

BOSS PRODUCTS  
A Division of Northern Star Industries, Inc.  
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[www.bosspow.com](http://www.bosspow.com)

# TGS 1100 & TGS 600 TAILGATE SPREADER INSTALLATION & OWNER'S MANUAL

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BOSS Products / Northern Star Industries, Inc. reserves the right under its continuous product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used herein.

Patents Pending

***DRIVEN TO BE THE BEST***

TGS10987-0

## **WARNING**

Many newer trucks are equipped with air bags. DO NOT under any circumstances disable or remove or relocate any sensors or other components related to the operation of the air bags.

## **WARNING**

Overloading could result in an accident or damage. Never exceed the vehicle's Gross Vehicle Weight Rating or the Front or Rear Gross Axle Weight Ratings.

## **WARNING**

TGS 1100 Spreaders with Slide-In or RT3 Attachments MUST ONLY be used with a minimum Class IV Receiver Hitch. TGS 600 Spreaders with Slide-In or RT3 Attachments MUST ONLY be used with a minimum Class III Receiver Hitch. DO NOT exceed the Vehicle Hitch Rating.

## **WARNING**

This spreader is restricted to the use of salt only. Never run other materials through the spreader.

## **WARNING**

Maximum weight of salt that can be loaded into the TGS 1100 spreader is 800 pounds. Maximum weight of salt that can be loaded into the TGS 600 spreader is 400 pounds. Never exceed this weight.

## **WARNING**

DO NOT attempt to mount or remove the spreader with Slide-In or RT3 Attachment with salt in it.

## **WARNING**

Turn spreader off before filling, mounting, removing, servicing, or cleaning.

## **WARNING**

DO NOT operate spreader within 25 feet of bystanders.

## **WARNING**

DO NOT climb into or ride on spreader.

## **WARNING**

Keep hands, feet, and clothing away from moving spinner and mounting points.

## **WARNING**

Spreader must be mounted to vehicle when loading salt material.

## **WARNING**

The Slide-In Attachment must be fully engaged and pinned into the vehicle 2" Receiver Hitch.

## **WARNING**

The upper and lower pins of the RT3 Attachment and Power Attachment must be fully engaged and the slide-in hook must be fully engaged and pinned into the vehicle 2" Receiver Hitch.

## **WARNING**

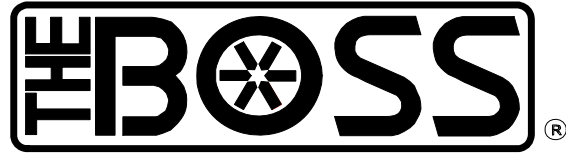
Ratchet Straps must be installed and properly tightened with The Slide-In and RT3 Attachment.

## **CAUTION**

Read owner's manual before operating or servicing spreader.

## **CAUTION**

DO NOT store material in hopper.



## **A REVOLUTION AGAINST SNOW**

Congratulations on purchasing the finest tailgate spreader made. The BOSS sets the standard for quality, reliability, craftsmanship, and performance. Our products are designed, built, and proven in Michigan's rugged Upper Peninsula, where winter is a way of life. And we back it all up with exceptional customer service and satisfaction. We're not just setting the standard. We're leading the way.

The BOSS TAILGATE SPREADER has been carefully designed and built for years of carefree performance. With its simple attaching system, the BOSS can be attached or removed in seconds.

To keep your BOSS TAILGATE SPREADER in top shape, take a few minutes to study this manual. It will show you how to use and service the BOSS, familiarize you with all of its parts, and give you helpful tips on spreading salt.

If you have further questions, your local BOSS DEALER is the person to talk to. They know your spreader well and want your complete satisfaction.

## Slide-In & RT3 Attachment Wiring Installation Procedure

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### WARNING!

Before starting any Electrical Wiring Procedure make sure that the engine is not running and that the engine has had sufficient time to cool down. Failure to do so may result in serious bodily injury or death.

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### WARNING!

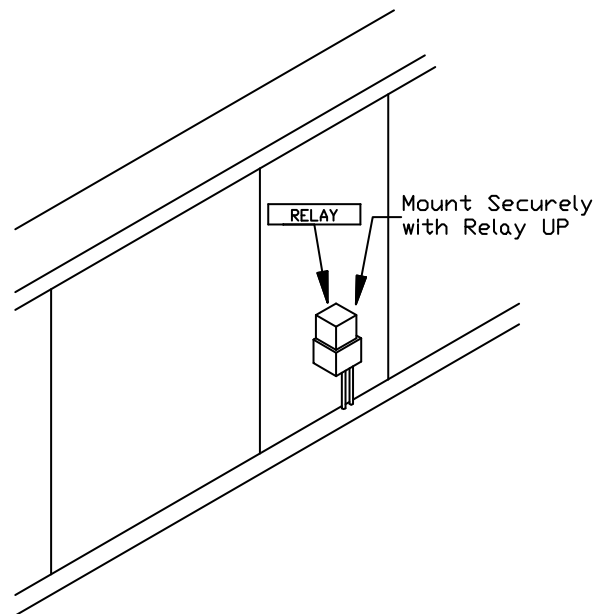
Before starting any Electrical Wiring Procedure make sure to disconnect the battery. Failure to do so may result in serious bodily injury or death.

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**Note:** This Wiring Installation Procedure is intended for use with the Slide-In Attachment (TGS10950) and the RT3 Attachment (TGS10945) for TGS 600 and TGS 1100 spreaders.

1. Refer to Figure 2. Begin at the rear of the vehicle. Secure the 2-pin, sealed connector (Female Connector #2) near the center of the rear bumper using Cable Ties (MSC04088).
2. Route the harness along the driver side frame rail and into the engine compartment. Keep harness away from hot or moving parts. Secure using Cable Ties (MSC04088).
3. Feed the 4-pin connector (Male Connector #1) through the firewall, into the cab, and to a location near the spreader control.
4. Secure using Cable Ties (MSC04088).
5. Connect the ring connector on the BLACK WIRE to the NEGATIVE battery terminal.

6. Connect the ring connector on the ORANGE WIRE to the POSITIVE battery terminal.
7. Connect the fuse tap connector on the RED/BLACK WIRE to a keyed 12V+ ignition source.
8. Attach the relay securely inside of the engine compartment using one Sheet Metal Screw (HDW01766). The relay must be positioned upright as shown in Figure 1.



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**Figure 1.** Relay Mounting

G10288

9. Wrap all excess wire and secure in the engine compartment.
10. Secure all wiring to the frame and inside of the cab using Cable Ties (MSC04088).

