



LOW PROFILE TAILGATE SPREADERS

Owner's Manual



⚠ CAUTION

Read this manual before installing or operating
the spreader.

**This manual supersedes all editions with an earlier date.
This manual is for FISHER® Low Profile Spreaders with serial numbers
Model 1000 - (10003 -)
Model 2000 - (20364 -)**

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PREFACE

This manual has been prepared to acquaint you with the safety information, operation and maintenance of your new Low Profile tailgate spreader. Please read this manual carefully and follow all recommendations. This will help ensure profitable and trouble-free operation of your spreader. Keep this manual accessible. It is a handy reference in case minor service is required.

When service is necessary, bring your spreader to your local outlet. They know your spreader best and are interested in your complete satisfaction.

NOTE: This spreader is designed to spread snow and ice control materials only. Do not use it for purposes other than those specified in this manual.

SAFETY INFORMATION

⚠ WARNING

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

⚠ CAUTION

Indicates a situation that, if not avoided, could result in damage to product or property.

NOTE: Identifies tips, helpful hints and maintenance information the owner/operator should know.

Before You Begin

Park the vehicle on a level surface, place shift lever in PARK or NEUTRAL and set the parking brake.

⚠ WARNING

- Driver to keep bystanders minimum of 25 feet away from operating spreader.
- Before working with the spreader, secure all loose-fitting clothing and unrestrained hair.
- Before operating the spreader, verify all safety guards are in place.
- Before servicing the spreader, wait for conveyor or spinner to stop, then lock out power.
- Do not climb into or ride on spreader.

⚠ WARNING

Overloading could result in an accident or damage. Do not exceed GVWR or GAWR ratings as found on the driver-side vehicle door cornerpost. See Loading Section to determine maximum volumes of spreading material.

⚠ WARNING

Do not install the control for this product in the deployment path of an air bag. Refer to vehicle manufacturer's manual for air bag deployment area(s).

⚠ CAUTION

If rear directional, CHMSL light or brake stoplights are obstructed by the spreader, the lights shall be relocated, or auxiliary directional or brake stoplights shall be installed.

⚠ CAUTION

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

SAFETY INFORMATION

⚠ CAUTION

Disconnect electric power at spreader electrical wiring harness connection and tag out if required before servicing or performing maintenance.

⚠ CAUTION

Do not leave unused material in hopper. Material can freeze or solidify, causing unit to not work properly. Empty and clean hopper after each use.

NOTE: Maintain proper belt tension for correct belt functioning.




NOTE: Lubricate grease fittings after each use. Use a good quality multi-purpose grease.

NOTE: Airborne noise emission during use is below 70 dB(A) for the spreader operator.

Torque Chart

⚠ CAUTION

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

Recommended Fastener Torque Chart (Ft.-Lb.)			
Size	 SAE Grade 2	 SAE Grade 5	 SAE Grade 8
1/4-20	6	9	13
5/16-18	11	18	28
3/8-16	19	31	46
3/8-24	24	46	68
7/16-14	30	50	75
1/2-13	45	75	115
9/16-12	66	110	165
5/8-11	93	150	225
3/4-10	150	250	370
7/8-9	150	378	591
1-8	220	583	893
Metric Grade 8.8 (Ft.-Lb.)			
Size	Torque	Size	Torque
M 6	7	M 12	60
M 8	17	M 14	95
M 10	35	M 16	155
These torque values apply to fasteners except those noted in the instruction.			

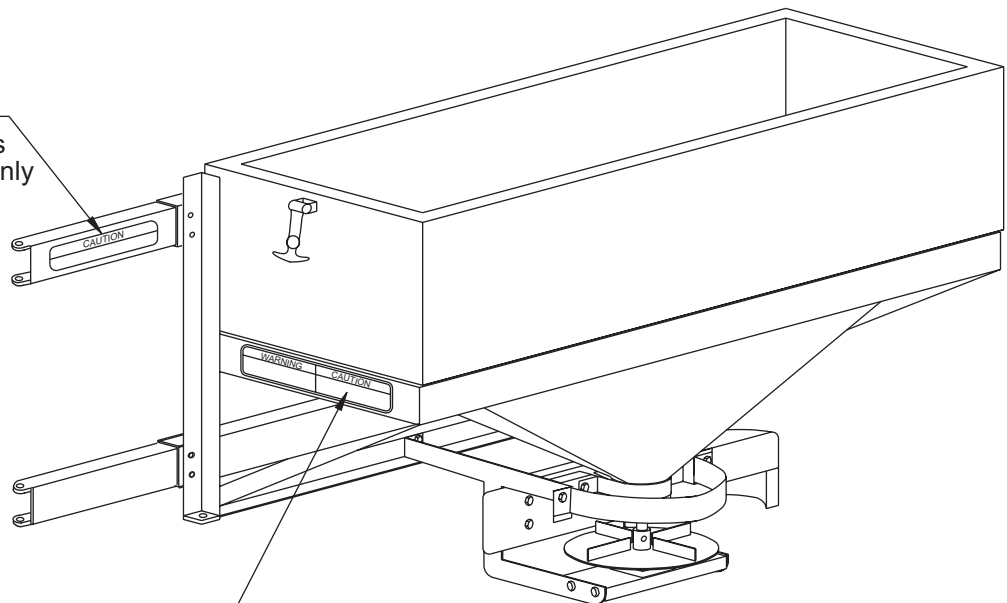
SAFETY INFORMATION

Please become familiar with the Warning and Caution Labels on the spreader!

Caution Label



Caution Label
Located on both sides
SWING AWAY® mount only



Warning/Caution Label

⚠ WARNING	⚠ CAUTION
<ul style="list-style-type: none">• DO NOT EXCEED GVWR OR GAWR WITH SPREADER AND LOAD.• TURN SPREADER OFF BEFORE FILLING, ADJUSTING, OR CLEANING.• BYSTANDERS TO STAY A MINIMUM OF 25 FEET AWAY FROM OPERATING SPREADER.• DO NOT CLIMB INTO OR RIDE ON SPREADER.• KEEP HANDS, FEET, CLOTHING AWAY FROM MOVING CONVEYOR AND SPINNER.	<ul style="list-style-type: none">• READ OWNER'S MANUAL BEFORE OPERATING OR SERVICING SPREADER.• EMPTY AND CLEAN SPREADER AFTER EACH USE.

