

# Installation Instructions

## Crossfire Spreader 64740, 66263, 64742 and 66264

### Determining Vehicle Payload

It is necessary to calculate the available material payload to prevent overloading the vehicle. Overloading the vehicle can create dangerous stability and braking problems. Always consult and follow vehicle manufacturer's weight ratings and mounting instructions.

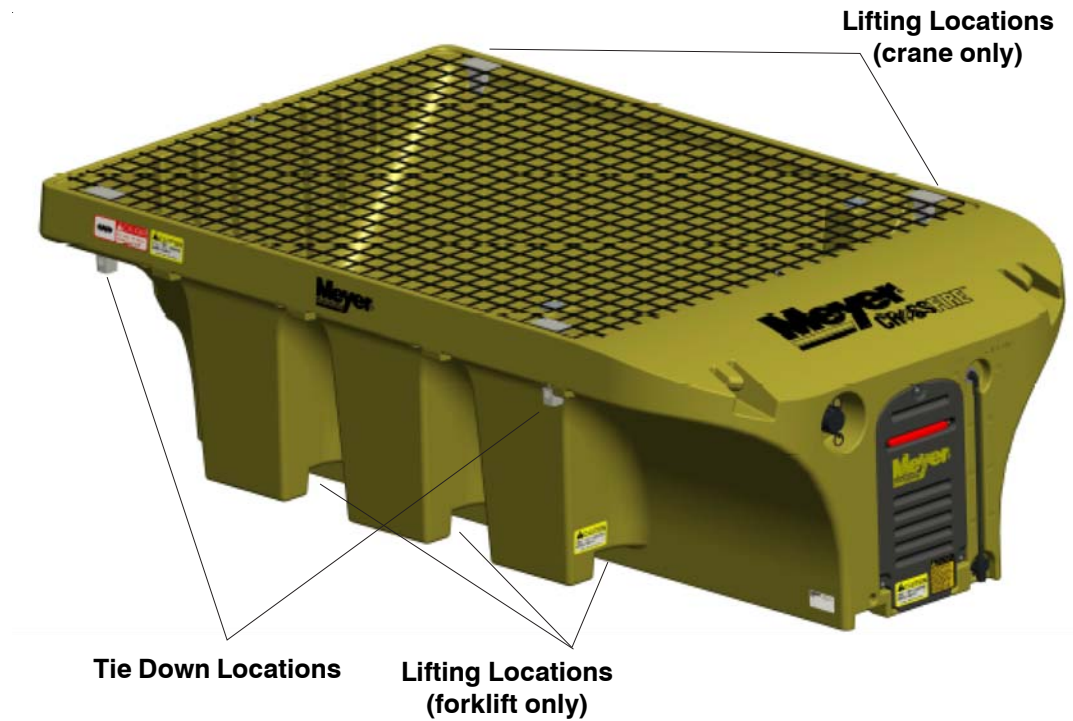
1. Mount complete spreader and any optional equipment on vehicle.
2. Attach all additional equipment onto vehicle such as snow plow, hitch, etc that will be used when spreader is mounted on vehicle.
3. Fill fuel tanks.
4. With normal operator(s) inside of vehicle, weigh vehicle to obtain the Gross Vehicle Weight (GVW).
5. Obtain Gross Vehicle Weight Rating (GVWR), Front Gross Axle Weight Rating (FGAWR), and Rear Gross Axle Weight Rating (RGAWR) from the driver's door jam or from the vehicle manufacturer.
6. Subtract the GVW from the GVWR to obtain the available material payload.
7. Divide the payload by the material density (see Material Density Chart) to determine the maximum volume of material that can be carried by the vehicle.
8. Refer to Spreader Capacity Chart to determine the recommended level to fill hopper to obtain desired payload.
9. Load spreader with material to the calculated height.
10. Weigh vehicle to verify vehicle does not exceed GVWR, FGAWR, or RGAWR.
11. Repeat procedure for each type of spreading material to be used.

**Note:** Material weights shown in Material Density Chart are average material weights. Actual weight of materials may vary depending on vendor and the geographic area the materials are obtained from.

