

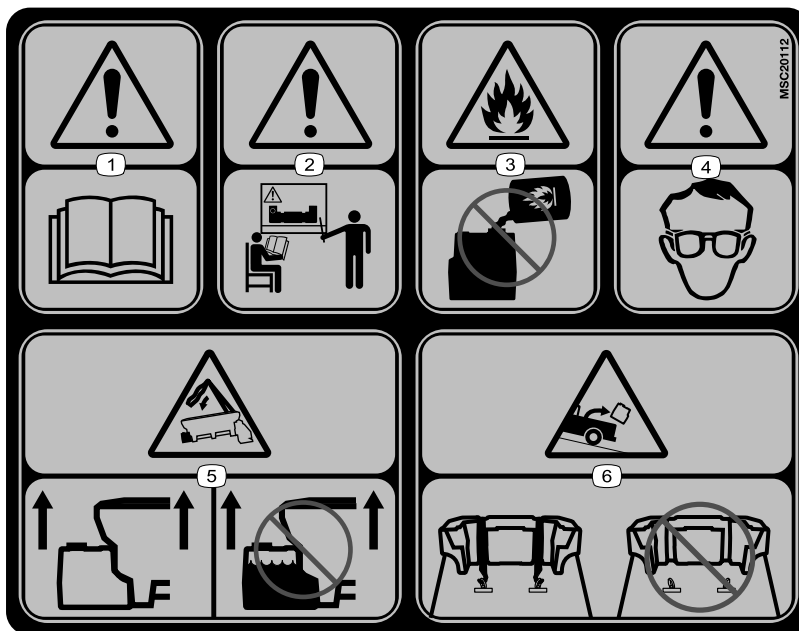
## Safety

- Use a 500 kg (1/2 ton) minimum lifting device to move heavy spreader components.
- Never put any part of your body between the spreader and the vehicle.
- Do not attempt to mount or remove the spreader or kit with material in it.
- Turn the vehicle and spreader off before filling, mounting, removing, servicing, or cleaning the kit.
- Do not store material in the tank.

## Safety and Instructional Decals



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



MSC20112

decalmsc20112

1. Warning—read the *Owner's Manual*.
2. Warning—receive training before operating the machine.
3. Fire hazard—do not fill the tank with flammable liquids.
4. Warning—wear eye protection.
5. Falling hazard—empty the tank before lifting the spreader; do not lift the spreader with liquid in the tank.
6. Falling hazard—ensure that the straps are in place when transporting the tank.



# Installation

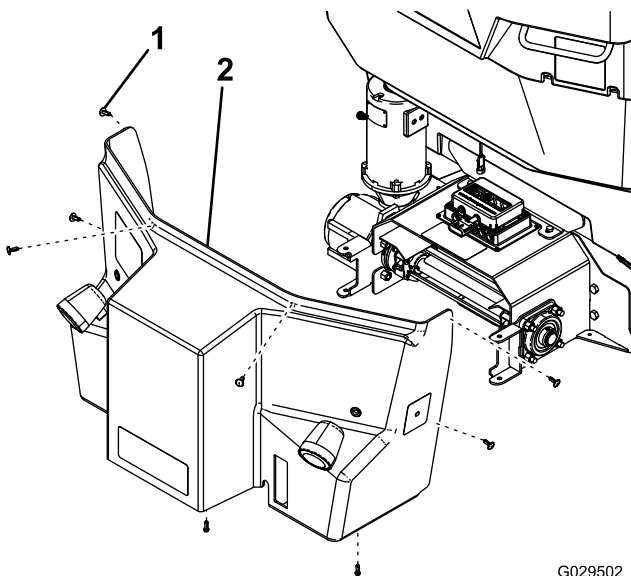
This manual is used for installation on the VBX, Forge, and VBX+ spreaders. Illustrations may vary.

Determine the left and right sides of the machine from the normal operating position.

**Note:** Use pipe tape on all threaded connections.

## Installing the Frame Rails and Tank

1. Park your vehicle on a level surface, engage the parking brake, shut off the engine, and remove the keys.
2. Disconnect the spreader power/ground cable from the wire harness.
3. Use a 500 kg (1/2 ton) minimum lifting device to raise the spreader and place it on jack stands; refer to your spreader *Owner's Manual* for the location of the lift points.
4. Remove the spinner assembly; refer to your spreader *Owner's Manual*.
5. Remove the rear cover according to your spreader:
  - For VBX spreaders, remove the plastic clips securing the rear cover to the hopper ([Figure 1](#)).

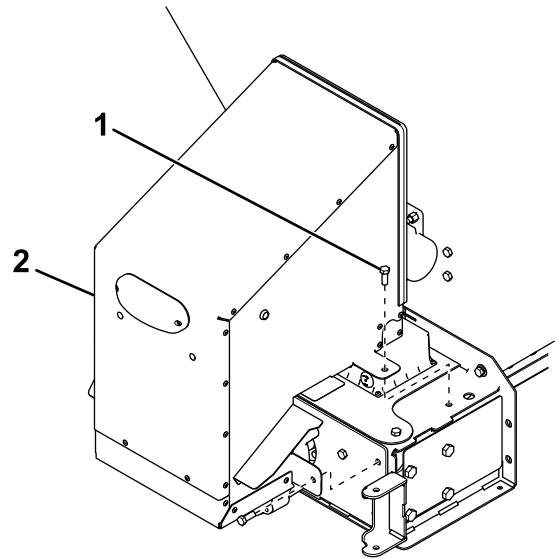


**Figure 1**

1. Plastic clip                      2. Rear cover

G029502  
g029502

- For Forge spreaders, remove the bolts securing the rear cover to the hopper ([Figure 2](#)).

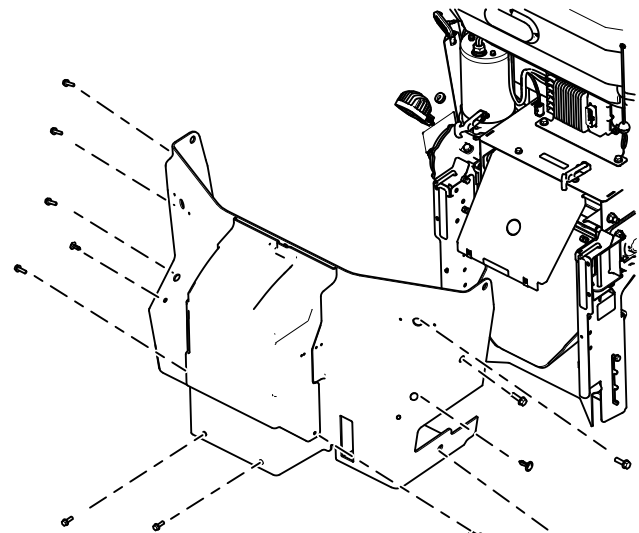


**Figure 2**

1. Bolt                                      2. Rear cover

g223387

- For VBX+ spreaders, remove the bolts and plastic clips securing the rear cover to the hopper. There are 9 bolts on auger models and 11 bolts on pintle models.



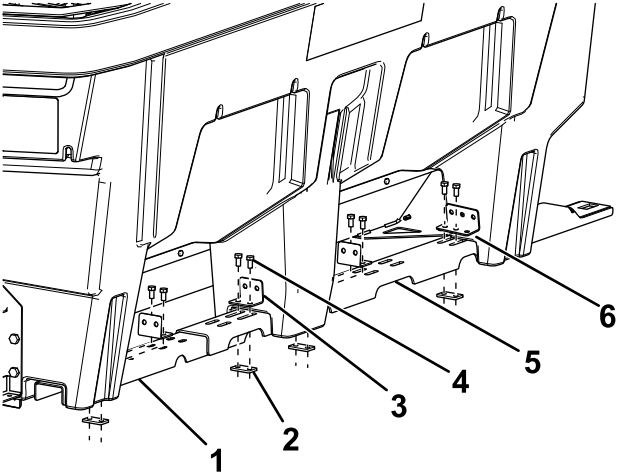
**Figure 3**

g494238

6. Carefully pull away the rear cover and unplug the cover harness from the control module.
7. Slide both the long and short frame rails under the legs of the spreader ([Figure 4](#)).

**Note:** If you are installing the kit onto a VBX 6500, VBX+ 1.5yd, or Forge 1.0 spreader, you do not need the short frame rails. If installing

the kit onto a VBX or VBX+ spreader, use the wide L-brackets for the hopper legs closest to the pre-wet tank.



g436603

**Figure 4**

- 1. Short frame rail
- 2. Tap plate
- 3. L-bracket
- 4. Bolt (3/8 inch)
- 5. Long frame rail
- 6. L-bracket (wide)

8. Complete one of the following procedures:

- **VBX 8000/9000 and VBX+ 2/3yd models only:** loosely mount the 8 L-brackets to the rails near each spreader leg using 16 bolts (3/8 inch) and 8 tap plates (Figure 4).
- **VBX 6500 and VBX+ 1.5yd models only:** loosely mount the 6 L-brackets to the rails near each spreader leg using 12 bolts (3/8 inch) and 6 tap plates (Figure 4).
- **Forge 1.0 models only:** loosely mount the 2 L-brackets to the rails near each spreader leg using 4 bolts (3/8 inch) and 2 tap plates (Figure 4).
- **Forge 1.5/20 models only:** loosely mount the 4 L-brackets near each spreader leg using 8 bolts (3/8 inch) and 4 tap plates (Figure 4).

9. Attach a 90° hose fitting to the tank (Figure 5).

**Note:** Ensure that the 90° hose fitting is angled as shown in Figure 5.

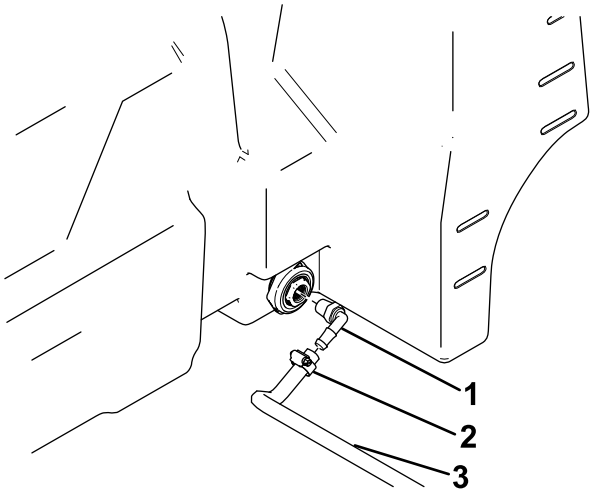


Figure 5

g223403

1. 90° hose fitting
2. Hose clamp
3. 2.4 m (96 inch) hose

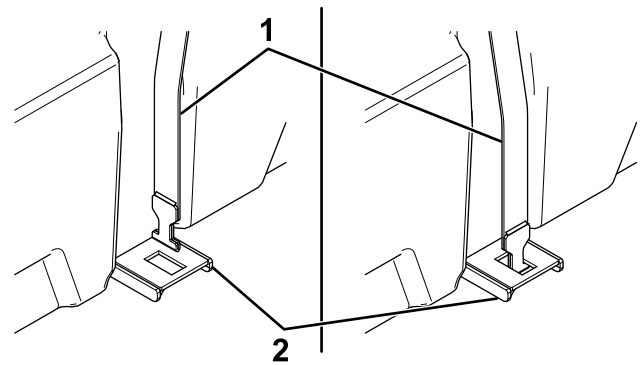


Figure 6

g223404

1. Tank strap
2. Frame rail

13. Drape the straps over the tank and loosely secure them to the frame rails using a carriage bolt and jam nut (Figure 7).