# Slide-In & RT3 Attachment Wiring Installation Procedure

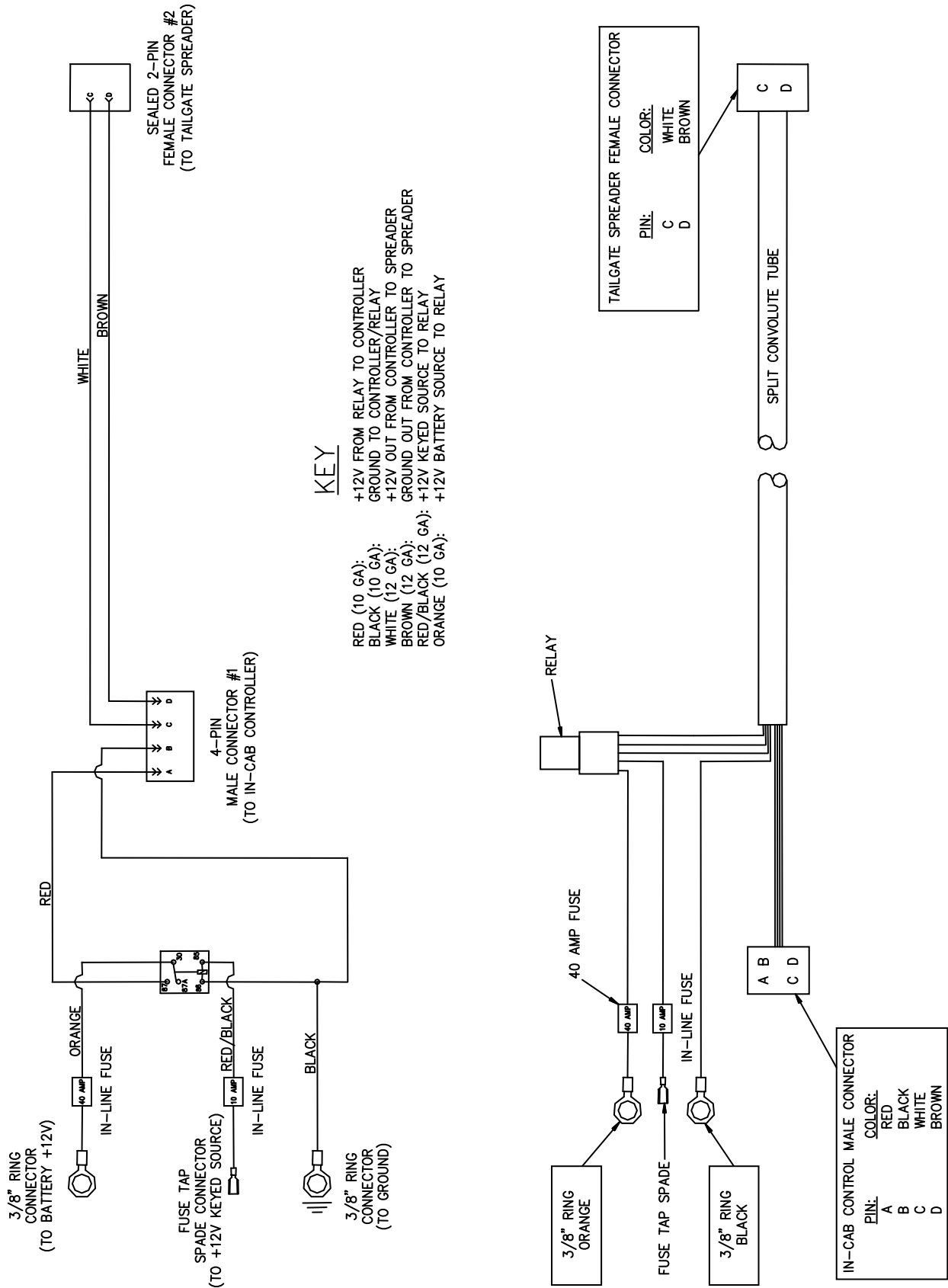
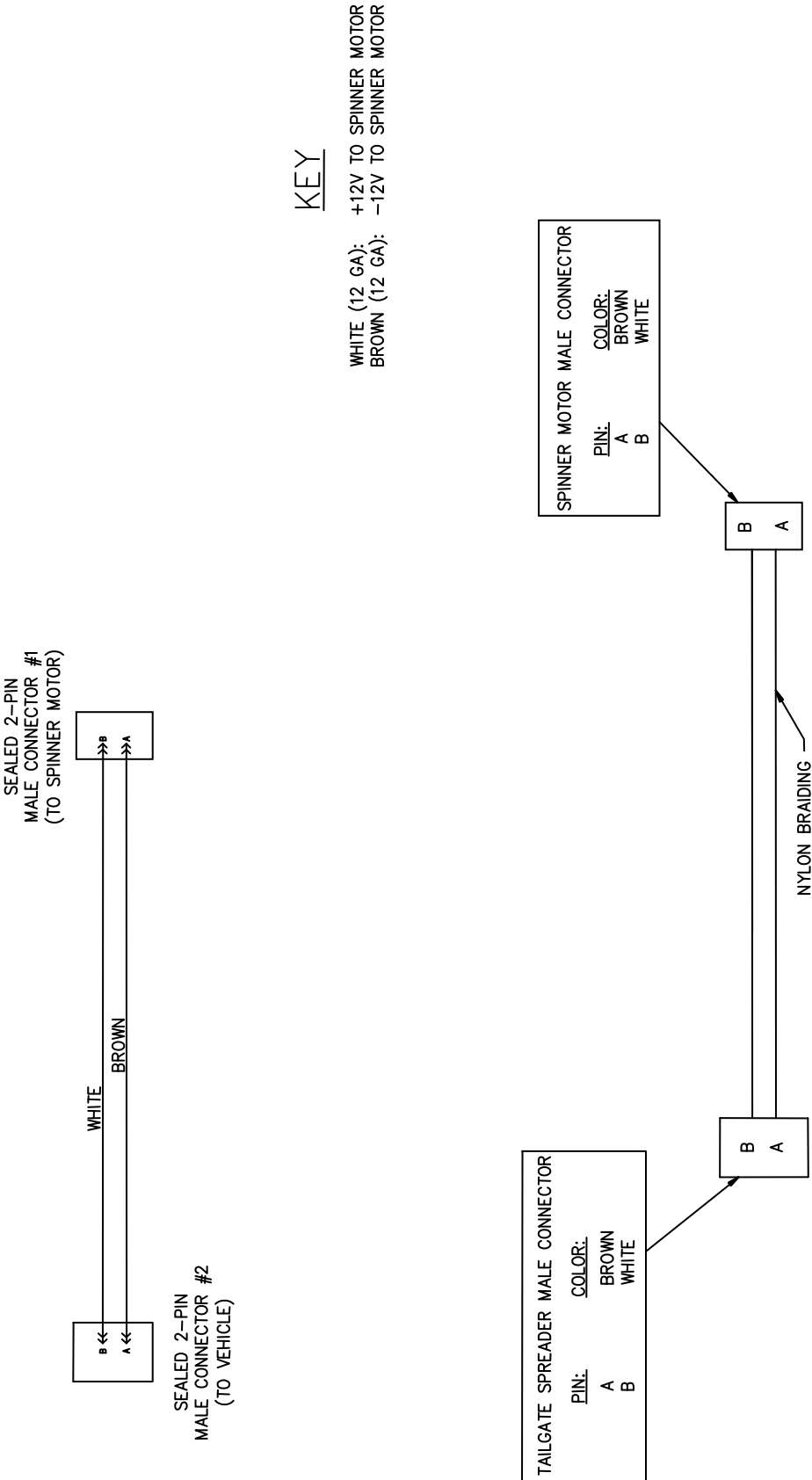


Figure 2. Vehicle Side Harness Diagram (TGS06085)

G10383

**Slide-In & RT3 Attachment Wiring Installation Procedure**



**Figure 3.** Spreader Side Harness Diagram (TGS06084)

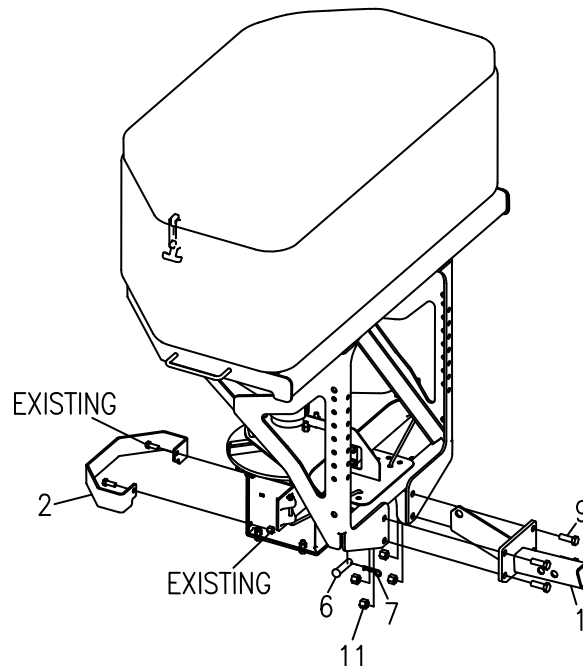
## Slide-In Attachment Installation Procedure

ITEM #	QTY.	PART #	DESCRIPTION
1	1	TGS06051	SLIDE-IN ATTACHMENT
2	1	TGS06254	SPINNER PROTECTOR
3	1	TGS10981	DRIVER SIDE STABILIZER ARM
4	1	TGS10976	PASSENGER SIDE STABILIZER ARM
5	2	TGS10986	RATCHET STRAP
6	1	HDW06291	5/8" X 2-1/2" CLEVIS PIN
7	1	HDW05544	#16 COTTER HAIRPIN
8	8	HDW05853	3/8"-16 X 1" ST-ST HEX HEAD BOLT
9	6	HDW01728	1/2"-13 X 1-1/2" HEX HEAD BOLT
10	8	HDW05854	3/8"-16 X 1" ST-ST NYLON LOCK NUT
11	6	HDW01748	1/2"-13 NYLON LOCK NUT
12	2	HDW10982	1/2" FENDER WASHER

**Note:** This Installation Procedure covers the Slide-In Attachment (TGS10950) for TGS 600 and TGS 1100 spreaders.

1. Mount Slide-In Attachment (1) to Spreader using four 1/2"-13 X 1-1/2" Hex Head Bolts (9), four 1/2"-13 Nylon Lock Nuts (11), one 5/8" X 2-1/2" Clevis Pin (6), and one #16 Cotter Hairpin (7).

2. Mount Spinner Protector (2) using existing 3/8"-16 X 1" Hex Head Bolts and 3/8"-16 Nylon Lock Nuts as shown in Figure 5.



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**Figure 5.** Slide-In Attachment Installation Procedure

G10385

## Slide-In Attachment Mounting Procedure

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### WARNING!

In order to prevent injury or damage to the product, the spreader must be completely empty when attaching or detaching it from the vehicle.

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1. The In-Cab Controller must be turned OFF before proceeding. Back the truck into position.
  2. Insert the spreader's Standard Hitch into the 2" Receiver Hitch on the vehicle and line up the second hole.
- 

### NOTICE

Always check clearance between vehicle bumper and Spreader when attached. If Spreader contacts bumper, use first attachment hole to move Spreader away from vehicle.

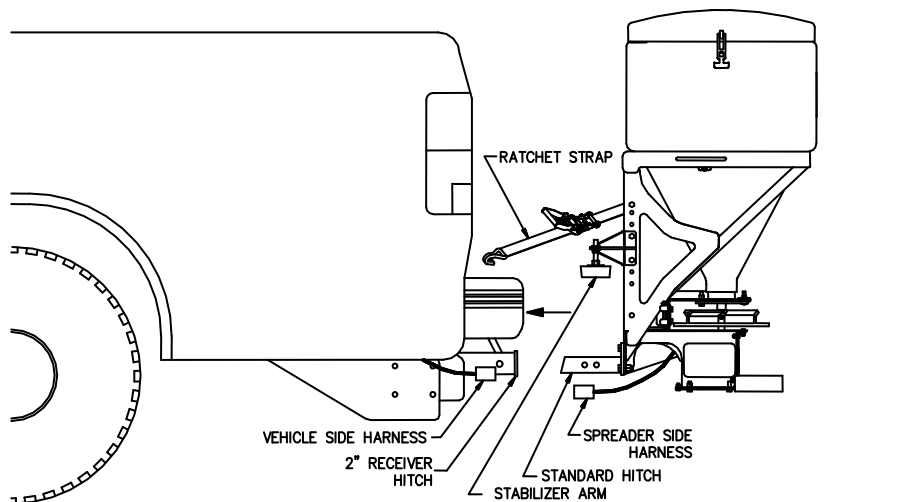
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3. Pin Spreader using provided Hitch Pin and Cotter Hairpin.
4. Assemble Driver Side Stabilizer Arm (3) using four 3/8"-16 X 1" Hex Head Bolts (8) and four 3/8"-16 Nylon Lock Nuts (10). Repeat for Passenger Side Stabilizer Arm (4).

5. Attach Ratchet Strap (5) to outside of the upper hole of spreader frame using the "D" ring end of Ratchet Strap (5). Secure using one 1/2" X 1-1/2" Hex Head Bolt (9), one 1/2" Nylon Lock Nut (11), and one 1/2" Fender Washer (12). Repeat on opposite side of spreader.

**Note:** The previous two steps are only required for new installations. Stabilizer Arms and Ratchet Straps will remain bolted to the spreader.