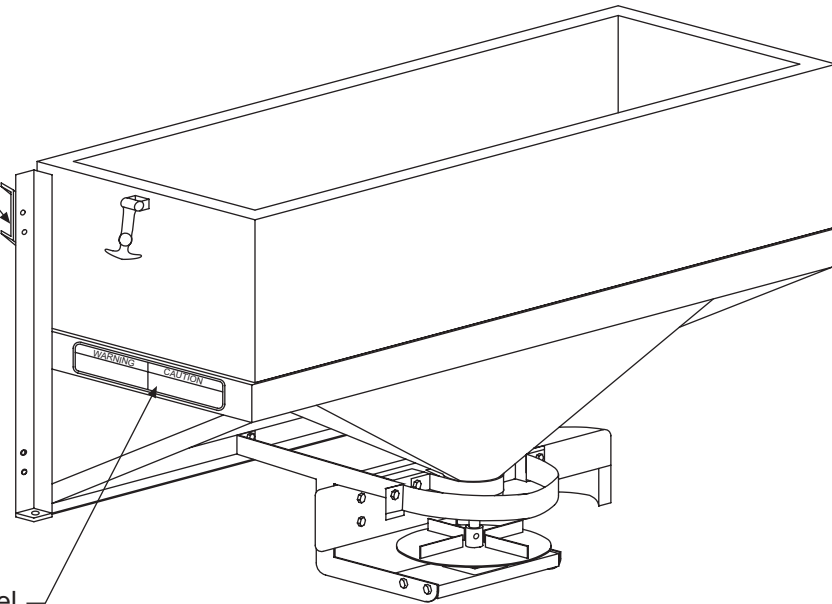
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SAFETY INFORMATION

Warning Label



 WARNING
DO NOT EXCEED HITCH MANUFACTURER RATINGS. DO NOT EXCEED GVWR OR GAWR WITH SPREADER AND LOAD.
<small>94426</small>

Warning Label
located on both sides
of receiver mount only.



Warning/ Caution Label
Located on both sides

Warning/ Caution Label

 WARNING	 CAUTION
<ul style="list-style-type: none">• DO NOT EXCEED GVWR OR GAWR WITH SPREADER AND LOAD.• TURN SPREADER OFF BEFORE FILLING, ADJUSTING, OR CLEANING.• BYSTANDERS TO STAY A MINIMUM OF 25 FEET AWAY FROM OPERATING SPREADER.• DO NOT CLIMB INTO OR RIDE ON SPREADER.• KEEP HANDS, FEET, CLOTHING AWAY FROM MOVING CONVEYOR AND SPINNER.	<ul style="list-style-type: none">• READ OWNER'S MANUAL BEFORE OPERATING OR SERVICING SPREADER.• EMPTY AND CLEAN SPREADER AFTER EACH USE.
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LOADING

This manual covers vehicles which have been recommended for carrying the spreader. Please see your local dealer for proper vehicle applications.

Certification

⚠ WARNING

New untitled vehicle installation of a spreader requires National Highway Traffic Safety Administration altered vehicle certification labeling. Installer to verify that struck load of snow or ice control material does not exceed GVWR or GAWR rating label and complies with FMVSS.

⚠ WARNING

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

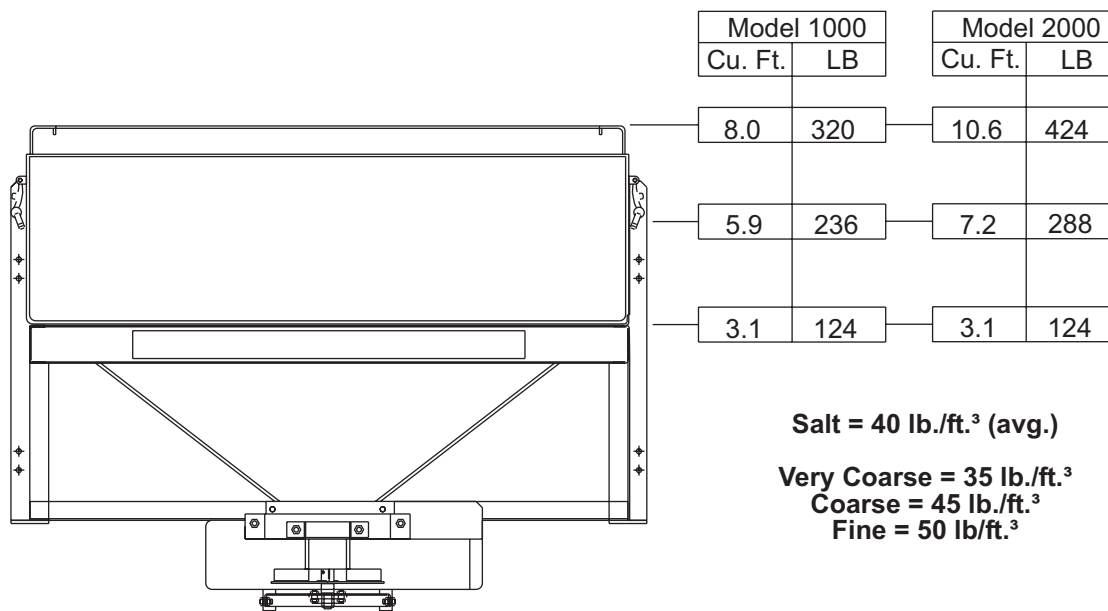
NOTE: If spreader and ice control material loading is in doubt weigh vehicle for compliance with vehicle ratings.

NOTE: Use only dry, free-flowing granular materials with this spreader. Damp or wet ice control materials and other products may not spread properly.

