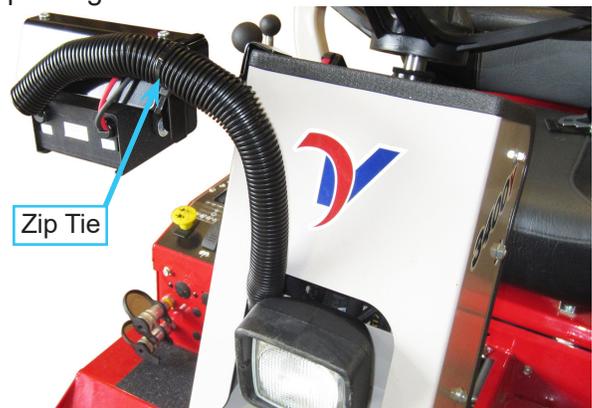
28. Install the control box mount bracket onto the control box bracket using 2) #10-32 x 1/2" machine screws and flange nuts.



29. Connect the battery/controller harness to the battery lead on the controller.

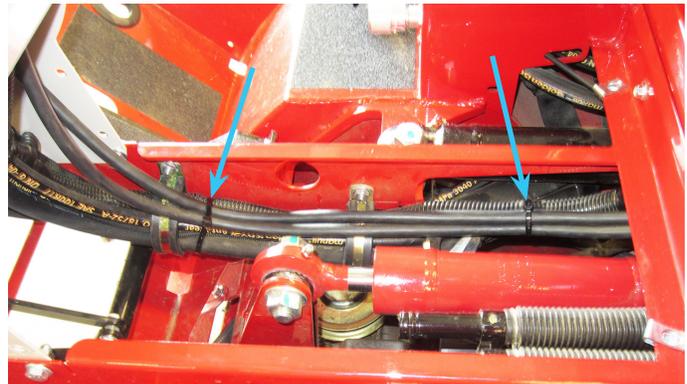
30. Connect the motor/controller harness to the motor lead on the controller.

31. Install the wire loom over the wire harnesses and connectors and fasten to the control box mount bracket with a zip tie to prevent interference with the parking brake.



32. Pull any excess slack down through the steering column and install the original bolts and washers in the remaining three holes of the steering column. Torque all 4) bolts to 100 in-lbs (11 Nm).

33. Use 2) zip ties to fasten the wire harnesses to the hydraulic hoses and main wire harness in the tunnel area.



34. Use 2) zip ties to fasten the wire harnesses to the main wire harness in the center pivot area and in the rear frame next to the hydraulic oil tank.



SPREADER SETUP & INSTALL KITS

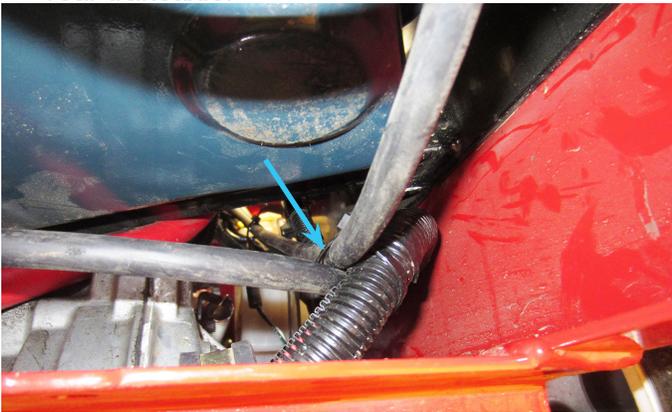
35. Use a zip tie to fasten the battery/controller harness to the main wire harness in front of the battery.



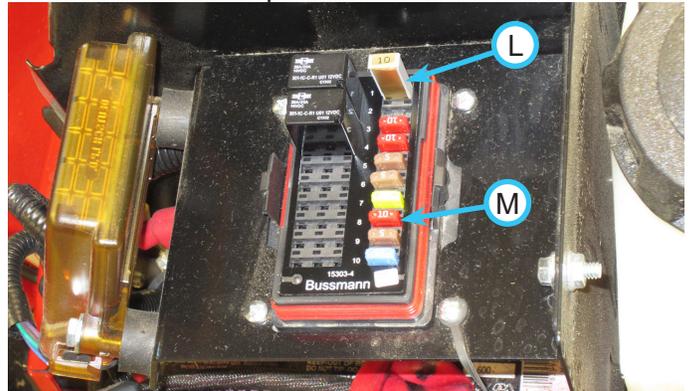
38. Coil up any excess wire in the rear frame and use zip ties to fasten to the rear hitch support on the rear frame.



36. Use a zip tie to fasten the wire harnesses to the main wire harness in the rear frame behind the rear transaxle.



39. Insert the 25 amp circuit breaker (L) into slot 1 on the rear fuse panel.



37. Use a zip tie to fasten the battery/controller harness to the main wire harness behind the rear transaxle on the left side of the rear frame.



40. Insert the 10 amp fuse (M) into slot 8 on the rear fuse panel.
41. Reinstall the steering column base cover and the tunnel access cover. Torque bolts to 100 in-lbs (11 Nm).
42. Reinstall the canvas cover underneath the seat.
43. Reinstall the rear frame bottom covers (if equipped) and torque bolts to 100 in-lbs (11 Nm).
44. Reinstall the rear panel and the top hood panel and close the right and left hood panels.
45. Turn the battery disconnect switch to the On position.

SPREADER SETUP & INSTALL KITS

SS300 Spreader Setup



Attention

To prevent thread galling, hand tools and a thread lubricant are recommended when tightening stainless steel fasteners. Do not use air or electric power tools as this increases the potential of thread galling.

1. Install the SS300 hitch onto the spreader using 4) 1/2 x 1-1/4" bolts and 4) 1/2" flat washers. Use Loctite 242 or equivalent thread locker on bolts. Torque to 45 ft-lbs (61 Nm).



2. Slide the spreader hitch tube into the hitch receiver and fasten with the included 5/8 x 3" hitch pin. Use the hole in the spreader hitch tube that positions the spreader closest to the power unit without any contact between them.
3. Connect the electrical plug from the spreader to the plug on the motor/controller wire harness. Use a zip tie to fasten the spreader cord to the spreader hitch tube or frame. If necessary, pull the plug on the motor/controller harness farther out of the power unit's rear frame until plugs can be connected.

Installation is complete.

SPREADER SETUP & INSTALL KITS

SS300 Drop Curtain Kit

Document Number	Kit Number / Part Number	Model	Serial Number Range
09.700140	70.8131	SS300	All Units
09.700140	70.8131	SS575	All Units

⚠ WARNING

Before making repairs or adjustments set the parking brake, turn off engine, and remove ignition key. Always disconnect the negative battery cable from the battery when working with electrical components. Always work in a manner that does not put safety at risk!

⚠ WARNING

Safety glasses must be worn during installation. Ear (hearing) protection must be worn when using air or power tools.

Installation Notes: Right and left hand orientation referred to in these instructions is determined as if sitting on the tractor seat, facing forwards.

Installation Time (estimated) 30 minutes

Tools Required:
 9/16" wrench & socket
 7/16" wrench & socket
 utility knife (SS575)
 1/2" wrench & socket
 ratchet
 drill (SS575)
 13/32" drill bit (SS575)



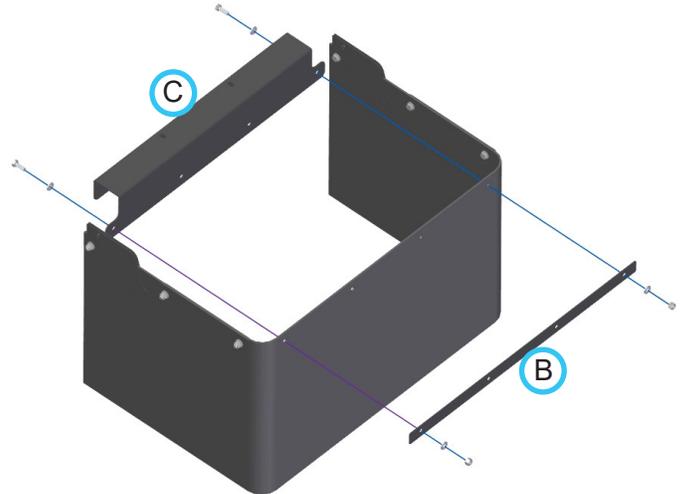
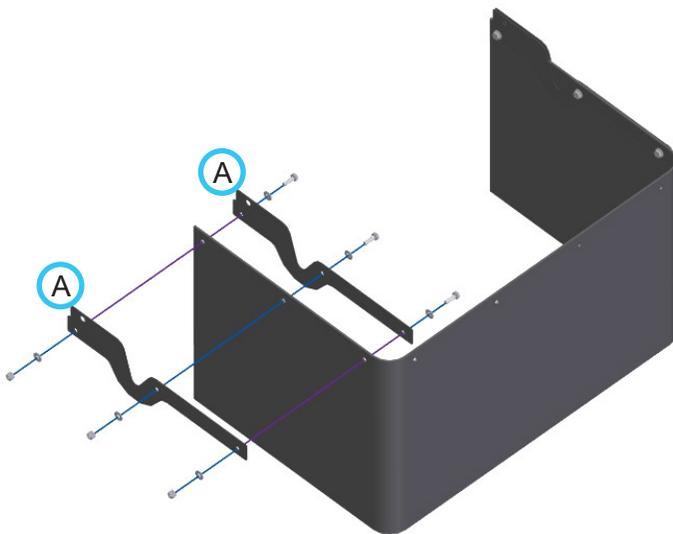
Attention

To prevent thread galling, hand tools and a thread lubricant are recommended when tightening stainless steel fasteners. Do not use air or electric power tools as this increases the potential of thread galling.

2. Install the curtain clamp bracket (B) on the outside (smooth side) of the drop curtain and the rear belting mount (C) on the inside of the drop curtain. Install 2) 1/4" x 3/4" bolts, 4) 1/4" flat washers, and 2) 1/4" lock nuts in the two outside holes only. Torque to 75 in-lbs (8.5 Nm).

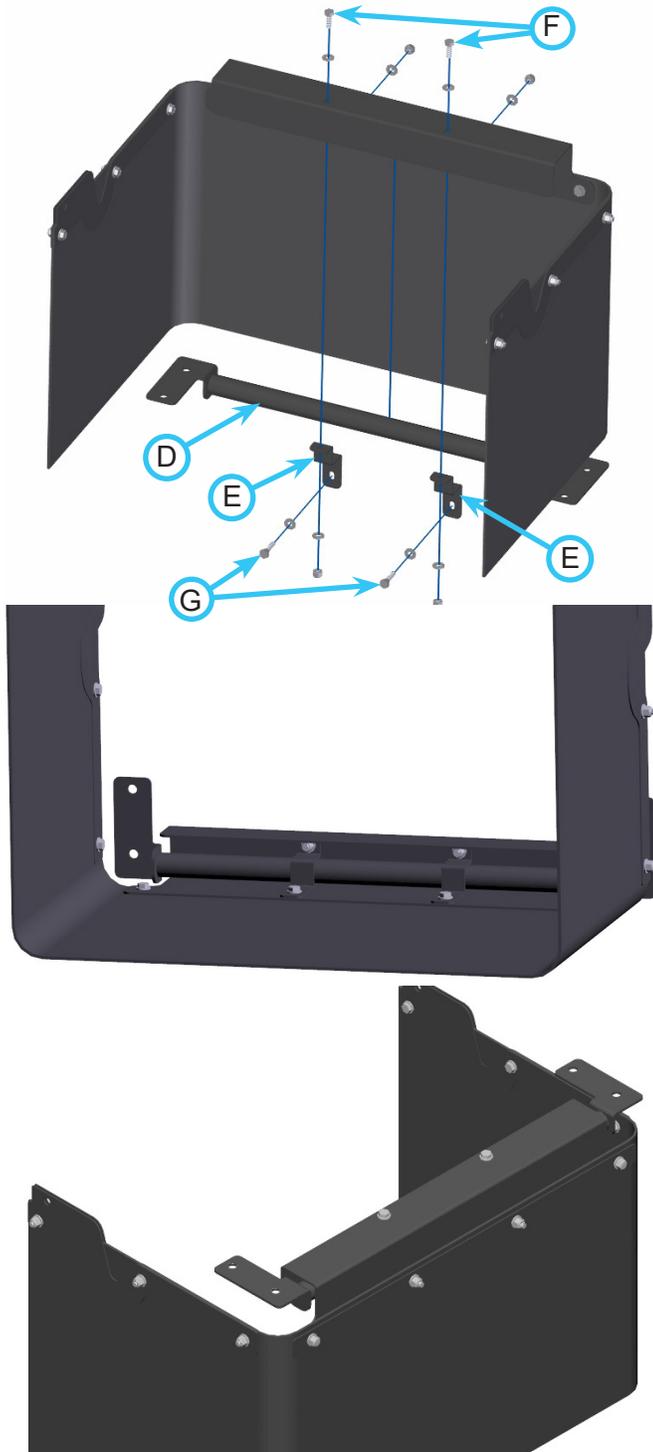
Drop Curtain Setup

1. On both ends of the drop curtain, install a side drop curtain mount (A) on each side of the belting and fasten with 3) 1/4" x 3/4" bolts, 6) 1/4" flat washers, and 3) 1/4" lock nuts as shown below. Torque to 75 in-lbs (8.5 Nm).



