

# **Vehicle Wiring Harness and Cab Control**

## **For Low-Profile, Single-Stage and Two-Stage Tailgate Spreaders**

### **Installation Instructions**

**⚠ CAUTION**

Read this document before installing the  
spreader.



# SAFETY INFORMATION

## SAFETY DEFINITIONS

### ⚠ WARNING

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

### ⚠ CAUTION

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

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

## FUSES

The spreader electrical system contains several blade-style automotive fuses. If a problem should occur and fuse replacement is necessary, the replacement fuse must be of the same type and amperage rating as the original. Installing a fuse with a higher rating can damage the system and could start a fire. Fuse Replacement, including fuse ratings and locations, is located in the Maintenance section of the Owner's Manual.

## BATTERY SAFETY

### ⚠ CAUTION

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





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

### ⚠ 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.

# WIRING AND HARNESS INSTRUCTIONS

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## WIRING INSTRUCTIONS

Spreaders are shipped from the factory with the spreader harness wired to the spreader module.

To properly wire the tailgate spreader, follow this recommended installation sequence:

1. Install the vehicle battery cable and control harness included with the spreader, following the steps given below.
2. Install the cab control as described under "Cab Control Installation."

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**NOTE: Use dielectric grease on all electrical connections.**

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## Vehicle Battery Cable Installation

### **⚠ CAUTION**

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

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

1. Before beginning this installation, remove the POSITIVE (+) and NEGATIVE (-) battery cables from the vehicle battery.
2. Lay out a path for routing the vehicle battery cable from the rear of the vehicle to the vehicle battery. Make sure the path avoids any hot, sharp or moving parts. Routing will vary from vehicle to vehicle.

## WIRING AND HARNESS INSTRUCTIONS

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- Using cable ties, secure the vehicle battery cable to the vehicle frame. Verify that the cable cannot drop onto the ground when it is disconnected from the spreader.
- Attach the spreader vehicle battery cable red wire and the positive battery cable removed in Step 1 to the POSITIVE (+) battery terminal.
- Attach the spreader vehicle battery cable black wire and the negative battery cable removed in Step 1 to the NEGATIVE (-) battery terminal.
- Check that the fuse holder on the vehicle battery cable red wire contains a fuse:

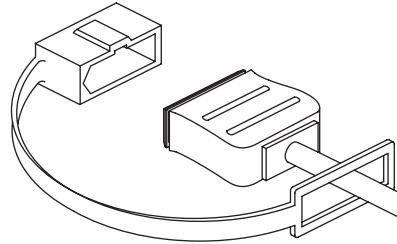
Single-Stage: 40A fuse

Two-Stage: 50A fuse

Attach fuse cover securely.

### Harness Plug Cover

Install the supplied harness plug cover by slipping the loop end of the cover over the harness plug.



# WIRING AND HARNESS INSTRUCTIONS

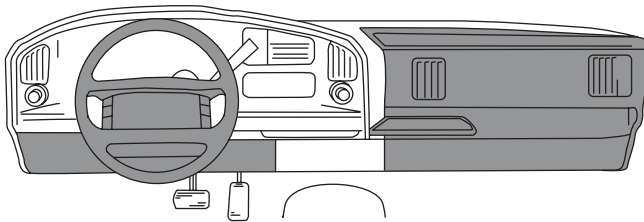
## Vehicle Control Harness Installation

1. Lay out a path for routing the vehicle control harness from its attachment point on the vehicle battery cable into the cab of the truck. Make sure the path avoids any hot, sharp or moving parts. Routing will vary from vehicle to vehicle.
2. Choose a cab control mounting location within easy reach of the vehicle operator without restricting access to vehicle controls or instrumentation.

Do not mount the control in areas prohibited by the vehicle manufacturer for reasons of crashworthiness. See the vehicle's body builder's book, owner's manual or service manual for details. The shaded portions in the illustration below show the most commonly restricted areas.