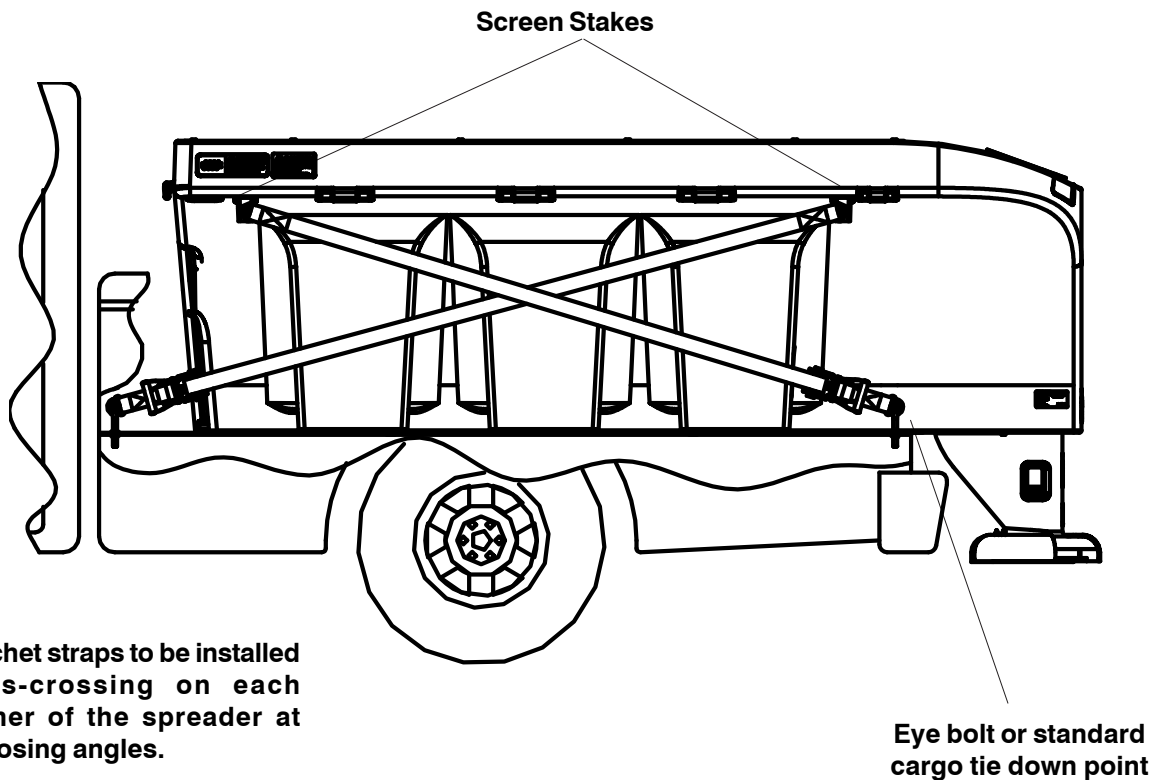


Material Density		
Granular	lbs./Cubic Yard	kg/Cubic Meter
Coarse Salt - Dry	2,052	932
Coarse Sand - Dry	2,700	1,227
Coarse Sand - Wet	3,240	1,472
Liquid	lbs./gallon	kg/liter
Sodium Chloride	9.80	4.44
Magnesium Chloride	10.75	4.88
Calcium Chloride	10.85	4.92

## Spreader Mounting



1. Place spreader directly onto bed of vehicle with discharge at the rear of the vehicle.
2. Attach spinner assembly.
3. Reposition spreader on vehicle bed just short of spinner assembly making contact with the rear most part of the vehicle.
4. Install one ratchet strap from each corner of truck bed to appropriate Screen Stake.



## Vehicle Preparation

Overloading vehicle can create dangerous stability and braking problems. Always consult and follow vehicle manufacturers weight ratings and mounting instructions.

1. Turn off vehicle engine, set parking brake, and remove keys.
2. Remove tailgate from vehicle.
3. Remove trailer hitch if equipped.