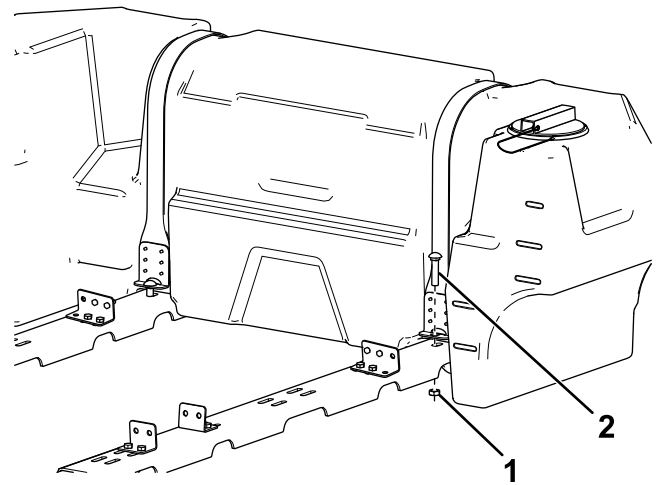


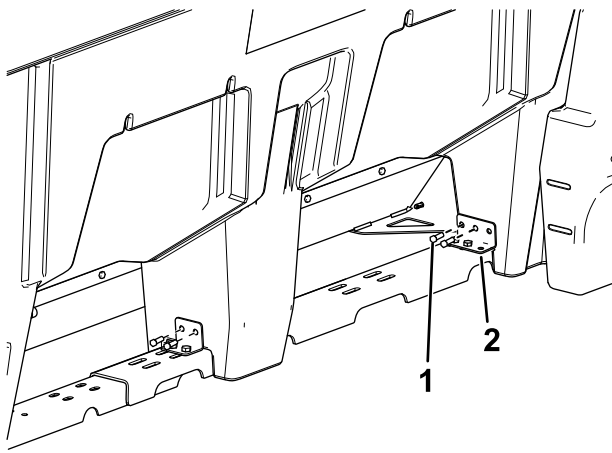
Figure 7

g436606

1. Carriage bolt
2. Jam nut

10. Secure an end of the 2.4 m (96 inch) hose to the 90° hose fitting with a hose clamp (Figure 5).
11. Slide the tank into the space behind the spreader, but leave room to work.
12. Insert the T end of the tank straps into the back of the frame rails and twist them 90° to secure (Figure 6).

14. Slide the tank forward until it contacts the spreader hopper.
15. Slide the L-brackets against the spreader legs and loosely secure them to the spreader using 2 lag bolts (5/16 inch) on each bracket (Figure 8).



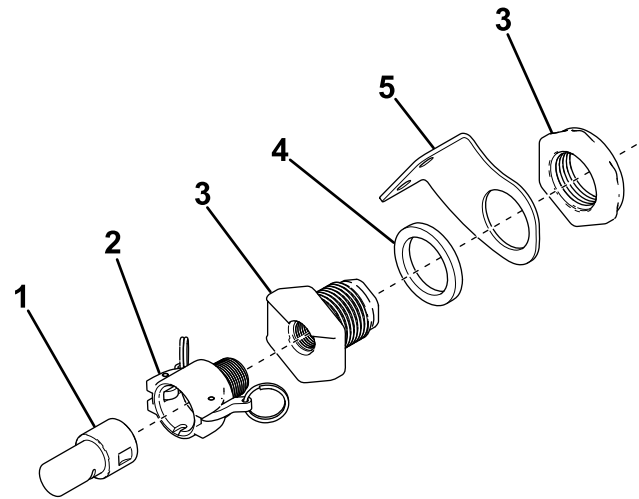
**Figure 8**

g436607

1. Lag bolt (5/16 inch)      2. L-bracket

## Installing the Spray Nozzle

1. Connect the spray nozzle, quick coupler, and bulkhead to the nozzle mounting bracket as shown in [Figure 9](#).



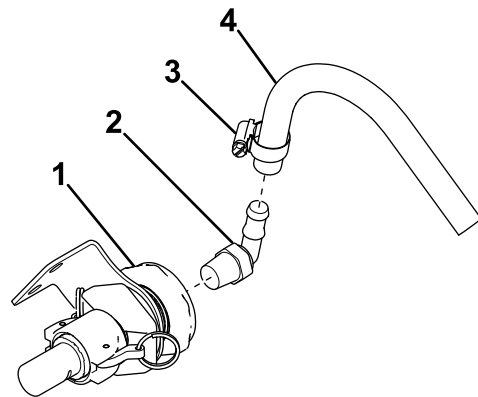
**Figure 9**

g223377

1. Spray nozzle                      4. Gasket  
 2. Quick coupler                    5. Nozzle mounting bracket  
 3. Bulkhead

16. Tighten the fasteners on the L-brackets and tank straps.

2. Install a 90° hose fitting onto the end of the bulkhead ([Figure 10](#)).



**Figure 10**

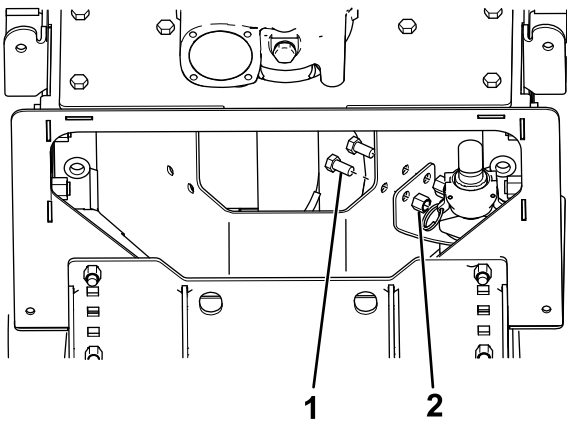
g223378

1. Bulkhead                              3. Hose clamp  
 2. 90° hose fitting                    4. 45 cm (18 inch) hose

3. Secure the 45 cm (18 inch) hose to the 90° hose fitting with a hose clamp ([Figure 10](#)).
4. Mount the nozzle bracket to the spreader using 2 bolts (3/8 inch) and nuts in the location described below:

**Note:** Ensure that the slit in the nozzle is pointing down.

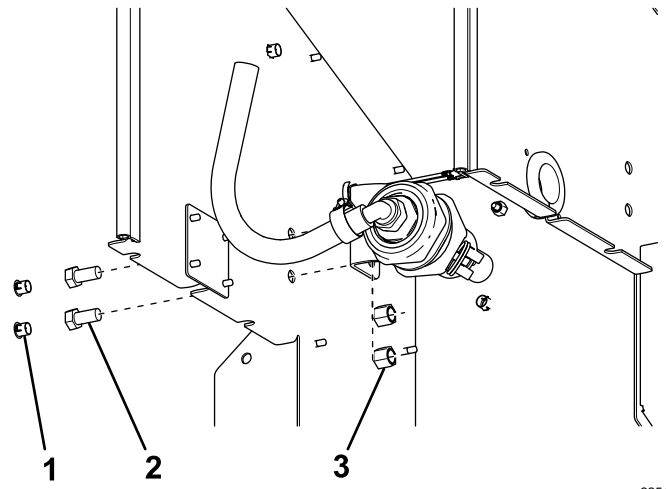
- For auger spreaders, mount the bracket to the auger trough as shown in [Figure 11](#).



**Figure 11**

g223379

1. Bolt (3/8 inch)
2. Nut (3/8 inch)

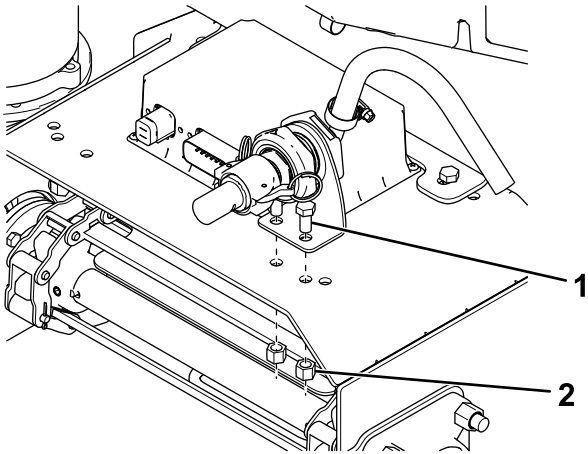


**Figure 13**

g225448

1. Plug (discard)
2. Bolt (3/8 inch)
3. Nut (3/8 inch)

- For VBX pintle chain spreaders, mount the bracket to the top of the pintle chain assembly as shown in [Figure 12](#).

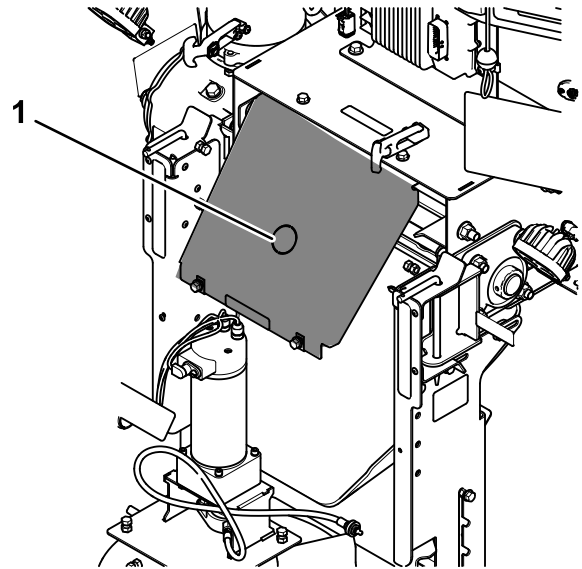


**Figure 12**

g223380

1. Bolt (3/8 inch)
2. Nut (3/8 inch)

- For VBX+ spreaders, mount the nozzle on the knock-out area of the cover plate.