6. Tighten both Driver Side and Passenger Side Stabilizer Arms by rotating pad until tight. Tighten the Jam Nut to secure.
7. Slide the hook end of Ratchet Strap (5) between the bumper and tailgate of the truck. Secure to a solid point on the truck frame rail (this may require drilling a hole for attachment on the truck frame). Repeat for second Ratchet Strap (5).
8. Plug Spreader Side Harness into Vehicle Side Harness.



**Figure 6.** Slide-In Attachment Mounting Procedure

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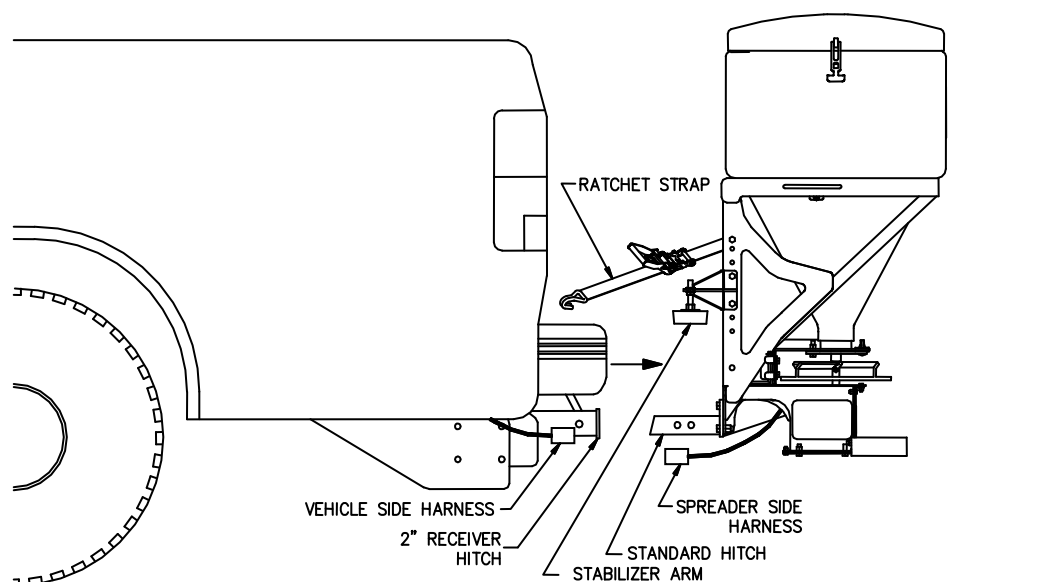


## Slide-In Attachment Removal Procedure

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### Slide-In Attachment Removal Procedure

1. The In-Cab Controller must be turned OFF before proceeding. Back the truck into position.
2. Unplug Spreader Side Harness from Vehicle Side Harness and install both the vehicle and spreader side weather caps.
3. Loosen Ratchet Straps (5).
4. Loosen Stabilizer Arms (3) & (4).
5. Remove Cotter Hairpin and Hitch Pin from vehicle.
6. Slide spreader out of 2" Receiver Hitch.
7. Move spreader to storage area.



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Figure 7. Slide-In Attachment Removal Procedure

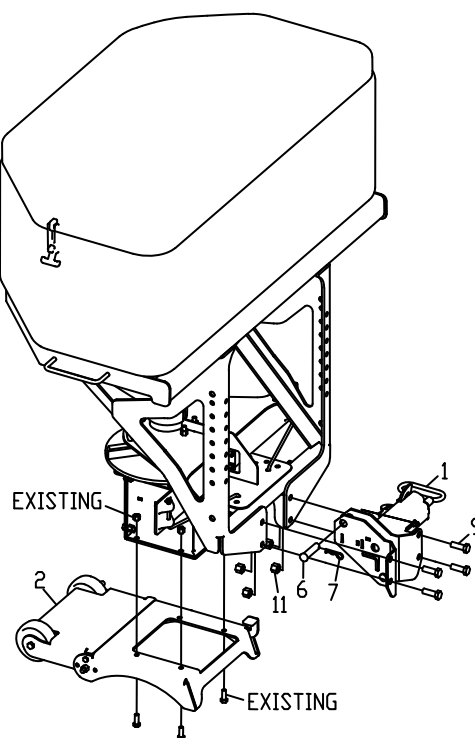
G10477

## RT3 Attachment Installation Procedure

ITEM #	QTY.	PART #	DESCRIPTION
1	1	TGS10915	RT3 ATTACHMENT
2	1	TGS10900	LEG ASSEMBLY
3	1	TGS10981	DRIVER SIDE STABILIZER ARM
4	1	TGS10976	PASSENGER SIDE STABILIZER ARM
5	2	TGS10986	RATCHET STRAP
6	1	HDW06291	5/8" X 2-1/2" CLEVIS PIN
7	1	HDW05544	#16 COTTER HAIRPIN
8	8	HDW05853	3/8"-16 X 1" ST-ST HEX HEAD BOLT
9	6	HDW01728	1/2"-13 X 1-1/2" HEX HEAD BOLT
10	8	HDW05854	3/8"-16 ST-ST NYLON LOCK NUT
11	6	HDW01748	1/2"-13 NYLON LOCK NUT
12	2	HDW10982	1/2" FENDER WASHER

**Note:** This Installation Procedure covers the RT3 Attachment (TGS10955) for TGS 600 and TGS 1100 spreaders.

1. Mount RT3 Attachment (1) to Spreader using four 1/2"-13 X 1-1/2" Hex Head Bolts (9), four 1/2"-13 Nylon Lock Nuts (11), one 5/8" X 2-1/2" Clevis Pin (6), and one #16 Cotter Hairpin (7).
2. Mount Leg Assembly (7) to bottom of Spreader using four existing 3/8"-16 X 1" Hex Head Bolts and four existing 3/8"-16 Nylon Lock Nuts.



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**Figure 8.** RT3 Attachment Installation Procedure

G10386

## RT3 Attachment Mounting Procedure

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### WARNING!

In order to prevent injury or damage to the product, the spreader must be completely empty when attaching or detaching it from the vehicle.

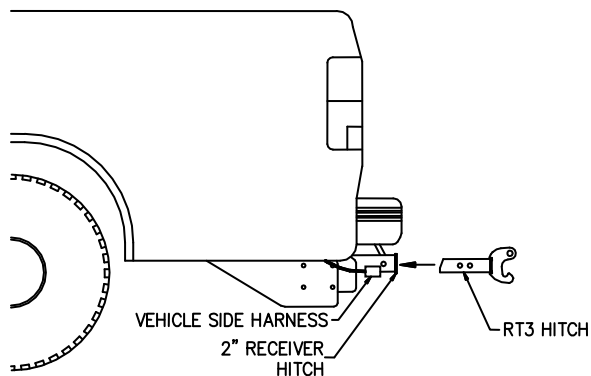
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1. Insert RT3 Attachment Hook into 2" Receiver Hitch, refer to Figure 9.
  2. Line up second hole on RT3 Attachment Hook with hole in 2" Receiver Hitch and pin using Hitch Pin.
- 

### NOTICE

Always check clearance between vehicle bumper and Spreader when attached. If Spreader contacts bumper, use first attachment hole to move Spreader away from vehicle.

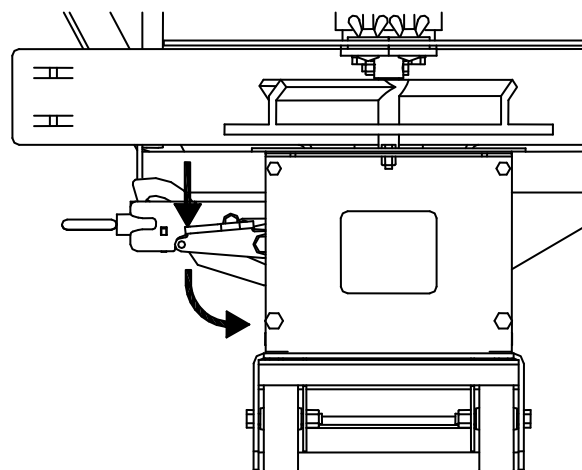
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**Figure 9.** RT3 Attachment Hook G10388

3. The In-Cab Controller must be turned OFF before proceeding. Back the truck into position.
4. Rotate attachment lever counter-clockwise to the "ON" position, refer to Figure 10.



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**Figure 10.** Lever Rotation G10389

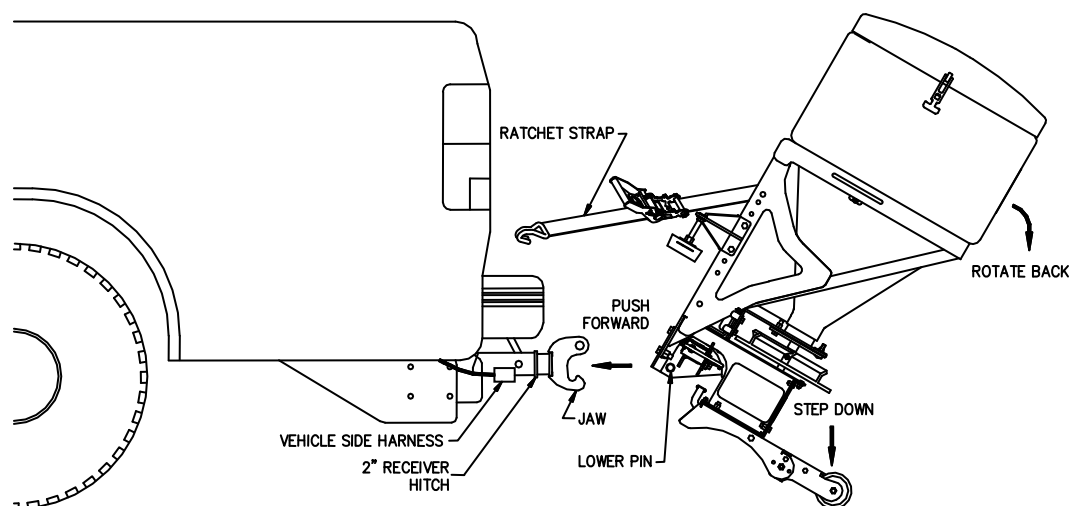
5. Grip Spreader firmly, step on Leg Assembly and rotate back until Bottom Pin is high enough to clear RT3 Attachment Hook Jaw, refer to Figure 11.
  6. Push Spreader forward and seat Lower Pin in Jaw of RT3 Attachment Hook.
  7. Rotate Spreader upward until RT3 Upper Pin locks into place.
- 

### WARNING!

The Upper Pin must fully engage the top hole on the RT3 Attachment and the safety latch must be down. Failure to do so may result in personal injury or property damage.