Approximate Material Weights

⚠ CAUTION

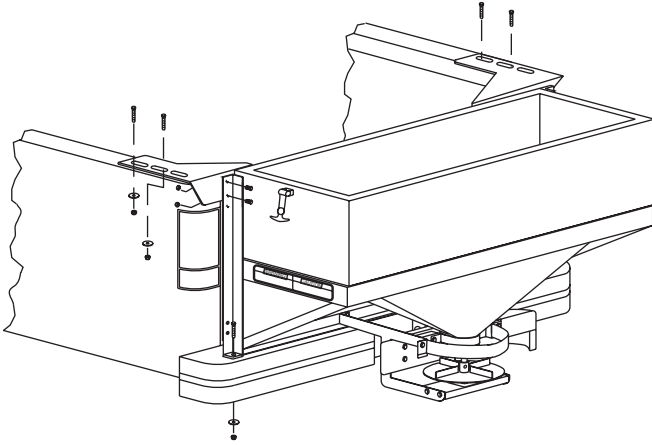
Read and adhere to manufacturer's ice control package labeling including Material Safety Data Sheet requirements.



Plus Approximate Base Unit Weights of 154 Lbs. for 1000 Unit and 161 Lbs. for 2000 Unit, Including Mount.

MOUNTING THE SPREADER

Fixed Mount Spreader



⚠ CAUTION

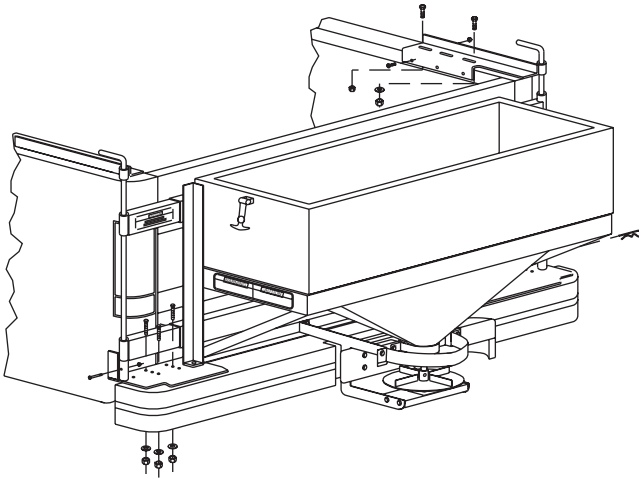
During removal or mounting, securely grip spreader to avoid dropping.

NOTE: The spreader shall be installed according to instructions supplied. Your local outlet is trained to provide this service and service your spreader with factory original parts.

1. Install the left and right top brackets to the truck bed rail with one 1/2" cap screw, one 1/2" flat washer and one 1/2" locknut. Attach the other hole in the top bracket to the bed rail with one 1/2" cap screw and one 1/2" locknut.
2. Place the spreader on the bumper and line up the holes in the bottom feet with the holes in the bumper.
3. Attach the spreader to the top brackets using two 3/8" cap screws and two 3/8" locknuts per side.
4. Attach the spreader to the bumper of the truck using one 3/8" cap screw, one 3/8" flat washer and one 3/8" locknut per side.
5. Plug the spreader harness into the vehicle harness.

MOUNTING THE SPREADER

SWING AWAY® Spreader



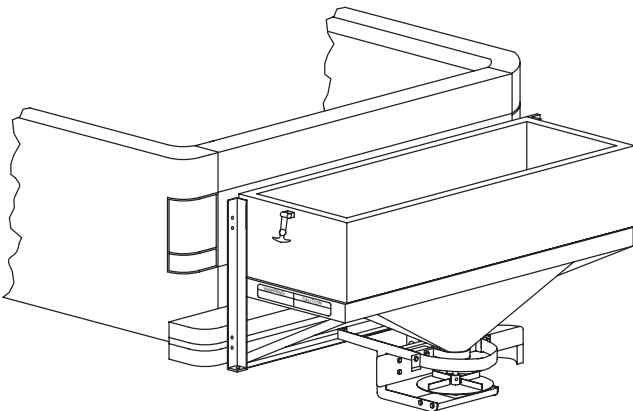
⚠ CAUTION

During removal or mounting, securely grip spreader to avoid dropping.

NOTE: The spreader shall be installed according to instructions supplied. Your local outlet is trained to provide this service and service your spreader with factory original parts.

1. Fasten the left and right top brackets along with any shims to the truck bed rail with two 1/2" cap screws, two 1/2" flat washers and two 1/2" locknuts per bracket. Install the two 5/16" cap screws and locknuts to the side of the top brackets.
2. Place the left and right base plates on the bumper of the truck and line up with the holes in the bumper.
3. Attach the base plates to the bumper using three 3/8" cap screws, three 3/8" plain washers, any shims and three 3/8" locknuts per side.
4. Place the spreader on the base plates and insert the hinge pins. Secure the hinge side by installing one 1/4" cap screw and 1/4" locknut through the hole in the base plate boss and hinge pin.
5. Install hitch pin clip through the base plate boss and the removable hinge pin.
6. Plug the spreader harness into the vehicle harness.
7. Plug the stoplight cord into the vehicle stoplight harness.

Receiver Mount Spreader



⚠ CAUTION

During removal or mounting, securely grip spreader to avoid dropping.

NOTE: The spreader shall be installed according to instructions supplied. Your local outlet is trained to provide this service and service your spreader with factory original parts.

1. Attach the spreader to the receiver mount with six 3/8"-16 x 1" cap screws.
2. Insert the assembled unit into the receiver hitch and secure with pin (not included).
3. Plug the spreader harness into the vehicle harness.

OPERATING THE SPREADER

Driving and Spreading on Snow and Ice

CAUTION

Drinking and then driving or spreading is very dangerous. Your reflex, perceptions, attentiveness and judgement can be affected by even a small amount of alcohol. You can have a serious or even fatal collision if you drive after drinking. Please do not drink then drive or spread ice control materials.

Follow your vehicle owner's manual instructions for driving in snow and ice conditions. Remember when you drive on snow or ice, your wheels will not get good traction. You cannot accelerate as quickly, turning is more difficult and you will need longer braking distance. Wet and hard packed snow or ice offers the worst tire traction. It is very easy to lose control. You will have difficulty accelerating. If you do get moving, you may have poor steering and difficult braking which can cause you to slide out of control.

Here are some tips for driving in these conditions.