### **⚠ CAUTION**

**Do not alter, modify or install additional components in shaded areas shown below. Failure to comply may interfere with airbag deployment or cause injury to operator in an accident.**



### **⚠ CAUTION**

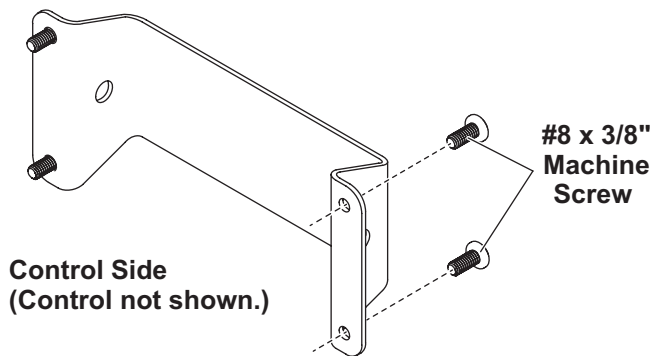
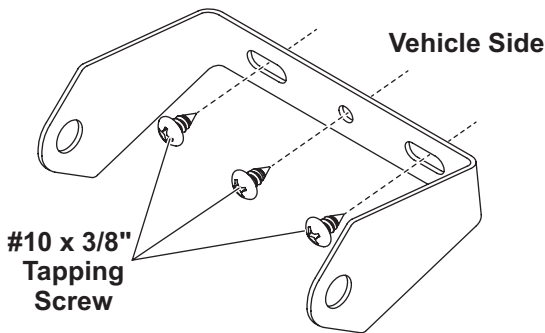
**Before drilling any holes, check both sides of the material for any wires, fuel lines, fuel tanks, etc., that may be damaged by drilling.**

3. Drill a 5/8" hole in the fire wall so the vehicle control harness can reach the desired cab control location.
4. Insert a rubber grommet into the hole.
5. Route the harness as laid out in Step 1.
6. Secure the vehicle control harness to the vehicle.
7. Attach the red wire to a switched accessory circuit.

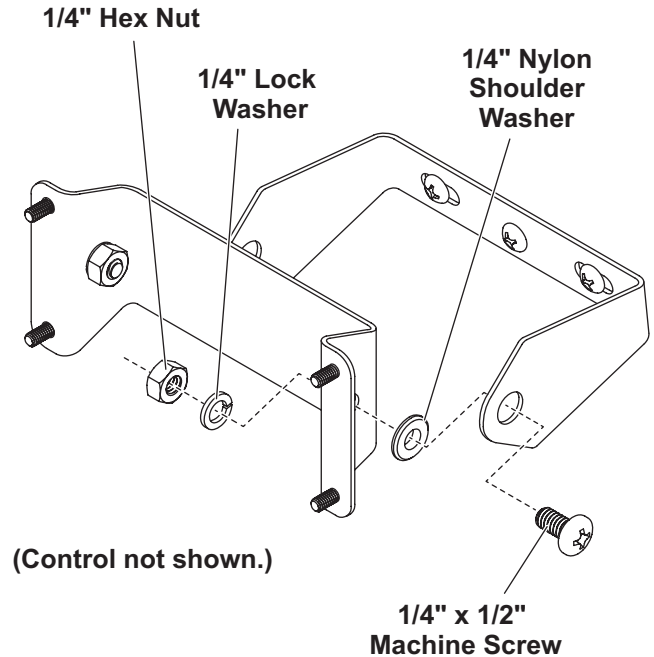
# CAB CONTROL AND SPREADER MOUNTING INSTRUCTIONS

## CAB CONTROL INSTALLATION

1. Confirm that the chosen cab control mounting position will not interfere with other equipment or allow unintentional starting of the spreader.
2. Install the vehicle side of the mounting bracket using three #10 x 3/8" Phillips head tapping screws.
3. Install the control side of the bracket to the control using four #8 x 3/8" Phillips head machine screws.



4. Install the control side of the bracket to the vehicle side using 1/4" x 1/2" Phillips head machine screws, 1/4" nylon shoulder washers, 1/4" lock washers and 1/4" hex nuts.