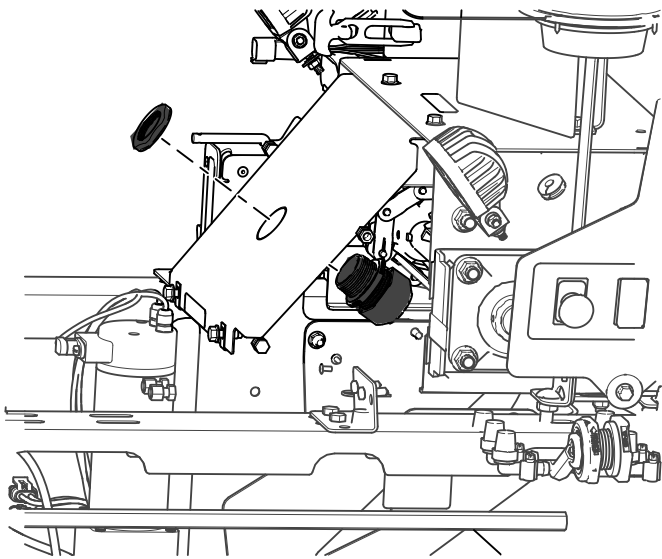


**Figure 14**

g494237

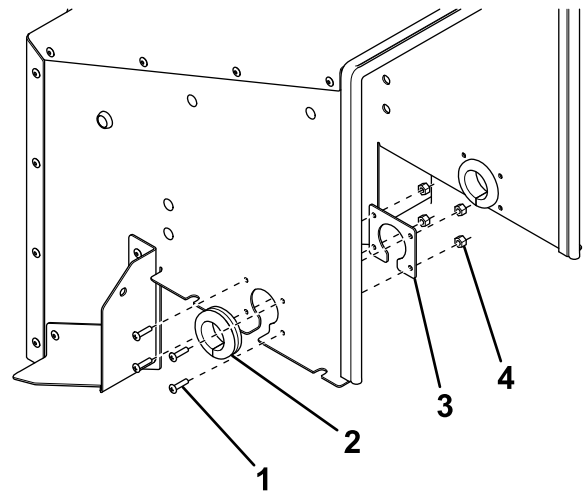
1. Knock-out area

- For the Forge pintle chain spreaders, remove the 2 plugs on the rear cover and mount the bracket through them as shown in [Figure 13](#).



**Figure 15**

g494236



**Figure 17**

g223382

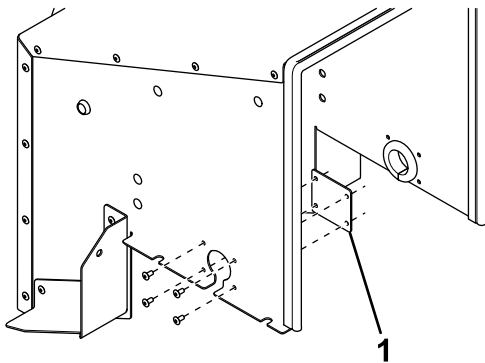
- |                          |                    |
|--------------------------|--------------------|
| 1. Bolt (#10 x 3/4 inch) | 3. Grommet plate   |
| 2. Rubber grommet        | 4. Nylon nut (#10) |

5. Tighten all of the fasteners.

## Installing the Pump

### For the Forge Spreaders

1. Remove the grommet cover plate on the right side of the rear cover (Figure 16).



**Figure 16**

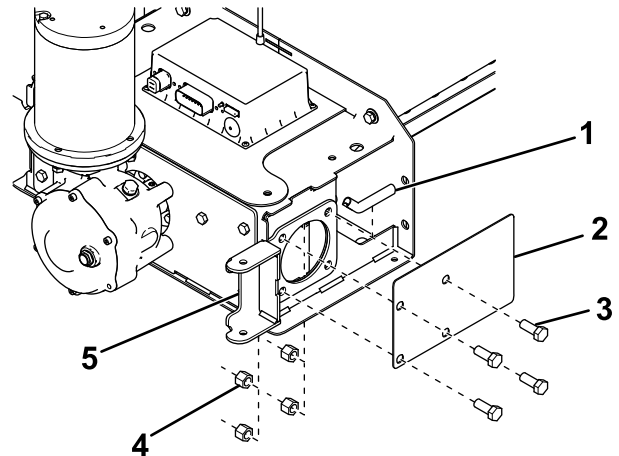
g223381

1. Grommet cover plate (remove)

2. Secure the grommet plate to the inside of the rear cover using 4 bolts (#10 x 3/4 inch) and nylon nuts (Figure 17).

3. Insert the rubber grommet into the opening on the grommet plate (Figure 17).
4. If you have a pintle chain Forge spreader, continue to step 7. For the auger Forge spreaders, remove and retain the 4 bolts and nuts securing the right spinner-assembly pin lock and auger sideplate to the auger assembly (Figure 18).

**Note:** Discard the auger sideplate.

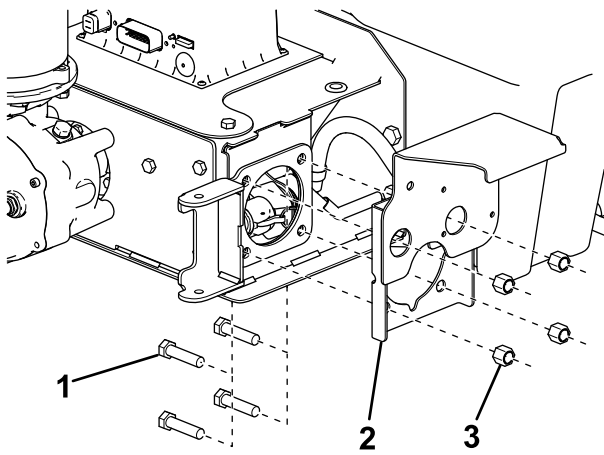


**Figure 18**

g223383

- |                              |                              |
|------------------------------|------------------------------|
| 1. Edge cover                | 4. Nut                       |
| 2. Auger sideplate (discard) | 5. Spinner-assembly pin lock |
| 3. Bolt                      |                              |

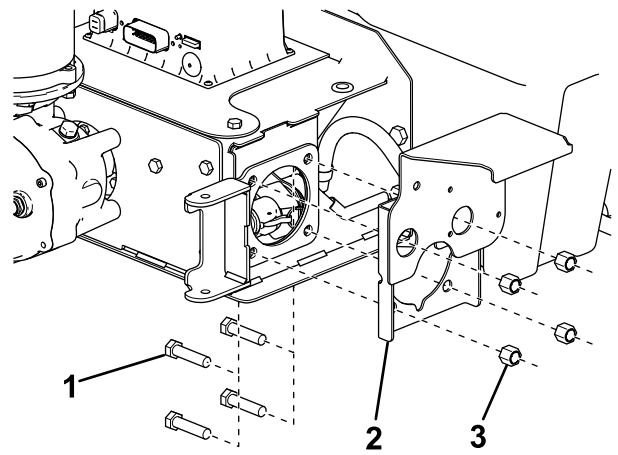
5. Slide 1 of the edge covers onto the opening in the auger assembly (Figure 18).
6. Secure the pump bracket to the auger assembly using the previously removed 4 bolts and nuts (Figure 19), then continue to step 9.



**Figure 19**

g223385

- 1. Bolt
- 2. Pump bracket
- 3. Nut



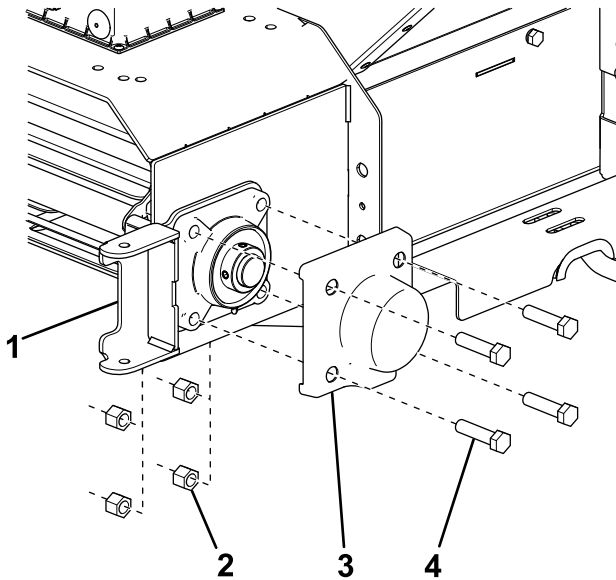
**Figure 21**

g223385

- 1. Bolt (1/2 inch)
- 2. Pump bracket
- 3. Nut (1/2 inch)

7. Remove and discard the 4 bolts and nuts securing the right spinner-assembly pin lock and bearing cover to the pintle chain assembly (Figure 20).

