

Low-Profile Tailgate Spreaders

Fixed Mount

Installation Instructions

⚠ CAUTION

Read Owner's Manual before operating or servicing spreader.

SAFETY

SAFETY DEFINITIONS

WARNING

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

CAUTION

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

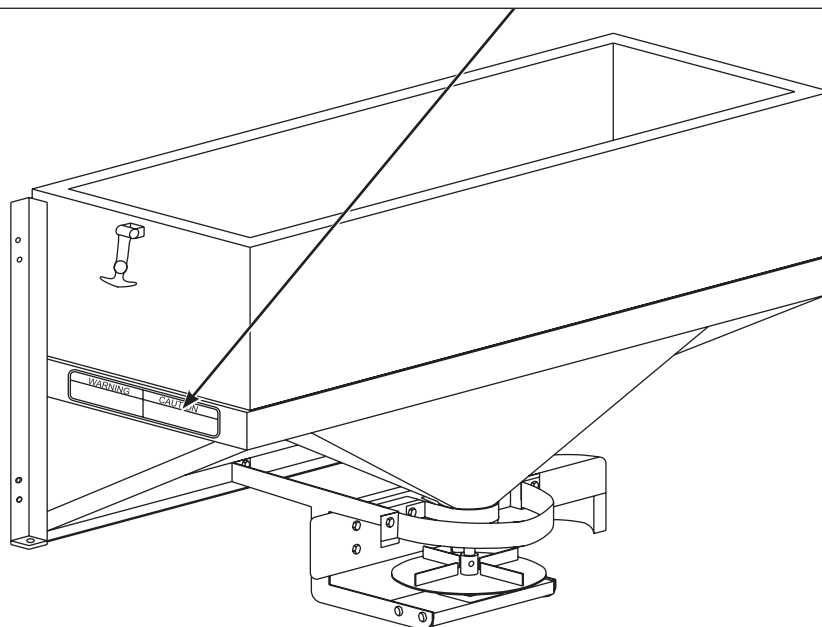
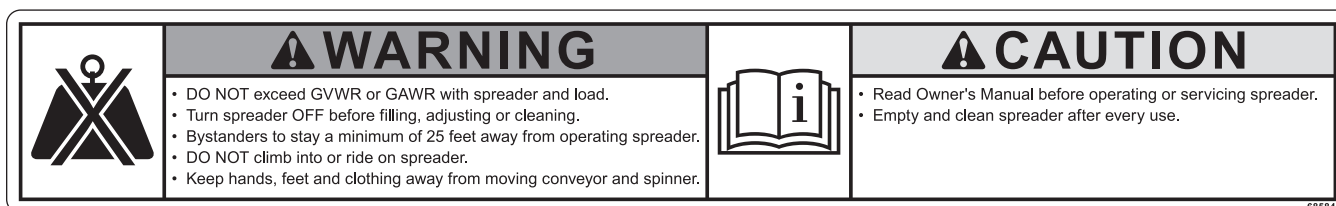
NOTE: Indicates a situation or action that can lead to damage to your spreader and vehicle or other property. Other useful information can also be described.

WARNING/CAUTION LABELS

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

NOTE: If labels are missing or cannot be read, see your sales outlet.

Warning/Caution Label
(located on both sides)



SAFETY

SAFETY PRECAUTIONS

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

⚠ 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 that 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.

⚠ 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

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

⚠ 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.
- 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.

⚠ CAUTION

Disconnect electric and/or hydraulic power 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 after each use.

NOTE: Lubricate grease fittings after each use. Use a good quality multipurpose grease.

PERSONAL SAFETY

- Remove ignition key and put the vehicle in park or in gear to prevent others from starting the vehicle during installation or service.
- Wear only snug-fitting clothing while working on your vehicle or spreader.
- Do not wear jewelry or a necktie, and secure long hair.
- Wear safety goggles to protect your eyes from battery acid, gasoline, dirt and dust.
- Avoid touching hot surfaces such as the engine, radiator, hoses and exhaust pipes.
- Always have a fire extinguisher rated BC handy, for flammable liquids and electrical fires.