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## RT3 Attachment Mounting Procedure

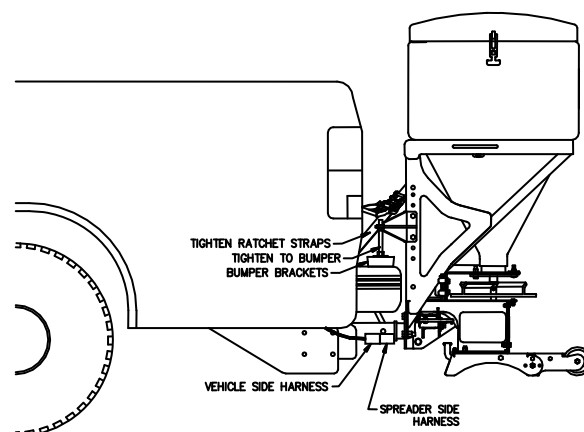


**Figure 11.** RT3 Attachment Mounting Procedure

G10390

8. Assemble Driver Side Stabilizer Arm (3) using four 3/8"-16 X 1" Hex Head Bolts (8) and four 3/8"-16 Nylon Lock Nuts (10). Repeat for Passenger Side Stabilizer Arm (4).
9. Attach Ratchet Strap (5) to outside of the upper hole of spreader frame using the "D" ring end of Ratchet Strap (5). Secure using one 1/2" X 1-1/2" Hex Head Bolt (9), one 1/2" Nylon Lock Nut (11), and one 1/2" Fender Washer (12). Repeat on opposite side of spreader.
10. Tighten both Driver Side and Passenger Side Stabilizer Arms by rotating pad until tight. Tighten the Jam Nut to secure.
11. Slide the hook end of Ratchet Strap (5) between the bumper and tailgate of the truck. Secure to a solid point on the truck frame rail (this may require drilling a hole for attachment on the truck frame). Repeat for second Ratchet Strap (5).
12. Plug Spreader Side Harness into Vehicle Side Harness.

**Note:** The previous two steps are only required for new installations. Stabilizer Arms and Ratchet Straps will remain bolted to the spreader.



**Figure 12.** Stabilizer Arm Adjustment

## RT3 Attachment Removal Procedure

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**WARNING!**

Keep hands, feet, and clothing away from attachment points.

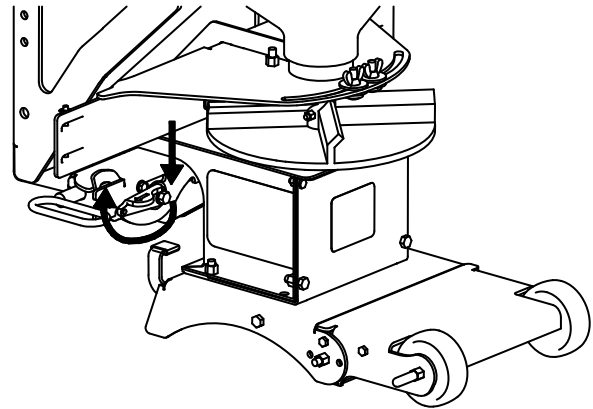
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**WARNING!**

In order to prevent injury or damage to the product, the spreader must be completely empty when attaching or detaching it from the vehicle.

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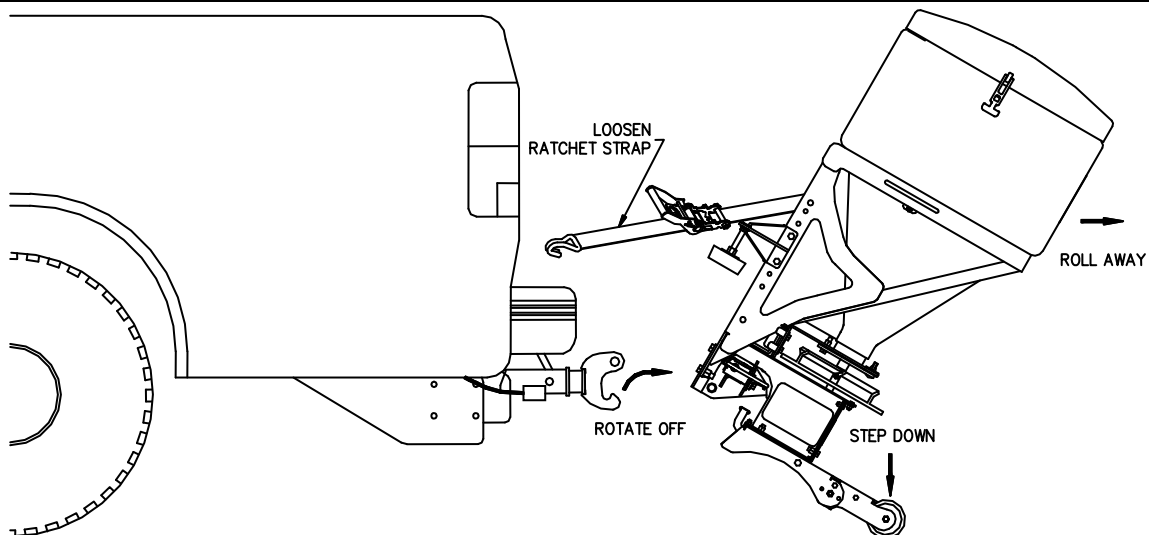
1. The In-Cab Controller must be turned OFF before proceeding. Back the truck into position.
2. Loosen Ratchet Straps (5).
3. Loosen Stabilizer Arms (3) & (4).
4. Unplug Spreader Side Harness from Vehicle Side Harness and install both the vehicle and spreader side weather caps.
5. Rotate the release lever clockwise to the "OFF" position, refer to Figure 13.



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**Figure 13.** Lever Rotation G10393

6. Push forward on the spreader to release the Upper Pin.
7. Rotate spreader to ground.
8. Grip spreader firmly, step on Leg Assembly and rotate spreader off Lower Pin, refer to Figure 14.
9. Roll spreader to storage area.



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**Figure 14.** RT3 Attachment Removal Procedure

G10394

### Power Attachment Wiring Installation Procedure

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#### WARNING!

Before starting any Electrical Wiring Procedure make sure that the engine is not running and that the engine has had sufficient time to cool down. Failure to do so may result in serious bodily injury or death.

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#### WARNING!

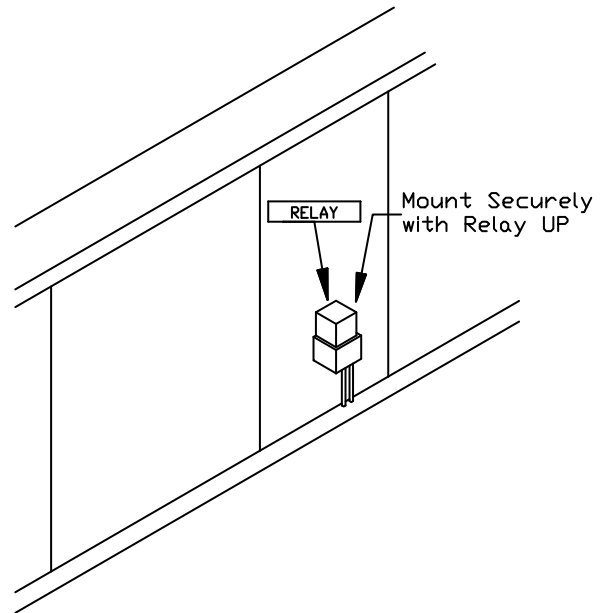
Before starting any Electrical Wiring Procedure make sure to disconnect the battery. Failure to do so may result in serious bodily injury or death.

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**Note:** This Wiring Installation Procedure is intended for use with the Power Attachment (TGS10945) for TGS 600 and TGS 1100 spreaders.

1. Refer to Figure 16. Begin at the rear of the vehicle. Secure the 4-pin, sealed connector (Female Connector #2) near the center of the rear bumper using Cable Ties (MSC04088).
2. Route the harness along the driver side frame rail and into the engine compartment. Keep harness away from hot or moving parts. Secure using Cable Ties (MSC04088).
3. Feed the 4-pin connector (Male Connector #1) through the firewall and into the cab.
4. Secure using Cable Ties (MSC04088).
5. Connect the ring connector on the BLACK WIRE to the NEGATIVE battery terminal.
6. Connect the ring connector on the ORANGE WIRE to the POSITIVE battery terminal.

7. Connect the fuse tap connector on the RED/BLACK WIRE to a keyed 12V+ ignition source.
  8. Attach the relay securely inside of the engine compartment using one Sheet Metal Screw (HDW01766). The relay must be positioned upright as shown in Figure 15.
- 



**Figure 15.**

G10288

9. Wrap all excess wire and secure in the engine compartment.
10. Secure all wiring to the frame and inside of the cab using Cable Ties (MSC04088).