## Spreader Preparation

1. Remove all loose items from inside of hopper such as the spinner assembly, controller, etc.
2. Make sure hopper is completely empty before attempting to lift or move spreader.

## Lifting Spreader

All chains, hooks, and straps must be of an adequate weight rating to support entire spreader including any additional or optional equipment that may be installed. Never attempt to lift or move a spreader with material in the hopper.

1. Forklift Pockets: The Crossfire spreader can be lifted with a forklift by utilizing the rear forklift pockets. Extended forks are recommended for use with the forklift pockets. Verify forklift is of an adequate weight rating to prevent forklift from tipping while moving spreader.
2. Spreader can be lifted by removing the screen stakes and attaching a lifting strap to through each screen stake pocket in a choker configuration.

## Spreader Installation

The Crossfire spreader should be mounted directly on the vehicle bed, spreader is not designed to be supported by body jacks alone or for chassis mount applications. Shipping skid is intended to be removed before mounting spreader. Verify mounting method is acceptable to the vehicle manufacturer before attempting to mount spreader.

1. Place spreader directly onto bed of vehicle with discharge at the rear of the vehicle.
2. Spreader is designed sit directly on vehicle bed. Do not support spreader by body jacks alone. Spreader is not designed to be chassis mounted.
3. Attach spinner assembly to spreader. Make sure spreader cannot tip when spinner assembly is installed (see spinner assembly installation instructions).
4. Reposition spreader on vehicle bed, just short of the spinner assembly making contact with the rear most part of the bed, bumper, pintle hook, etc.
5. Adequate tie down locations are necessary for proper installation of the Crossfire spreader. Vehicle should be equipped with cargo tie down brackets in each corner of bed. If vehicle is not equipped cargo tie down brackets, a minimum of four 1/2" eye bolts or d-rings will need to be added to vehicle bed.
6. Install one ratchet strap from each corner of vehicle bed to appropriate spreader tie down location. Straps should be installed at opposing angles to prevent spreader from sliding in vehicle bed.



### Spinner Assembly Installation

Spinner should be solidly supported during installation. Spinner assembly weighs over 50 lbs. (22.7 kg) and may require more than one person for safe installation.

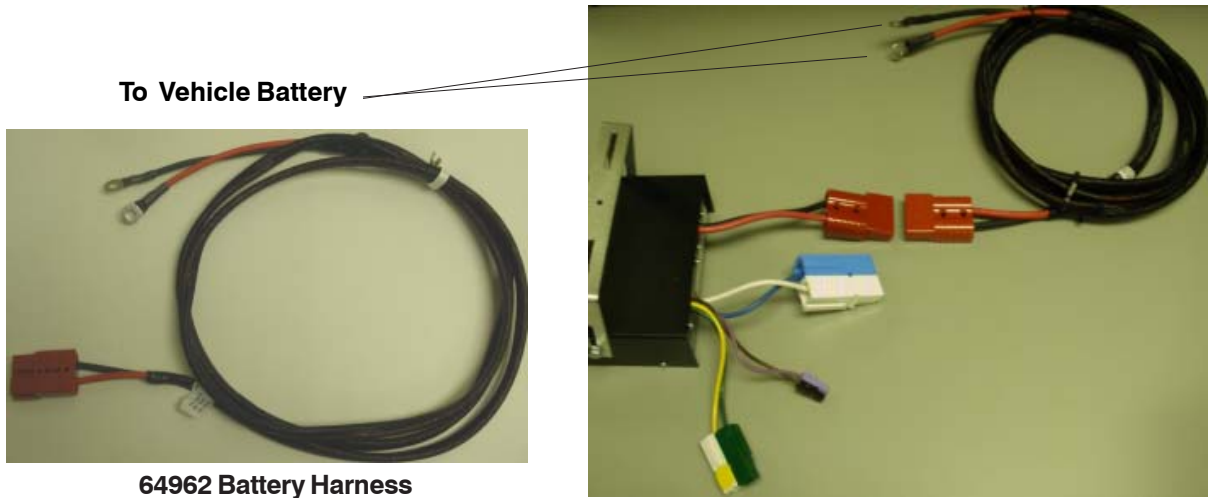
1. Remove three 1/4" bolts and remove rear cover from spreader. CHMSL will need to be disconnected to fully remove Rear Cover.
2. Align top flange of spinner assembly with the slots in the hopper. Slide spinner into hopper until fully engaged in slots.
3. Connect spinner harness to appropriate harness inside spreader.