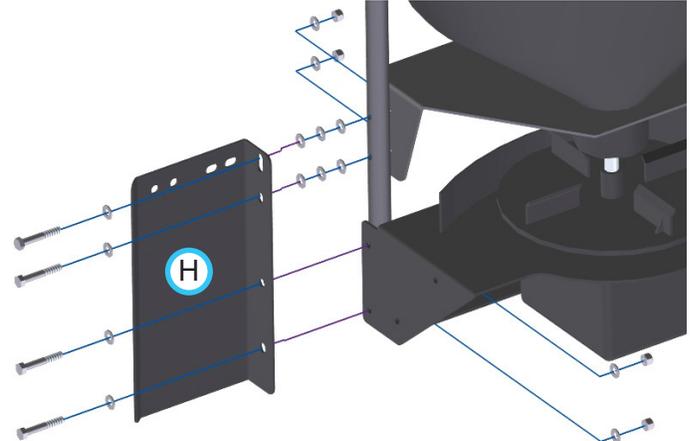
SPREADER SETUP & INSTALL KITS

- Place the rear belting pivot brace (D) onto the underside of the rear belting mount. Install 2) pivot tube clamps (E) onto the rear belting mount using 2) 1/4" x 3/4" bolts (F), 4) 1/4" flat washers, and 2) 1/4" lock nuts at the top of the rear belting mount and 2) 1/4" x 1" bolts (G), 4) 1/4" flat washers, and 2) 1/4" lock nuts at the two center holes in the rear belting mount and drop curtain. Torque to 75 in-lbs (8.5 Nm).

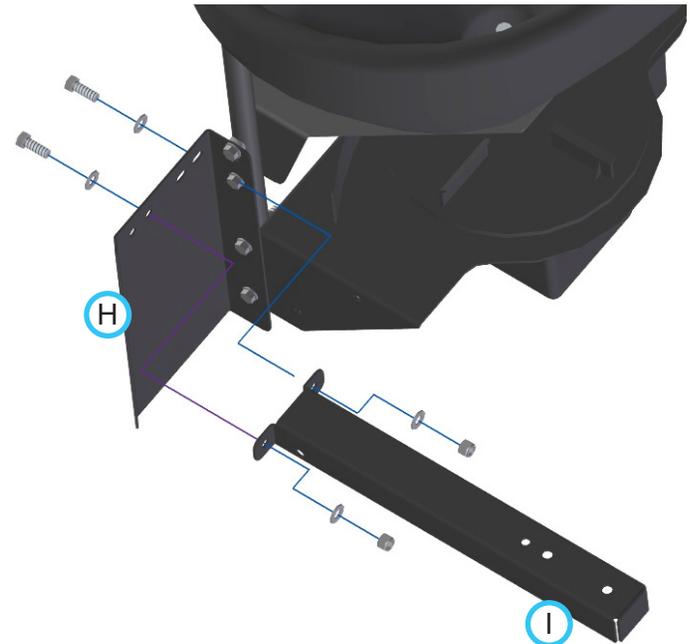


Installation on SS300 Spreader

- Remove the 4) bolts on the left side of the spreader that fasten the hopper support plate and the transmission mount plate to the hopper support tube.
- Install the left drop curtain mount (H) using the hardware removed in step 1 and adding 3) 5/16" flat washers between the drop curtain mount and the hopper support tube at the top two mounting locations. Do not tighten the hardware at this time.

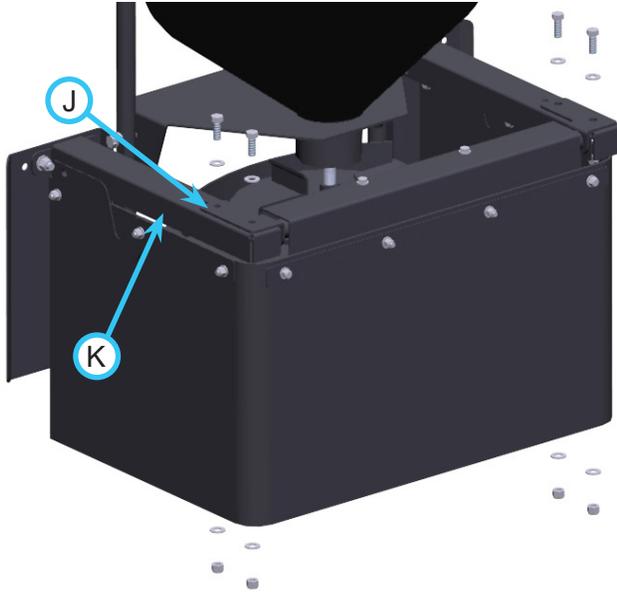


- Repeat steps 1 & 2 to install the right drop curtain mount onto the right side of the spreader.
- Install a side belting hanger (I) onto the inside set of mounting holes on both the right and left drop curtain mounts using 4) 3/8" x 1" bolts, 8) 3/8" flat washers, and 4) 3/8" lock nuts. Do not tighten the hardware at this time.

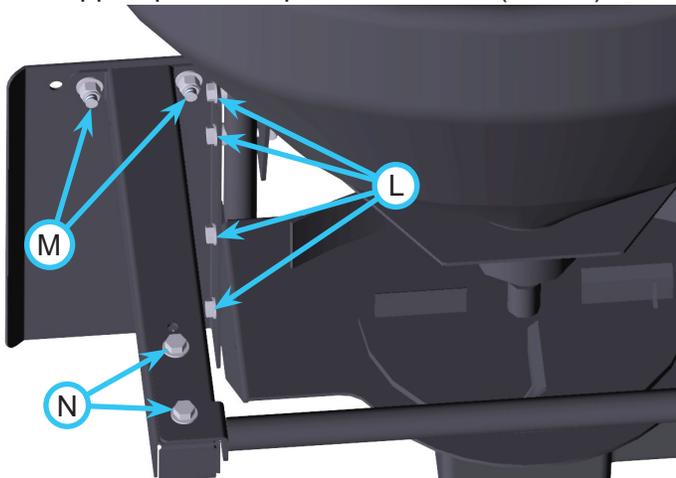


SPREADER SETUP & INSTALL KITS

5. Install the rear belting pivot brace (J) and drop curtain assembly on top of the left and right side belting hangers (K) using 4) 3/8" x 1" bolts, 8) 3/8" flat washers, & 4) 3/8" lock nuts. Partially tighten the four bolts to help align the left and right side belting hangers.

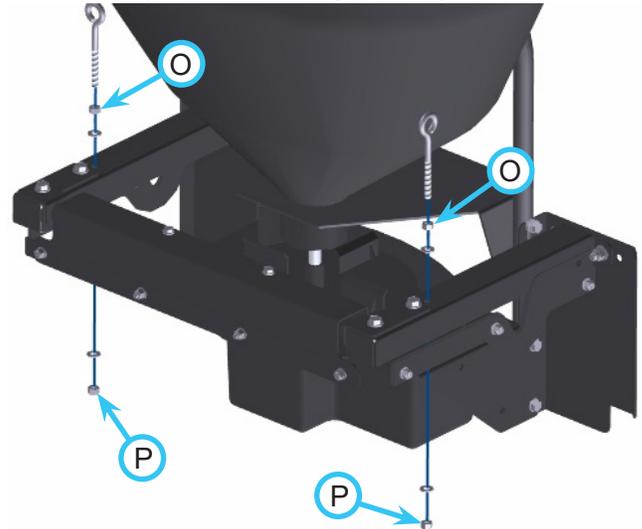


6. Tighten the 8) 5/16" bolts (L) that fasten the right and left drop curtain mounts to the hopper support tube, transmission mount plate, and hopper support plate. Torque to 135 in-lbs (15 Nm).

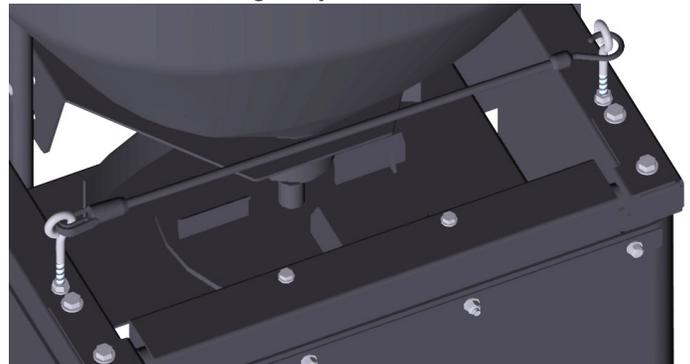


7. Tighten the 4) 3/8" bolts (M) that fasten the side belting hangers to the right and left drop curtain mount. Torque to 245 in-lbs (28 Nm).
8. Finish tightening the 4) 3/8" bolts (N) that fasten the rear belting pivot brace to the side belting hangers. Torque to 245 in-lbs (28 Nm).
9. Install a 5/16" x 3-1/2" eyebolt on top of both the right and left side belting hangers using a 5/16" standard nut (O) and flat washer on top and a 5/16" lock nut (P) and flat washer under-

neath. Orient the eyebolts as shown below and torque the lock nuts to 135 in-lbs (15 Nm). Check to ensure that approximately one thread of the eyebolt is through the nylon lock nut.



10. Fasten the clip on the supplied polymer bungee strap to the left eyebolt and hook the opposite end onto the right eyebolt.

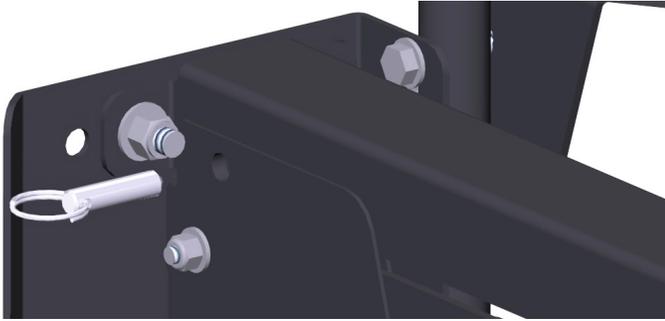


11. Rotate each side of the drop curtain up into place with one of the side curtain mounts on each side of the side belting hanger flange until the mounting holes are aligned.



SPREADER SETUP & INSTALL KITS

12. Fasten each side in place with a 3/8" x 3/4" ball pin.



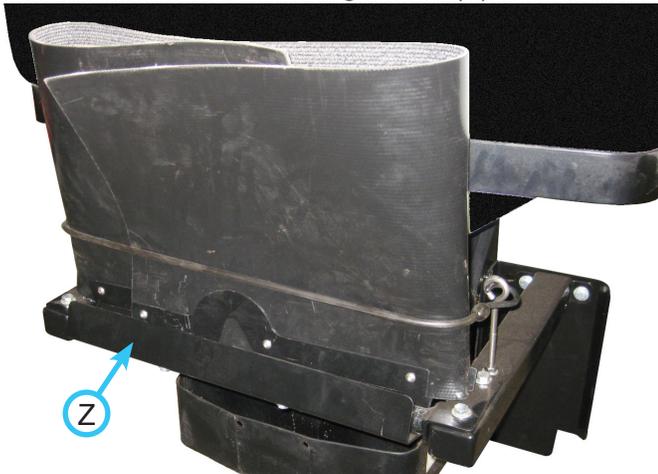
Installation is complete.

Drop Curtain Use

When the drop curtain is in the down position, it is designed to keep the material being spread contained to a 48" or narrower width in most conditions. If a wider spread pattern is desired the drop curtain can be pivoted up out of the way. The spreader controller can be used to adjust the spread width between approximately 7' (2.1 m) to 25' (7.6 m). NOTE: wind speed and direction can affect the spread width and pattern of any configuration.

Use the following procedure to pivot the drop curtain up for a wider spread pattern.

1. Unhook the bungee strap from the right eyebolt.
2. Remove the 3/8" ball pins that fasten the drop curtain to the side belting hangers. Allow the drop curtain sides to drop down, and reinstall the ball pins back in the holes on the side belting hangers.
3. Rotate the drop curtain until it is standing up against the spreader hopper.
4. Fold the sides of the drop curtain back against the rear of the drop curtain, making sure that each side leg of the drop curtain is captured in the channel of the rear belting mount (Z).



5. Secure by placing the bungee strap around the back of the drop curtain and hooking it onto the right eyebolt.

If you prefer to completely remove the curtain from the spreader when not in use, it can be set up to be removed quickly. To set up for quick removal, unbolt the pivot tube clamps from the rear belting mount and reinstall the bolts, washers, and nuts to fasten the belting back onto the rear belting mount.

Use the following procedure to remove the drop curtain for a wider spread pattern.

1. Remove the 3/8" ball pins that fasten the drop curtain to the side belting hangers. Allow the drop curtain sides to drop down, and reinstall the ball pins back in the holes on the side belting hangers.
2. Lift the rear belting mount off the pivot tube to remove the curtain from the spreader. NOTE: not all parts in this kit will be used in all applications.

SPREADER SETUP & INSTALL KITS

SS300 Gate Kit

Document Number	Kit Number / Part Number	Model	Serial Number Range
09.700143	70.8132	SS300	All Units

⚠ WARNING

Before making repairs or adjustments set the parking brake, turn off engine, and remove ignition key.
Always disconnect the negative battery cable from the battery when working with electrical components. Always work in a manner that does not put safety at risk!

⚠ WARNING

Safety glasses must be worn during installation. Ear (hearing) protection must be worn when using air or power tools.

Installation Notes: Right and left hand orientation referred to in these instructions is determined as if sitting on the tractor seat, facing forwards.