# Power Attachment Wiring Installation Procedure

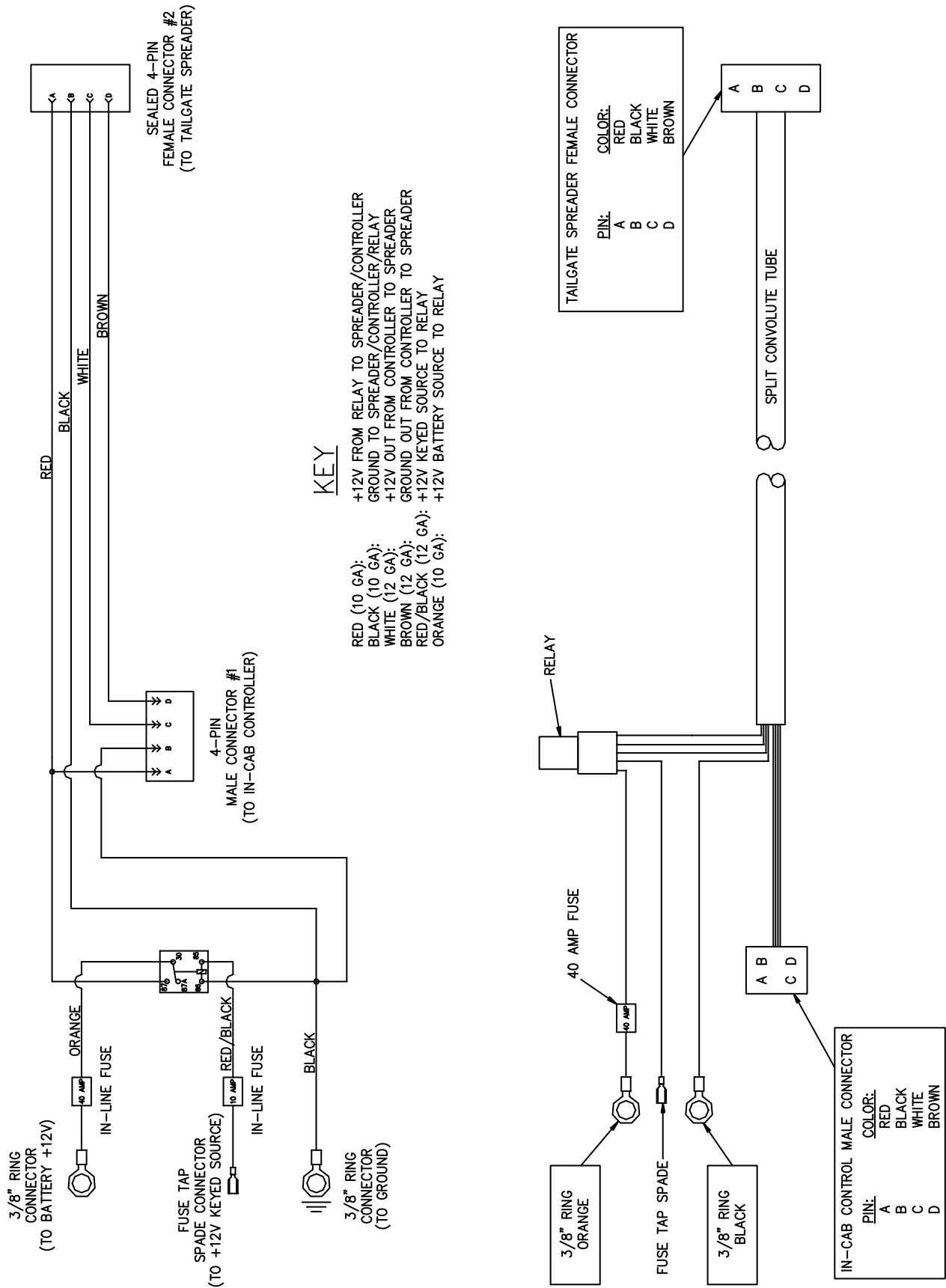


Figure 16. Vehicle Side Harness Diagram (TGS05810)

G10289

# Power Attachment Wiring Installation Procedure

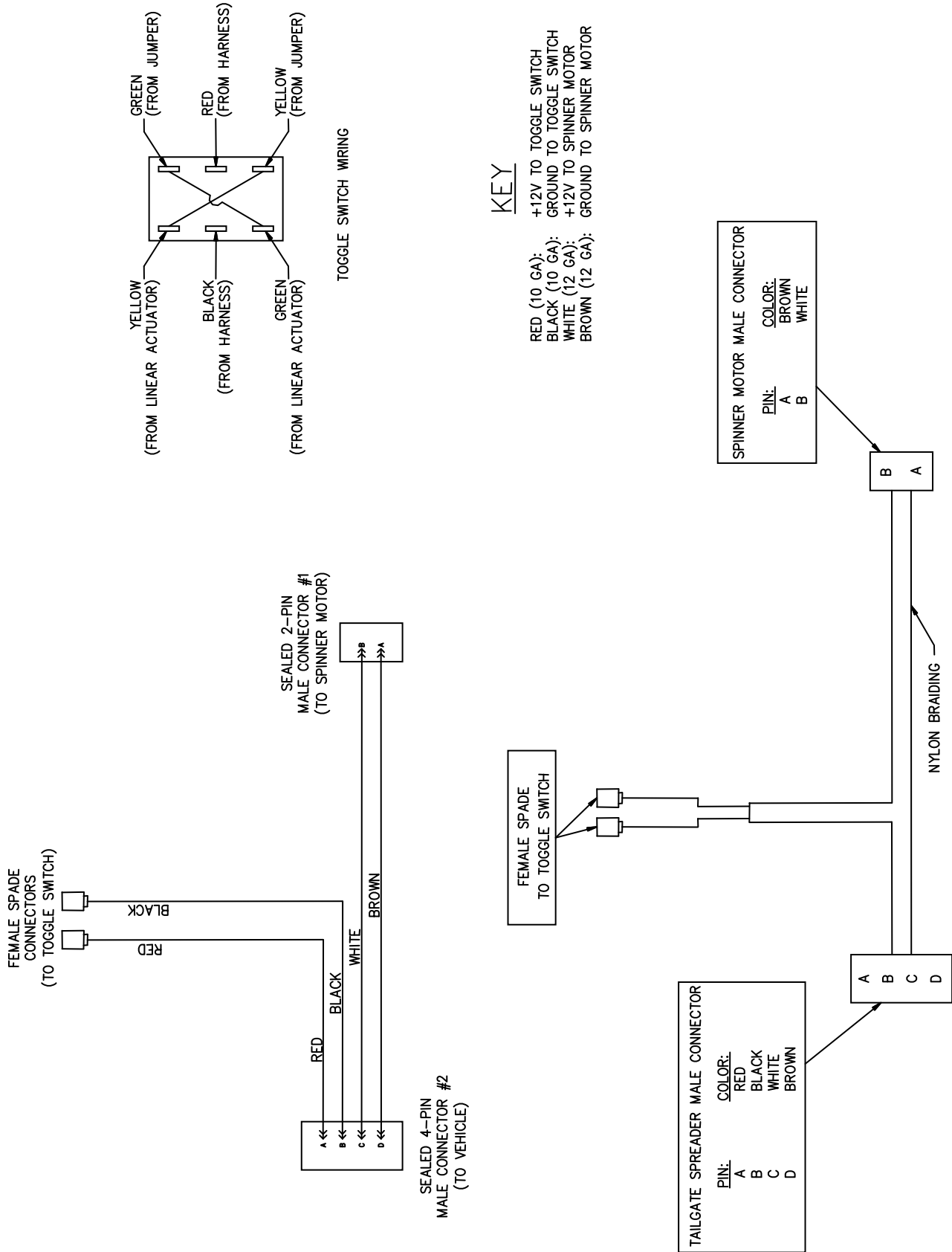


Figure 17. Spreader Side Harness (TGS05832) & Switch Wiring Diagram

G10321



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## Power Attachment Installation Procedure

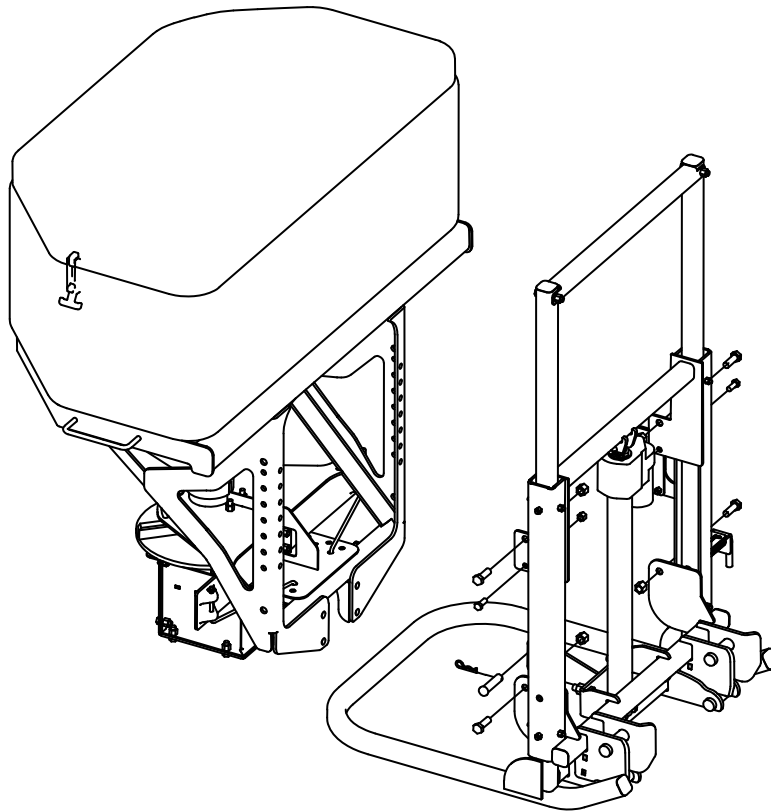
ITEM #	QTY.	PART #	DESCRIPTION
1	1	TGS10974	POWER ATTACHMENT ASSEMBLY
2	1	TGS05900B	UNIVERSAL TAILGATE SPREADER HITCH

**Note:** This Installation Procedure is intended for use with the Power Attachment (TGS10945) for TGS 600 and TGS 1100 spreaders.

1. Begin by removing the four ½"-13 X 1-½" Hex Head Bolts and two 3/8"-11 X 1" Hex Head Bolts from the legs of Power Attachment Assembly (1) as shown in Figure 18.
2. Remove the two ½"-13 X 1-½" Hex Head Bolts and 5/8" Clevis pin from the lower attachment plate of Power Attachment Assembly (1) as shown in Figure 18.