**Note:** Do not discard the spinner-assembly pin lock or bearing cover.



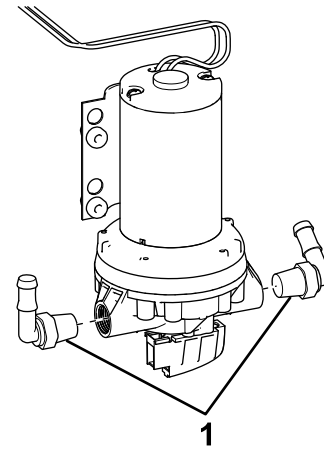
**Figure 20**

g223384

- 1. Spinner-assembly pin lock
- 2. Nut (discard)
- 3. Bearing cover
- 4. Bolt (discard)

8. Secure the pump bracket to the pintle chain assembly using 4 bolts (1/2 inch) and nuts (Figure 19).

9. Tighten the fasteners.
10. Install a 90° hose fitting onto both sides of the pump (Figure 22).



**Figure 22**

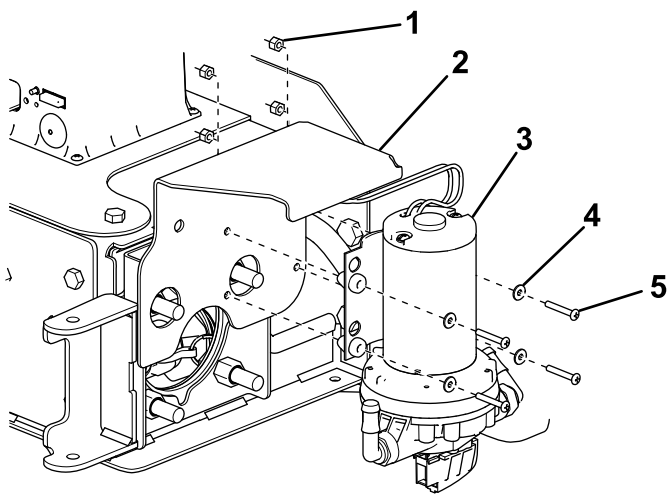
g224963

- 1. 90° hose fitting

11. Secure the pump to the pump bracket using 4 bolts (#10 x 1-1/4 inches), washers, and nylon nuts (Figure 23).

**Note:** Tighten the fasteners until the bolts are flush with the nuts.

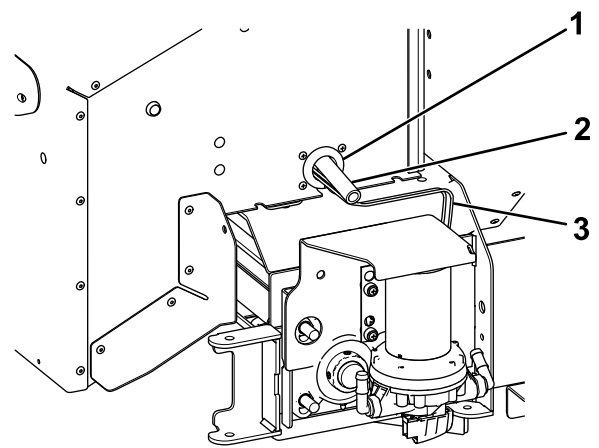




**Figure 23**

g224964

- |                    |                              |
|--------------------|------------------------------|
| 1. Nylon nut (#10) | 4. Washer (#10)              |
| 2. Pump bracket    | 5. Bolt (#10 x 1-1/4 inches) |
| 3. Pump            |                              |

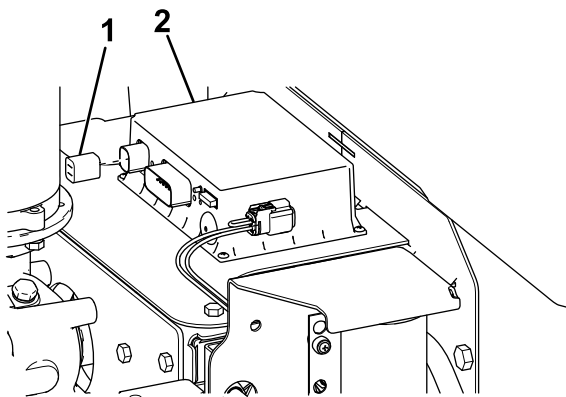


**Figure 25**

g224965

- |                         |                        |
|-------------------------|------------------------|
| 1. Rubber grommet       | 3. Pump connector wire |
| 2. 45 cm (18 inch) hose |                        |

12. Locate and remove the plug on the control module (Figure 24).



**Figure 24**

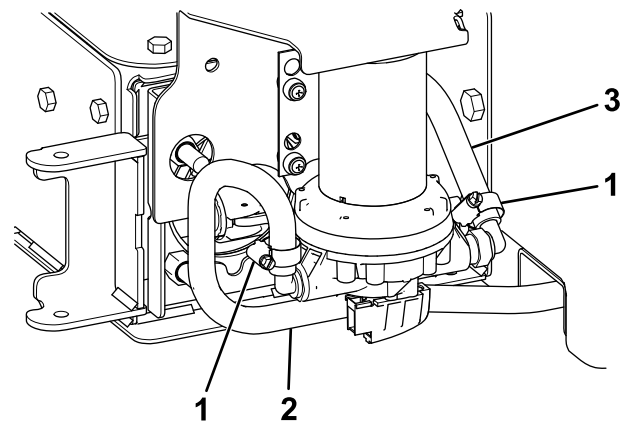
g223388

- |         |                   |
|---------|-------------------|
| 1. Plug | 2. Control module |
|---------|-------------------|

13. Bring the rear cover close to the spreader and route the pump connector through the previously installed grommet (Figure 25). For the pintle chain Forge spreaders, route the 45 cm (18 inch) hose from the spray nozzle through the grommet as well.

14. Connect the pump connector and cover harness to the control module (Figure 24).
15. Secure the rear cover to the spreader with the previously removed bolts and washers.
16. Secure the 45 cm (18 inch) hose from the spray nozzle to the hose fitting on the right side of the pump with a hose clamp (Figure 26).

**Note:** If you have an auger spreader, trim the hose to prevent it from kinking.



**Figure 26**

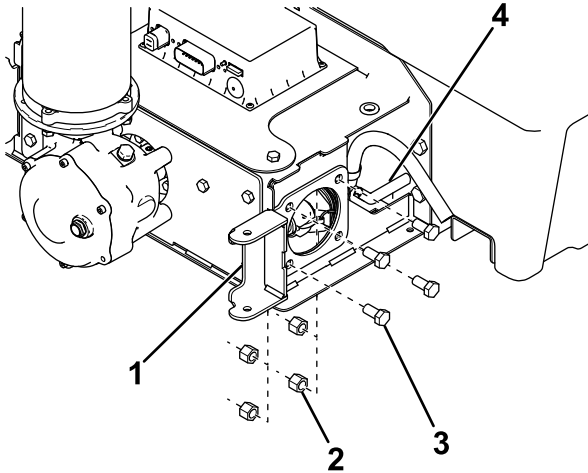
g223394

- |                    |                      |
|--------------------|----------------------|
| 1. Hose clamp      | 3. Spray nozzle hose |
| 2. 1.2 m (48 inch) |                      |

17. Secure the 1.2 m (48 inch) hose to the hose fitting on the left side of the pump with a hose clamp (Figure 26).
18. Route the hose under the frame rail, toward the filter (Figure 26).

## For VBX+ Spreaders

1. For auger spreaders, slide 1 of the edge covers onto the opening in the auger assembly.

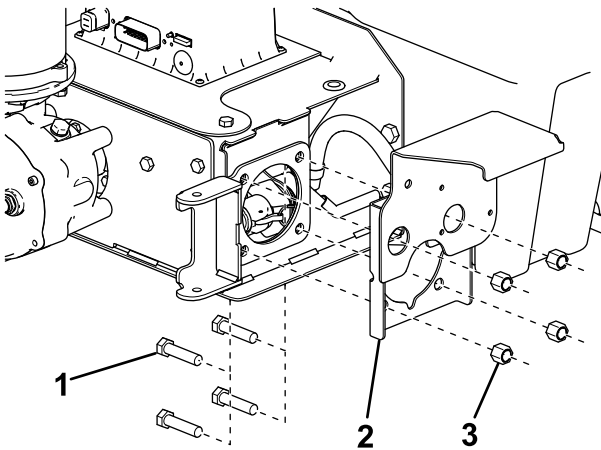


**Figure 27**

g223392

1. Spinner-assembly pin lock
2. Nut (discard)
3. Bolt (discard)
4. Edge cover

2. Remove and discard the 4 bolts and nuts securing the right spinner-assembly pin lock to the auger or pintle chain assembly. Do not discard the spinner-assembly pin lock.
3. Secure the pump bracket to the auger or pintle chain assembly using 4 bolts (1/2 inch) and nuts.

