Form No. 3353-529 Rev B

Rinse Kit

for Multi-Pro® 1200 and 1250 Turf Sprayers

Model No. 106-4842

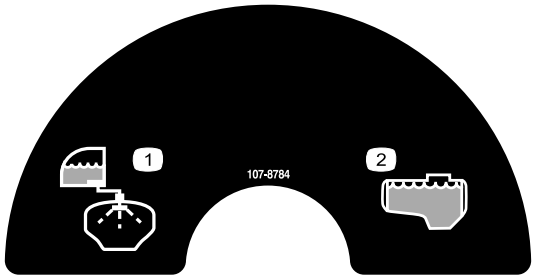
Installation Instructions

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

Safety

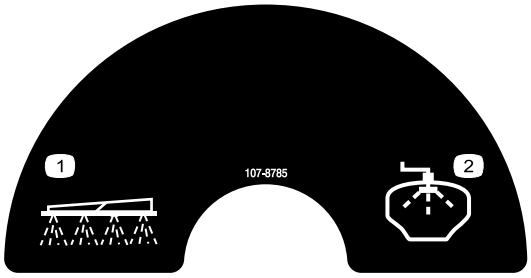
Safety and Instructional Decals

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 lost.



107-8784

1. From clean water rinse tank
2. From main chemical tank



107-8785

1. To booms
2. To rinse nozzle

8111 Lyndale Avenue South
Bloomington, MN 55420

Register at www.Toro.com.

CE

Original Instructions (EN)
Printed in the USA.

Installation

Loose Parts

Use the chart below to verify that all parts have been shipped.

Procedure	Description	Qty.	Use
1	No parts required	–	Preparing the machine.
2	Bulkhead Plastic ring nut	1 1	Install the rinse tank bulkhead fitting.
3	Rinse nozzle tube Plastic threads Nozzle bulb Bulkhead O-ring, large clear O-ring, small black Plastic ring nut 60 degree fitting 1/2 inch connector fitting Plastic retainer ring Retainer nut, large Retainer nut, small Retainer nut, medium Hose barb fitting O-ring, clear small Hose clamp	1 2 1 1 1 1 1 1 1 1 1 1 1 1 2 1	Install the rinse nozzle.
4	Decal, 107-8784, rinse tank valve Decal, 107-8785, rinse nozzle valve Rinse tank valve Rinse nozzle valve Reducer Retainer fork, large	1 1 1 1 1 4	Install the valves.
5	Suction hose Rinse tank suction hose Rinse nozzle hose Retainer fork, small Retainer fork, large Plastic tie	1 1 1 3 1 3	Install the hoses.

1

Preparing the Machine

No Parts Required

Procedure

1. Move the sprayer onto a level surface, set the parking brake, stop the pump, stop the engine, and remove the ignition key.
2. Drain the contents of the tank to remove any solution in lines. Refer to the *Operator's Manual* for more information.

   Note: Take caution while disconnecting any hoses during the installation of this kit and have a catch bucket ready for any solutions remaining in the hose.

Chemicals are hazardous and can cause personal injury.

- **Read the directions on the chemical labels before handling the chemicals and follow all manufacturer recommendations and precautions.**
- **Keep chemicals away from your skin. Should contact occur, wash the affected area thoroughly with soap and clean water.**
- **Wear goggles and any other protective equipment recommended by the chemical manufacturer.**

2

Installing the Rinse Tank Bulkhead Fitting

Parts needed for this procedure:

1	Bulkhead
1	Plastic ring nut

Procedure

1. Remove the fastener securing the right side of the front tank strap to the main tank assembly.

   Note: Retain all parts and fasteners.
2. Lift the front tank strap and remove the rinse tank (Figure 1). Remove the cap from the rinse tank and retain.