Installation Time (estimated) 1.5 hours

Tools Required: 3/8" wrench 7/16" wrench 1/2" wrench 9/16" wrench 5/8" wrench
side cut pliers 5/32" hex key wrench saw

1. With the SS300 spreader installed on the power unit, park the power unit on a level surface.
2. Shut off the power unit engine and engage the parking brake.
3. Remove the ignition key from the switch.
4. Unplug the electrical cord that powers the spreader.
5. Remove the 4) bolts that fasten the plastic hopper to the tube frame and remove the hopper.
7. Loosen the auger set screw and remove the auger (B) from the drive shaft. The auger will not be reused.



6. Remove the 4) bolts that fasten the hopper support plate (A) to the tube frame and remove the hopper support plate. The plate will not be reused.
8. Install the agitator (C) onto the drive shaft. Apply blue thread lock to the set screw, align the set screw with the flat on the drive shaft, and tighten.



SPREADER SETUP & INSTALL KITS

9. Install the gate mount (D) to the spreader frame where the hopper support plate was removed, using the hardware from the hopper support plate. Position the gate mount so it is level and tighten the hardware.



10. Remove the 2 1/4" flange bolts on the left side of the steering column and install the gate cable mount (E) using the same hardware.



11. Starting at the spreader pivot point at the right rear of the unit, route the gate control cable and handle to the gate cable mount.



Attention

For ease of removing the spreader from the power unit at the end of the snow season, route the cable so that it can be removed from the power unit without disconnecting it from the spreader.

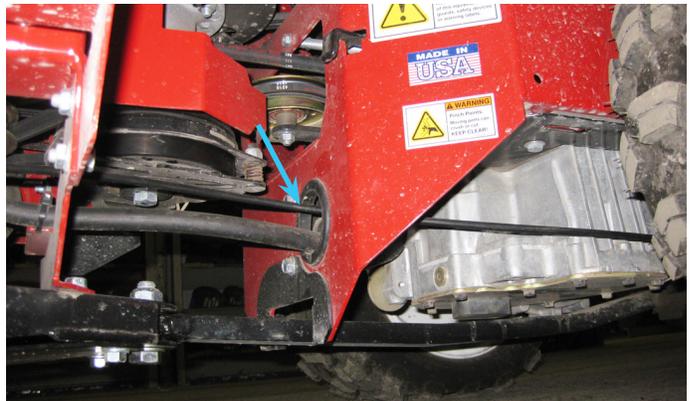
12. Route the cable right to left through the rear hitch support.



13. Route forward along the left side of the rear axle.



14. Route through the rear frame grommet.



15. Route through the front frame cross member and forward along the left side of the front axle.



SPREADER SETUP & INSTALL KITS

16. Route from left to right in front of the axle.



17. Route through the opening in the front hitch and up through the hole in the frame next to the foot pedal.



18. Route in front of the steering column and install the gate cable handle onto the gate cable mount.



20. Remove the bolts that fasten the foot pedal pivot to the front frame. Install a supplied 1/4" x 3/4" bolt and clamp in the front hole of the foot pedal pivot on the top side of the front frame. Place the gate cable in the clamp and tighten the bolt.

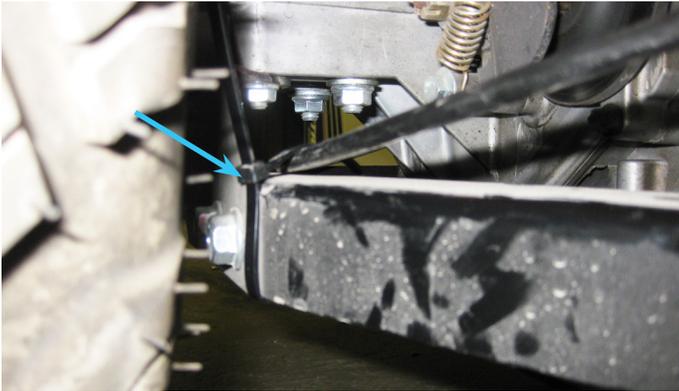


21. Install a supplied 1/4" x 3/4" bolt and clamp in the rear hole of the foot pedal pivot on the bottom side of the front frame. Place the gate cable in the clamp and tighten the bolt. Position the rear clamp in a manner that will not allow the cable to rub on the front hitch as the front hitch moves up and down.



SPREADER SETUP & INSTALL KITS

22. Use a plastic cable strap to fasten the cable to the front anchor plate, in order to keep the cable away from the left front tire and the disc brake.



23. Place the gate assembly over the agitator and spinner drive shaft with the cable connection point on the left side.



24. Place the plastic hopper throat into the gate assembly and temporarily install a cushioned metal clamp to both of the outer hopper mounting holes. Do not tighten as these will be removed again. Route the gate cable through the two clamps.



25. Determine how long the cable should be by holding it up to the gate assembly. Make sure there is enough slack in the cable to allow the spreader to swing out so the power unit hood can be opened. Also make sure there is a large enough loop at the spreader that a curtain kit will work if one is installed.
26. When the proper cable length has been determined, mark the cable with a paint pen or chalk.



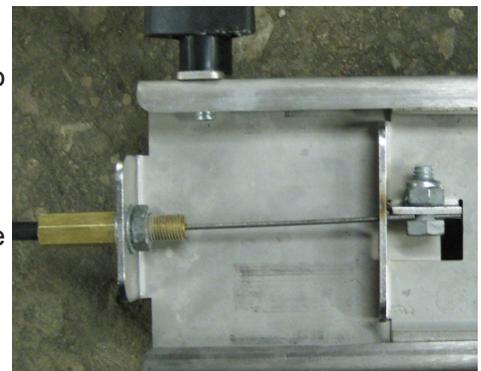
27. Pull the cable handle up until there is approximately 5" (12.5 cm) between the bottom of the cable knob and the top nut that fastens the cable to the gate cable mount. This will ensure that when the cable is cut to length, that there will be enough length of inner cable wire to connect to the gate slide.



28. Cut the cable to length at the marked location and then push the cable handle back into the housing.
29. Remove the plastic hopper from the spreader. Remove the gate assembly from the spinner drive shaft and turn upside down so the cable and fitting can be easily installed.

30. Thread the brass bulkhead fitting onto the cable jacket.

Thread one jam nut onto the bulkhead fitting and insert the fitting into the gate body. Fasten with a washer and jam nut.



SPREADER SETUP & INSTALL KITS

31. Insert the cable wire through the hole in the bolt mounted to the gate slide. There should be about 1/2" - 3/4" (12.7 - 19 mm) of wire sticking through the bolt. Tighten the bolt and place the gate assembly back over the spinner drive shaft.
32. Install the gate assembly to the gate mount using the hopper throat clamp. Fasten with 2) 3/8" x 1" stainless bolts, 4) 3/8" stainless washers, and 2) 3/8" stainless nylon lock nuts. Apply a drop of oil or other lubricant to the bolt threads prior to assembling to prevent the threads from galling. It is recommended that only hand tools be used to tighten stainless fasteners, due to galling potential when using power tools. Position the gate assembly flush with the top of the hopper throat clamp.



Move the hopper throat clamp in the gate mount slots until there is a minimum of 1/2" (12.7 mm) clearance between the spinner and the bottom of the gate assembly.

CAUTION

If the gate assembly is installed without sufficient clearance (1/2" / 12.7 mm minimum), the spreader frame will flex under the weight of a full hopper and cause the spinner to hit the gate assembly.

33. Only tighten the bolts enough to hold the gate assembly in the correct position.
NOTE: If the spreader is equipped with a curtain kit, the gate assembly needs to be rotated slightly so the cable will line up with the curtain belting notch.



Drill a 3/8" (9 mm) hole in the belting and use a utility knife to cut a slice in the belting so the cable can pass through the curtain.



34. Install the plastic hopper throat into the gate assembly. It will probably be necessary to trim off the hopper throat so the mounting holes line up with the frame holes. To determine the amount to trim, make sure the hopper throat is bottomed out in the gate assembly, then measure the distance the bolt holes in the hopper need to move to line up with the spreader frame holes. Add 1/16" (2 mm) to this measurement and cut the hopper throat back that amount.
 35. Reinstall the hopper throat into the gate assembly. Fasten to the spreader frame with the original hardware. Be sure the gate cable is inserted in the cushioned clamps and the clamps are mounted to the outside set of hopper mount bolts.
 36. Tighten the bolts that fasten the hopper throat clamp to the gate mount.
 37. Connect the electrical cord that powers the spreader.
- Installation is now complete.

SPREADER SETUP & INSTALL KITS

SS300 Vibrator Kit

Document Number	Kit Number / Part Number	Model	Serial Number Range
09.700145	70.8134	SS300	All Units

⚠ WARNING

Before making repairs or adjustments set the parking brake, turn off engine, and remove ignition key.
Always disconnect the negative battery cable from the battery when working with electrical components. Always work in a manner that does not put safety at risk!

⚠ WARNING

Safety glasses must be worn during installation. Ear (hearing) protection must be worn when using air or power tools.

Installation Notes: Right and left hand orientation referred to in these instructions is determined as if sitting on the tractor seat, facing forwards.

Installation Time (estimated) 30 minutes

Tools Required: drill 3/8" drill bit 1/2" wrenches 9/16" wrenches 12mm wrench 13mm wrench*
wire stripper/crimper tool *Not used in all applications



Attention

Discard the instruction sheet supplied with the 70.8120 vibrator sub-kit.
The 70.8120 vibrator sub-kit includes parts that will not be used in this installation.

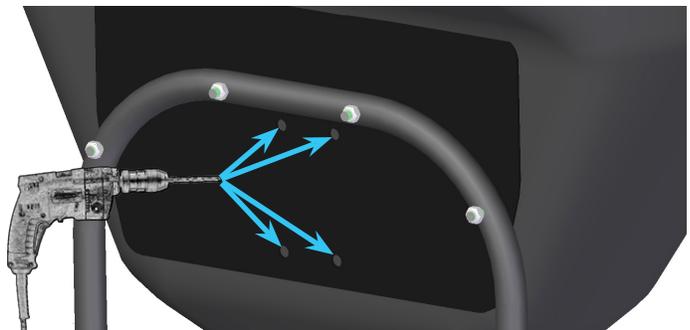
1. Park the power unit and spreader on a level surface.
2. Shut off engine and engage the parking brake.
3. Remove the ignition key from the switch.
4. Disconnect the negative battery cable from the power unit's battery.
5. Remove the 4) bolts that fasten the hopper to the spreader frame. This hardware will be reused.



6. Place 1) 64.1686 vibrator mounting plate on the inside of the plastic hopper and the 2nd mounting plate on the outside of the plastic hopper.

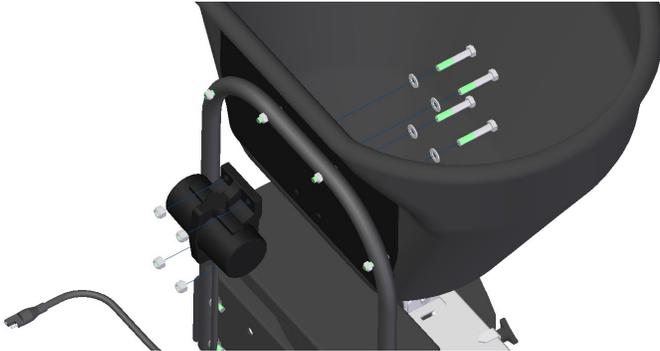


7. Use the hardware removed in step 5 to fasten the vibrator mounting plates and the hopper to the spreader frame. Torque to 135 in-lbs (15 Nm).
8. Using the installed vibrator mounting plates as a guide, drill 4) 3/8" holes in the plastic hopper.

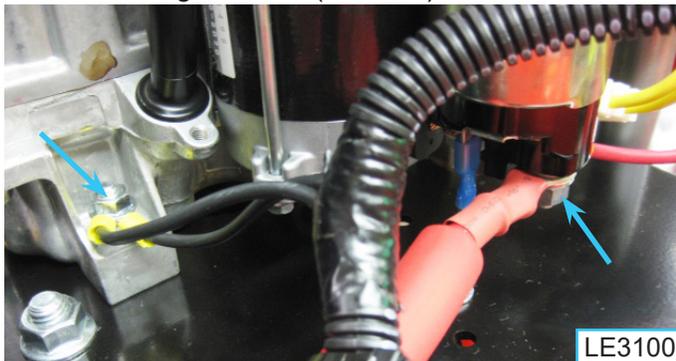
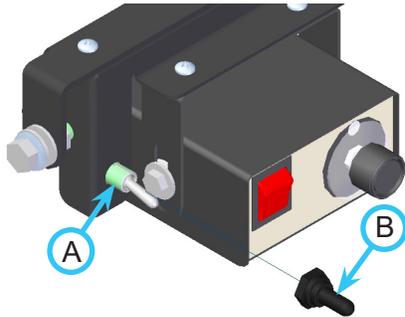


SPREADER SETUP & INSTALL KITS

9. Use 4) 3/8" x 2" bolts, 3/8" flat washers, and 3/8" lock nuts to install the vibrator to the vibrator mounting plate. Install the hardware so the bolt heads and washers are on the inside of the hopper. Install the vibrator so the power cord is located on the underside of the vibrator. Torque the hardware to 30 ft-lbs (41 Nm).