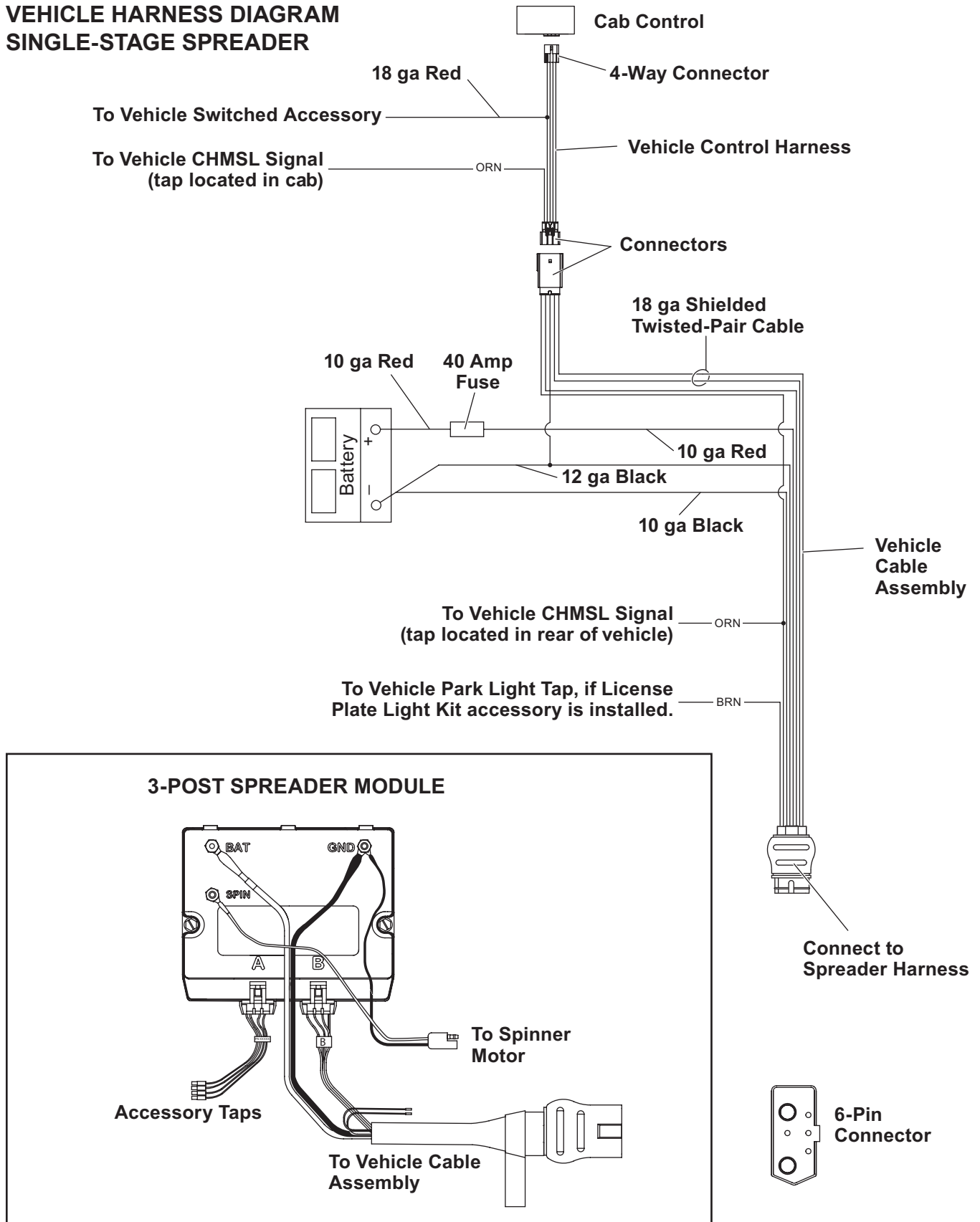
5. Plug the vehicle control harness into the cab control.

## MOUNTING THE SPREADER

1. Mount the spreader to the vehicle following the spreader's Owner's Manual and/or mount Installation Instructions.
2. Plug the vehicle harness into the spreader harness.
3. Installation is complete.