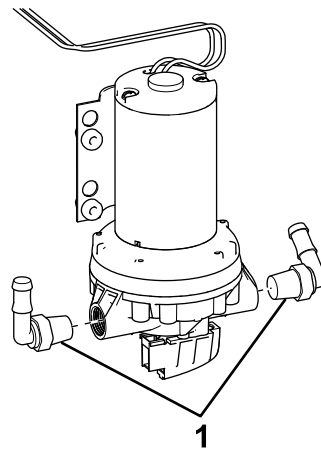


**Figure 28**

g223385

1. Bolt (1/2 inch)
2. Pump bracket
3. Nut (1/2 inch)

4. Tighten the fasteners.
5. Install a 90° hose fitting onto both sides of the pump.



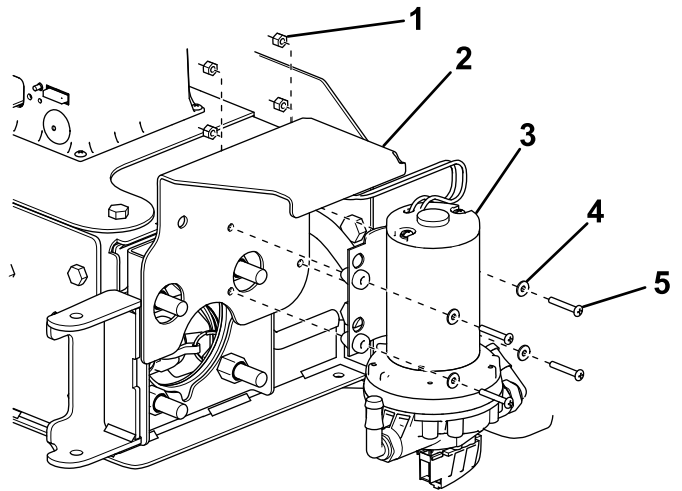
**Figure 29**

g224963

1. 90° hose fitting

6. Secure the pump to the pump bracket using 4 bolts (#10 x 1-1/4 inches), washers, and nylon nuts.

**Note:** Tighten the fasteners until the bolts are flush with the nuts.

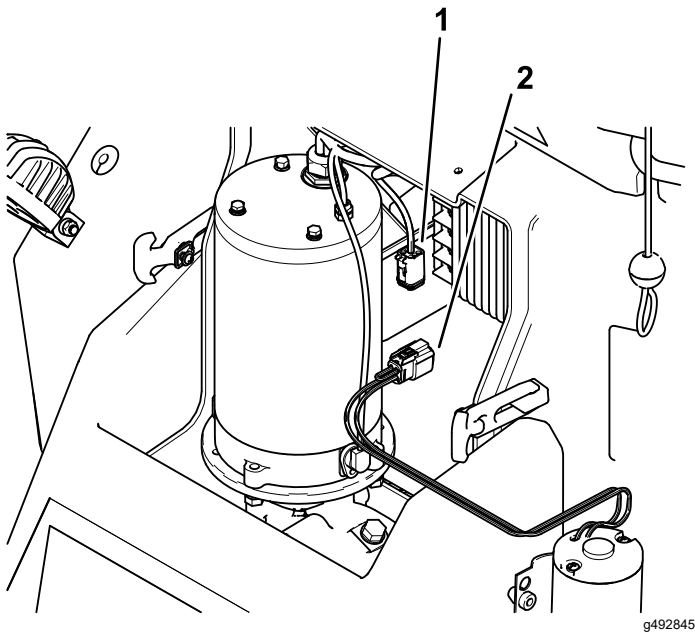


**Figure 30**

g224964

1. Nylon nut (#10)
2. Pump bracket
3. Pump
4. Washer (#10)
5. Bolt (#10 x 1-1/4 inches)

7. Locate the pump wire harness and the VBX+ Motor connector.

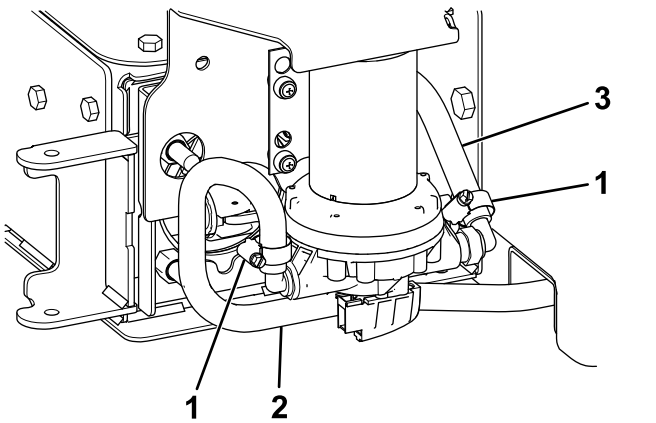


**Figure 31**

1. VBX+ Motor Connector      2. Pre-Wet System Wire Harness

8. Connect the VBX+ Motor connector to the wire harness.
9. Secure the 45 cm (18 inch) hose from the spray nozzle to the hose fitting on the right side of the pump with a hose clamp.

**Note:** If you have an auger spreader, trim the hose to prevent it from kinking.



**Figure 32**

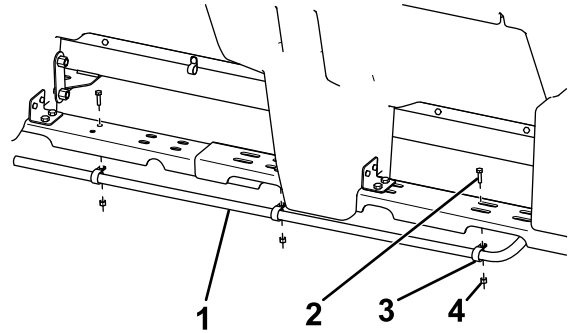
1. Hose clamp      3. Spray nozzle hose
2. 1.2 m (48 inch) hose

10. Secure the 1.2 m (48 inch) hose to the hose fitting on the left side of the pump with a hose clamp.
11. Route the hose under the frame rail, toward the filter.

12. Connect the cover harness to the control module and install the previously removed rear cover.

## Connecting the Ball Valve and Filter

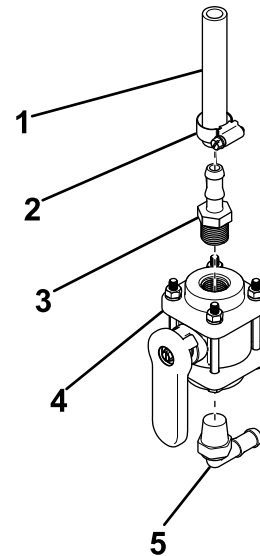
1. Attach the 3 hose clips to the long tank hose and secure them to the underside of the frame rail using 3 bolts (1/4 x 1 inch) and nuts (Figure 33).



**Figure 33**

1. Tank hose      3. Hose clip
2. Bolt (1/4 x 1 inch)      4. Nut (1/4 inch)

2. Tighten the fasteners.
3. Install a 90° hose fitting onto the bottom of the ball valve (Figure 34).

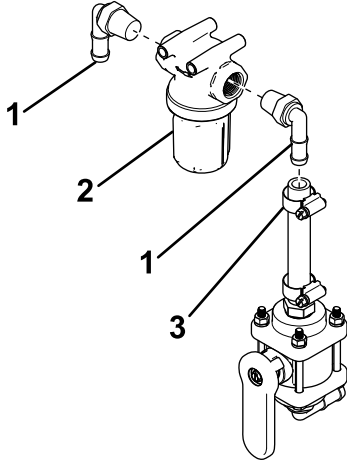


**Figure 34**

1. 9.5 cm (4-3/4 inches) hose      4. Ball valve
2. Hose clamp      5. 90° hose fitting
3. Straight hose fitting

4. Install a straight hose fitting onto the top of the ball valve (Figure 34).

- Secure the 9.5 cm (4-3/4 inches) hose to the straight hose fitting with a hose clamp (Figure 34).
- Install a 90° hose fitting on both sides of the filter (Figure 35).



**Figure 35**

g224968

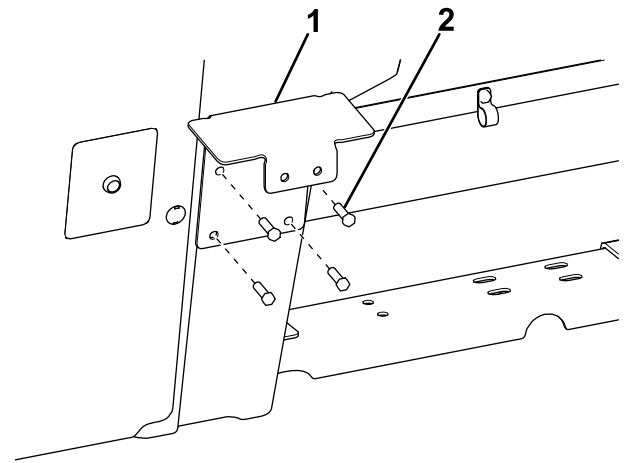
- 90° hose fitting
- Filter
- Hose clamp

- Secure the 9.5 cm (4-3/4 inches) hose to the right 90° hose fitting with a hose clamp (Figure 35).

**Note:** Ensure that the arrow on the filter is pointing to the rear of the vehicle.

## Mounting the Filter and Securing the Hoses

- For the Forge spreaders, continue to step 4. For VBX and VBX+ spreaders, line up the filter bracket with the edge of the rear cover and mount it to the hopper with 4 bolts (5/16 inch) as shown in Figure 36.

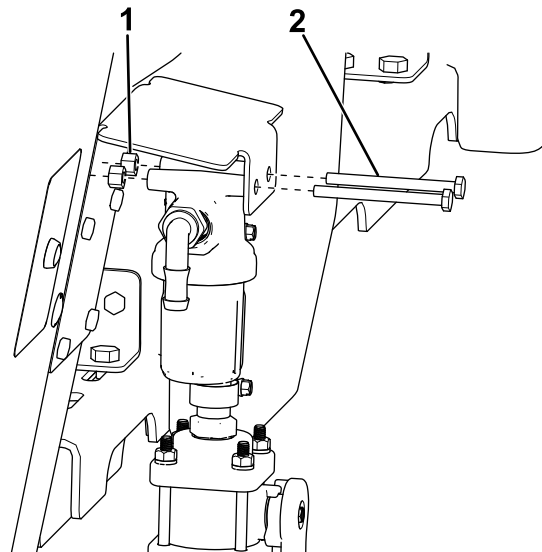


**Figure 36**

g224969

- Filter bracket
- Bolt (5/16 inch)

- Tighten the fasteners.
- Mount the filter to the filter bracket using 2 bolts (1/4 x 3 inches) and nuts (Figure 37), then continue to step 5.

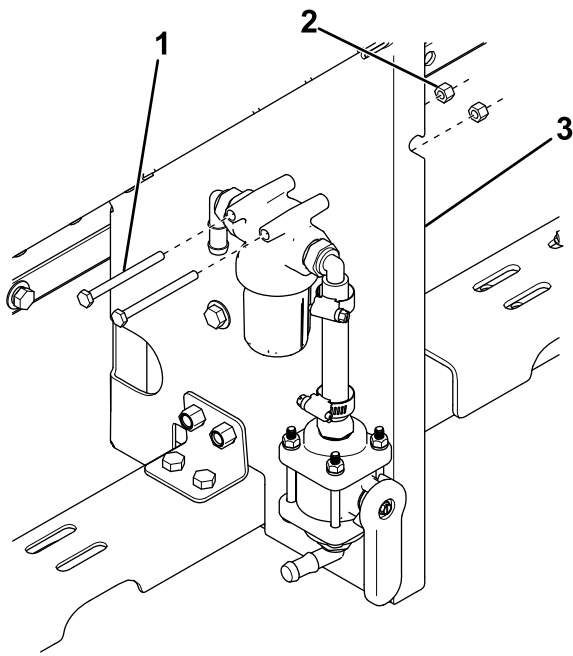


**Figure 37**

g224970

- Nut (1/4 inch)
- Bolt (1/4 x 3 inches)

- Mount the filter to the spreader leg using 2 bolts (1/4 x 3 inches) and nuts (Figure 38).

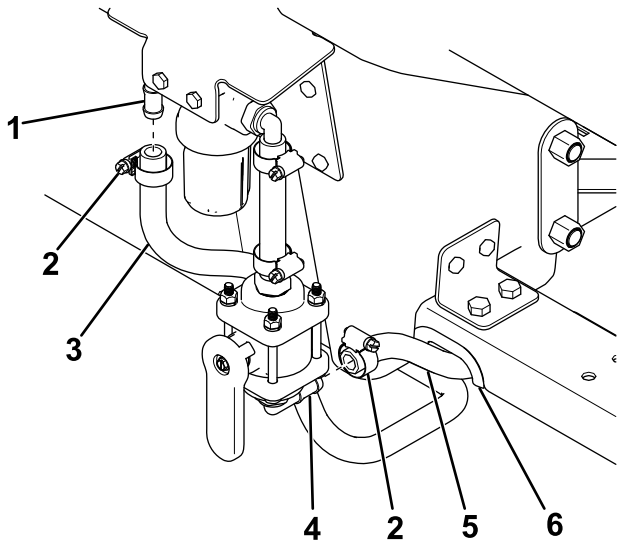


**Figure 38**

- |                          |                 |
|--------------------------|-----------------|
| 1. Bolt (1/4 x 3 inches) | 3. Spreader leg |
| 2. Nut (1/4 inch)        |                 |

5. Tighten the fasteners.
6. Secure the 1.2 m (48 inch) hose from the pump to the 90° filter hose fitting with a hose clamp (Figure 39).