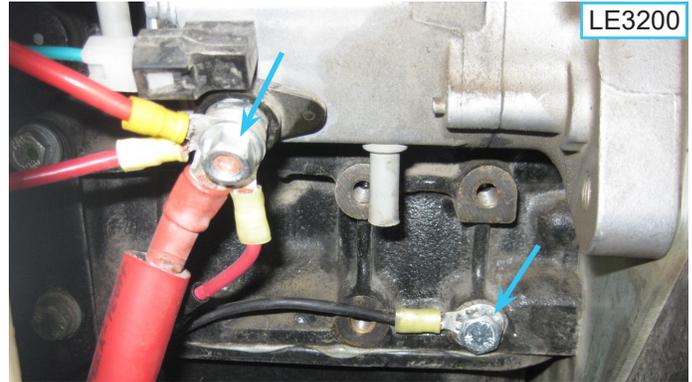


10. Remove the jam nut from the toggle switch. Install the toggle switch (A) into the hole in the control box mount bracket and fasten with the jam nut. Install the rubber toggle switch boot (B) onto the toggle switch.
11. Connect the wire harness with the molded plug to the plug on the vibrator cord and fasten the harness to the spreader pivot hitch tube with a zip tie. While leaving enough slack in the wire harness to allow the spreader to pivot to the side, route the wire harness to the front of the power unit along the same path as the spreader harness.
12. Install the red wire eyelet of the other supplied wire harness onto the positive post on the starter.
13. Install the black wire eyelet onto the ground bolt on the engine base (LE3100)

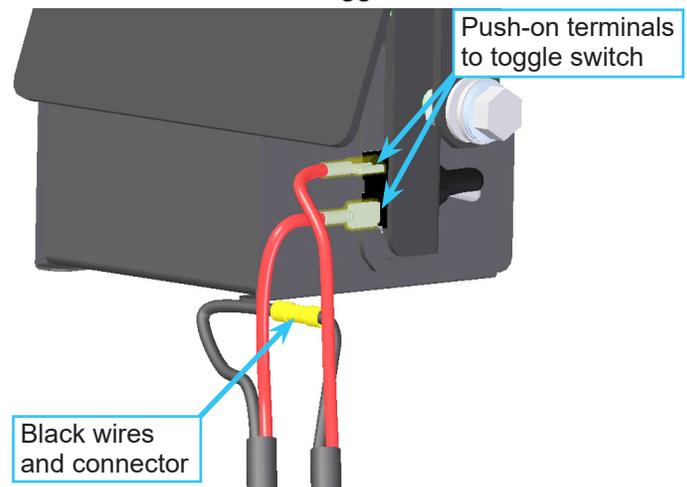


or use the supplied metric bolt and star washers to fasten to an unused threaded hole in the engine

- block (LE3200). Place a star washer on each side of the terminal and tighten to 18 ft-lbs (24 Nm).



14. Route the wire harness to the front of the power unit along the same path as the first wire harness.
15. Ensure there is enough slack in the wire harnesses at the center pivot area to prevent the harnesses from being pulled tight when the power unit is turned to the left or right and use zip ties to fasten the wire harnesses to the spreader harness, so they will not get pinched or cut by moving parts.
16. Cut both wire harnesses to length, making sure they are long enough to reach the toggle switch.
17. Carefully remove about 2" (5 cm) of the cord casing on both wire harnesses to expose the individual black and red wires.
18. Strip approximately 3/8" (9 mm) of insulation from each red wire and crimp a push-on terminal onto both wire ends. Connect these red wires to the terminals on the toggle switch.



19. Strip approximately 3/8" (9 mm) of insulation from each black wire and connect both black wires together with a butt connector.
20. Reconnect the negative battery cable to the power unit battery. Installation is complete.

GENERAL OPERATION

Daily Inspection

⚠ WARNING

Always set the parking brake, shut off power unit engine, remove the ignition key, and ensure all moving parts have come to a complete stop before inspecting components, or attempting any repair or adjustment.

1. Park machine on a level surface, with the engine shut off and all fluids cold.
2. Perform a visual inspection of both the power unit and the spreader. Look for loose or missing hardware, damaged components, or signs of wear.
3. Be sure all electrical connections are tight and clean.
4. Be sure nothing is jammed in the hopper.
5. Refer to the power unit operator's manual. Check the power unit's engine oil, hydraulic oil, cooling system, tire pressure, and fuel level. Add fluid or service as required.
6. Test the power unit's operator safety interlock system*.

Spreader Loading

⚠ WARNING

Do not overload spreader or power unit. Use the chart below to calculate weight of material. Weights of material are an average for dry materials.

Material	Weight Per Cubic Ft.
Rock Salt	75-85 lbs. (34-38.5 kg)
Sand/Salt Mix	95-120 lbs. (43-54.5 kg)
Maximum Spreader Capacity (Volume) 3.0 ft ³ (.085 m ³)	
Maximum Spreader Capacity (Weight) 240 lbs. (109 kg)	

Use the following charts to determine the allowable weight capacity of the spreader in combination with various power unit and attachment setups.

⚠ WARNING

Exceeding the listed weight capacities in the following charts may result in loss of steering or front wheel traction.

* Refer to power unit operator's manual for operation of power unit controls.

Ventrac 3100 and 3200 (without cab) *

Attachment On Front Of Power Unit	SS300 Capacity	
HE480	48" Slip Scoop	*
HJ480	48" Excavator	*
KD482	48" Dozer Blade	*
KD602	60" Dozer Blade	100 lbs (45 kg) #
KD722	72" Dozer Blade	100 lbs (45 kg) #
KV522	55" V-Blade	150 lbs (68 kg) #
LB540	54" Broom	150 lbs (68 kg) #
LX423	42" Snowblower	200 lbs (91 kg) ^

Ventrac 3100 and 3200 (with LW350 Cab) *

Attachment On Front Of Power Unit	SS300 Capacity	
HE480	48" Slip Scoop	100 lbs (45 kg) #
HJ480	48" Excavator	100 lbs (45 kg) #
KD482	48" Dozer Blade	100 lbs (45 kg) #
KD602	60" Dozer Blade	150 lbs (68 kg) #
KD722	72" Dozer Blade	150 lbs (68 kg) #
KV522	55" V-Blade	200 lbs (91 kg) #
LB540	54" Broom	200 lbs (91 kg) #
LX423	42" Snowblower	240 lbs (109 kg) ^

* If power unit is equipped with optional weights, the weights must be removed from the power unit.

* Attachments weighing less than 200 lbs (91 kg) are not recommended for use with the spreader in this configuration.

Weight transfer set to Medium setting (Position 3).

^ Weight transfer set to High setting (Position 4).

After loading material into spreader hopper, replace the hopper cover.

Spreader Operation

⚠ 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.

⚠ CAUTION

Never leave materials in hopper for long periods of time, as ice melt products are hygroscopic and will attract atmospheric moisture and harden.

⚠ CAUTION

If there are any problems while operating the spreader, refer to the Troubleshooting Guide.

GENERAL OPERATION

⚠ WARNING

Do not operate power unit with SS300 spreader on slopes greater than 10 degrees. Operation on slopes greater than 10 degrees may result in loss of steering or front wheel traction.

⚠ WARNING

Do not exceed 10 mph (16 kph) when operating the spreader.

⚠ WARNING

Always turn off the spreader controller before filling hopper with material.

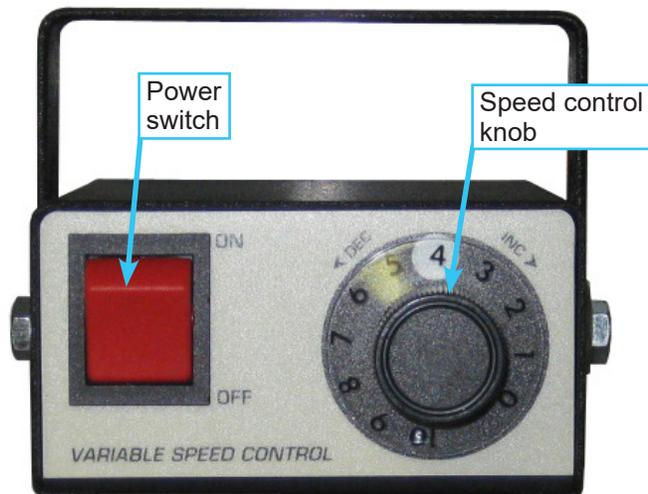
⚠ WARNING

Before working on the spreader for any reason, turn off the spreader controller and unplug the spreader from the tractor power supply.

⚠ WARNING

If the spinner becomes jammed, turn off the spreader controller and unplug the spreader from the tractor power supply before attempting to clear the obstruction.

The spreader is equipped with controls to allow adjustment of the spreading width.



To adjust the distance that material is being spread, the spinner speed should be increased for a wider spread pattern and decreased for a narrower spread pattern. The spinner speed is adjusted by rotating the speed control knob on the variable speed con-

troller. Position 0 is the slowest setting available and will give approximately a 7 foot (2.1 meter) spread pattern*, while Position 10 is the fastest setting and will give approximately a 25 foot (7.6 meter) spread pattern*. The spinner speed can be adjusted at any time, with the spinner turned on or off.

An optional drop curtain is available for spreading material in tight areas, such as sidewalks, cart paths, etc. The drop curtain will limit the spread width to approximately 48 inches (122 cm).

*Wind conditions can greatly affect the spread pattern and distance.

The amount of material that comes out of the hopper is set by the auger. The faster the spinner is turning, the more material that is pulled out of the hopper. The density of the spread pattern can be changed by the travel speed of the tractor. Increasing travel speed at the same spinner speed will make the spread pattern lighter, while decreasing travel speed will make the spread pattern heavier.

To spread, fill the hopper with the material that is to be spread.

Turn the controller power switch on to start the spinner rotating. As soon as the spinner is rotating, material will begin to be spread. NOTE: the speed controller is equipped with a start up burst mode that sends full power to the motor at start up to prevent the motor from stalling if it is under load. Be aware of this start up burst, as it will give a full width spread pattern initially, even if the controller is set at its slowest setting.

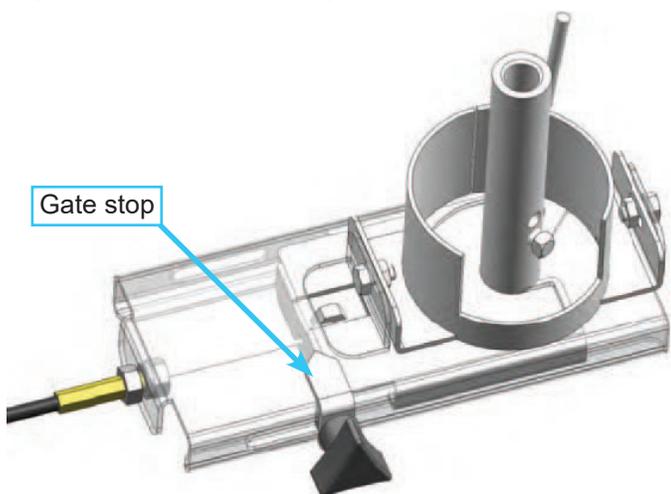
To stop spreading, turn the power switch off.

Due to the clearance between the hopper throat and the auger, it is normal for material to trickle out and build up on the spinner when the power switch is off with material in the hopper. For this reason, it is recommended that the hopper be left empty when transporting by vehicle or if driving the power unit long distances without spreading.

Ice melt products may harm vegetation. Be aware of the spread pattern and reduce the spread width as required.

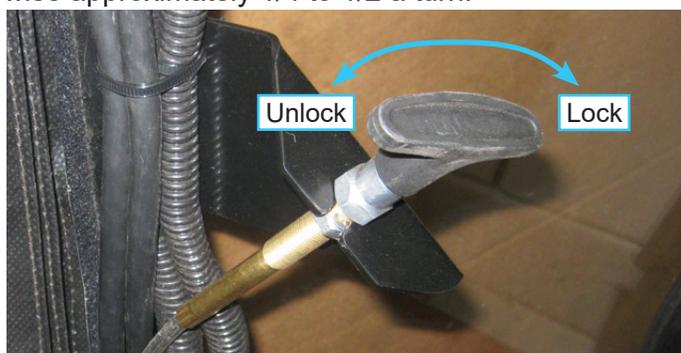
GENERAL OPERATION

Optional Gate Kit Operation



There is an adjustable stop provided on the gate assembly to allow for a repeatable spread pattern density. If it is desired that the spread pattern density always be the same, then the gate stop should be used for the most consistent spreading. The gate stop provides unlimited adjustment from the closed to the fully open positions by loosening the gate stop knob and sliding the stop in the slot. Moving the stop away from the spreader shaft will make the spread pattern heavier, and moving it toward the spreader shaft will make the spread pattern lighter. The numbered reference lines on the gate body allow for repeatable settings.

The twist-to-lock push/pull cable allows the flow of material to be turned on or off from the tractor seat. To unlock, twist the gate cable handle counterclockwise approximately 1/4 to 1/2 a turn.



Pulling the cable out will open the gate and allow material to start flowing out of the hopper. Pushing in on the handle will then close the gate to stop the flow of material. It is suggested that the gate cable handle be locked by twisting it clockwise so the gate will not move from its selected position.

With the twist-to-lock feature, the gate cable can be locked at any point within its travel limits. It is possible to use the gate cable to adjust the amount of

material being dispensed as the spreader is being used, without the need to stop and adjust the gate stop. To use the spreader in this manner, the gate stop should be locked in the fully open position. The gate cable can then be moved in or out to adjust how much material is being spread.

The density of the spread pattern can also be changed by the travel speed of the tractor. Increasing travel speed with the same gate opening position will make the spread pattern lighter, while decreasing travel speed will make the spread pattern heavier.