SAFETY

FIRE AND EXPLOSION

WARNING

Gasoline is highly flammable and gasoline vapor is explosive. Never smoke while working on vehicle. Keep all open flames away from gasoline tank and lines. Wipe up any spilled gasoline immediately.

Be careful when using gasoline. Do not use gasoline to clean parts. Store only in approved containers away from sources of heat or flame.

CELL PHONES

A driver's first responsibility is the safe operation of the vehicle. The most important thing you can do to prevent a crash is to avoid distractions and pay attention to the road. Wait until it is safe to operate Mobile Communication Equipment such as cell phones, text messaging devices, pagers or two-way radios.

VENTILATION

WARNING

Vehicle exhaust contains lethal fumes. Breathing these fumes, even in low concentrations, can cause death. Never operate a vehicle in an enclosed area without venting exhaust to the outside.

BATTERY SAFETY

CAUTION

Batteries normally produce explosive gases, which can cause personal injury. Therefore, do not allow flames, sparks, or lit tobacco to come near battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

- Batteries contain sulfuric acid, which burns skin, eyes and clothing.
- Disconnect the battery before removing or replacing any electrical components.

NOISE

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

VIBRATION

Operating snowplow vibration does not exceed 2.5 m/s² to the hand-arm or 0.5 m/s² to the whole body.





TORQUE CHART

CAUTION





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

Recommended Fastener Torque Chart

Inch Fasteners Grade 5 and Grade 8

Size	Torque (ft-lb)		Size	Torque (ft-lb)	
	 Grade 5	 Grade 8		 Grade 5	 Grade 8
1/4-20	8.4	11.9	9/16-12	109	154
1/4-28	9.7	13.7	9/16-18	121	171
5/16-18	17.4	24.6	5/8-11	150	212
5/16-24	19.2	27.3	5/8-18	170	240
3/8-16	30.8	43.6	3/4-10	269	376
3/8-24	35.0	49.4	3/4-16	297	420
7/16-14	49.4	69.8	7/8-9	429	606
7/16-20	55.2	77.9	7/8-14	474	669
1/2-13	75.3	106.4	1-8	644	909
1/2-20	85.0	120.0	1-12	704	995

Metric Fasteners Class 8.8 and 10.9

Size	Torque (ft-lb)		Size	Torque (ft-lb)	
	 Class 8.8	 Class 10.9		 Class 8.8	 Class 10.9
M6 x 1.00	7.7	11.1	M20 x 2.50	325	450
M8 x 1.25	19.5	26.9	M22 x 2.50	428	613
M10 x 1.50	38.5	53.3	M24 x 3.00	562	778
M12 x 1.75	67	93	M27 x 3.00	796	1139
M14 x 2.00	107	148	M30 x 3.50	1117	1545
M16 x 2.00	167	231	M33 x 3.50	1468	2101
M18 x 2.50	222	318	M36 x 4.00	1952	2701

These torque values apply to fasteners except those noted in the instructions.

LOADING

These instructions cover vehicles recommended for carrying the spreader. Please see your sales outlet for proper vehicle applications.

⚠ WARNING

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

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.

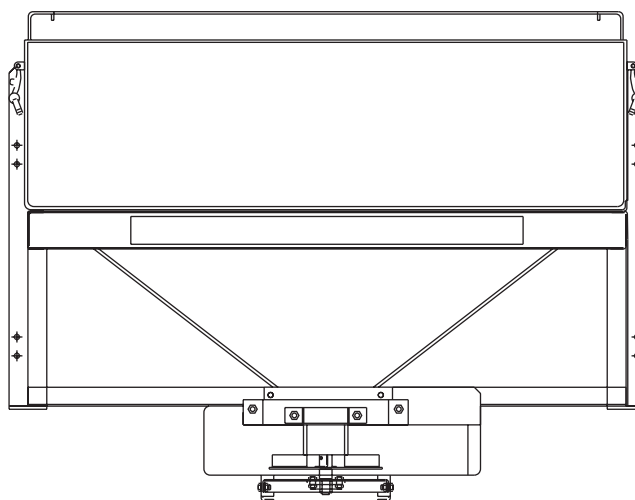
⚠ CAUTION

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

MATERIAL WEIGHTS

Material	Density		
	(lb/ft ³)	(lb/yd ³)	(kg/m ³)
Salt	80	2160	1282
Sand	100	2700	1602

Material densities are approximate and are based on dry loose material. It is the responsibility of the operator to know the weight of the material to be spread and the vehicle carrying capacity.