**Note:** Ensure that the hose is routed under the frame rail and out the side near the filter.



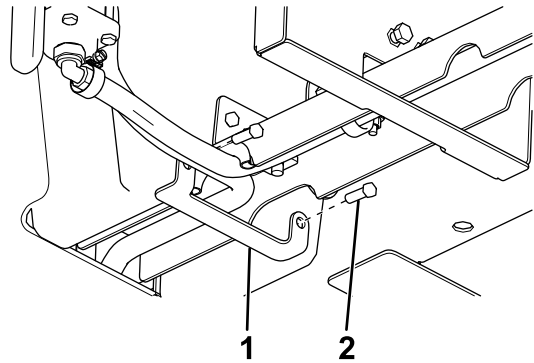
**Figure 39**

- |                            |                                |
|----------------------------|--------------------------------|
| 1. 90° filter hose fitting | 4. 90° ball valve hose fitting |
| 2. Hose clamp              | 5. Tank hose                   |
| 3. Pump hose               | 6. Edge cover                  |

7. Secure the free end of the tank hose to the 90° ball valve hose fitting with a hose clamp (Figure 39).

**Note:** For VBX 6500, VBX+ 1.5yd, and Forge 1.0 spreaders, trim the hose to prevent it from kinking.

8. Slide 1 of the edge covers onto the frame rail as shown in Figure 39.
9. For the Forge spreaders, continue to step 11. For the VBX and VBX+ spreaders, secure the hose retainer to the spreader leg using 2 lag bolts (5/16 inch) as shown in Figure 40.



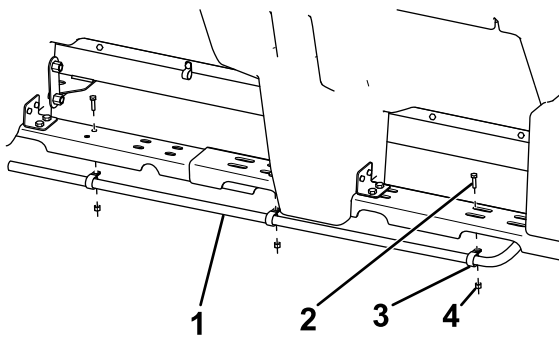
**Figure 40**

- |                  |                         |
|------------------|-------------------------|
| 1. Hose retainer | 2. Lag bolt (5/16 inch) |
|------------------|-------------------------|

10. Tighten the fasteners.
11. Attach the previously removed spinner assembly; refer to your spreader *Owner's Manual*.
12. Connect the spreader power/ground cable to the main wire harness.

## Connecting the Ball Valve and Filter

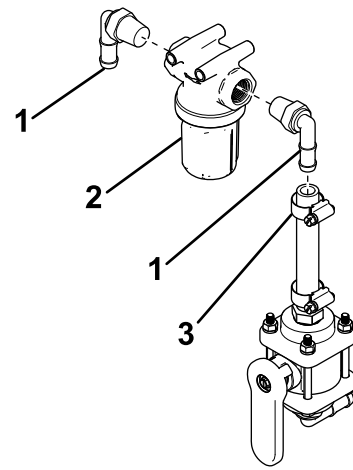
1. Attach the 3 hose clips to the long tank hose and secure them to the underside of the frame rail using 3 bolts (1/4 x 1 inch) and nuts (Figure 33).



**Figure 41**

g224966

- |                        |                   |
|------------------------|-------------------|
| 1. Tank hose           | 3. Hose clip      |
| 2. Bolt (1/4 x 1 inch) | 4. Nut (1/4 inch) |

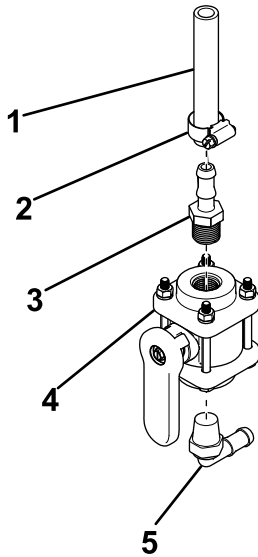


**Figure 43**

g224968

- |                     |               |
|---------------------|---------------|
| 1. 90° hose fitting | 3. Hose clamp |
| 2. Filter           |               |

2. Tighten the fasteners.
3. Install a 90° hose fitting onto the bottom of the ball valve (Figure 34).



**Figure 42**

g224967

- |                               |                     |
|-------------------------------|---------------------|
| 1. 9.5 cm (4-3/4 inches) hose | 4. Ball valve       |
| 2. Hose clamp                 | 5. 90° hose fitting |
| 3. Straight hose fitting      |                     |

4. Install a straight hose fitting onto the top of the ball valve (Figure 34).
5. Secure the 9.5 cm (4-3/4 inches) hose to the straight hose fitting with a hose clamp (Figure 34).
6. Install a 90° hose fitting on both sides of the filter (Figure 35).

7. Secure the 9.5 cm (4-3/4 inches) hose to the right 90° hose fitting with a hose clamp (Figure 35).

**Note:** Ensure that the arrow on the filter is pointing to the rear of the vehicle.

# Operation

## Filling the Tank

1. Clean around the tank cap (Figure 44).

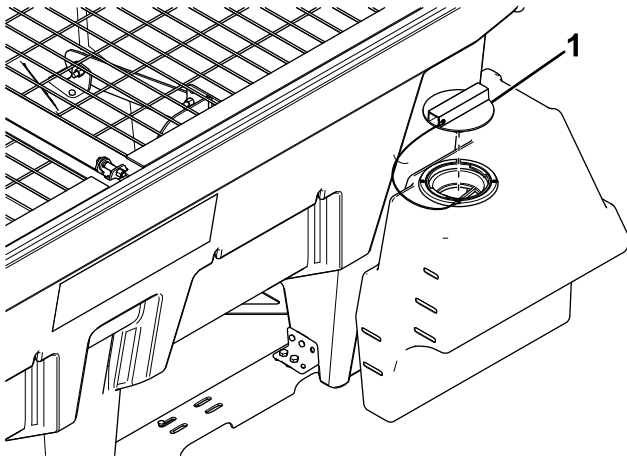


Figure 44

g436608

1. Tank cap

2. Remove the tank cap and fill the tank with your brine solution.

**Note:** The marks on the tank are in 37.8 L (10 US gallons) increments.

**Important:** Use only pre-mixed brine to prevent dangerous chemical reactions.

3. Wipe any spills and secure the tank cap.

## Operating the Pre-Wet System

### For VBX and Forge Spreaders

**Note:** Refer to your spreader *Owner's Manual* for controller operation.

Once the pre-wet system has been installed, Pre-Wet will appear on your controller as shown in Figure 45.

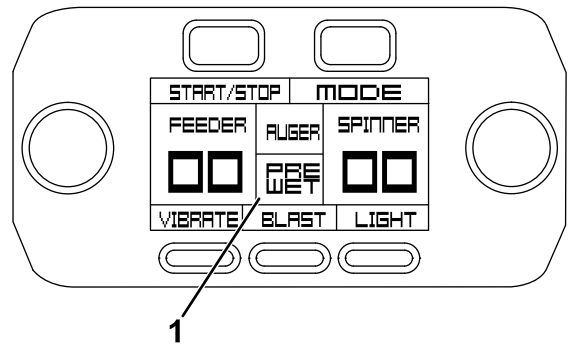


Figure 45

g223060

1. Pre-Wet icon

The pre-wet system is only active when it is highlighted on the controller. When the system is active, it sprays the brine solution whenever the spreader feeder-motor is active.

## Activating the Pre-Wet System

1. To activate the pre-wet system, press the Mode button on the controller (Figure 46).

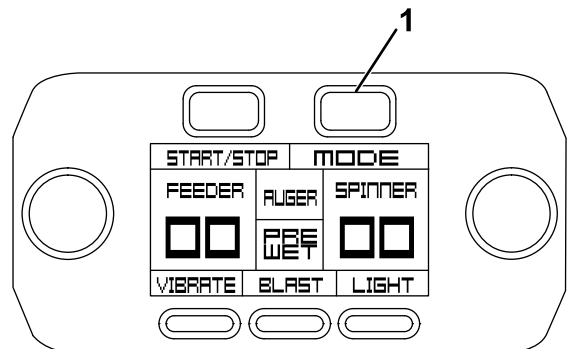


Figure 46

g223061

1. Mode button

2. Press the Pre-Wet button (Figure 47).

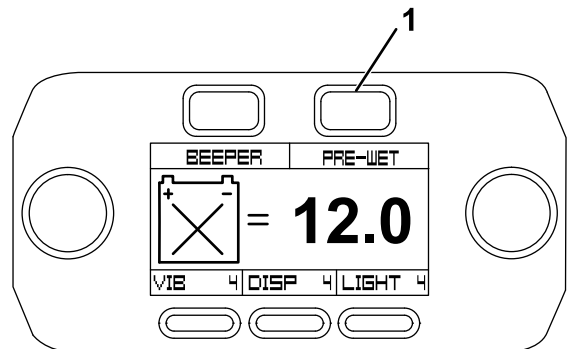


Figure 47

g223062

1. Pre-Wet button

- On the pre-wet screen, press the Pre-Wet button (Figure 48).

**Note:** Once Pre-Wet is highlighted, the system is active.

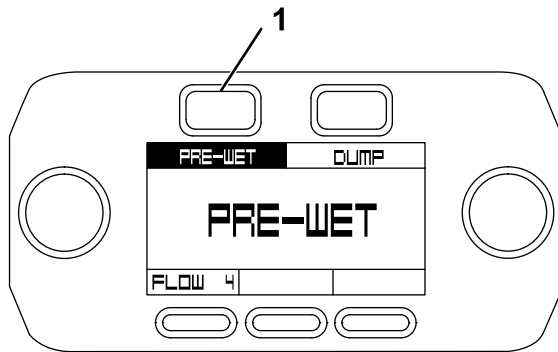


Figure 48

g223063

- Pre-Wet button

- On the pre-wet screen, press the Flow button to cycle between the flow speeds (Figure 51). There are 4 speeds: Flow 1 is the lowest and Flow 4 is the highest.

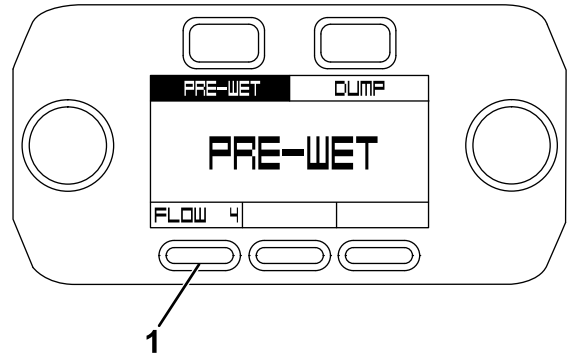


Figure 51

g223066

- Flow button

## Setting the Flow Speed

- To set the flow speed, press the Mode button on the controller (Figure 49).