1. To spread material, make sure the gate on the hopper is closed.
2. Fill the hopper with the material that is to be spread.
3. Turn the controller power switch on to start the spinner rotating.
NOTE: the speed controller is equipped with a start up burst mode that sends full power to the motor at start up to prevent the motor from stalling if it is under load. Be aware of this start up burst, as it will give a full width spread pattern initially, even if the controller is set at its slowest setting.
4. Once the spinner is turning, pull the gate control cable out to open the gate and allow material to flow out of the hopper.
5. When finished, shut the gate by pushing the gate control cable in.
6. If it will be more than 5 minutes before spreading again, turn the controller power switch off to stop the spinner.

Ice melt products may harm vegetation. Be aware of the spread pattern and reduce the spread width as required.

SERVICE

WARNING

Always set the parking brake, shut off power unit engine, remove the ignition key, and ensure all moving parts have come to a complete stop before inspecting components or attempting any repair or adjustment.

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. Perform service in a well lighted area. Disconnect electricity to spreader before performing any service. Keep service area clean to help prevent accidents.

WARNING

Do not splice any other devices into wiring harness. Do not modify harness length. Any modifications will void warranty.

CAUTION

Read lead labels before attaching wiring harness to power source or ground.

CAUTION

The controller is a solid state electronic unit and is not serviceable. Any attempt to service will void the warranty.

CAUTION

There are no serviceable parts in the motor/transmission assembly. Any attempt to service will void the warranty.



Attention

If any component requires replacement, use only original Ventrac replacement parts.

Cleaning and General Maintenance

For best results, and to maintain the finish of the SS300, clean or wash the spreader to remove dirt, sand, and salt deposits. Remove any ice or snow accumulations from the spreader and mount.



Attention

To maintain the finish of the power unit and attachment, thoroughly wash the equipment after each use to remove any corrosive agents (e.g., salt). Failure to clean the equipment may result in corrosion of (including but not limited to) steel, aluminum, and electrical components. Equipment that will experience repeated exposure to corrosive agents should be pretreated with a corrosion preventative.

CAUTION

When pressure washing the motor enclosure area, stay at least 36 inches (92 cm) away from motor enclosures.

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

If the motor cover is removed for any reason, use silicone sealant to ensure weather proofing of enclosure. To prevent corrosion, use dielectric grease on all electrical connections at the beginning and end of the season and each time power plugs are disconnected.

Storage

Preparing the Spreader for Storage

1. Clean the spreader.



Attention

To maintain the finish of the power unit and attachment, thoroughly wash the equipment to remove any corrosive agents (e.g., salt). Failure to clean the equipment may result in corrosion of (including but not limited to) steel, aluminum, and electrical components.

2. Inspect for loose or missing hardware, damaged components, or signs of wear.
3. Inspect safety decals, Replace any safety decals that are faded, illegible, or missing.
4. Use dielectric grease on all electrical connections to prevent corrosion.
5. Paint or oil all bare metal surfaces.
6. Wipe off all excess grease or oil.

Removing the Spreader from Storage

Inspect, clean, and prepare spreader for use.

TROUBLESHOOTING

Troubleshooting Chart

Whenever service is necessary, your local Ventrac 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 locating the problem.

Preliminary Checks:

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

WARNING

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

PROBLEM	POSSIBLE CAUSE	SOLUTION
Motor doesn't run.	Loose or corroded electrical connections. Tripped circuit breaker. Motor seized.	Check all connections. Type 1 circuit breaker resets automatically after it cools. Turn off spreader motor and check for electrical shorts or jammed material in hopper or agitator. Replace motor.
Motor runs at one speed.	Faulty controller.	Replace controller.
Excessive vibration.	Bent shaft Bent spinner.	Replace transmission. Replace spinner
Controller shut down.	Jammed agitator or spinner. Poor electrical connections. Electrical short. Controller failure.	Carefully clear jammed material. Clean or replace connectors. Use dielectric grease. Check electrical connections. Check for bare wires. Replace controller.
Material not flowing from hopper.	Empty hopper. Physical obstruction. Wet material. Frozen or coarse material. Spinner not turning. Agitator loose on shaft. Gate* not open.	Fill hopper. Clear out obstruction. Replace with dry material. Replace material. Check drive assembly. Tighten locking set screw on the side of the agitator. There is a flat machined on the driver shaft. Align the agitator set screw with this flat and tighten the bolt. Open the gate.
Gate* doesn't open.	Gate slide is frozen or clogged with debris. Gate cable corroded. Gate cable fastener to the gate is loose. Gate cable not adjusted correctly.	Clean out debris and/or loosen gate slide. Replace the gate cable. Tighten the hardware that fastens the gate cable to the gate body and slide. Adjust the gate cable and tighten the bolt that fastens the cable to the gate slide.

*If equipped with optional gate kit.

SPECIFICATIONS

Dimensions

Overall Height36 inches (91 cm)*
Overall Length34 inches (86 cm)*
Overall Width30 inches (76 cm)*
Weight	100 pounds (45.4 kg)*
Capacity (volume)	3.0 ft ³ (.085 m ³)
Capacity (weight)240 pounds (109 kg)
Spreading WidthUp to 25 feet (7.6 m)

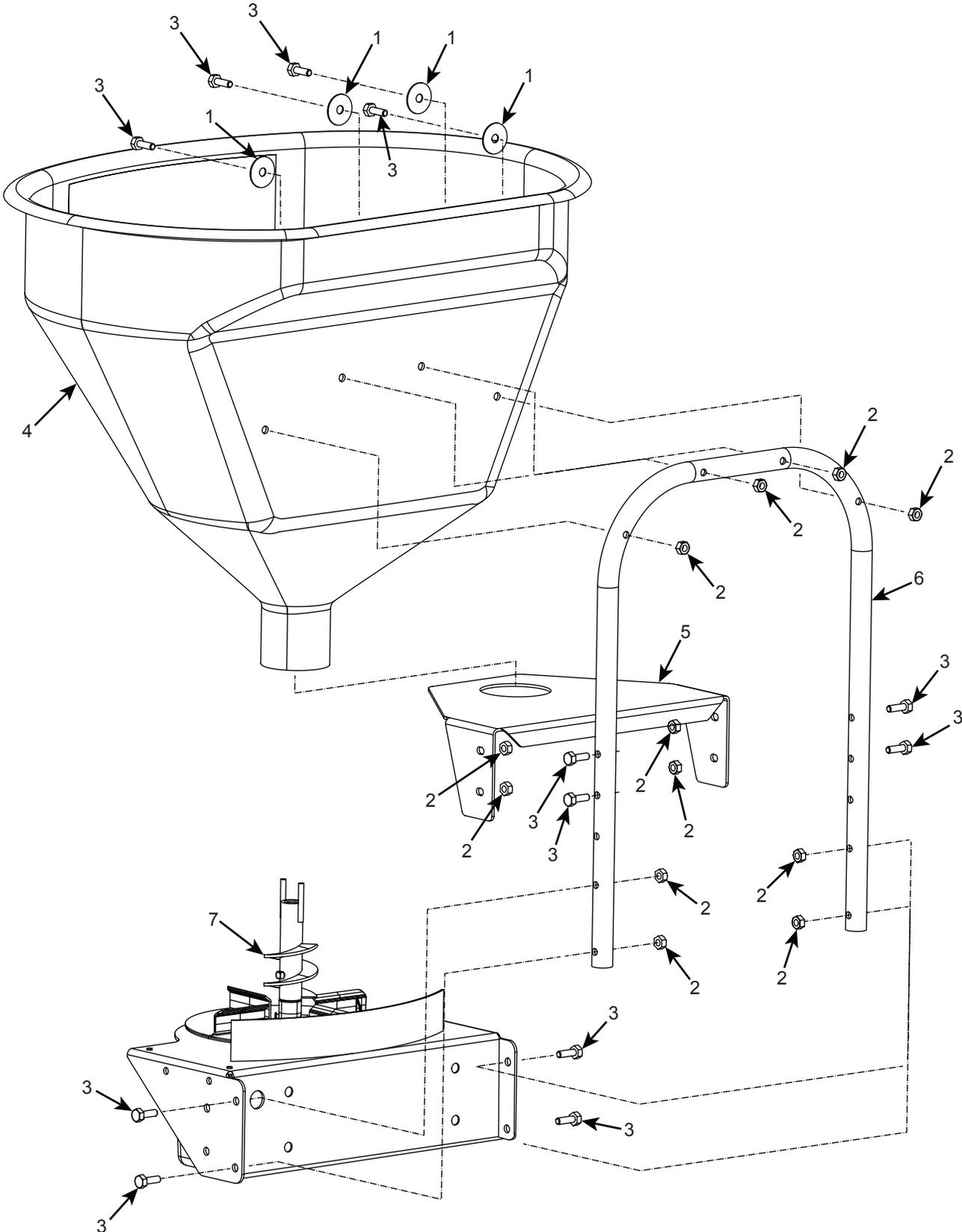
*Approximate Dimensions, Includes Installation Kit

Features

- Spreads bagged rock salt and calcium flake.
- Spreads bagged ice melt products and calcium pellets when equipped with optional gate kit (70.8132).
- Spreads bulk rock salt when equipped with optional vibrator kit (70.8134).
- Electronic, weather resistant, variable speed controller.
- A 12 volt, 1/3 hp drive motor with enclosed gear drive.
- The 3000 series pivot hitch swings the spreader to the side to provide access to the power unit engine.
- Adjustable flow control when equipped with optional gate kit (70.8132).

PARTS

ILLUSTRATED DRAWING Frame & Hopper



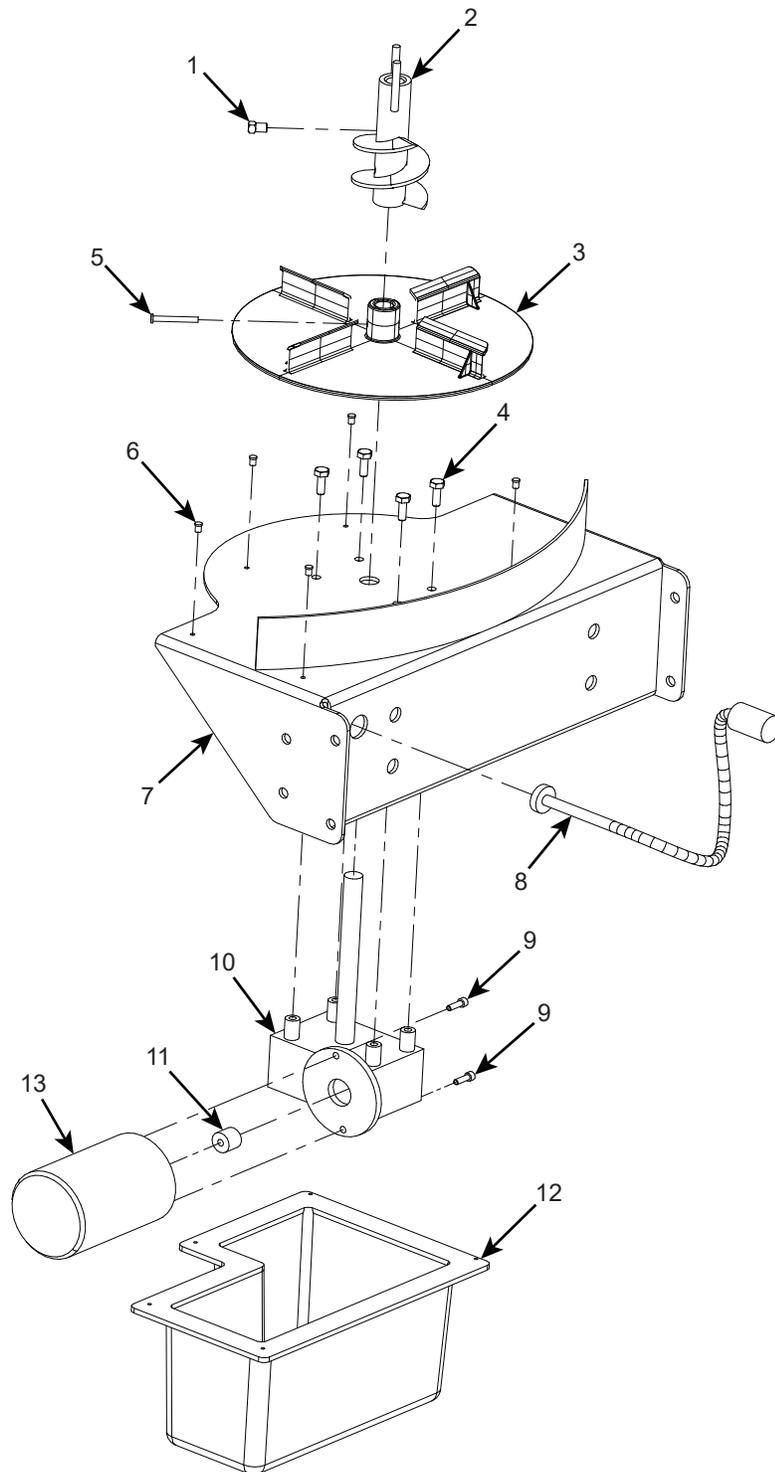
PARTS

Frame & Hopper

REF.	PART NO.	DESCRIPTION	QTY.
1	99.B0103	WASHER, FENDER 5/16 SS	4
2	99.A05N-3	LOCKNUT, NYLON 5/16-18 SS	12
3	90.0516-3	BOLT, 5/16-18 USS X 2 SS	12
4	07.3D7344	HOPPER, 150	1
	07.3D7181	COVER, WEATHER W/VISION PANEL	1
5	07.3D6702	PLATE, 325 HOPPER SUPPORT	1
6	07.3D6712	TUBE, HOPPER SUPPORT	1
7		DRIVE ASSEMBLY	1