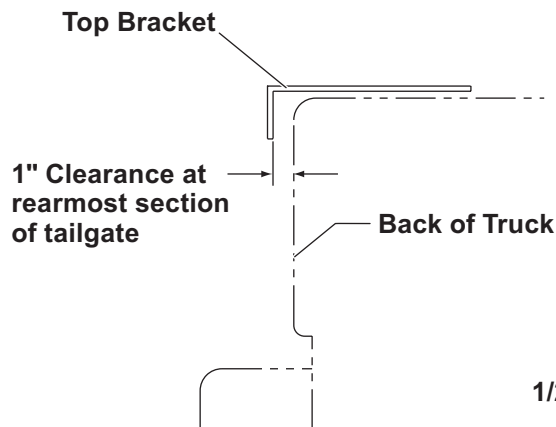


FIXED MOUNT INSTALLATION

FIXED MOUNT INSTALLATION

NOTE: Remove any existing trailer hitch and other after-market equipment that may interfere with the installation of this product according to these instructions.

1. Remove all mount assembly parts and hardware from the shipping carton.
2. Place the left and right top brackets on the bed rail of the truck with the small mounting flange area tight against the inside of the bed rail. Position the brackets evenly from front to rear to allow at least 1" of clearance from the tailgate to the mounting bracket.



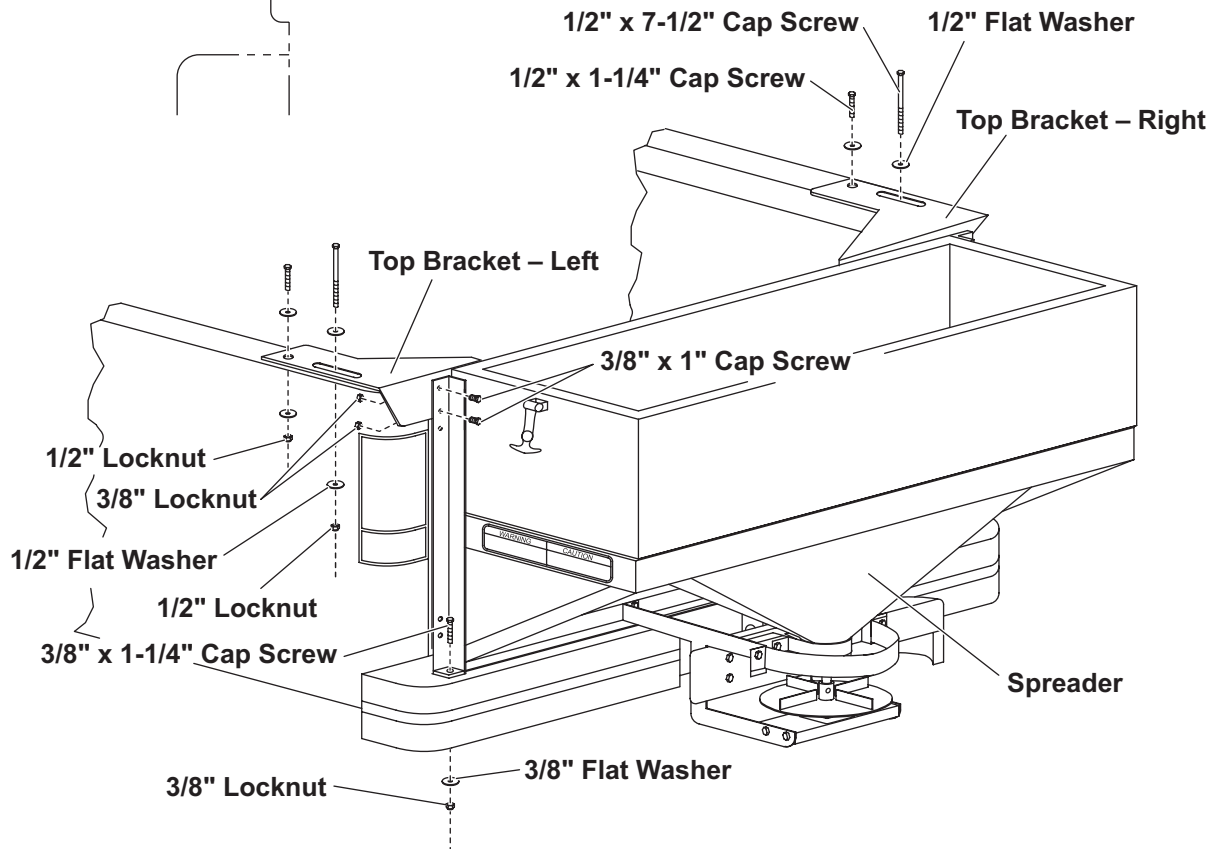
3. Clamp the brackets in place and use the holes in the mounting flange area to mark two places on the inside flange of the bed rail. Use the large slots on top to mark two places on top of the bed rail.