3. Mount Power Attachment Assembly (1) to the spreader using the fasteners that were removed in the previous two steps.

**Note:** You will also need to assemble the Universal Tailgate Spreader Hitch (TGS05900B). Installation instructions can be found in the Universal Tailgate Spreader Hitch (TGS05900B) kit.



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**Figure 18.** Power Attachment Installation Procedure

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## Power Attachment Mounting Procedure

### WARNING!

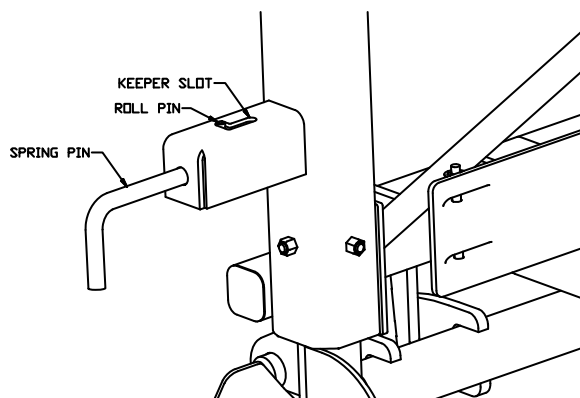
Both Upper Pins and both Lower Pins on the spreader must fully engage the Receiver Hook on the hitch.

### WARNING!

Spring Pin must be fully engaged. Failure to do so may result in personal injury and property damage.

1. The spreader should be in the lowest position before beginning. The In-Cab Controller must be turned OFF before proceeding. Back the truck into position and plug the spreader harness into the vehicle side harness. Leave the truck key in the "ON" position.

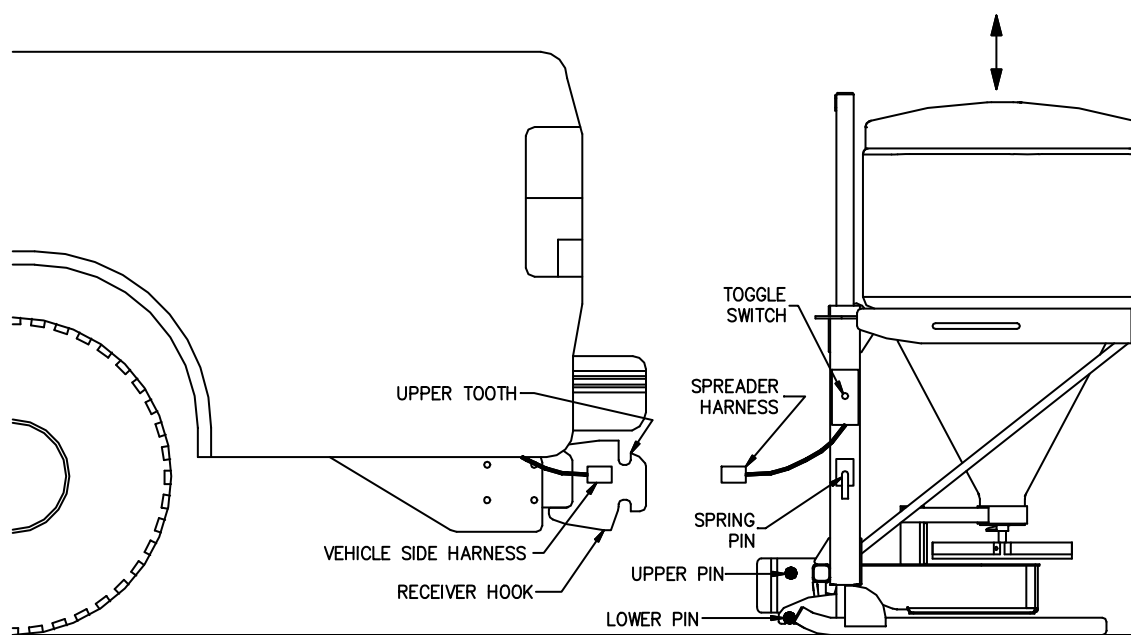
2. Pull the spring pin outward and lock in the OUT position in the keeper slot, refer to Figure 19.



**Figure 19.**

G10322

3. Raise the spreader by pushing UP on the toggle switch. Raise the spreader so that the upper pin is higher than the upper tooth on the receiver hook, refer to Figure 20.



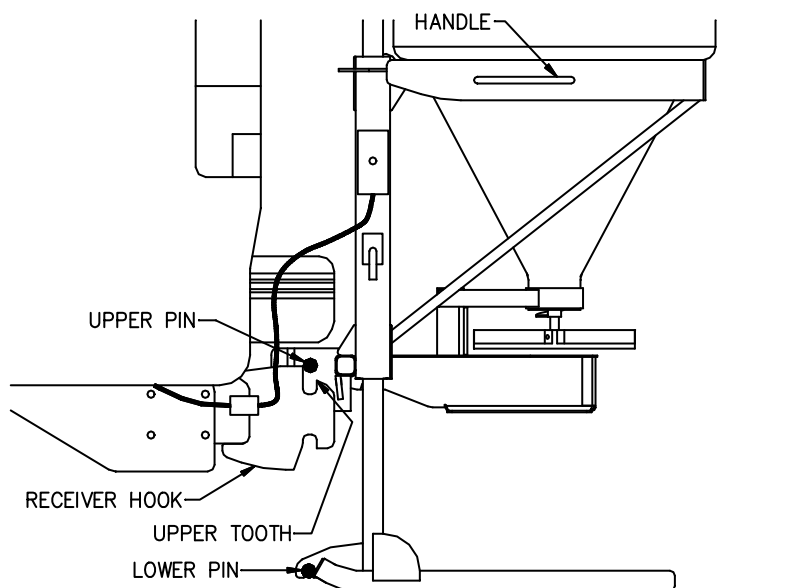
**Figure 20.** Power Attachment Mounting Procedure

G10291

## Power Attachment Mounting Procedure

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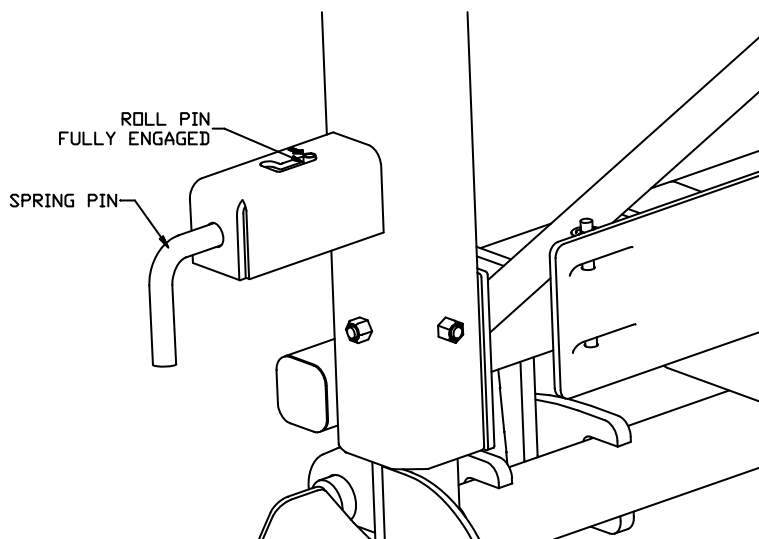
4. Position the spreader in line with the receiver hook as shown in Figure 21. This can be done by either backing the truck up or moving the spreader by grabbing the handles on the sides.
5. Turn the Spring Pin clockwise to unlock.
6. Push the toggle switch DOWN so that the spreader lowers into the receiver hook. Be sure that the upper pin engages both receiver hooks. The leg assembly will now begin to rise from the ground. Hold the toggle switch down until both lower pins fully engage both receiver hooks.
7. Once the spreader reaches its final position, be sure the Spring Pin is fully engaged, refer to Figure 22.



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**Figure 21.** Upper and Lower Pin Alignment

G10292



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**Figure 22.** Spring Pin Engaged

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## Power Attachment Removal Procedure

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**WARNING!**

Keep hands, feet, and clothing away from attachment points.

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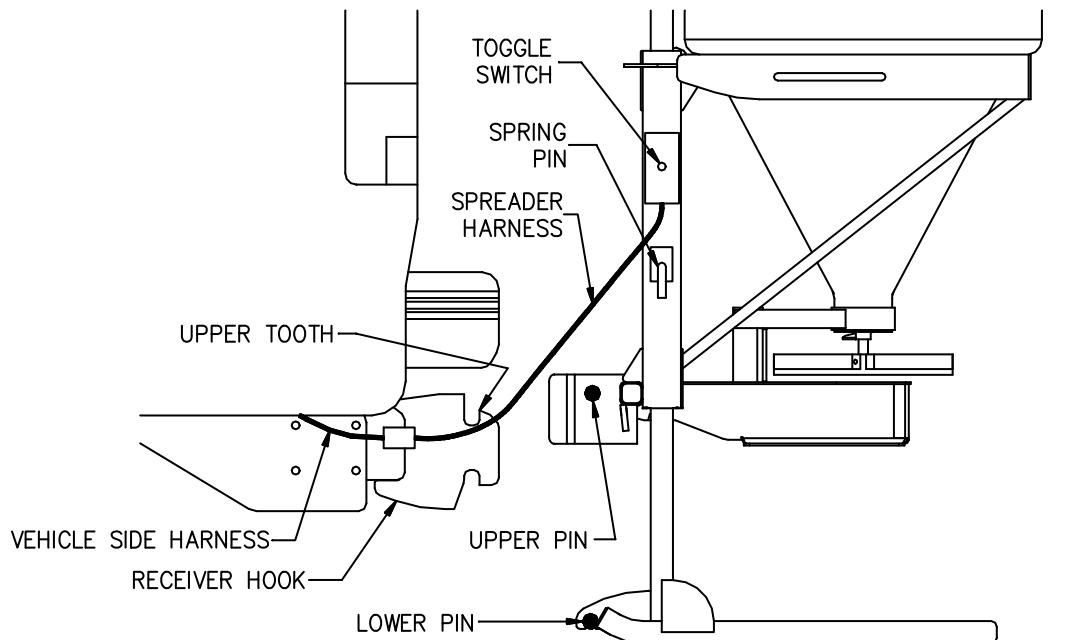
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**WARNING!**

Spreader must be stored in the lowest position.