PARTS

ILLUSTRATED DRAWING Drive Assembly



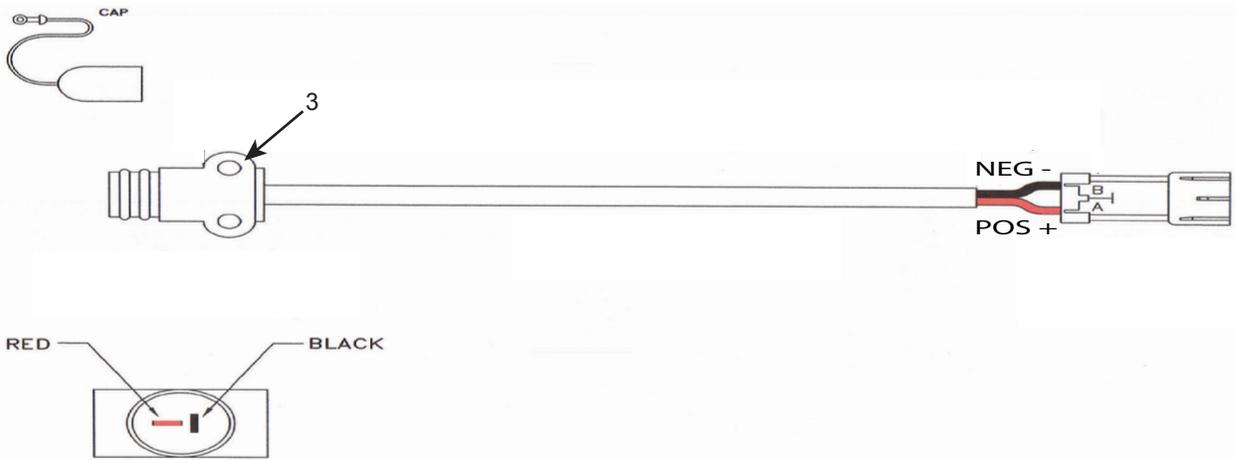
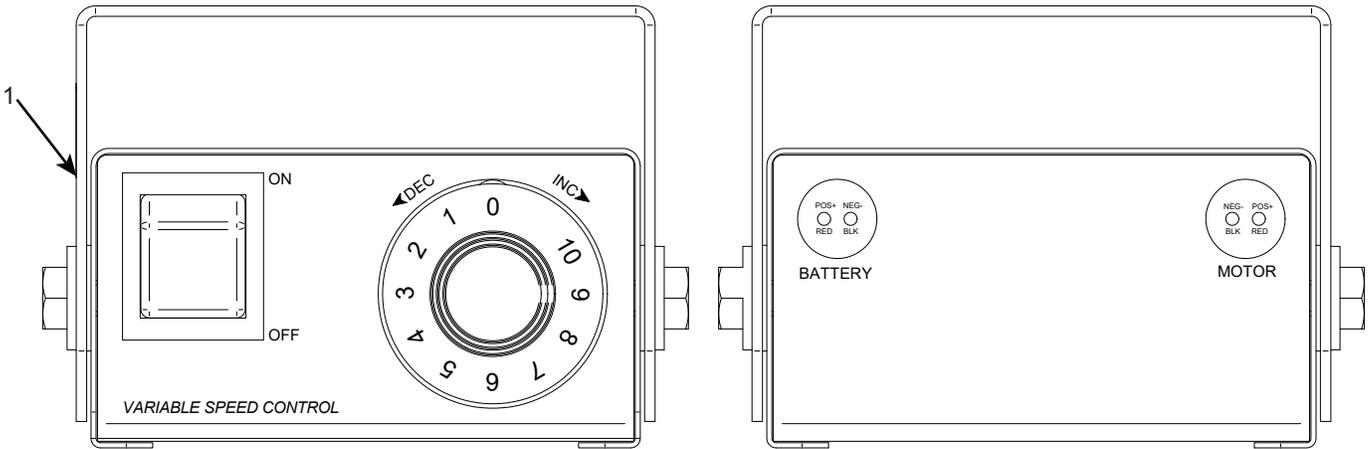
PARTS

Drive Assembly

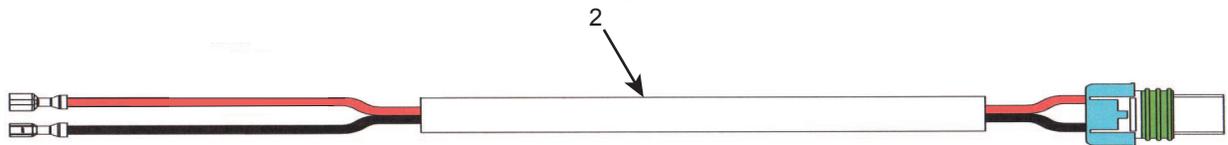
REF.	PART NO.	DESCRIPTION	QTY.
1	85.SS25	.SET SCREW, 5/16-18 X 3/8 SS	1
2	07.3D6171	.AUGER, MINIMAL FLOW	1
3	07.3D6224	.SPINNER, 10" STEEL	1
4	07.3D6131	.BOLT, SRF 1/4-20 X 1/2 SS	4
5	07.3D6746	.PIN, 3/16" DETENT	1
6	07.3D6333	.RIVET, 3/16" LONG	5
7	07.3D6480	.WELDMENT, 325 TRANS MOUNT	1
8	07.3D6162	.CABLE, POWER - 24"	1
9	99.SF103205	.BOLT, SRF 10-32 X 5/8	2
10	07.3D6715	.TRANSMISSION, 14.5:1	1
11	07.3D6232	.COUPLER, MOTOR DRIVE	1
12	07.3D6708	.COVER, 325 PLASTIC BOTTOM	1
13	07.3D6214	.MOTOR, 12 VOLT DC	1

PARTS

ILLUSTRATED DRAWING Control & Harness

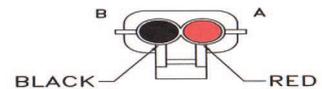


IMPORTANT: Do not modify harness length. Any modifications will void warranty.



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.
5. For connecting the harness to the battery, refer to the steps listed in the spreader installation kit instructions for your power unit.



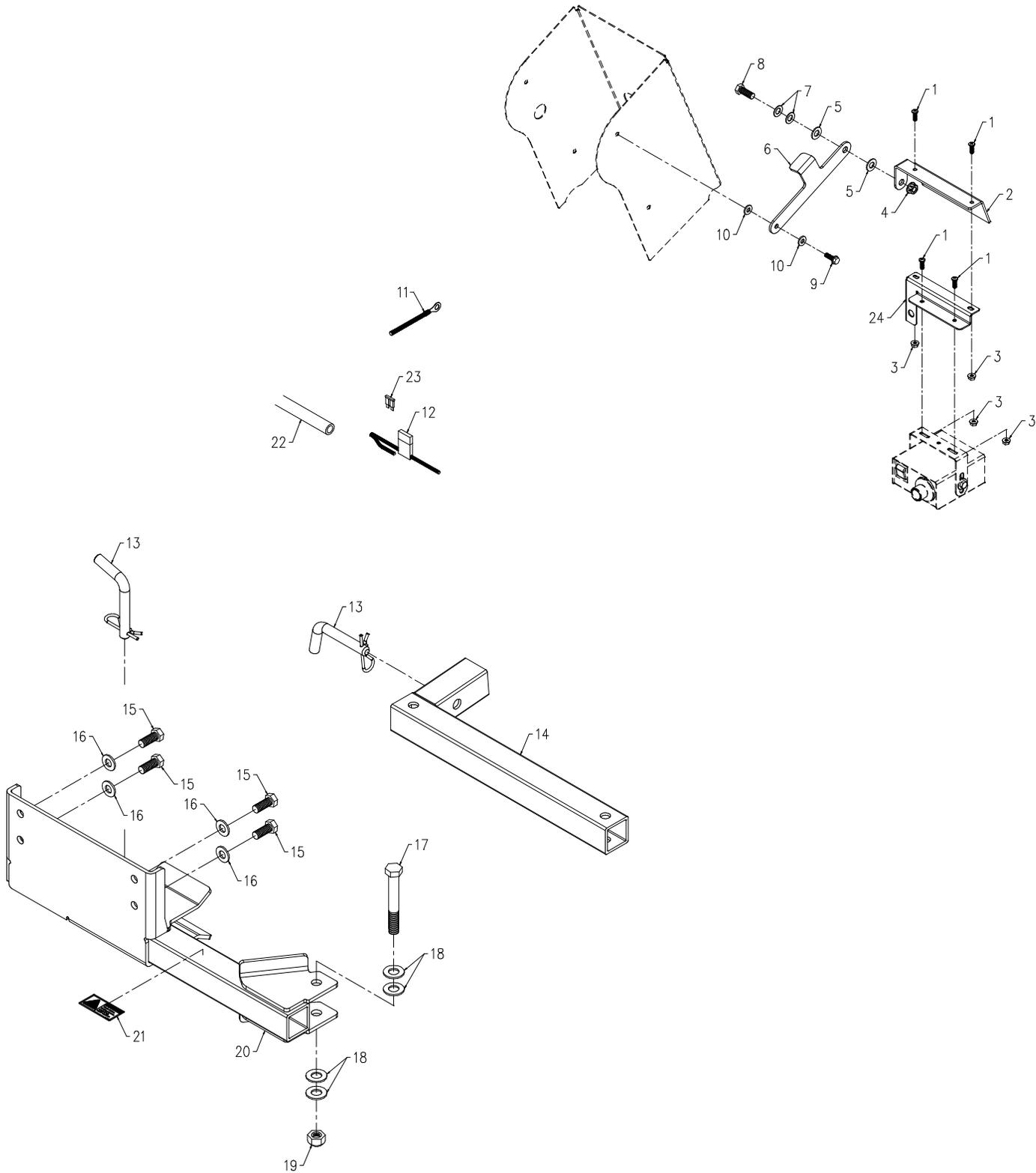
PARTS

Control & Harness

REF.	PART NO.	DESCRIPTION	QTY.
1	07.3D7130	CONTROLLER, SS300/575 W/PACKARD	1
2	07.3D7341	HARNESS, BATTERY	1
3	07.3D7342	HARNESS, CONTROL	1