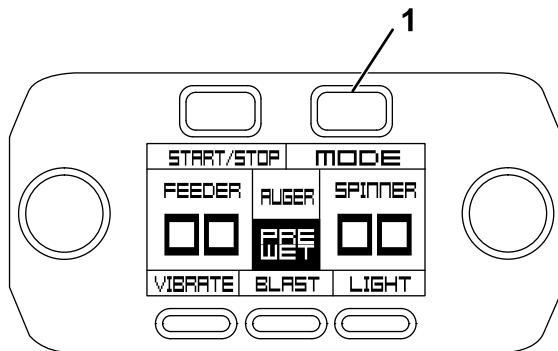


Figure 49

g223064

- Mode button

## Deactivating the Pre-Wet System

- To deactivate the pre-wet system, press the Mode button on the controller (Figure 52).

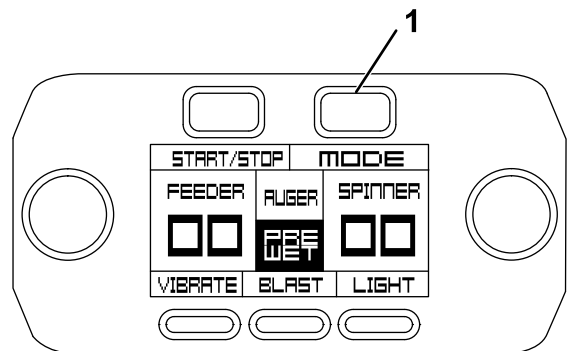


Figure 52

g223064

- Mode button

- Press the Pre-Wet button (Figure 50).

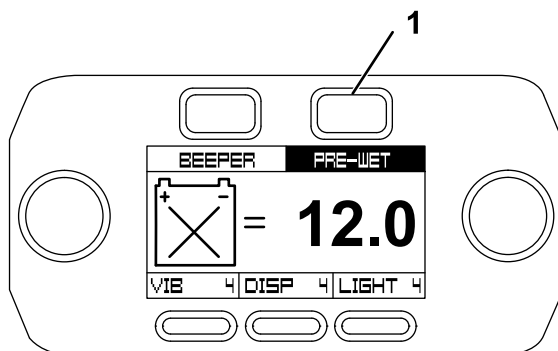


Figure 50

g223065

- Pre-Wet button

- Press the Pre-Wet button (Figure 53).

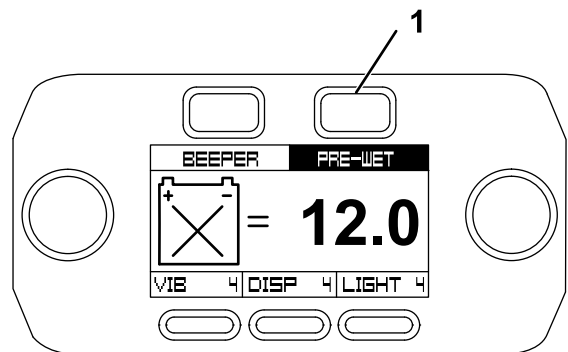


Figure 53

g223065

- Pre-Wet button



- On the pre-wet screen, press the Pre-Wet button (Figure 54).

**Note:** Once Pre-Wet is no longer highlighted, the system is inactive.

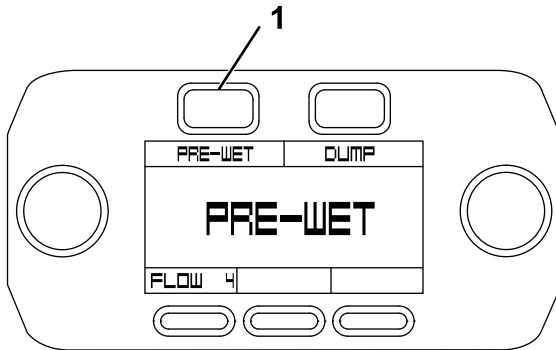


Figure 54

g223067

- Pre-Wet button

## Operating the Pre-Wet System

### For VBX+ Spreaders

**Note:** Refer to your spreader *Owner's Manual* for controller operation.

Once the pre-wet system is installed, VIB/PW(Vibrate/Pre-Wet) will appear on your controller.

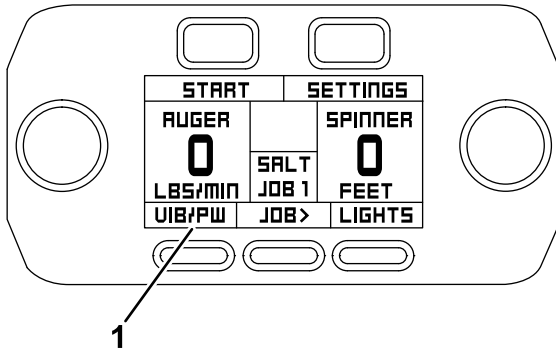


Figure 55

g492713

- Pre-Wet Icon

The pre-wet system is only active when it is highlighted on the controller. When the system is active, it sprays the brine solution whenever the spreader feeder-motor is active.

### Activating the Pre-Wet System

- To activate the pre-wet system, press the VIB/PW button on the controller.

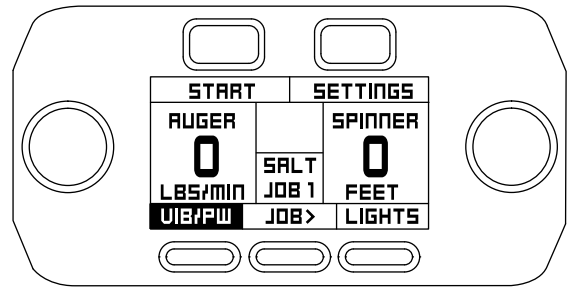


Figure 56

g492719

- Press the VIB/PW button one time to activate the Vibrate mode.

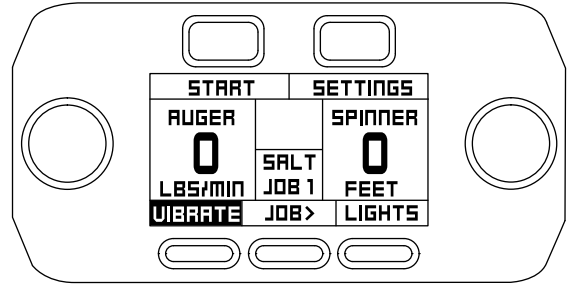


Figure 57

g492718

- Press the VIB/PW button two times to activate Pre-Wet mode.

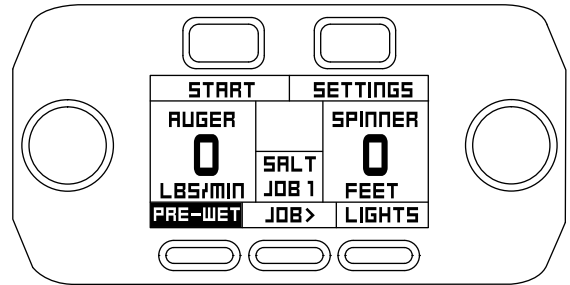


Figure 58

g492717

- Press the VIB/PW button three times to activate both Pre-Wet and Vibrate mode.

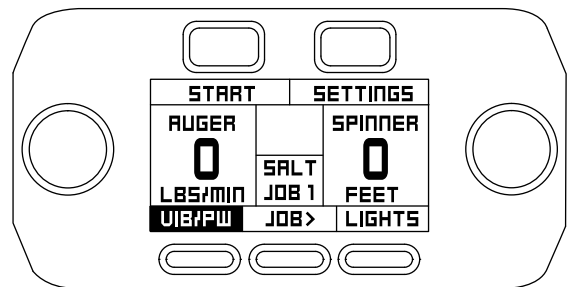


Figure 59

g492719

- Press the VIB/PW button four times to shut the Pre-Wet function off.

# Emptying the Tank

## Configuring the Dump Switch

You can empty the tank by using the spreader dump switch, but it must be configured first.

1. To configure the dump switch, select the SETTINGS button on the controller.
2. Select the DUMP MODE row and cycle through the options to select SOLID, LIQUID, or BOTH.

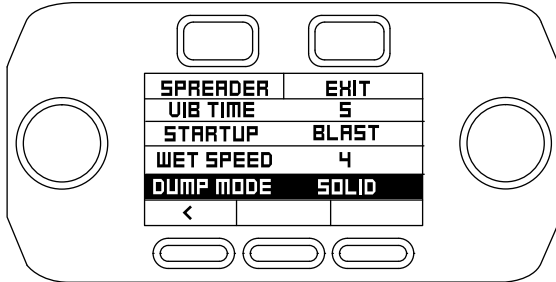


Figure 60

g492716

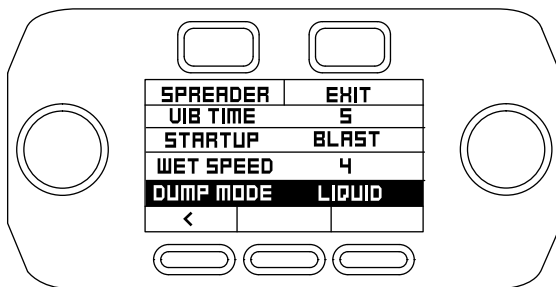


Figure 61

g492715

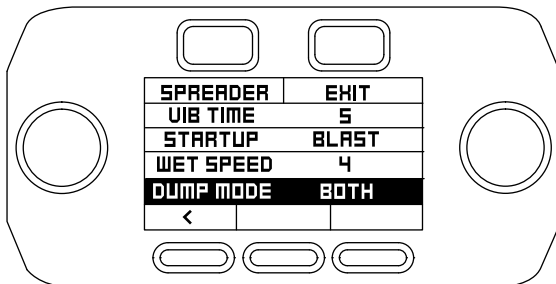


Figure 62

g492714

## Setting the Wet Speed

1. On the SETTINGS screen, select the WET SPEED row. There are 4 speeds: 1 is the lowest and 4 is the highest.

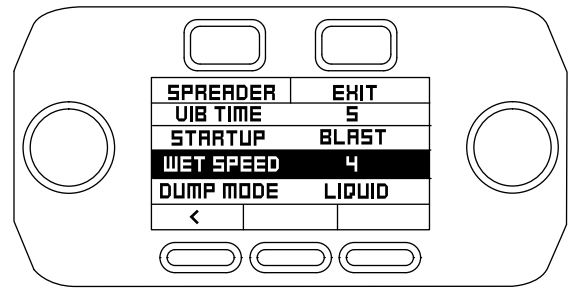


Figure 63

g493753

## Using the Dump Hose

1. Position the spreader in the area where you want to deposit the material, engage the parking brake, shut off the engine, and remove the key.
2. Disconnect the spreader power/ground cable from the wire harness.
3. Unplug the spreader spinner harness from the main wire harness.
4. Remove the right latch and cotter pin from the spreader spinner assembly (Figure 64).