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1. The In-Cab Controller must be turned OFF before proceeding. Back the truck into position and leave the truck key in the "ON" position. Pull the spring pin outward and lock in the OUT position.
2. Lower the Leg Assembly by pushing UP on the toggle switch. Hold the toggle switch UP until the upper pin clears the upper tooth on the receiver hook.
3. Position the spreader so that it is free from the receiver hook as shown in Figure 23. This can be done by either pulling the truck ahead or moving the spreader by grabbing the handles on the sides.
4. The spreader must be stored in the lowest position. Lower the spreader to the ground by pushing DOWN on the toggle switch.
5. Unplug the vehicle side harness from the spreader harness and install the vehicle side and spreader side weather caps. Turn the truck key to the "OFF" position or drive away.



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**Figure 23.** Power Attachment Removal Procedure

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## **Material Loading Procedure**

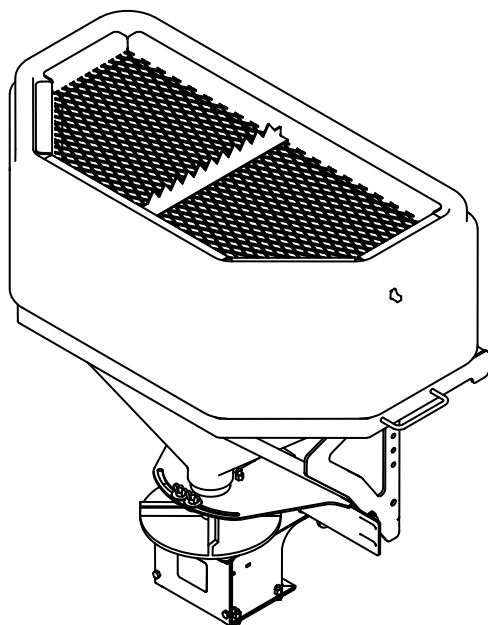
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### **WARNING!**

This spreader is restricted to the use of dry salt only. Never run other materials through the spreader.

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1. The spreader must be mounted to the vehicle before loading. Never attempt to mount a spreader with salt in the hopper.
  2. If using bagged salt, place bag onto Top Screen Bag Splitter. Work bag back and forth on teeth of splitter until the bag has split open. Continue to manipulate and shake bag until empty.
  3. If using dry bulk salt, load the dry salt with the Top Screen installed. This will prevent large, impassable, chunks of salt or other materials from becoming clogged in the spreader auger or spout.
- 



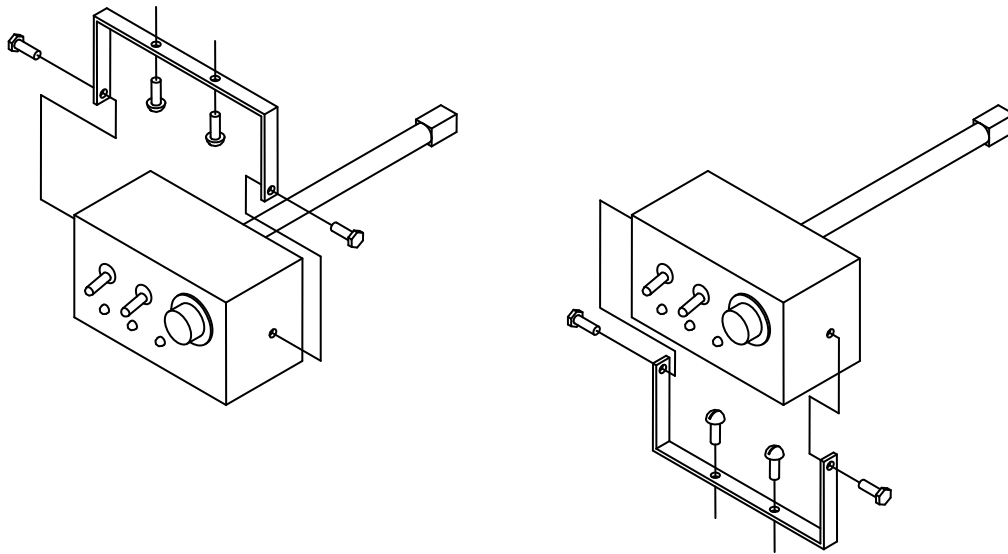
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**Figure 24.**

G10480

## **In-Cab Controller Installation Procedure**

1. Mount In-Cab Controller (TGS05811) to an easily accessible position in the cab. Begin by removing the pre-assembled bracket from the controller.
2. The controller can be mounted either above or below the mounting bracket, refer to Figure 25. Choose the best position that will not interfere with operation of the vehicle or visibility. **DO NOT** mount in a location that an occupant could contact during a crash.
3. Mount the bracket using two supplied Sheet Metal Screws (HDW05953).
4. Re-assemble the controller into the mounting bracket with the supplied hardware.



**Figure 25.** In-Cab Controller Installation Procedure

G10290



# In-Cab Controller Operation

### Functions (refer to Figure 26):

**ON/OFF switch:** Turns the spinner motor on and off.

**BLAST button:** Sends full power to the spinner motor for as long as it is pressed.

**Speed Dial:** Increases the spinner motor speed when turned clockwise and decreases the speed when turned counterclockwise.

### Indicator Lights (refer to Figure 26):

**Green LED:** The controller is on and the spinner motor is turning.

**Yellow LED:** The “BLAST” button is being activated.

**Red LED:** The motor is clogged and the controller is being overloaded.

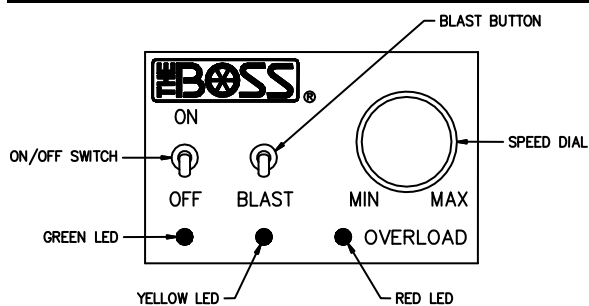


Figure 26.

G10294

### Starting and Stopping the Motor:

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#### WARNING!

Keep hands, feet, and clothing away from moving spinner, lift mechanism, and attachment points.

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#### WARNING!

Bystanders to stay a minimum of 25 feet away from operating spreader.

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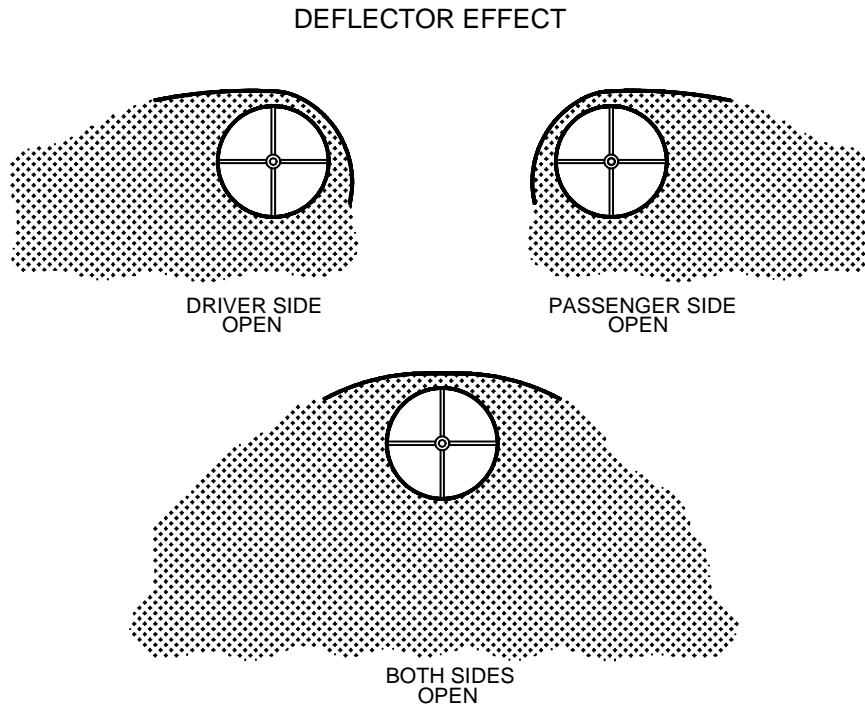
1. The truck's ignition key must be in the "ON" position.
2. Flip the ON/OFF Switch up to the ON position.
3. Use the Speed Dial to adjust the speed of the spinner motor. This will dictate how quickly the material is pulled from the hopper and how far it is thrown.
4. Use the Blast Feature to momentarily increase the speed of the spinner motor. The motor will remain at full speed until the Blast button is released.
5. When finished using the spreader, always turn the controller ON/OFF Switch to the OFF position.

### Freeing a clog:

1. When the Red LED comes on indicating that the controller is overloaded, the spinner motor is NOT turning. This is most likely due to a rock or other debris wedged in the auger.
2. You can use the Blast Feature to free a clog by repeatedly pressing the Blast button and quickly releasing it.

## Deflector Adjustment

The adjustable plastic deflector can be used to adjust the spread pattern as shown in Figure 27. The spinner motor speed will also have an effect on the spread pattern.



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**Figure 27.** Deflector Adjustment

G10287

### Glossary of Problems

1. No power to controller (green LED not lit).
2. Spinner motor does not run, power to controller (green LED lit).
3. Red indicator light is lit on controller.
4. Spinner Motor runs but Spinner/Auger do not turn.
5. Toggle Switch does not activate lift mechanism.
6. Cannot attach spreader.
7. Cannot detach spreader.