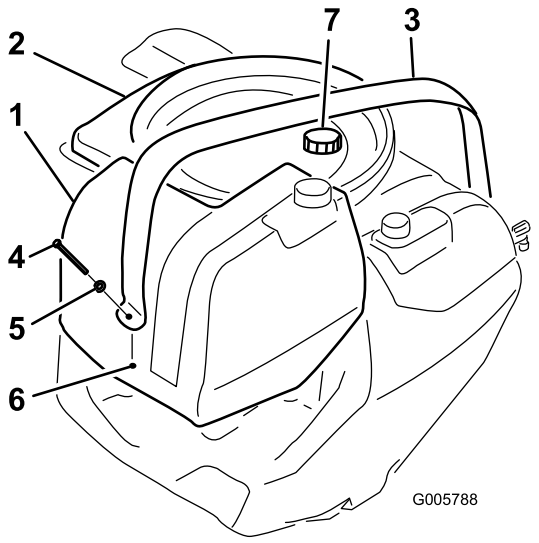


Figure 1

1. Rinse tank
2. Main tank
3. Front strap
4. Bolt
5. Washer
6. Lock nut
7. Cap, rinse tank

3. Turn the rinse tank upside down and locate the drill point in tank sump area.
4. Drill a hole in the sump of the rinse tank using a 5.4 cm (2-1/8 inch) hole saw.

   Important: Do not elongate the opening. An elongated opening will not be sealed correctly by the bulkhead fitting yet to be installed and the rinse system will leak.
5. Use a blade to clean the plastic burrs and excess material from the drilled hole.
6. Turn the tank right side up and use compressed air to blow out any debris deposited in the tank.

   Important: Debris left inside a tank can clog and damage the spray system during operation.
7. Insert the bulkhead fitting through top opening and maneuver it into place so that the seal side of the bulkhead fitting is in contact with the interior of the drilled tank opening (Figure 2).

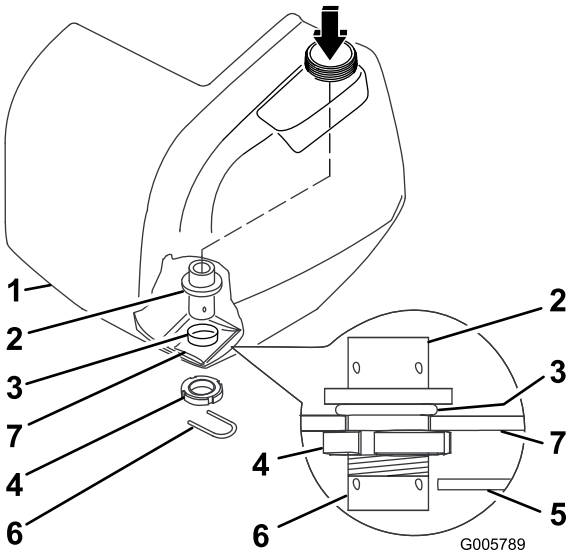


Figure 2

1. Rinse tank
2. Bulkhead
3. O-ring, clear
4. Plastic nut
5. Retainer fork holes, correct orientation
6. Retainer fork
7. Sump, rinse tank

8. Secure the new bulkhead fitting to the rinse tank using the plastic nut in loose parts as shown in Figure 2.

   Note: The seal must be seated between the fitting and tank around the entire circumference of the hole edge (Figure 2).

   Note: Orientate the bulkhead so that the retainer fork will come from the front to the back of the machine (Figure 2).

9. Install the rinse tank cap.
10. Install the rinse tank assembly with the new fitting to the machine.
11. Secure the tank using the front tank strap and fasteners removed previously.

3

Installing the Rinse Nozzle

Parts needed for this procedure:

1	Rinse nozzle tube
2	Plastic threads
1	Nozzle bulb
1	Bulkhead
1	O-ring, large clear
1	O-ring, small black
1	Plastic ring nut
1	60 degree fitting
1	1/2 inch connector fitting
1	Plastic retainer ring
1	Retainer nut, large
1	Retainer nut, small
1	Retainer nut, medium
1	Hose barb fitting
2	O-ring, clear small
1	Hose clamp

Drilling the Main Tank

1. Open the tank lid and remove the strainer basket.
2. Locate the tank ridge area to the back and right of the main tank lid.
3. Measure 6.4 cm (2-1/2 inches) from the ridge edges as shown in Figure 3. Mark the tank at that spot.