- Drive defensively.
- Do not drink, then drive or spread ice control materials
- Spread or drive only when you have good visibility for operating a vehicle.
- If you cannot see well due to snow or icy conditions, you will need to slow down and keep more space between you and other vehicles.
- Slow down, especially on higher speed roads. Your headlamps can light up only so much road ahead.
- If you are tired, pull off in a safe place and rest.
- Spreader size reduces driver visibility to the rear of the vehicle due to spreader size and location. We recommend OSHA compliant backup alarm for all governed employers.
- Keep your windshield and all glass on your vehicle clean to see around you.
- Dress properly for the weather. Wear layers of clothing, as you get warm you can take off layers.

Accessory Circuit

The yellow wire in the vehicle harness is provided for accessory use of 12 amps or less.

OPERATING THE SPREADER

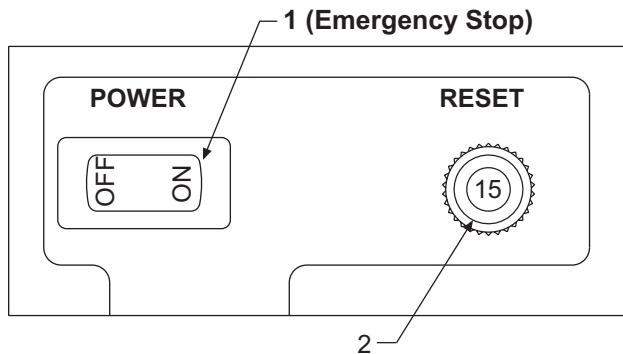
Spreader Control

There are two control options. They are the ON/OFF Control and the Variable Speed (PWM) Control.

⚠ CAUTION

If the unit is equipped with a SWING AWAY® mount. Do not operate the spreader or the vehicle without securing the hinge pin in the base plate.

ON/OFF Control (Early Style)



1. Power Switch - used to start and stop the spinner. The power switch OFF position operates as emergency stop when required.
2. Circuit Breaker - used to reset the control should an electrical fault occur.

Starting and Stopping the Motor

⚠ WARNING

Before starting the spreader, the driver shall verify all bystanders are a minimum of 25 feet away from operating spreader.

1. Move the power switch to the on position to start the motor. Motor will start immediately. The power switch will remain in this position. The power switch works as emergency stop when required.
2. Move the power switch to the OFF position to stop the motor. The power switch will remain in this position.

NOTE: The truck ignition must be on to start the spreader.

NOTE: If the truck ignition is turned off while the spreader is running, the motor will stop.

If there are problems while operating the spreader, refer to the Troubleshooting section in this manual.

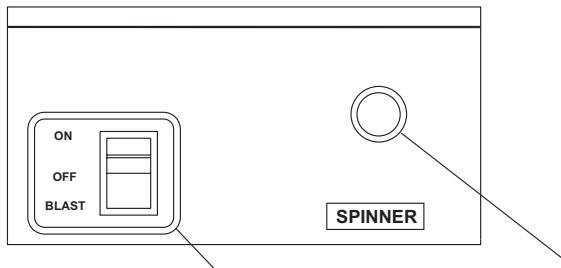
NOTE: Always place the cover on the hopper to prevent moisture buildup. Do not let the spreader sit idle with material in the hopper for an extended period of time. This can cause the material to compact and reduce or stop the flow of material.

⚠ CAUTION

Do not swing spreader with material in the hopper.

OPERATING THE SPREADER

ON/OFF Control (Late Style)



On/Off Control Switch
Used to start and stop the spinner.
(Emergency Stop-OFF Position)

Spinner Indicator Light
Illuminated light Indicates power to the motor.

Starting the Motor

⚠ WARNING

Before starting the spreader, the driver shall verify all bystanders are a minimum of 25 feet away from operating spreader.

1. Set the power switch to the ON position to start the motor. The motor will start immediately. The power switch will remain in this position.

Blast Position

Move and hold the power switch to the BLAST position for as long as momentary operation is needed. When released, the switch will automatically return to the OFF position and stop the motor.

Stopping the Motor

1. Set the power switch to the OFF position to stop the motor. The power switch will remain in this position. The power switch OFF position operates as emergency stop when required.

NOTE: Always place the cover on the hopper to prevent moisture buildup. Do not let the spreader sit idle with material in the hopper for an extended period of time. This can cause the material to compact and reduce or stop the flow of material.

⚠ CAUTION

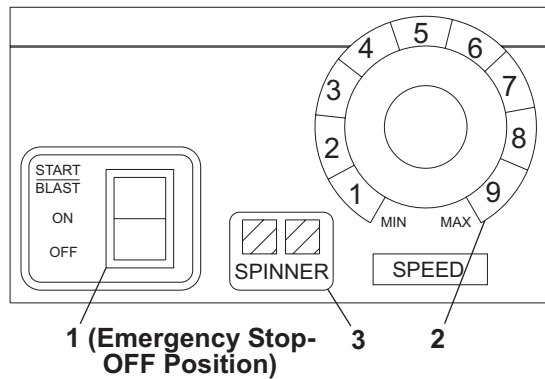
Do not swing spreader with material in the hopper.

NOTE: The truck ignition must be on to start the spreader.

NOTE: If the truck ignition is turned off while the spreader is running, the motor will stop.

OPERATING THE SPREADER

Variable Speed (PWM) Control



1. Power Switch - used to start and stop the spinner. The power OFF position switch operates as emergency stop when required.
2. Speed Dial - used to change the speed of the spinner.
3. Indicator Lights - indicate whether the spinner is in motion. Left light is red and indicates a fault. Right light is green and indicates power is on.

Starting the Motor with Variable Speed (PWM) Control

⚠ WARNING

Before starting the spreader, the driver shall verify all bystanders are a minimum of 25 feet away from operating spreader.

1. To start the spreader motor, press the power switch to the START/BLAST position and release. This is a momentary position and the power switch will automatically return to the ON position when released. The spreader will operate at the speed selected on the speed dial.
2. To increase the speed of the spinner rotate the speed dial clockwise.
3. To decrease the speed of the spinner rotate the speed dial counterclockwise.

Stopping the Motor with Variable Speed (PWM) Control

1. Set the power switch to the OFF position to stop the motor. The power switch will remain in this position. This is also the emergency stop position.

NOTE: Always place the cover on the hopper to prevent moisture buildup. Do not let the spreader sit idle with material in the hopper for an extended period of time. This can cause the material to compact and reduce or stop the flow of the material.