PARTS

ILLUSTRATED DRAWING SS300 Install 3100/3200



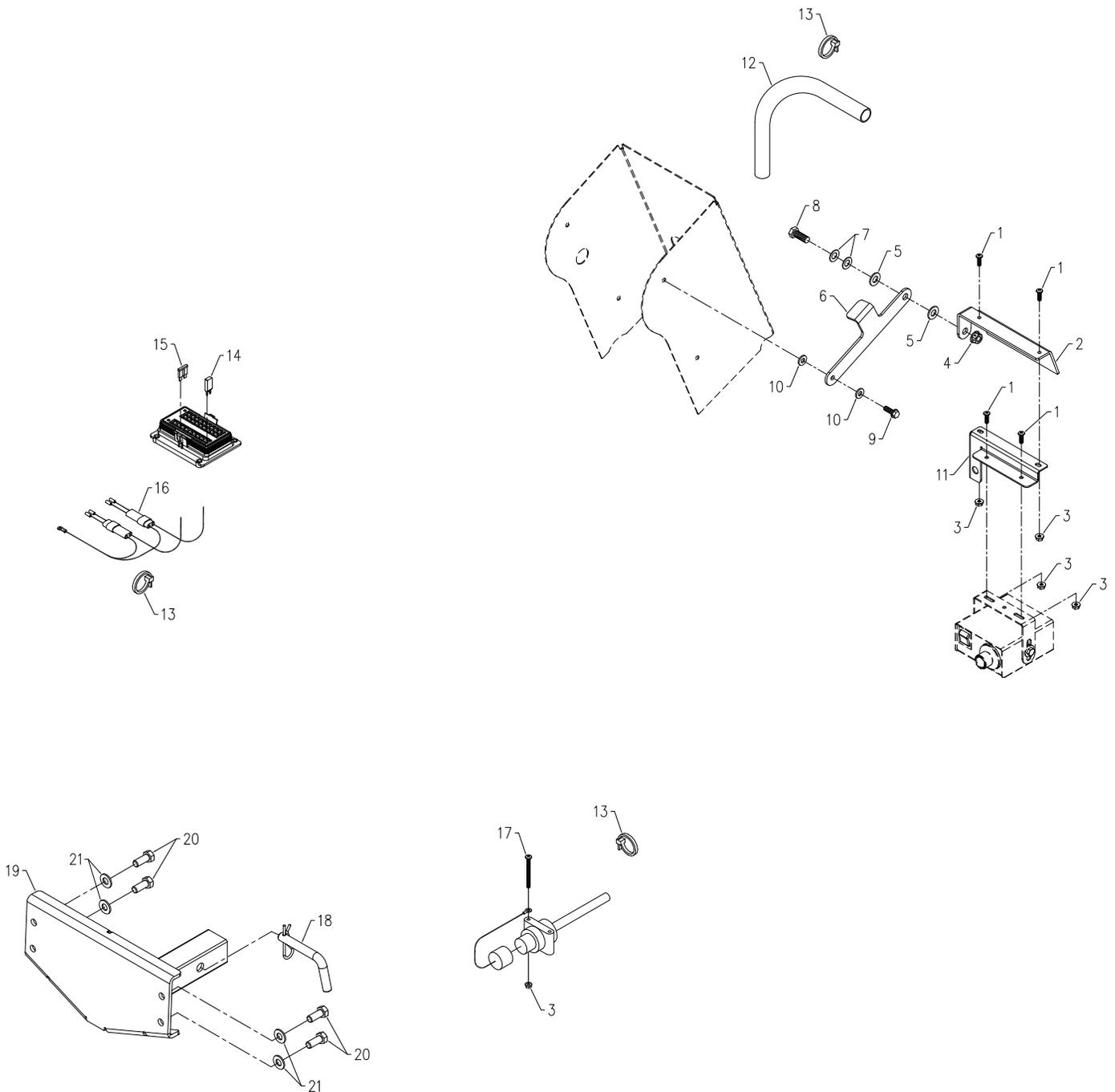
PARTS

SS300 Install 3100/3200

REF.	PART NO.	DESCRIPTION	QTY.
1	99.K0062	MACHINE SCREW, #10-32 X 1/2	4
2	64.1531	BRACKET, CONTROL BOX	1
3	99.E0035	NUT, SRF #10-32	4
4	99.E0082	NUT, LOCKING FLANGE 3/8-16	1
5	95.06	WASHER, FLAT 3/8 SAE	2
6	64.1534	BRACKET, CONTROL BOX MOUNT	1
7	41.0099	SPRING, DISC 3/8 ID X 3/4 OD	2
8	90.0608	BOLT, 3/8-16 USS X 1	1
9	99.SF0406	BOLT, SRF 1/4-20 X 3/4	1
10	95.04	WASHER, FLAT 1/4 SAE	2
11	34.0009	WIRE, ASM NEGATIVE	1
12	32.0099	HARNESS, WIRE FUSED SPLIT POS	1
13	03.0014	PIN, HITCH 5/8" X 3" USABLE	2
14	62.1347	HITCH, SS300 PIVOT TRACTOR	1
15	90.0810-3	BOLT, 1/2-13 USS X 1-1/4 SS	4
16	95.08-3	WASHER, FLAT 1/2 SAE SS	4
17	90.1036	BOLT, 5/8-11 USS X 4-1/2	1
18	95.10	WASHER, FLAT 5/8 SAE	4
19	99.A10	LOCKNUT, STOVER 5/8-11 USS	1
20	62.1348	HITCH, SS300 PIVOT SPREADER	1
21	00.0218	DECAL, WARNING PINCH POINT	1
22	30.0163-12IN	LOOM, SPLIT CORRUGATED 7/8" X 12"	1
23	30.0343	BREAKER, CIRCUIT 25A ATC	1
24	64.1587	BRACKET, CONTROL BOX MOUNT	1

PARTS

ILLUSTRATED DRAWING SS300 Install 3400



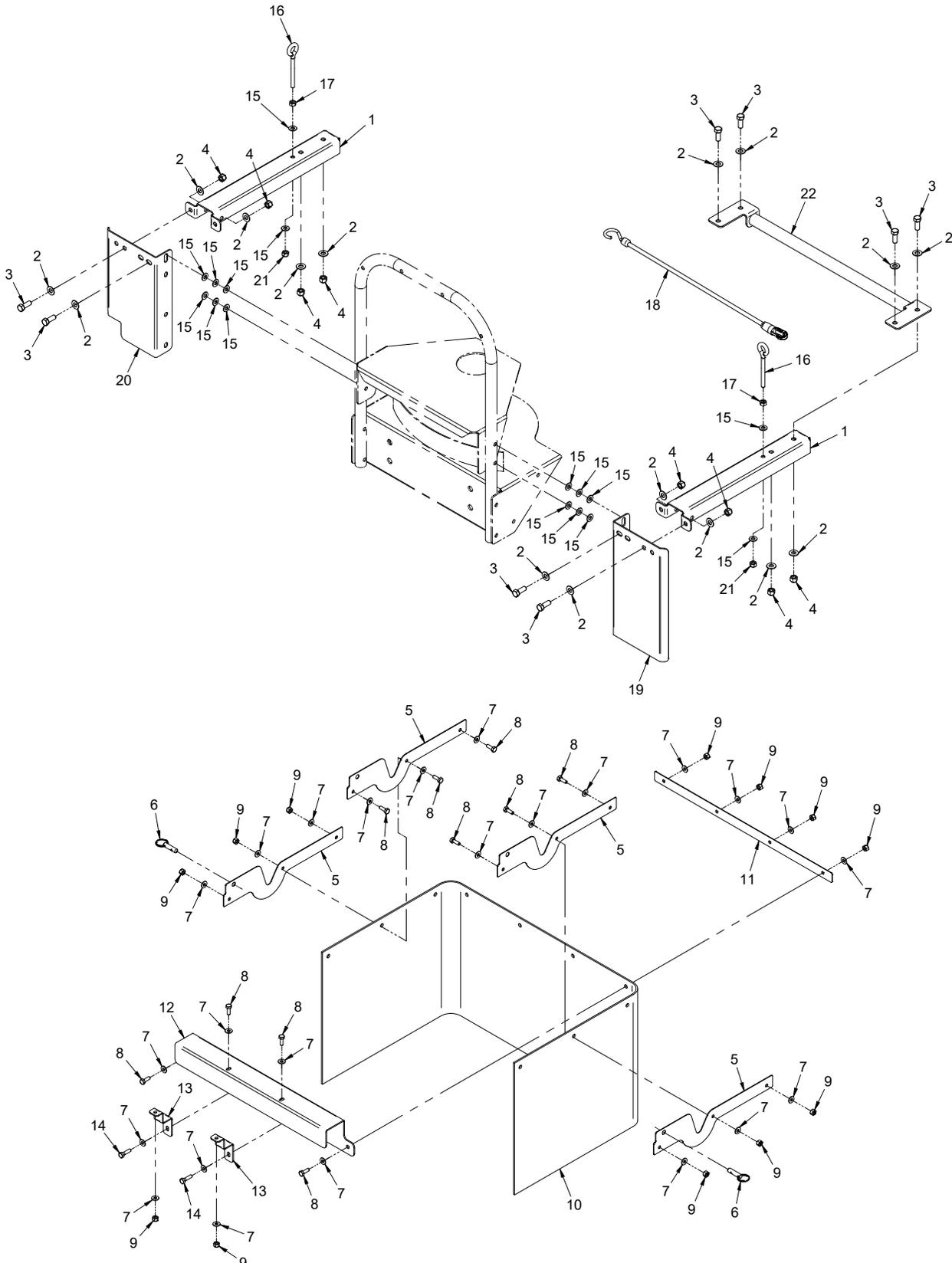
PARTS

SS300 Install 3400

REF.	PART NO.	DESCRIPTION	QTY.
1	99.K0062	MACHINE SCREW, #10-32 X 1/2	4
2	64.1531	BRACKET, CONTROL BOX	1
3	99.E0035	NUT, SRF #10-32	5
4	99.E0082	NUT, LOCKING FLANGE 3/8-16	1
5	95.06	WASHER, FLAT 3/8 SAE	2
6	64.1534	BRACKET, CONTROL BOX MOUNT	1
7	41.0099	SPRING, DISC 3/8 ID X 3/4 OD	2
8	90.0608	BOLT, 3/8-16 USS X 1	1
9	99.SF0406	BOLT, SRF 1/4-20 X 3/4	1
10	95.04	WASHER, FLAT 1/4 SAE	2
11	64.1587	BRACKET, CONTROL BOX MOUNT	1
12	30.0163-18IN	LOOM, SPLIT CORRUGATED 7/8" X 18"	1
13	30.0204	TYTON TIE, #50 .190 X 12"	13
14	30.0429	BREAKER, CIRCUIT 25 AMP MINI	1
15	30.0333	FUSE, 10 AMP MINI RED	1
16	32.0127	HARNESS, ADAPTER SS575	1
17	99.K0067	MACHINE SCREW, #10-32 X 1-1/2	1
18	03.0014	PIN, HITCH 5/8" X 3" USABLE	1
19	62.1423	HITCH, SS300	1
20	90.0810-3	BOLT, 1/2-13 USS X 1-1/4 SS	4
21	95.08-3	WASHER, FLAT 1/2 SAE SS	4

PARTS

ILLUSTRATED DRAWING 70.8131 SS300/575 Drop Curtain



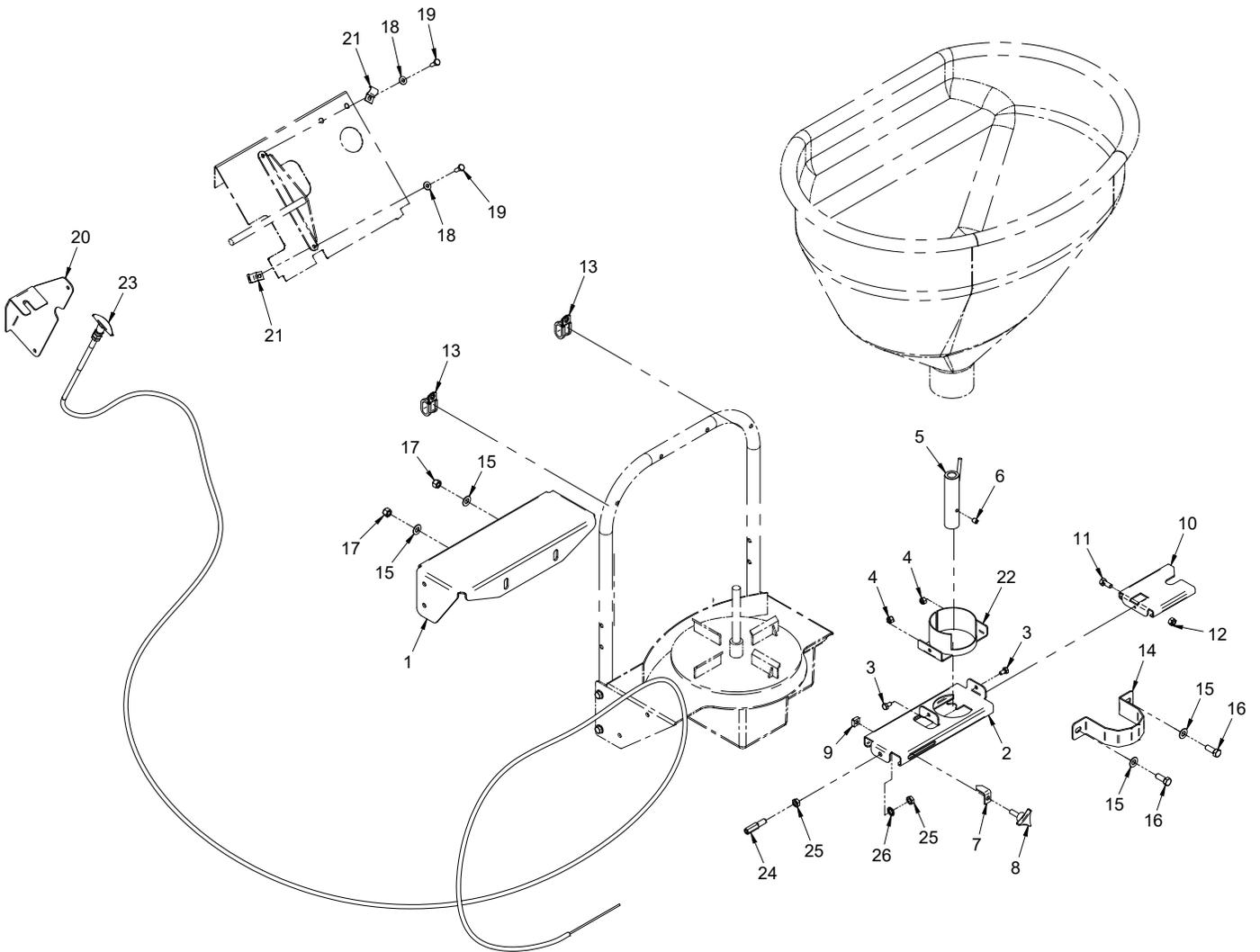
PARTS

70.8131 SS300/575 Drop Curtain

REF.	PART NO.	DESCRIPTION	QTY.
1	64.1663	.HANGER, UNIVERSAL SIDE BELTING	2
2	95.06-3	.WASHER, FLAT 3/8 SAE SS	16
3	90.0608-3	.BOLT, 3/8-16 USS X 1 SS	8
4	99.A06N-3	.LOCKNUT, NYLON 3/8-16 SS	8
5	64.1665	.MOUNT, SIDE DROP CURTAIN	4
6	03.0017	.PIN, BALL 3/8 X .70 USEABLE SS	2
7	95.04-3	.WASHER, FLAT 1/4 SAE SS	24
8	90.0406-3	.BOLT, 1/4-20 USS X 3/4 SS	10
9	99.A04N-3	.LOCKNUT, NYLON 1/4-20 USS SS	12
10	44.0298	.BELTING, DROP CURTAIN	1
11	64.1544	.BRACKET, CURTAIN CLAMP	1
12	64.1667	.MOUNT, REAR BELTING	1
13	64.1666	.CLAMP, PIVOT TUBE	2
14	90.0408-3	.BOLT, 1/4-20 USS X 1 SS	2
15	95.05-3	.WASHER, FLAT 5/16 SAE SS	16
16	99.K0122	.BOLT, EYE 5/16-18 X 3-1/2 SS	2
17	92.05-3	.NUT, 5/16-18 USS SS	2
18	47.0320	.STRAP, 22.5" OAL POLY BUNGEE	1
19	64.1662	.MOUNT, LH DROP CURTAIN	1
20	64.1661	.MOUNT, RH DROP CURTAIN	1
21	99.A05N-3	.LOCKNUT, NYLON 5/16-18 SS	2
22	64.1664	.BRACE, REAR BELTING PIVOT	1