PROBLEM	DIAGNOSTIC CHECK	RESULT
1. No power to controller (green LED not lit).	Check that truck's ignition key is in the "ON" position.	Turn key on.
	Check the 40 amp in-line fuse in the vehicle side harness.	Replace fuse.
	Check relay for corrosion and function.	Relay should click when energized.
2. Spinner motor does not run, power to controller (green LED lit).	Check that spreader side and vehicle side harnesses are connected properly.	Connect.
	Check that controller is plugged into vehicle side harness.	Connect.
	Check that spinner motor is connected to spreader side harness inside the motor enclosure. The enclosure cover must be removed to check this.	Connect.
3. Red indicator is lit on controller.	Check for an obstruction inside the hopper.	Clear by using the Blast feature on the controller.
4. Spinner motor runs but spinner and auger do not turn.	The auger and spinner are mounted directly to the motor shaft. Check that the bolts connecting the auger and spinner to the motor shaft are not broken.	Replace.
	Check that the bolt connecting the motor shaft to the motor hub is not broken. The enclosure cover must be removed to check this.	Replace.
5. Toggle switch does not activate lift mechanism.	Check that spreader side and vehicle side harnesses are connected properly.	Connect.
	Check that truck's ignition key is in the "ON" position.	Turn key on.
	Check that the switch is correctly wired.	Connect.

## Troubleshooting Guide

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PROBLEM	DIAGNOSTIC CHECK	RESULT
6. Cannot attach spreader.	Check that spreader is sitting on level ground or leaning slightly toward the truck.	If the spreader is leaning away from the truck, change the position of the spreader so that it is level or leaning slightly toward the truck.
	Check that the Hitch Beam is at the proper height.	Changes to the loading of the vehicle (such as a snowplow on the front or a load in the bed) will have an affect on this.
	Check for obstructions in the receiver hook on the hitch beam or on the upper and lower pins of the spreader.	Clear obstructions.
	Check that the clutch in the actuator is not ratcheting.	If clutch is ratcheting, grease upper and lower pins on the spreader. This may also indicate that the spreader is overloaded, remove some material.
7. Cannot detach spreader.	Check that the Hitch Beam is at the proper height.	Changes to the loading of the vehicle (such as a snowplow on the front or a load in the bed) will have an effect on this.

## Recommended Power Attachment Hitch Height

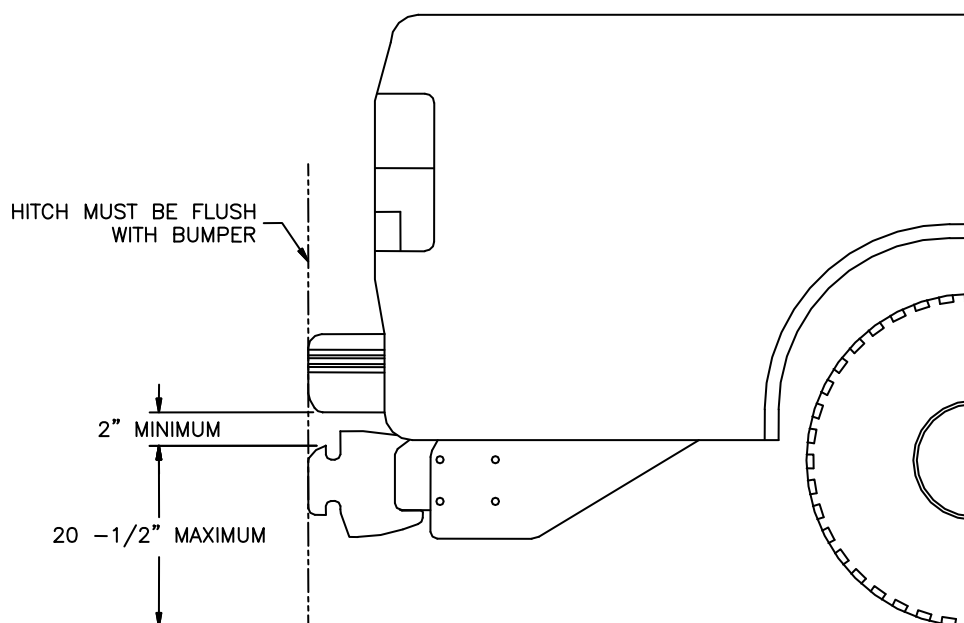


Figure 28.

G10282

## Recommended Bolt Torque



DIAMETER / PITCH	GRADE 5	GRADE 8	GRADE 8.8	GRADE 10.9
1/4-20	6	9		
5/16-18	14	19		
3/8-16	23	33		
7/16-14	38	53		
1/2-13	56	80		
9/16-12	82	116		
5/8-11	113	159		
3/4-10	201	283		
M10 X 1.25			36	
M10 X 1.5				49
M12 X 1.75				71
M14 X 2.0				80

ALL TORQUE VALUES ARE IN FOOT-POUNDS (FT.-LB.)

Figure 29.

G10410

**NOTE:** The torque values listed above are based on dry, coated bolts, variables such as oil, or other lubrications may appreciably alter these values and must be taken into consideration.

**NOTICE:** IT IS IMPORTANT THAT ALL FASTENERS BE PROPERLY TORQUED TO ASSURE A SAFE OPERATING PLOW.

# BOSS SNOWPLOW COMMERCIAL WARRANTY

**What this warranty covers:**

This warranty covers defects in material and workmanship except as set forth below.

**Who is covered:**

The original purchaser from an authorized dealer.

**For how long:**

**Parts:** 2 years from the date of purchase.

**Labor:** 2 years from the date of purchase.

**What BOSS PRODUCTS will do:**

BOSS PRODUCTS will, at its sole option, repair or replace defective parts at no charge.

**What you must do to for warranty service:**

To obtain warranty service, purchaser must return the defective snowplow to any authorized BOSS PRODUCTS dealer (preferably the one from whom the snowplow was purchased) within the warranty period. Purchaser must be able to verify the original purchase date. All transportation costs to and from the dealer will be the responsibility of the purchaser. To locate the authorized BOSS dealer nearest to you, call toll free: (800) 286-4155.

**What is not covered:**

This warranty does not cover:

1. Expendable parts such as hoses, plow shoes, cutting edges, pins, nuts, bolts, blade guides, etc.
2. Snowplows or parts repaired or altered by anyone other than an authorized BOSS PRODUCTS dealer.
3. Snowplows or parts which have been subject to misuse, negligence, accident, improper installation, maintenance, care or storage.
4. Snowplows mounted on vehicles other than those listed in the BOSS SNOWPLOW APPLICATION CHART AND SELECTION GUIDE.
5. BOSS PRODUCTS does not assume liability for damage to your motor vehicle resulting from the attachment or use of a BOSS PRODUCTS snowplow. Vehicle risk is the sole responsibility of the purchaser.

**Limits of BOSS Products Liability are:**

BOSS PRODUCT'S LIABILITY IS EXPRESSLY LIMITED TO REPAIR OR REPLACEMENT OF DEFECTIVE PARTS. BOSS PRODUCTS SHALL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR CONTINGENT DAMAGES WHATSOEVER, EVEN IF DAMAGES ARE CAUSED BY THE NEGLIGENCE OR FAULT OF BOSS PRODUCTS.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

This warranty does not apply if you purchased your snowplow for personal, family, or household use. In this case, refer to the BOSS Snowplow Limited Consumer Warranty.

BOSS PRODUCTS is a division of

Northern Star Industries, Inc.  
PO Box 787  
North U.S. Hwy 2  
Iron Mountain, MI 49801

(2007-2008)

# BOSS SNOWPLOW LIMITED

## CONSUMER WARRANTY

### What the warranty covers:

BOSS PRODUCTS warrants to the original retail purchaser of a BOSS snowplow who purchases it for personal, family or household use, that the snowplow will be free from defects in material and workmanship except as set forth below.

### Warranty period:

**Parts:** 2 years from the date of purchase.

**Labor:** 2 years from the date of purchase.

### What BOSS PRODUCTS will do:

If, within the warranty period, the snowplow is found to be defective, BOSS PRODUCTS will repair or replace, at its sole option, the defective parts at no charge to the original purchaser.

### What you must do for warranty service:

To obtain service under this warranty, purchaser must return the defective snowplow to an authorized BOSS PRODUCTS dealer (preferably the one from whom the snowplow was purchased). The purchaser must establish the warranty period by verifying the original purchased date. All transportation costs to and from the dealer will be the responsibility of the purchaser. To locate the authorized BOSS dealer nearest to you, call toll free: (800) 286-4155.

### What is not covered:

This limited warranty does not cover the following:

1. Expendable parts such as hoses, plow shoes, cutting edges, pins, nuts, bolts, blade guides, etc.
2. Snowplows or parts repaired or altered by anyone other than an authorized BOSS PRODUCTS dealer.
3. Snowplows or parts which have been subject to misuse or service, negligence, accident, improper installation, maintenance, care or storage.
4. Snowplows mounted on vehicles other than those listed in the BOSS SNOWPLOW APPLICATION CHART AND SELECTION GUIDE.
5. BOSS PRODUCTS does not assume any liability for motor vehicle damage resulting from the attachment or use of a BOSS PRODUCTS snowplow. Vehicle risk is the sole responsibility of the purchaser.

### Warranty limitations:

THIS WARRANTY IS OFFERED IN LIEU OF ANY OTHER EXPRESS WARRANTY.

THE DURATION OF ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS WARRANTY.

BOSS PRODUCTS LIABILITY IS EXPRESSLY LIMITED TO THE REPAIR OF THE SNOWPLOW, INCLUDING LABOR AND REPLACEMENT OF DEFECTIVE PARTS. BOSS PRODUCTS SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR CONTINGENT DAMAGES WHATSOEVER, EVEN IF DAMAGES ARE CAUSED BY BOSS PRODUCTS NEGLIGENCE OR FAULT.

### State laws:

Some states do not allow exclusion of incidental or consequential damages or the limitations on how long an implied warranty lasts, so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have the other rights which vary from state to state.

This warranty does not apply if you purchased your snowplow for other than personal, family, or household use. If so, refer to the BOSS Snowplow Commercial Warranty.

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