⚠ CAUTION

Before drilling holes, check to be sure that no vehicle wiring or other components could be damaged.

4. Remove the brackets, check the area under the bed rail for any obstructions. At the marked location, center punch and drill two 11/32" holes through the inside flange of the bed rail and two 17/32" holes through the top of the bed rail.

NOTE: Pay special attention when drilling or clamping dissimilar metals to aluminum bodies. Galvanic corrosion can occur if not handled properly. Contact vehicle manufacturer for recommended attachment practices.



FIXED MOUNT INSTALLATION

5. Install the left and right top brackets to the bed rail of the truck with two 1/2" x 1-1/4" cap screws, four 1/2" flat washers and two 1/2" locknuts per side. Do not fully torque hardware until instructed to do so.

NOTE: If the spreader obstructs the view of the license plate or center high mounted stop light check for any local regulations that may apply.

CAUTION

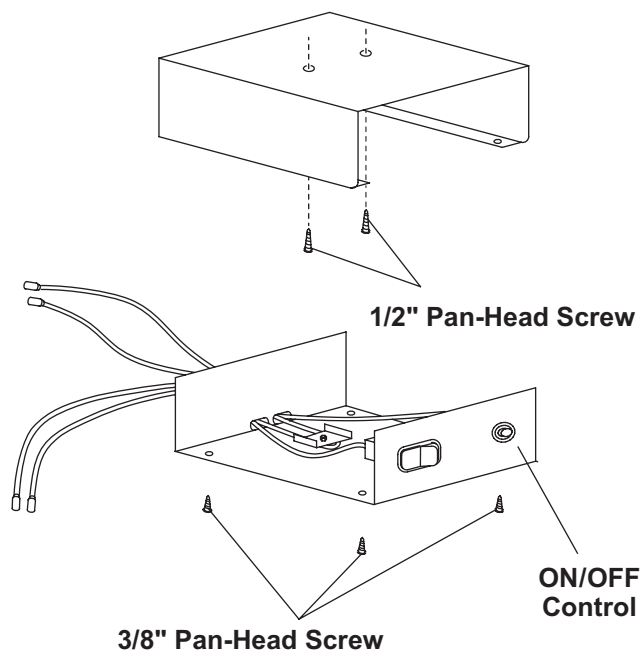
During removal or mounting, securely grip spreader to avoid dropping.