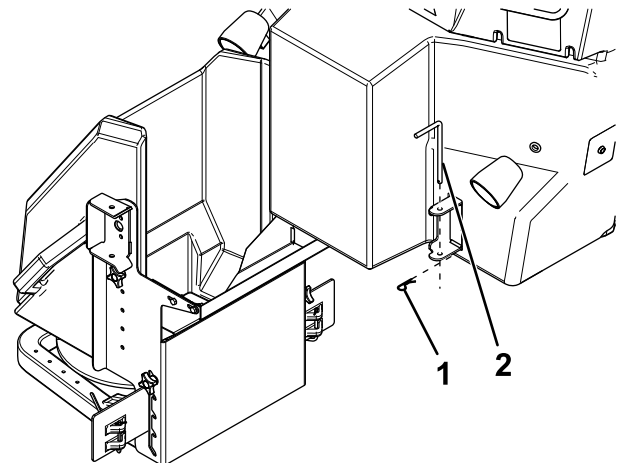


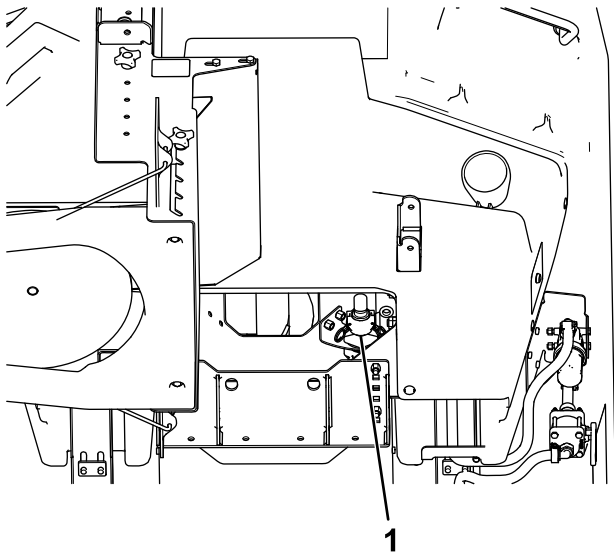
Figure 64

g223405

1. Cotter pin
  2. Latch pin
5. Swing the spreader spinner assembly free from the hopper opening (Figure 64).
 

**Note:** Do not move the vehicle when the spinner assembly is swung out.
  6. Locate the spray nozzle underneath the rear cover (Figure 65).
 

**Note:** You do not need to remove the rear cover to empty the tank.

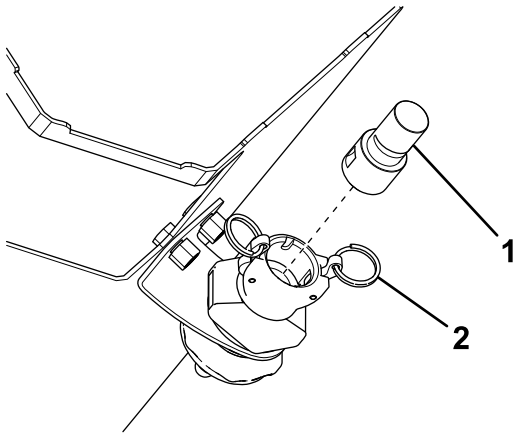


**Figure 65**

g223406

1. Spray nozzle

7. Raise the latches on the quick coupler and remove the spray nozzle (Figure 66).

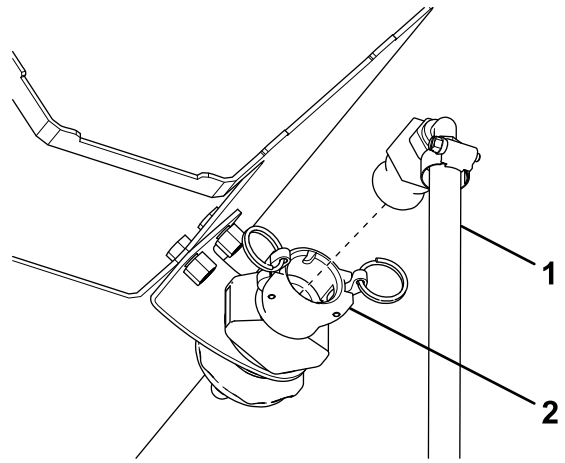


**Figure 66**

g223407

1. Spray nozzle
2. Quick coupler latch

8. Connect the dump hose quick coupler to the nozzle quick coupler and lower the latches to lock it in place (Figure 67).



**Figure 67**

g223408

1. Dump hose
2. Nozzle quick coupler

9. Connect the spreader power/ground cable to the wire harness and power the vehicle, but do not start it.
10. Push and hold the dump switch to unload the tank solution.
11. Shut off the vehicle, remove the keys, and disconnect the spreader power/ground cable from the wire harness.
12. Raise the latches on the quick coupler and remove the dump hose (Figure 67).
13. Slide the spray nozzle into the quick coupler and lower the latches to lock it in place (Figure 66).

**Note:** Ensure that the slit in the nozzle is pointing down.

14. Swing the spreader spinner assembly back into place and secure it with the previously removed attachment pin and cotter pin.
15. Connect the spreader spinner harness to the main wire harness.
16. Connect the spreader power/ground cable to the wire harness.

# Operating Tips

- Do not store materials in the tank.
- Close the ball valve when transporting the machine while the pre-wet system is installed.
- Rinse the tank with fresh water before storing it.

# Troubleshooting

Problem	Possible Cause	Corrective Action
Pre-Wet does not appear on the controller.	<ol style="list-style-type: none"> <li>1. The pump is not connected to the module.</li> <li>2. The white jumper wire is not connected.</li> <li>3. The white jumper wire is corroded.</li> </ol>	<ol style="list-style-type: none"> <li>1. Plug the pump into the module.</li> <li>2. Connect the white jumper wire.</li> <li>3. Check the white jumper wire for corrosion and clean it if necessary.</li> </ol>
The controller shows "Pre-Wet Error."	<ol style="list-style-type: none"> <li>1. The pump circuit is open, has a short, or is drawing too much current.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the pump power/ground, connector terminals, filter, and hoses for damage and replace or clean them if necessary.</li> </ol>
The pump does not engage.	<ol style="list-style-type: none"> <li>1. The pump is not connected to the module.</li> <li>2. There is no power or ground to the module.</li> </ol>	<ol style="list-style-type: none"> <li>1. Plug the pump into the module.</li> <li>2. Check for power and ground at the module.</li> </ol>
The pump does not prime.	<ol style="list-style-type: none"> <li>1. The ball valve is closed.</li> <li>2. The filter is clogged.</li> <li>3. The brine in the hoses is frozen.</li> </ol>	<ol style="list-style-type: none"> <li>1. Open the ball valve.</li> <li>2. Clean the filter.</li> <li>3. Bring the spreader to a warm area to thaw.</li> </ol>
The pump runs and shuts off repeatedly.	<ol style="list-style-type: none"> <li>1. The spray nozzle is plugged or frozen.</li> <li>2. The brine in the hoses is frozen.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean the spray nozzle.</li> <li>2. Bring the spreader to a warm area to thaw.</li> </ol>
The pre-wet system is not spraying.	<ol style="list-style-type: none"> <li>1. The ball valve is closed.</li> <li>2. The filter is clogged.</li> <li>3. The spray nozzle is plugged or frozen.</li> <li>4. The brine in the hoses is frozen.</li> <li>5. The hoses are clogged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Open the ball valve.</li> <li>2. Clean the filter.</li> <li>3. Clean the spray nozzle.</li> <li>4. Bring the spreader to a warm area to thaw.</li> <li>5. Clean the hoses.</li> </ol>
Brine is dripping from the spray nozzle when the system is not in use.	<ol style="list-style-type: none"> <li>1. The ball valve is open.</li> </ol>	<ol style="list-style-type: none"> <li>1. Close the ball valve.</li> </ol>
Too much brine is being sprayed.	<ol style="list-style-type: none"> <li>1. The flow is set too high.</li> </ol>	<ol style="list-style-type: none"> <li>1. Lower the flow level; refer to Setting the Flow Speed.</li> </ol>
Too little brine is being sprayed.	<ol style="list-style-type: none"> <li>1. The flow is set too low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Raise the flow level; refer to Setting the Flow Speed.</li> </ol>
Nothing happens when the dump switch is pressed.	<ol style="list-style-type: none"> <li>1. Nothing is selected in the Dump menu.</li> <li>2. The dump switch is broken.</li> </ol>	<ol style="list-style-type: none"> <li>1. Select the material you want to dump in the Dump menu; refer to Configuring the Dump Switch.</li> <li>2. Check the terminals on the back of the dump switch. Repair or replace the switch if necessary.</li> </ol>
Brine does not dump when pressing the dump switch.	<ol style="list-style-type: none"> <li>1. "Liquid" is not selected in the Dump menu.</li> </ol>	<ol style="list-style-type: none"> <li>1. Select "Liquid" in the Dump menu; refer to Configuring the Dump Switch.</li> </ol>
Dry material does not dump when pressing the dump switch.	<ol style="list-style-type: none"> <li>1. "Solid" is not selected in the Dump menu.</li> </ol>	<ol style="list-style-type: none"> <li>1. Select "Solid" in the Dump menu; refer to Configuring the Dump Switch.</li> </ol>
Brine dumps when pressing the dump switch and I do not want it to.	<ol style="list-style-type: none"> <li>1. "Liquid" is selected in the Dump menu.</li> </ol>	<ol style="list-style-type: none"> <li>1. Deselect "Liquid" in the Dump menu; refer to Configuring the Dump Switch.</li> </ol>
Dry material dumps when pressing the dump switch and I do not want it to.	<ol style="list-style-type: none"> <li>1. "Solid" is selected in the Dump menu.</li> </ol>	<ol style="list-style-type: none"> <li>1. Deselect "Solid" in the Dump menu; refer to Configuring the Dump Switch.</li> </ol>

# Notes:

**Notes:**

**BOSS**  
S N O W P L O W