⚠ CAUTION

Do not swing spreader with material in the hopper.

NOTE: The truck ignition must be on to start the spreader.

NOTE: If the truck ignition is turned off while the spreader is running, the motor will stop.

REMOVING THE SPREADER

CAUTION

During removal or mounting, securely grip spreader to avoid dropping.

NOTE: Empty the hopper before removing the spreader.

Removing the Fixed Mount Spreader

1. Unplug the spreader and stoplight (if equipped).
2. Remove the two 3/8" cap screws, washers, and locknuts that fasten the spreader to the bumper of the vehicle.
3. Use an additional person or clamps to support the unit and then remove the four 3/8" cap screws and locknuts that fasten the spreader to the top brackets.
4. Remove the spreader from the vehicle and stand in an upright position. This may require additional support.

Removing the Fixed Mount Brackets

1. Remove the two 1/2" cap screws, washers and locknuts that fasten the top bracket to the bed rail.
2. Remove the two 5/16" cap screws, washers and locknuts that fasten the top brackets the side of the bed rail.
3. Package the brackets with all hardware and store with the unit.

NOTE: Empty the hopper before removing the spreader.

Removing the Receiver Mount Spreader

1. Unplug the spreader.
2. Remove the pin from the receiver hitch.
3. Remove the spreader from the vehicle and stand in an upright position. This may require additional support.

NOTE: Empty the hopper before removing the spreader.

Removing the SWING AWAY® Spreader

1. Unplug the spreader and stoplight (if equipped).
2. Remove the hitch pin from the latch side hinge pin.
3. Remove the 1/4" cap screw and locknut from the hinged side hinge pin.
4. Use an additional person to support the unit and remove both hinge pins.
5. Remove the spreader from the vehicle and stand in an upright position. This may require additional support.

Removing the SWING AWAY Top Brackets

1. Remove the two 1/2" cap screws, washers and locknuts that fasten the top bracket to the bed rail.
2. Remove the two 5/16" cap screws and locknuts that fasten the top bracket to the side of the bed rail.
3. Mark the location of any shims to aid in reinstallation.
4. Package the brackets with all hardware and store with the unit.

Removing the SWING AWAY Base Plates

1. Remove the three 3/8" cap screws, washers, locknuts and any shims that fasten the base plate to the bumper.
2. Mark the location of the shims to aid in reinstallation.
3. Package the base plates with all hardware and store with the unit.

MAINTENANCE

⚠ CAUTION

Disconnect electric power at spreader electrical wiring harness connection and tag out if required before servicing or performing maintenance.

Cleaning

After every use, clean the spreader, but first disconnect the electrical plug located between the spreader and the truck. The spreader can be cleaned using tap water or a high pressure washer. A long handle brush can be used to aid cleaning.

⚠ CAUTION

- **Do not operate a spreader in need of maintenance.**
- **Before operating the spreader, reassemble any parts or hardware removed for cleaning or adjusting.**
- **Before operating the spreader, remove materials such as cleaning rags, brushes, and hand tools from the spreader.**
- **Empty and clean spreader after every use. Material can freeze or solidify causing unit to not work properly.**

Preseason Check

Before the unit is placed in service for the ice control season make sure that it is in top working condition. Here are some tips for getting your spreader ready.

Remove the motor cap assembly and inspect the following:

1. Check the condition of the drive belt. Any cracks or damaged teeth indicate the need for a new belt. See Drive Belt Replacement in this section.
 2. Check the motor connection terminals for damage or corrosion. Clean or replace as necessary and coat with dielectric grease.
 3. Check the condition of the drive shaft bearings by first removing the drive belt. To remove the drive belt see Drive Belt Replacement in this section. With the drive belt removed spin the drive shaft by hand. Any excess noise or roughness in either the top or the bottom bearing may indicate bearing failure.
4. If bearings pass inspection be sure to thoroughly grease them with a good quality multi-purpose grease. See Bearing Maintenance in this section.
 5. Verify all drive sprocket set screws are tight. Verify that all other fasteners are tight. Refer to the Torque Chart in the safety section of this manual.
 6. Check the condition of the motor cap assembly seal. This seal is very important to the dependability of your unit. Replace the seal if needed.
 7. Check the condition of the spinner disk. If the vanes are excessively worn the unit may not spread as intended. Replace the spinner if necessary.
 8. Replace the motor cap assembly and locknuts.
 9. Verify vehicle stoplights and spreader center high mounted stoplight are working properly.

Postseason Maintenance

Before storing the unit for the off season, taking a few minutes to do the following will extend the service life of your spreader.

1. Thoroughly clean the unit inside and out.
2. Apply dielectric grease to all electrical connections to prevent corrosion.
3. Grease the drive shaft bearings.
4. Oil or paint all bare metal surfaces.
5. Place the lid on the hopper body of the unit and secure the latch.
6. Store the unit in an upright position; stabilize it with supports if necessary. If the unit is stored outdoors, cover the unit and place it on blocks to eliminate ground moisture.

MAINTENANCE

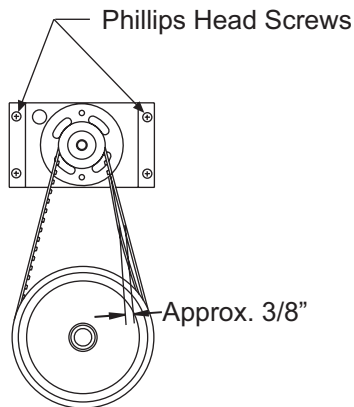
Drive Belt Replacement

Disconnect the electrical plug between the spreader and truck before drive belt replacement.

⚠ CAUTION

Overtightening the belt may result in damage to the motor or bearings.

1. Remove the motor cap assembly.
2. Loosen the four phillips head screws that fasten the motor mount to the drive support.
3. Slide the motor toward the drive shaft.
4. Remove the belt and replace with a new one.
5. Slide the motor mount away from the drive shaft until the proper tension of the drive belt is achieved. After tightening the belt should easily deflect 3/8".