6. Place the spreader on the bumper of the truck.
 7. Center the spreader between the bed rails and verify that 1" of clearance exists between the spreader and the tailgate. Verify that the spreader is vertical.
 8. Once the spreader is properly positioned, adjust or shim the top brackets as required to mate to the rear angles of the spreader. Clamp the angles to the top brackets and mark the position of the angles on the top brackets.
 9. Mark the holes of the bottom feet onto the bumper.
 10. Remove the spreader and drill two 13/32" holes in the bumper as marked.
 11. Place the spreader back onto the bumper and re-clamp it in the marked position to the top brackets.
 12. Attach the spreader feet to the bumper using one 3/8" x 1-1/4" cap screw, one 3/8" flat washer and one 3/8" locknut per side.
 13. With clamps attached, drill one 13/32" hole through the vertical angle of the spreader and the top bracket on each side. The hole should be located about 3/4" down from the top surface of the bracket.
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- NOTE: Place a piece of wood behind the drilling area to protect the tailgate from the drill as it breaks through.**
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14. Drill a second 13/32" hole through the vertical angle of the spreader and the top bracket. Locate this hole near the bottom of the bracket. One of the existing holes in the spreader angle may be used if it is suitable.
 15. Repeat the drilling procedure on the opposite side of the spreader.
 16. Attach the spreader to the brackets using two 3/8" x 1" cap screws and 3/8" locknuts per side.
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- NOTE: Tighten all fasteners according to the torque chart.**
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SPREADER CONTROL MOUNTING

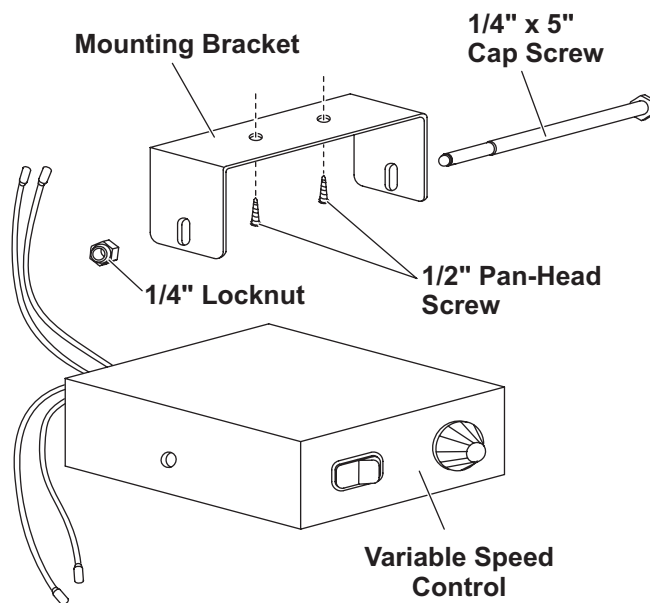
ON/OFF CONTROL

1. Locate a convenient position in the cab to mount the ON/OFF control that will not interfere with other equipment and will avoid unintentional starting of the spreader.
2. Mount the cover of the ON/OFF control to the vehicle with two 1/2" pan-head screws as shown.
3. Slide the body of the control into the cover and secure with four 3/8" pan-head screws.