   Note: The tank may already have a drill point at the spot being measured. Use this indentation, if present, to drill the hole.

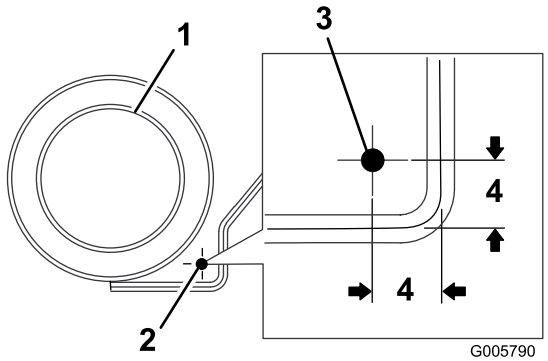


Figure 3

1. Main tank lid
2. Tank ridge, back and right of lid
3. Drill point
4. 6.4 cm (2-1/2 inches)

Note: Place a receptacle inside the tank and below the area to be drilled to catch any debris created during the drilling process.

Important: Debris left inside a tank could clog and damage the spray system during operation.

4. Drill a 3.5 cm (1-3/8 inch) diameter hole in the tank at the spot marked previously (Figure 3).
5. Use a blade to clean the plastic burrs and excess material from the hole drilled.
6. Clean any debris from the drilling process left inside the tank.

Assembling the Rinse Nozzle

1. Snap a threaded fitting over one end of the rinse tube as shown in Figure 4.

Important: *Do not* install threaded fittings on both ends of the rinse tube at this time.

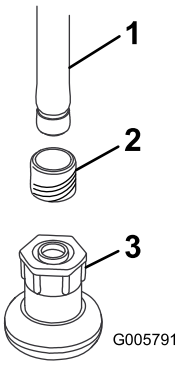


Figure 4

1. Rinse tube
2. Threaded fitting
3. Rinse nozzle bulb

2. Install the rinse nozzle bulb over the threaded side of the rinse tube (Figure 4).

Installing the Rinse Nozzle

1. Locate the rinse nozzle bulkhead in loose parts. If the bulkhead is shipped assembled, disassemble as shown in Figure 5.
   A. Remove the plastic ring nut from the bulkhead.
   B. Push the large, clear O-ring on the bulkhead up flush to the flange fitting to keep it seated.
   C. Remove the large retainer nut and O-ring
   D. Retain all parts.

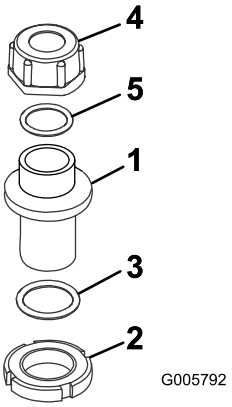


Figure 5

1. Bulkhead fitting
2. Plastic ring nut
3. O-ring, large clear
4. Retainer nut, large
5. O-ring, small black

2. Install the bulkhead fitting with the seal facing down into the hole drilled in the main tank (Figure 6).

Important: Ensure that the seal is seated correctly between the bulkhead flange and the tank surface (Figure 6).

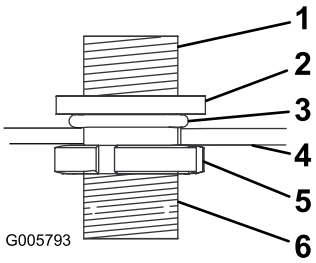


Figure 6

1. Bulkhead fitting
2. Flange, bulkhead
3. O-ring, clear
4. Main tank
5. Threaded end, bulkhead
6. Plastic ring nut

3. Secure the fitting and seat the seal by installing the plastic ring nut to the threads of the fitting in the tank interior and hand tightening (Figure 6).
4. Install assembled rinse nozzle and tube up through the bulkhead fitting installed in the main tank (Figure 7).