6. Tighten the four phillips head screws and replace the motor cap.

Recycle

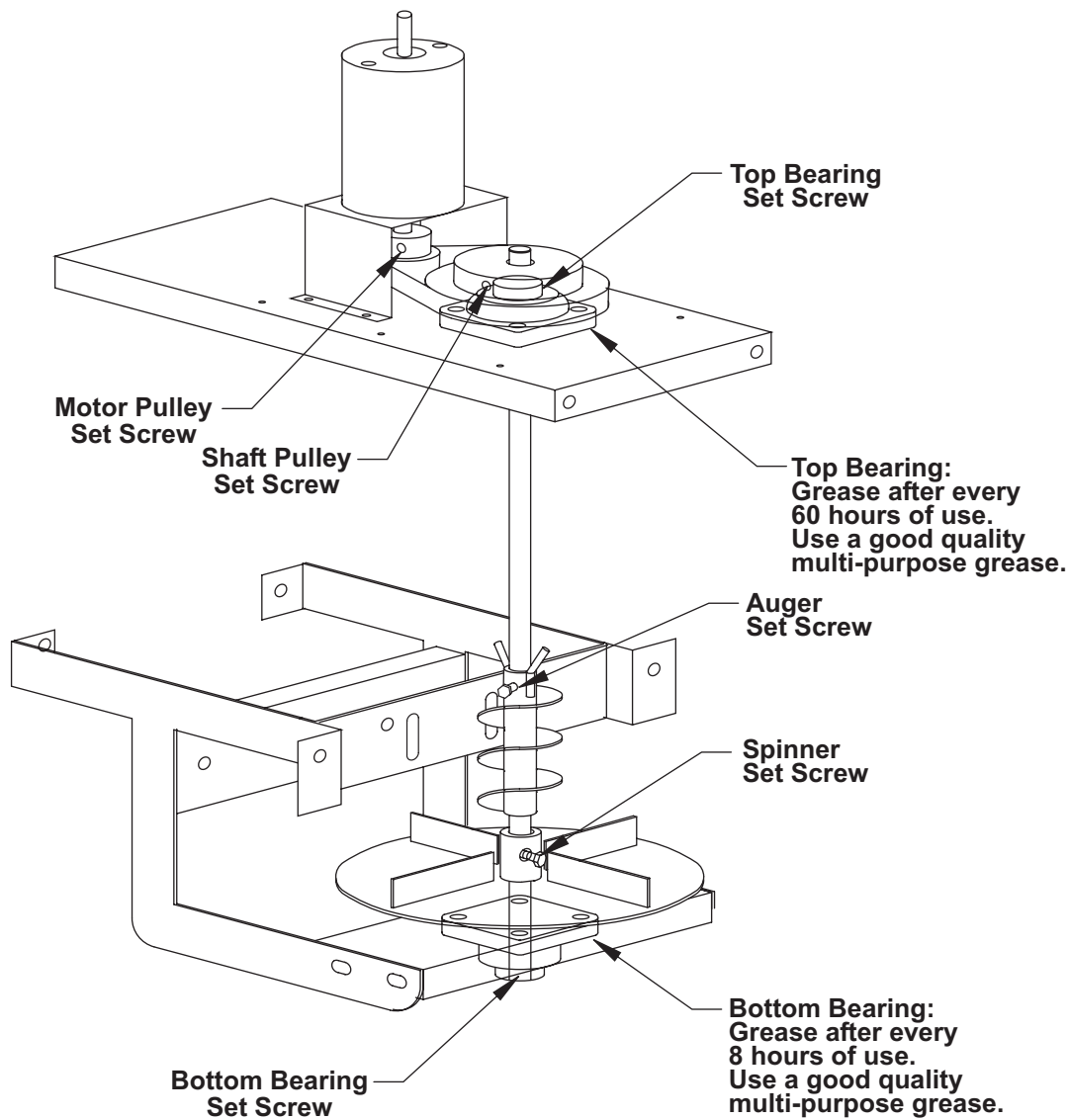
When your spreader has performed its useful life, the majority of its components can be recycled as steel. Gear oil shall be disposed of according to local regulations. Balance of parts made of plastic shall be disposed of in customary manner.