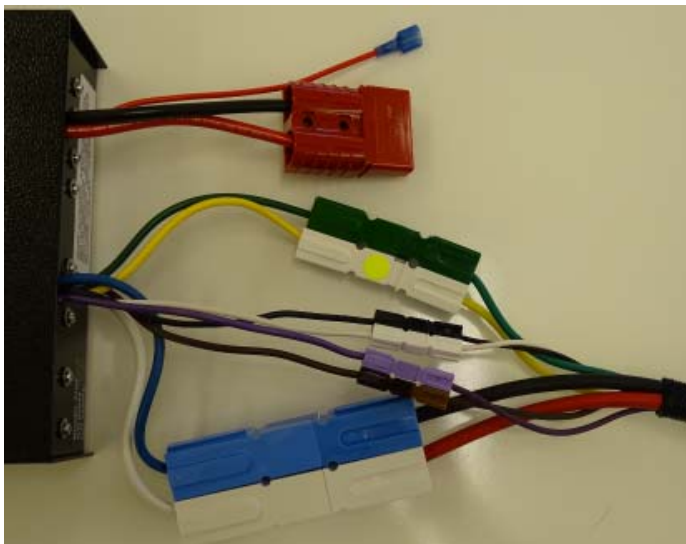
4. Reconnect CHMSL, reinstall rear cover onto spreader and secure with 1/4" bolts.

## Standard Controller Installation

1. Choose a suitable location inside the cab of the vehicle for the controller and mount.
2. Route the Battery Harness from the controller to the vehicle battery. Connect the red to the controller red end and the red wire to the positive post and black wire to the negative post of the battery. See below.



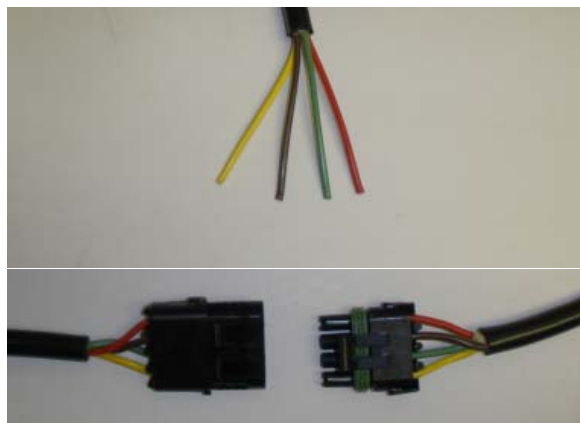
3. Route the Vehicle side Spreader Harnesses from the Spreader to the controller. Connectors are color coded. See below.



66983 Spreader Harness  
Vehicle Side

4. Connect the Vehicle side Spreader Harness to the Spreader Side Harness. Connect the red wire to the brake light, yellow wire to the park light and the brown and green wires to ground. See below.