# ELECTRICAL COMPONENTS: SINGLE-STAGE SPREADER

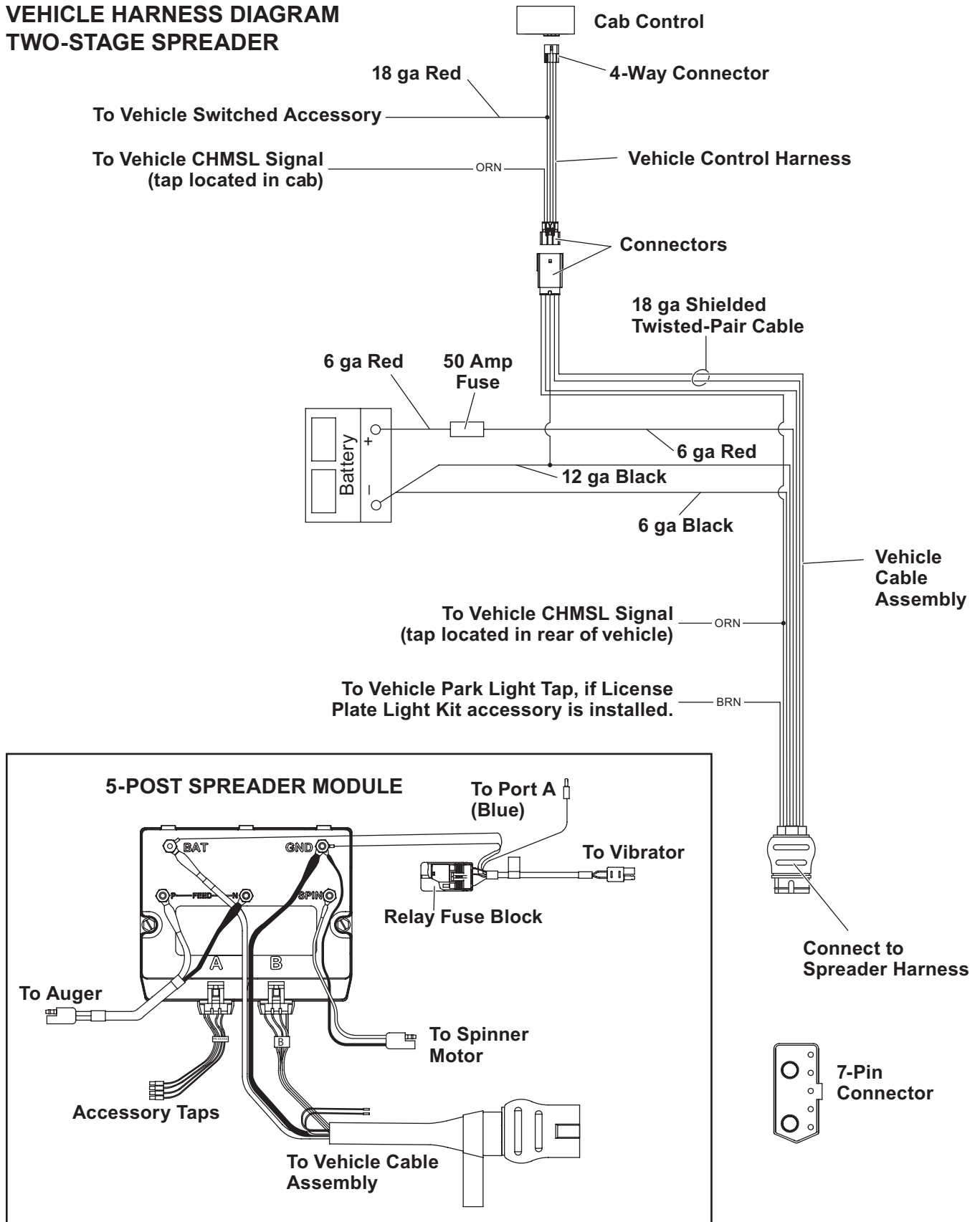
## VEHICLE HARNESS DIAGRAM SINGLE-STAGE SPREADER





# ELECTRICAL COMPONENTS: TWO-STAGE SPREADER

## VEHICLE HARNESS DIAGRAM TWO-STAGE SPREADER



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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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