MAINTENANCE

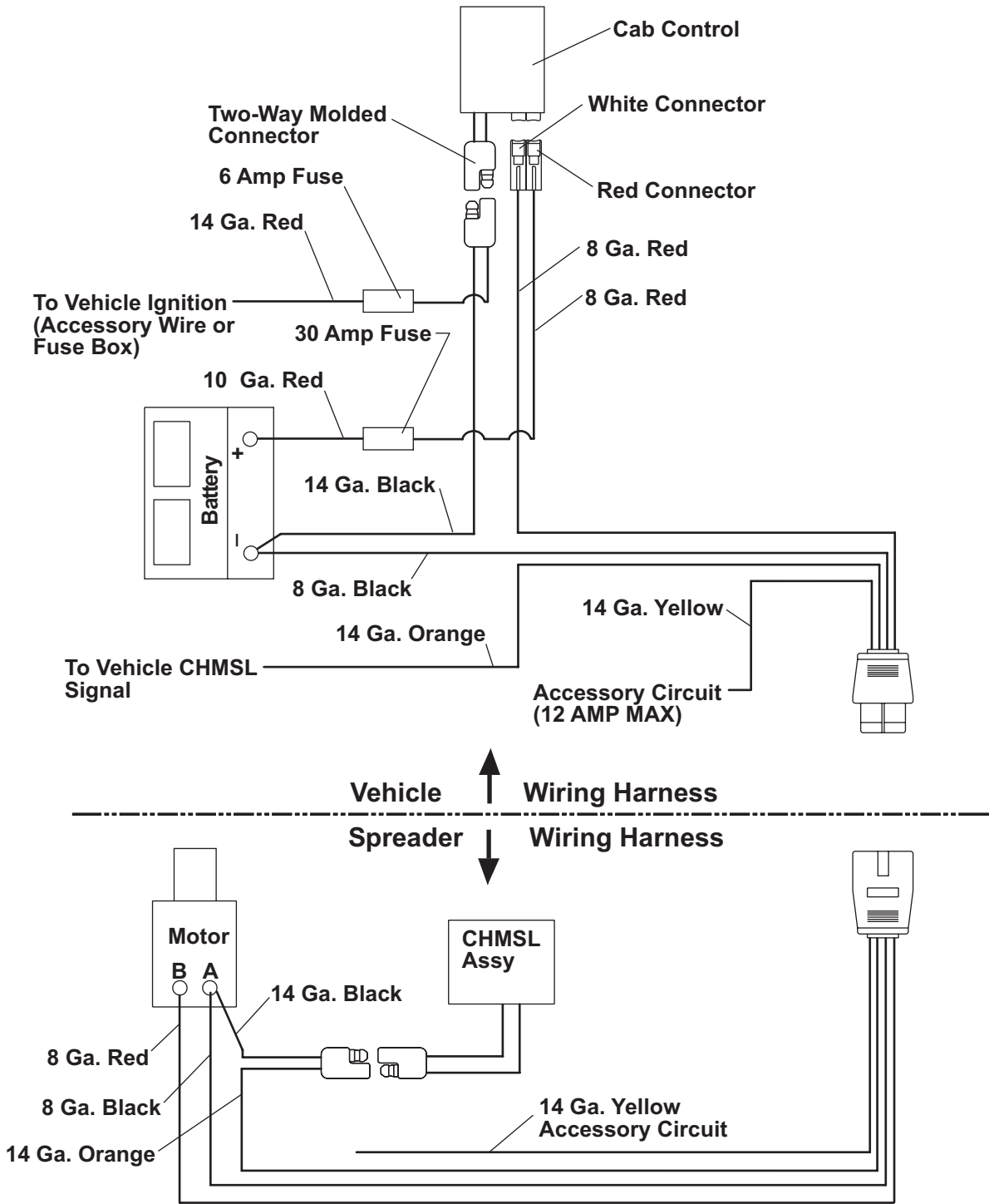
Bearing and Set Screw Maintenance

Disconnect the electrical plug between the spreader and the truck before performing any maintenance.

1. Tighten all set screws shown after every 60 hours of use.
2. Grease the top and bottom drive shaft bearings as shown. Due to the harsh environment of the bottom bearing it will require more care than the top bearing.



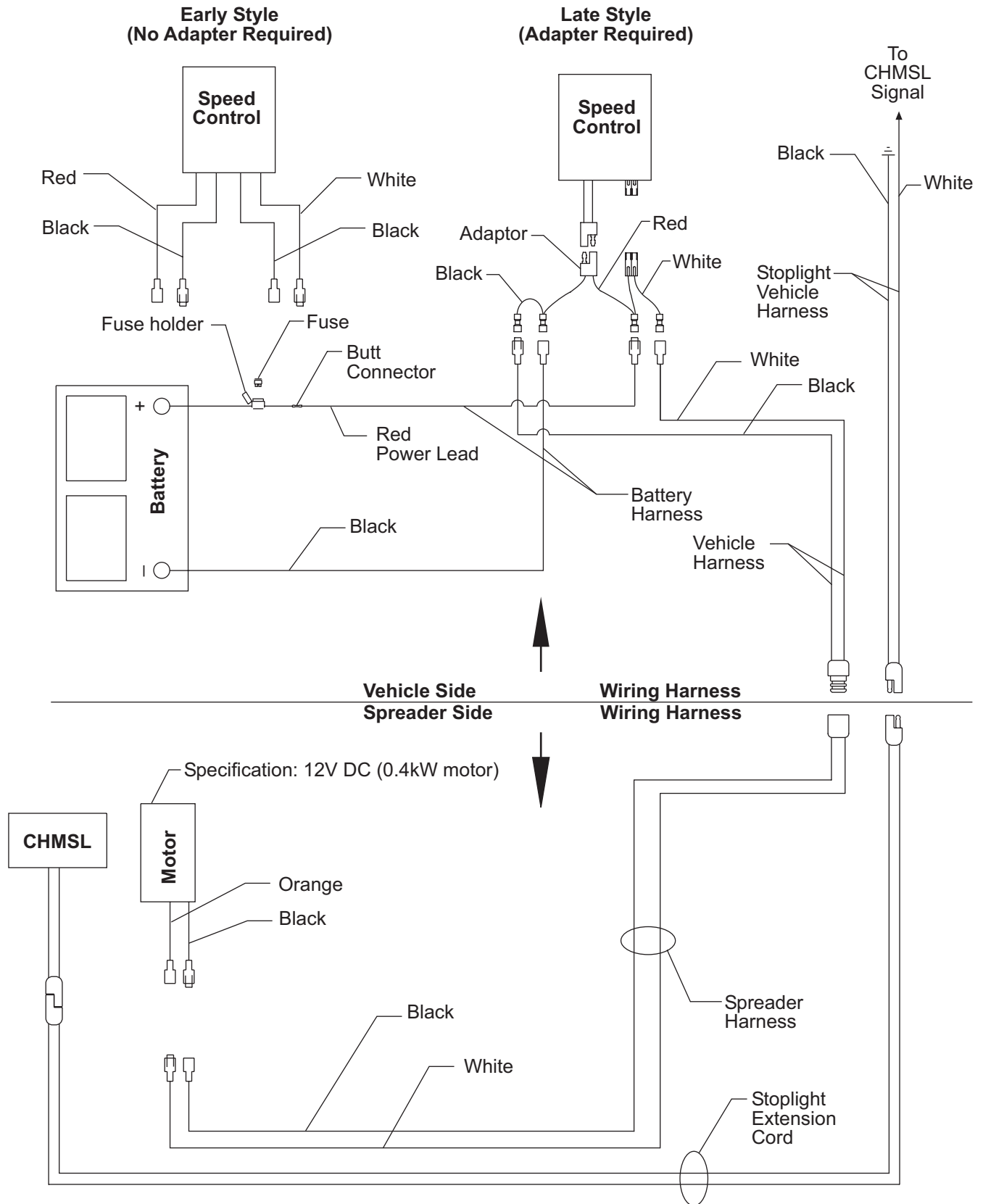
4 PIN HARNESS WIRING DIAGRAM



Motor Specification:

12 Volt DC, .56 kW Motor

2 PIN HARNESS WIRING DIAGRAM



TROUBLESHOOTING

Some of the solutions on the following page are complicated. If you are not properly trained or experienced in electrical or mechanical repairs, take you spreader to your local outlet for repairs.