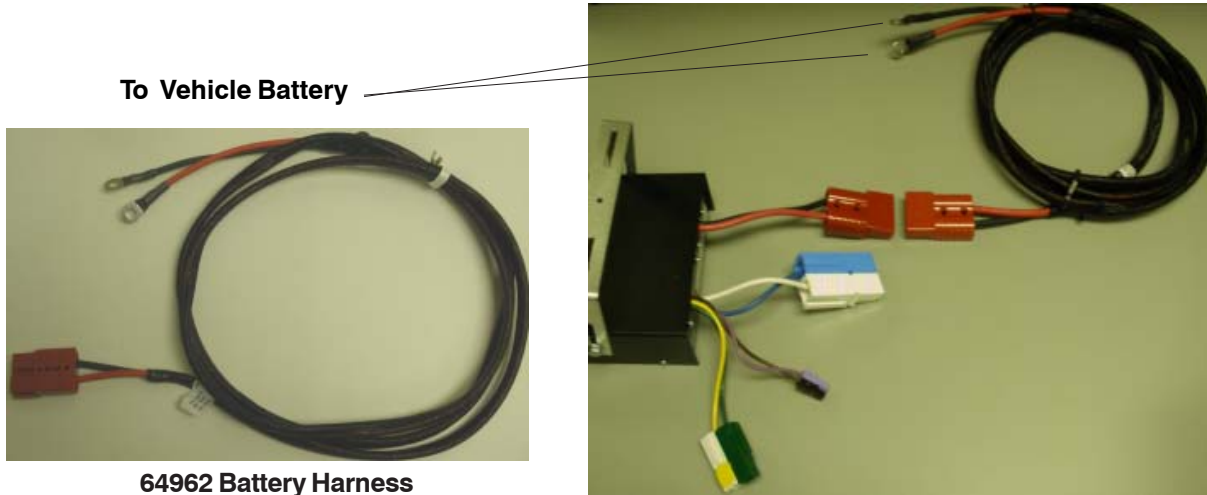
Vehicle Side Harness



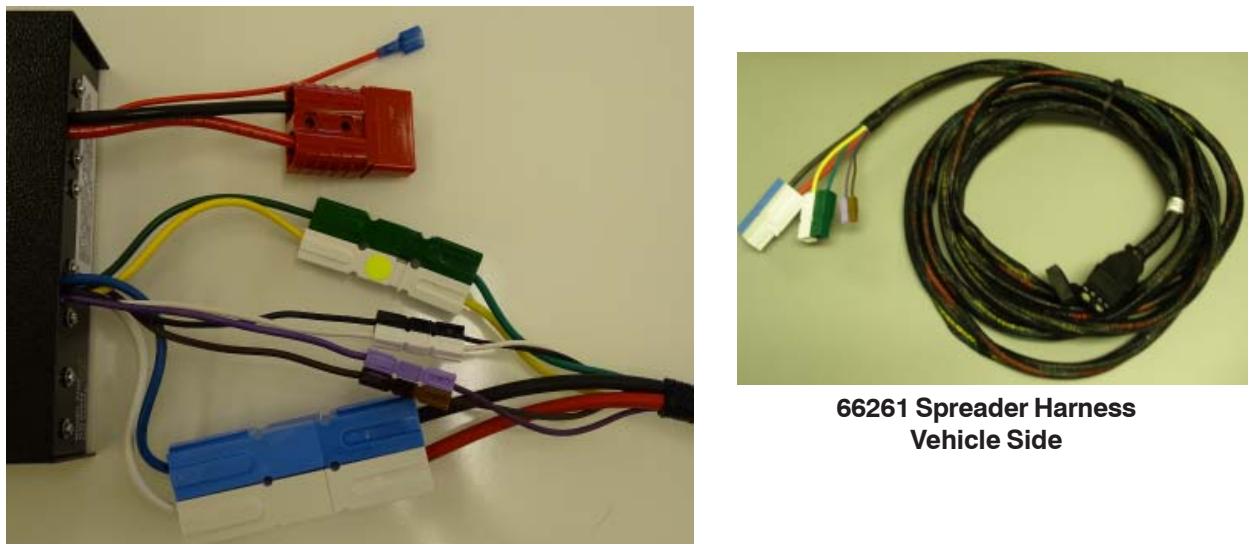
Spreader Side Harness

## Standard Plus Controller Installation

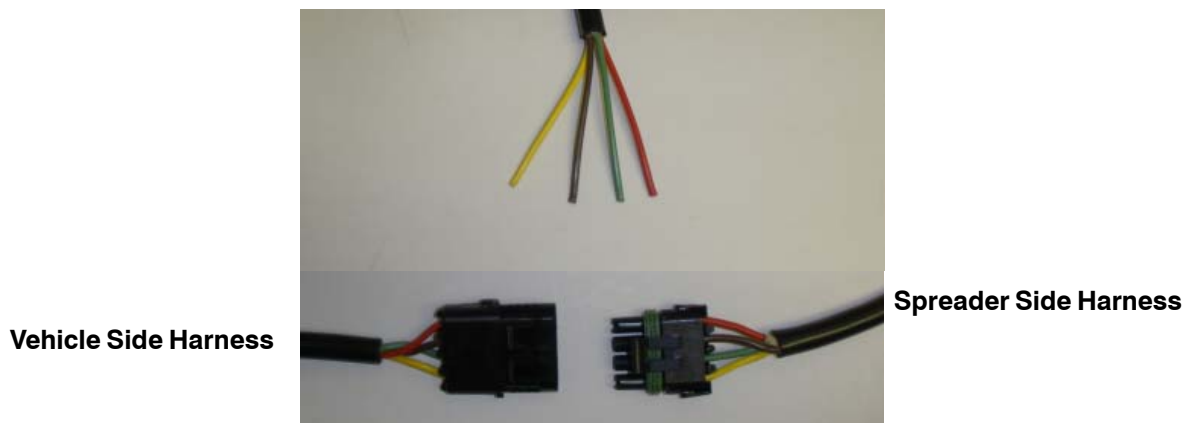
1. Choose a suitable location inside the cab of the vehicle for the controller and mount.
2. Route the Battery Harness from the controller to the vehicle battery. Connect the red to the controller red end and the red wire to the positive post and black wire to the negative post of the battery. See below.



3. Route the Vehicle side Spreader Harnesses from the Spreader to the controller. Connectors are color coded. See below.



4. Connect the Vehicle side Spreader Harness to the Spreader Side Harness. Connect the red wire to the brake light, yellow wire to the park light and the brown and green wires to ground. See below.



## Standard & Standard Plus Controller Operation

**OVERVIEW** The standard spreader control system offers independent output control for the auger rate and spinner rate. The standard plus spreader control system offers independent output control for the auger rate, spinner rate, and pre-wet flow.

**OPERATION** The vehicle ignition must be turned on in order for the controller to operate. When the ON/OFF switch is in the "OFF" position, the controller has no functions and spreader will not operate. When ON/OFF switch is in the "ON" position, the spreader functions are able to be used and the spreader can be operated. Be sure to turn off the spreader controller before turning the vehicle ignition off.

**BLAST FEATURE** When the blast feature is activated the auger, spinner, and pre-wet functions will automatically operate at setting "10" regardless of where they were set before the blast mode was activated. Once the blast mode is deactivated the auger, spinner, and pre-wet functions will return to their previous settings.