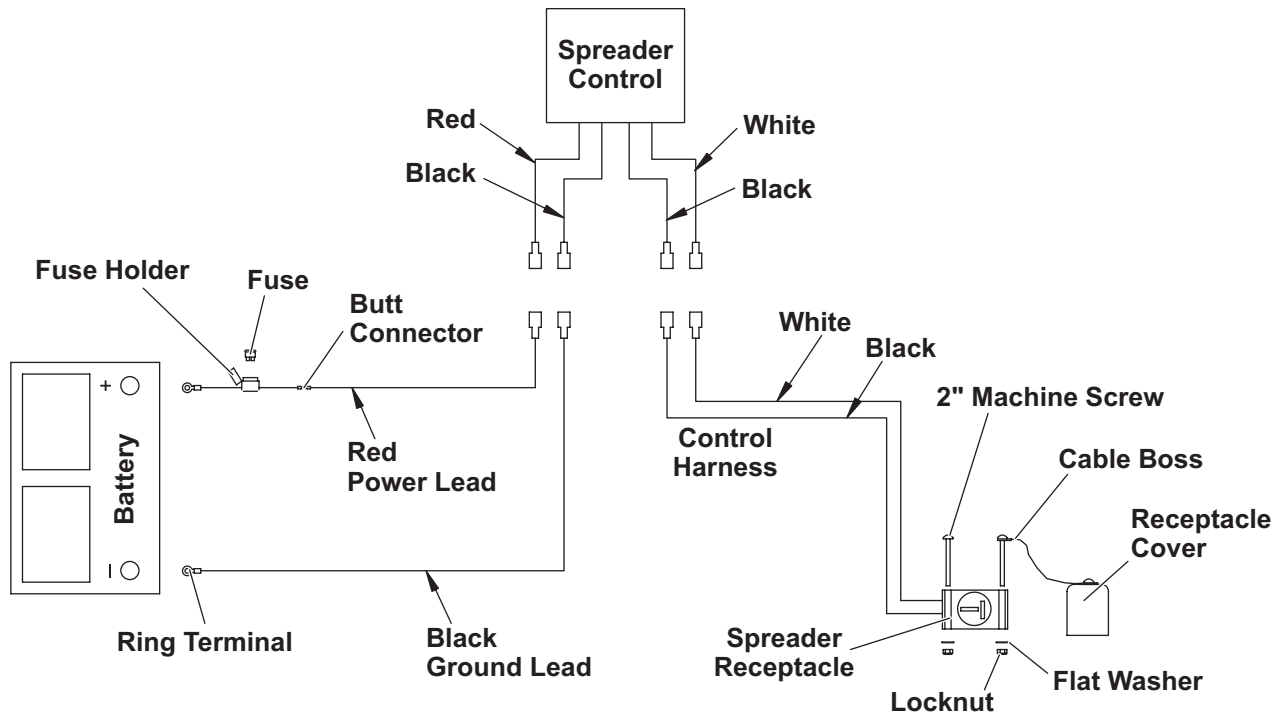


VARIABLE SPEED CONTROL

1. Locate a convenient position in the cab to mount the variable speed control that will not interfere with other equipment and will avoid unintentional starting of the spreader.
2. Attach the mounting bracket to the vehicle with two 1/2" pan-head screws as shown.
3. Place the variable speed control into the mounting bracket and secure with the 1/4" x 5" cap screw and 1/4" locknut. Tighten the locknut only tight enough to hold the position of the control. Use care when inserting the bolt through the control to avoid damaging any components or wires inside.



WIRING INSTRUCTIONS



CONTROL HARNESS INSTALLATION

1. Mount the control as shown in the Spreader Control Mounting Instruction section.

⚠ CAUTION

Before drilling any holes, check both sides of the material for any wires, fuel lines, fuel tanks, etc., that may be damaged by drilling.

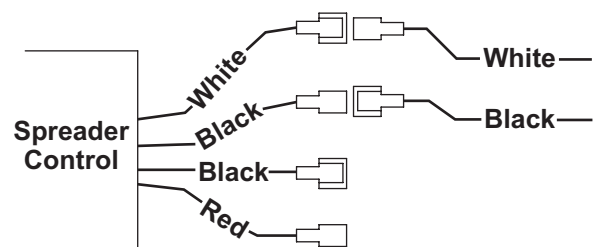
2. Drill a 5/8" hole on the driver-side fire wall in an area with clearance on both sides.

⚠ CAUTION

Rubber grommet shall be installed in fire wall to protect wires. Failure to do this could result in a short, causing damage to vehicle and equipment.

3. Install the rubber grommet into the hole.
4. Locate an area under the rear bumper and protected from the discharge of the spreader to mount the spreader receptacle.

5. Drill two 7/32" holes and mount the spreader receptacle using two #10 x 2" machine screws, flat washers and locknuts. Attach the cable boss of the receptacle cover to one of the screws.
6. Route the leads along the truck frame, working forward from the receptacle and avoiding any hot or moving parts. Secure the leads with wire ties.
7. Pass the terminal ends through the rubber grommet into the cab of the vehicle. Run the leads out of sight to the spreader control in a manner that does not interfere with other equipment. Insert the terminals of the harness into the corresponding terminals of the spreader control.