PARTS

ILLUSTRATED DRAWING 70.8132 SS300 Gate Kit



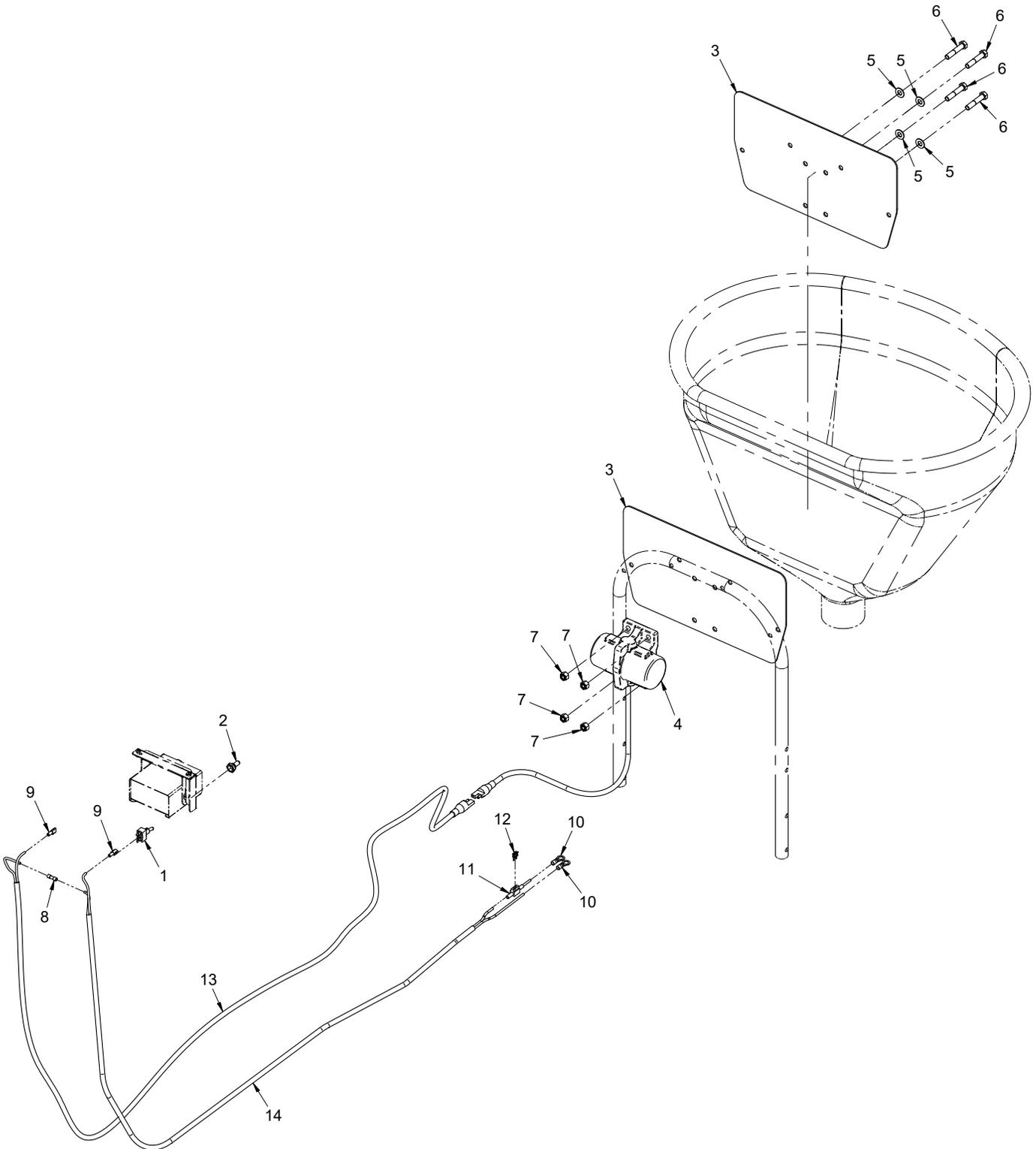
PARTS

70.8132 SS300 Gate Kit

REF.	PART NO.	DESCRIPTION	QTY.
1	64.1677	.MOUNT, GATE KIT	1
2	07.3D6365	.GATE BODY, SS	1
3	90.0404	.BOLT, HEX 1/4-20 UNC X 1/2"	2
4	99.A04N	.LOCKNUT, NYLON 1/4-20	2
5	07.3D6185	.AUGER, AGITATION	1
6	85.SS18	.SET SCREW, 5/16-18 X 3/8	1
7	07.3D6368	.STOP INDICATOR, GATE - SS	1
8	07.3D6302	.KNOB, GATE	1
9	07.3D6309	.NUT, SQUARE FOR KNOB	1
10	07.3D6366	.GATE SLIDE, SS	1
11	07.3D6308	.BOLT, 5/16-18 SPECIAL	1
12	99.A05N-3	.LOCKNUT, NYLON 5/16-18 SS	1
13	11.0046	.CLAMP, CUSHIONED METAL 1/2"	2
14	64.1676	.CLAMP, HOPPER THROAT	1
15	95.06-3	.WASHER, FLAT 3/8 SAE SS	4
16	90.0608-3	.BOLT, 3/8-16 USS X 1 SS	2
17	99.A06N-3	.LOCKNUT, NYLON 3/8-16 SS	2
18	95.04	.WASHER, FLAT 1/4 SAE	2
19	90.0406	.BOLT, HEX 1/4-20 UNC X 3/4"	2
20	64.1678	.MOUNT, GATE CABLE	1
21	11.0072	.CLAMP, 1/2 LOOP VINYL	2
22	07.3D6367	.MOUNT, THROAT - SS	1
23	07.3D6306	.CABLE, CONTROL 20 FT (.26 OD Cover)	1
23	47.0354	.CABLE, CONTROL 20 FT (.31 OD Cover)	1
24	07.3D6305	.FITTING ASSEMBLY, CABLE (For .26 Cable)	1
24	45.0051	.FITTING ASSEMBLY, CABLE SS (For .31 Cable)	1
25	07.3D7172	.NUT, 3/8-24 HEX JAM STAINLESS	2
26	07.3D7173	.WASHER, 3/8 INT. TOOTH LOCK SS	1

PARTS

ILLUSTRATED DRAWING 70.8134 SS300 Vibrator Kit



PARTS

70.8134 SS300 Vibrator Kit

REF.	PART NO.	DESCRIPTION	QTY.
1	31.0034	.SWITCH, TOGGLE ON-OFF SPST	1
2	30.0157	.BOOT, TOGGLE SWITCH	1
3	64.1686	.PLATE, VIBRATOR MOUNTING	2
4	07.3D6161	.VIBRATOR, DC-80	1
5	95.06	.WASHER, FLAT 3/8 SAE	4
6	90.0616	.BOLT, HEX 3/8-16 UNC X 2	4
7	99.A06N	.LOCKNUT, NYLON 3/8-16 USS	4
8	30.0208	.CONNECTOR, BUTT 12-10 GA YELLOW	1
9	30.0227	.TERMINAL, .250 PUSHON F 12-10 GA	2
10	30.0077	.TERMINAL, 3/8"RING-12-10 INS	2
11	07.3D6425	.FUSE HOLDER	1
12	30.0333	.FUSE, 10 AMP MINI RED	1
13	07.3D6403	.HARNESS, UNIVERSAL 20'	1
14	07.3D6404	.HARNESS, BATTERY 10'	1

WARRANTY



LIMITED WARRANTY - VENTRAC TURF EQUIPMENT

Venture Products, Inc. (shall be referred to as V.P.I.) warrants on the terms and conditions herein, that it will repair, replace, or adjust any part manufactured by Venture Products Inc. and found by Venture Products Inc. to be defective in material and / or workmanship.

Effective September 1st 2005, Ventrac warranty on power units & attachments (excluding the HG100/HG150 generator) for **residential use only** is limited to **three (3) years** from original purchase date. Ventrac power units & attachments used **commercially or for any income-producing purpose** is limited to **two (2) years** from original purchase date. Ventrac ET200 turbine blower (turbine only) is limited to **two (2) years** from original purchase date. Ventrac HG100/HG150 generator is limited to **one (1) year** from original purchase date. Ventrac power units & attachments used for **rental** is limited to **180 days** from original purchase date. (NOTE: All accessories such as: 3-point hitch, foot pedal, dual wheel kit, etc. will be covered under the above warranty periods as they would apply provided they are installed by an authorized Ventrac dealer.) This warranty may be transferred and will carry the remainder of the warranty starting from the original purchase/registration date with the dealership and/or V.P.I. In the event that product/s originally registered as **(3) year residential use** are to be transferred to a commercial user, the warranty would change to the remainder of **(2) year commercial use** starting from the original purchase/registration date with the dealership and/or V.P.I.

If this warranty covers a consumer product as defined by the Magnusson-Moss warranty act, no warranties, express or implied, (including, but not limited to, the warranty of merchantability or fitness for a particular purpose) shall extend beyond the applicable time period stated in bold face type above.

If this warranty covers a product used commercially or for any income producing purpose, the foregoing warranties are in lieu of all other warranties and no representations, guarantees or warranties, express or implied, (including, but not limited to, a warranty of merchantability or fitness for a particular purpose), are made by V.P.I. in connection with the manufacture or sale of its products.

The engine warranty is covered by its respective engine manufacturer. Please refer to the engine manufacturer's warranty statement that is included in the owner's manual.

The Ventrac turf equipment, including any defective parts, must be returned to an authorized Ventrac dealer within the warranty period. The warranty shall extend to the cost to repair or replace (as determined by V.P.I.) the defective part. **The expense of pickup and delivery of equipment, service call drive time or any transportation expense incurred for warranty repair is the sole responsibility of the owner and is not covered under warranty by Ventrac and/or V.P.I.** V.P.I.'s responsibility in respect to claims is limited to making the required repairs or replacements, and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any Ventrac equipment. Proof of purchase may be required by the dealer to substantiate any warranty claim. Only warranty work performed and submitted by an authorized Ventrac dealer may be eligible for warranty credit.

This warranty extends only to Ventrac turf equipment operated under normal conditions and properly serviced and maintained. The warranty expressly does **not** cover: (a) any defects, damage or deterioration due to normal use, wear and tear, or exposure; (b) normal maintenance services, such as cleaning, lubrication, oil change; (c) replacement of service items, such as oil, lubricants, spark plugs, belts, rubber hoses or other items subject to normal service replacement; (d) damage or defects arising out of, or relating to abuse, misuse, neglect, alteration, negligence or accident; (e) repair or replacement arising from operation of, or use of the turf equipment which is not in accordance with operating instructions as specified in the operator's manual or other operational instructions provided by V.P.I.; (f) repair or replacement arising as a result of any operation from Ventrac turf equipment that has been altered or modified so as to, in the determination of V.P.I., adversely affect the operation, performance or durability of the equipment or that has altered, modified or affected the turf equipment so as to change the intended use of the product; (g) repair or replacement necessitated by the use of parts, accessories or supplies, including gasoline, oil or lubricants, incompatible with the turf equipment or other than as recommended in the operator's manual or other operational instructions provided by V.P.I.; (h) repairs

WARRANTY



LIMITED WARRANTY - VENTRAC TURF EQUIPMENT

or replacements resulting from parts or accessories which have adversely affected the operation, performance or durability of the turf equipment; or (i) damage or defects due to or arising out of repair of Ventrac turf equipment by person or persons other than an authorized Ventrac service dealer or the installation of parts other than genuine Ventrac parts or Ventrac recommended parts.

The sole liability of V.P.I. with respect to this warranty shall be repair and replacement as set forth herein. V.P.I. shall have no liability for any other cost, loss, or damage. In particular V.P.I. shall have no liability or responsibility for: (i) expenses relating to gasoline, oil, lubricants; (ii) loss, cost, or expense relating to transportation or delivery of turf equipment from the location of owner or location where used by owner to or from any authorized Ventrac dealer; (iii) travel time, overtime, after hours time or other extraordinary repair charges or charge relating to repairs or replacements outside of normal business hours at the place of business of an authorized Ventrac dealer; (iv) rental of like or similar replacement equipment during the period of any warranty repair or replacement work; (v) any telephone or telegram charges; (vi) loss or damage to person or property other than that covered by the terms of this warranty; (vii) any claims for lost revenue, lost profit or additional cost or expense incurred as a result of a claim of breach of warranty; or (viii) attorney's fees.

The remedies of buyer set forth herein are exclusive and are in lieu of all other remedies. The liability of V.P.I., whether in contract, tort, under any warranty, or otherwise, shall not extend beyond its obligation as set forth herein. V.P.I. shall not be liable for cost of removal or installation nor shall V.P.I. be responsible for any direct, indirect, special or consequential damages of any nature. In no event shall V.P.I. be liable for any sum in excess of the price received for the goods for which liability is claimed.

There are no representations or warranties which have been authorized to the buyer of the turf equipment other than set forth in this warranty. Any and all statements or representations made by any seller of this equipment, including those set forth in any sales literature or made orally by any sales representative, are superseded by the terms of this warranty. Any affirmation of fact or promise made by V.P.I. or any of its representatives to the buyer which relates to the goods that are the subject to this warranty shall not be regarded as part of the basis of the bargain and shall not be deemed to create any express warranty that such goods shall conform to the affirmation or promise.

No employee, distributor, or representative is authorized to change the foregoing warranties in any way or grant any other warranty on behalf of V.P.I.

Some states do not allow limitations on how long an implied warranty lasts or allow the exclusion on limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty applies to all Ventrac turf equipment sold in the United States and Canada.