**VARIABLE SPEED SETTINGS** The controller is equipped with two (standard) or three (standard plus) variable speed functions, one each for the auger feed rate, spinner speed rate, and pre-wet flow (standard plus) rate. Variable speed functions have settings of 0 -10 with setting 10 being full output. The variable speed settings can be changed by turning the AUGER, SPINNER, or LIQUID "clockwise" to increase the output, and "counter clockwise" to decrease the output. Each variable speed function has 10 number settings to provide a visual indication of the current setting. Variable speed settings will not operate at setting "0". spreader. Any time the variable speed setting is at any setting higher than "0" the auger, spinner, or pre-wet function is capable of operating.

**VIBRATOR** The spreader mounted vibrator can be activated by pressing the Vibrator button.

**Error Light/Flash Number Light** The error light will illuminate along with the flash number light when the spreader encounters a problem. The flash number light will begin to flash on and off, Count the number of flashes which will correspond to the spreader issue.

- 1 Flash Low vehicle battery voltage
- 2 Flashes Blown controller fuse
- 3 Flashes Disconnected Motor
- 4 Flashes Spinner overload
- 5 Flashes Auger overload
- 6 Flashes External Short
- 7 Flashes No vehicle battery voltage

When a jam is encountered the auger will reverse for 3 seconds and then resume in the normal direction. If the jam is encountered again it will reverse for 2 more cycles and if not cleared it will not operate the spreader at all. The power will need to be disconnected from the spreader and the jam will need to be manually cleared. Once the jam is cleared reconnect the power to the spreader and cycle the on/off switch. The controller will now operate.

### Standard Controller



### Standard Plus Controller