8. Roll up any excess wire under the vehicle and secure it to a safe location on the vehicle frame.

WIRING INSTRUCTIONS

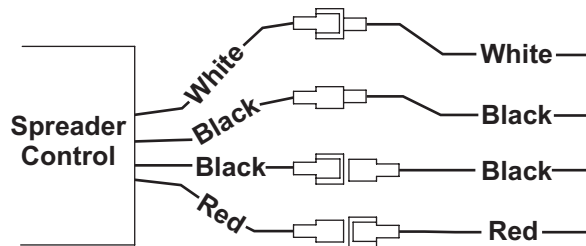
POWER AND GROUND LEAD INSTALLATION

1. Place the red power lead and the black ground lead on the floor of the vehicle cab. Pass the bare ends of the leads through the rubber grommet in the fire wall.

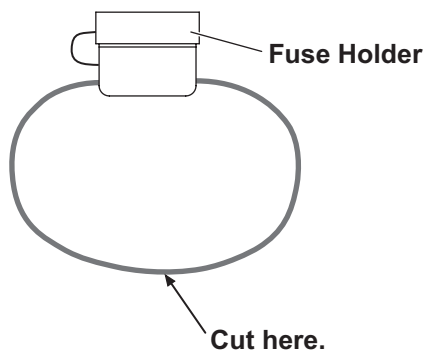
⚠ CAUTION

Do not connect the wires to the battery at this time.

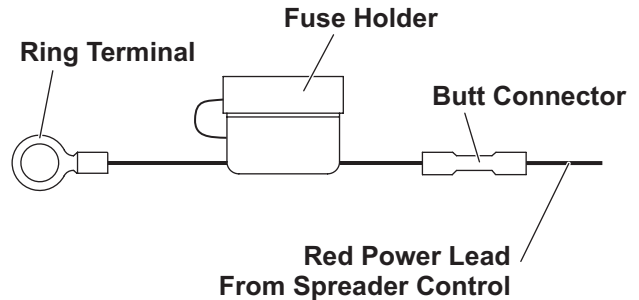
2. Insert the terminals of the leads into the corresponding terminals of the spreader control. Route the leads along the fire wall to the battery area. Use wire ties to secure the wiring away from any hot or moving parts.



3. Cut the looped wire of the fuse holder near the middle and strip 1/4" of insulation away from the wire on both ends.



4. Trim off any excess wire at the battery. Install and heat-seal a butt connector between the fuse holder and the red (+) power lead from the spreader control.



5. Using a heat gun or other heat source, heat the butt connector, starting from the center and moving outward until the tubing shrinks and the adhesive has melted.
6. Crimp a ring terminal to the bare end of the fuse holder lead (+) and attach to the POSITIVE (+) terminal of the battery.
7. Crimp a ring terminal to the black (-) ground lead from the spreader control and attach to the NEGATIVE (-) terminal of the battery.
8. Install the fuse into the fuse holder.

WIRING INSTRUCTIONS

CHMSL HARNESS INSTALLATION (IF EQUIPPED)

1. Plug the vehicle harness into the spreader CHMSL harness and route the vehicle harness along the driver-side frame rail, through the fire wall, and into the cab of the vehicle.

NOTE: Some trucks have leads specifically designed for connecting into the CHMSL circuit. These wires may be located in the engine compartment or near the rear of the truck. Check for these leads before routing wire into the cab.

2. Locate the wire that carries the signal to the vehicle CHMSL and connect the CHMSL vehicle harness white wire to it using the special butt splice provided.
3. Connect the black wire to a chassis ground.
4. Use a cable tie to secure the CHMSL harness to the spreader vehicle harness near the harness plugs.

NOTE: Use dielectric grease on all electrical connections to prevent corrosion.

OPERATIONAL TEST

1. Plug the spreader harness into the receptacle.
2. Turn the control ON.
3. Adjust the speed setting to the desired position (variable speed control only).
4. Observe the spinner disc rotation. It should be rotating in a counterclockwise direction. If the spinner rotates clockwise, check the wiring installation.

The company reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used. This equipment manufacturer or the vehicle manufacturer may require or recommend optional equipment for spreaders. Do not exceed vehicle ratings with a spreader. The company offers a limited warranty for all spreaders and accessories. See separately printed page for this important information.

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