ON/OFF Control

PROBLEM	POSSIBLE CAUSE	SUGGESTED SOLUTION
Ice control material not flowing	1. Bridging of material in hopper.	1. Unplug the spreader harness and tag out if required. Check hopper for material and free any bridged material.
No power to cab control (Switch is in ON position indicator light not lit)	1. Control connector plug is loose. 2. Blown fuse. 3. Low battery or loose connection. 4. Open circuit in wire from battery to cab control.	1. Check plug connection at cab control. 2. Check the SFE 6 amp in-line fuse. Replace if necessary. Check power supply for 12 VDC. 3. Check vehicle battery connections. - Clean off corrosion - Repair or replace damaged wires 4. Repair or replace damaged wires.
Spreader does not operate (Indicator light lit)	1. Wire harness is damaged or has an open circuit between cab control and spreader. 2. Bearings are seized. 3. Motor brushes are worn and prevent motor operation. 4. Motor bearings seized.	1a. Check plug connections at cab control and spreader. 1b. Check wire connections at spreader motor and at vehicle battery – disconnect motor leads, turn spreader switch on, check for voltage at motor leads. 1c. Repair or replace damaged wires and connectors 1d. Check the 30-amp in-line fuse. Replace if necessary. <i>Motor shaft should turn.</i> 2. Check bearings on spinner shaft, conveyor, and gearbox. 3. Remove and inspect both motor brushes. Replace if worn (Brush kit 65241). 4. Replace motor if the motor shaft will not turn.

TROUBLESHOOTING

Mechanical Problems - Variable Speed (PWM) and ON/OFF Control

PROBLEM	POSSIBLE CAUSE	SUGGESTED SOLUTION
Ice control material not flowing	1. Bridging of material in hopper.	1. Unplug the spreader harness and tag out if required. Check hopper for material and free any bridged material.
Spinner does not turn (Spreader motor is running)	1. Drive belt is loose or damaged. 2. Motor pulley not secured to motor shaft. 3. Spinner pulley is not secured to the spinner shaft. 4. Spinner shaft bearings are dry or seized.	1. Unplug the spreader harness and tag out if required. Reconnect after solution. 2. Adjust belt tension. Replace belt if damaged. 3. Tighten pulley set screw. Replace pulley if damaged. 4. Replace cap screw and nut if missing or damaged. Replace pulley if damaged.
Conveyor belt not moving (Spinner is turning)	1. Drive belt is loose or damaged. 2. Pulley is not secured to the spinner shaft. 3. Pulley is not secured to the gearbox shaft. 4. Gearbox is damaged. 5. Conveyor rollers are not secured to the shafts. 6. Conveyor belt is loose or damaged. 7. Conveyor belt is not aligned. 8. Conveyor belt shaft bearings are seized or otherwise damaged.	1. Unplug the spreader harness and tag out if required. Reconnect after solution. 2. Adjust belt tension. Replace belt if damaged. 3. Tighten pulley set screw. Replace pulley if damaged 4. Replace damaged or missing key. Replace pulley if damaged. 5. Replace gearbox if output shaft does not turn when input shaft turns. 6. Replace missing cap screws and nuts. Replace shafts or rollers if damaged. 7. Adjust belt tension. Replace belt if damaged. 8. Align belt to ride centered on rollers. 9. Grease or replace bearings.
Material in hopper does not flow (Conveyor belt and spinner are moving)	1. Feedgate is closed. 2. Obstruction in hopper.	1. Unplug the spreader harness and tag out if required. Reconnect after solution. 2. Open feedgate fully, then adjust to desired opening size. 3. Remove obstruction.
Spread pattern not optimum	1. Deflector out of adjustment.	1. Unplug the spreader harness and tag out if required. Reconnect after solution. 2. Change deflector adjustment to suit desired pattern. (See "Operating the Spreader" in this manual.)

TROUBLESHOOTING

Early Production - 2 Pin Harness

PROBLEM	POSSIBLE CAUSE	SUGGESTED SOLUTION
Ice control material not flowing	Bridging of material in hopper	Unplug the spreader harness and tag out if required. Check the hopper for material and free any bridged material.
Spinner does not spin – No power to the spreader control	Spreader Control power switch is in the OFF position	Set the power switch to the ON position.
	Spreader Control circuit breaker is tripped (ON/OFF control only)	Set the power switch to the OFF position. Reset the circuit breaker and set the power switch to the ON position.
	Battery lead in-line fuse is blown	Change the fuse and inspect for short circuits.
	Battery connection is poor	Clean or replace ring terminal. Coat with dielectric grease.
	Battery wiring harness is damaged	Repair or replace battery wiring harness as required.
Spinner does not spin – The motor is not turning and 12V DC power is present at the red wire to red wire connection located near the rear of the spreader control	Spinner, auger, or driveshaft is jammed or overloaded	Unplug the spreader harness and tag out if required. Turn the spinner by hand. If the shaft will not turn freely by hand, check for any obstructions or frozen material. Clear all obstructions.
	Spinner shaft bearings are damaged	Unplug the spreader harness and tag out if required. Remove the drive belt and spin the spinner by hand. If the shaft will not turn freely by hand, check for obstructions. If no obstructions exist, lubricate or replace the spinner bearings.
	Motor is damaged	Unplug the spreader harness and tag out if required. Turn the spinner by hand. If the shaft will turn freely and the belt and pulleys are in working order, reconnect the spreader harness and check for 12V DC at the orange wire to white wire connection located near the motor. If the motor has 12V DC, the problem is in the motor. Replace the motor.
	Spreader Control is damaged	Check for 12V DC at the white wire to white wire connection near the back of the spreader control. If the control does not have power, the problem is in the control. Replace the control.
	Wiring harness is damaged	Check for 12V DC at the white wire to white wire connection near the back of the spreader control. If the control has 12V DC, check for 12V DC at the white wire to orange wire connection located near the motor. If the motor does not have power, then the problem is in the spreader wiring harness. Repair or replace the wiring harness as necessary.
Spinner does not spin when load is applied – The motor is turning	Drive belt is loose or broken	Unplug the spreader harness and tag out if required. Remove the motor cap and check for a loose or broken drive belt. Tighten or replace the belt as necessary.
	Drive pulley is loose	Unplug the spreader harness and tag out if required. Remove the motor cap and verify motor and drive pulley set screws are tight.



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