Important: ***Do not*** **install the remaining threaded fitting on the end of the rinse tube at this time.**

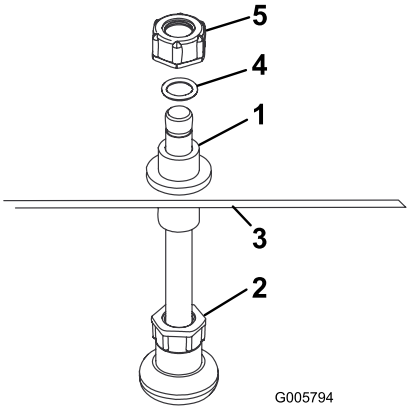


Figure 7

1. Bulkhead assembly
2. Rinse nozzle and tube assembly
3. Main tank surface
4. O–ring, small, black
5. Retainer nut, large

5. Install the small, black O-ring and large retainer nut, previously removed, over the top of the **un-threaded** end of the rinse tube protruding from the bulkhead fitting (Figure 7).

   Note: Do not tighten the nut at this time.

6. Adjust the rinse nozzle assembly position so the top of the **un-threaded** end of the tube stands approximately 10 cm (4 inches) from the tank surface (Figure 8).

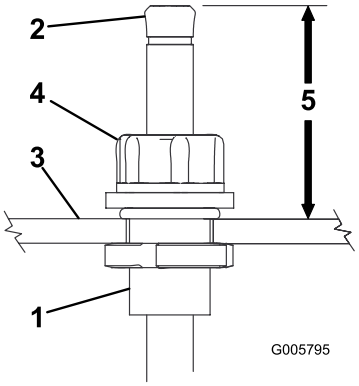


Figure 8

1. Rinse nozzle assembly
2. Un–threaded end of tube
3. Tank surface
4. Retainer nut, large
5. 10 cm (4 inches)

7. Set the tube height by tightening the larger retainer nut installed above (Figure 8).
8. Snap the threaded fitting over the remaining end of the rinse tube.
9. Install the 1/2 inch middle fitting into place and secure it with the medium retainer nut from loose parts (Figure 9).

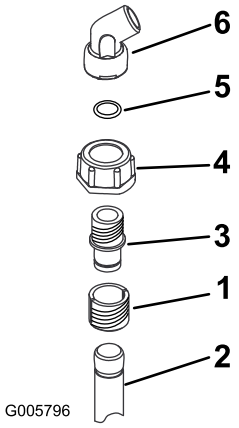


Figure 9

1. Threaded fitting
2. Rinse tube
3. 1/2 inch middle fitting
4. Retainer nut, medium
5. O-ring, small clear
6. 60 degree elbow

10. Install a small, clear O-ring into the 60 degree elbow fitting and then install the fitting onto 1/2 inch middle fitting.
11. Position the elbow fitting so that it faces to the right and to the rear of the machine.
12. Use the following procedure to assemble the rinse nozzle hose as shown in (Figure 10). Locate a small, clear O-ring, the hose barb, small retainer nut, metal clamp, and rinse nozzle hose in loose parts.

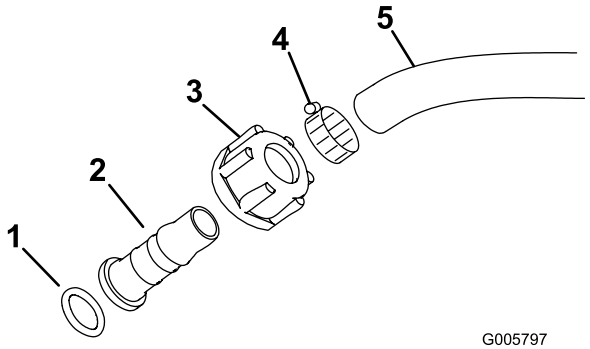


Figure 10

1. O-ring, small clear
2. Hose barb
3. Retainer nut, small
4. Hose clamp
5. Hose

   A. Slide the hose clamp, loose, over the rinse nozzle hose.

   B. Install the O-ring over the barbed end of the fitting and push it flush to the fitting flange.

   C. Install the plastic nut over the barbed end of the fitting and O-ring.

D. Install the barbed fitting assembly into the open end of the rinse nozzle hose.

E. Tighten the hose clamp.

13. Set the rinse nozzle hose assembly aside for later installation.

4

Installing the Valves

Parts needed for this procedure:

1	Decal, 107-8784, rinse tank valve
1	Decal, 107-8785, rinse nozzle valve
1	Rinse tank valve
1	Rinse nozzle valve
1	Reducer
4	Retainer fork, large

Installing the Rinse Tank Valve

1. Locate the blue rinse tank valve in loose parts and the decal.
2. Install the decal number 107-8784 onto the valve face in the correct orientation (Figure 11). Make sure the decal aligns with the flow of the valve.

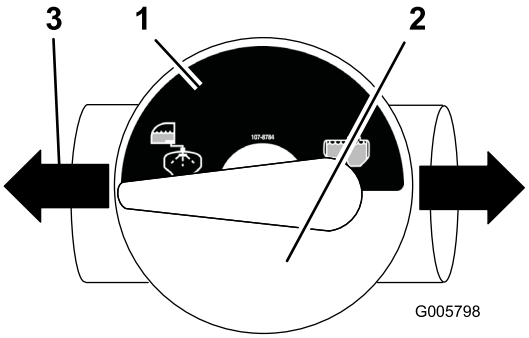


Figure 11

1. Rinse tank valve decal, part number 107-8784
2. Rinse tank valve, blue
3. Flow of valve

3. Disconnect the suction hose running from the top of the main tank to the upper mixer tee. Discard this hose and retain the forks for later use.
4. Brush a non-petroleum based lubricate such as vegetable oil on the bulkhead fitting reducer and O-ring (Figure 12)

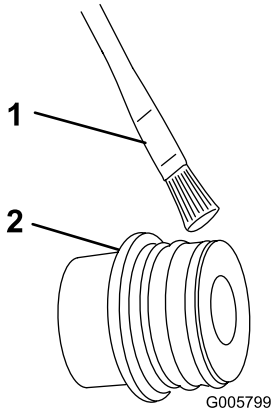


Figure 12

1. Brush
2. Reducer

5. Install the bulk reducer fitting to the rinse tank side of the valve (Figure 13). Secure it with a large retainer fork from loose parts.

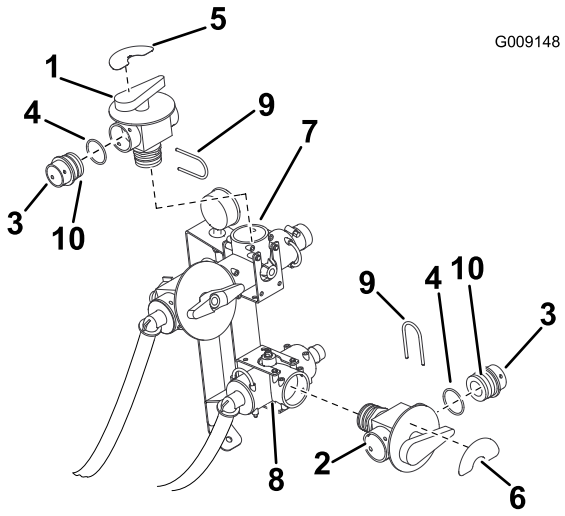


Figure 13

(Sprayers without Hose Reel Kit or Spray Gun)

1. Rinse tank valve, blue
2. Rinse nozzle valve, green
3. Reducer bulkhead fitting
4. O-ring
5. Decal, 107-8784
6. Decal, 107-8785
7. Upper mixer tee
8. Lower mixer tee
9. Retainer fork, existing
10. Apply non-petroleum based lubricant here.

6. Install the tank rinse valve onto the top mixer tee as shown in Figure 13 with the bulkhead facing rearward. Secure the valve with an existing, large retainer fork.

Install the Rinse Nozzle Valve (Dedicated Boom Sprayers)

1. Locate green rinse nozzle valve in loose parts.
2. Install decal 107-8785 onto the valve face in the correct orientation (Figure 14). Make sure the decal aligns with the flow of the valve.

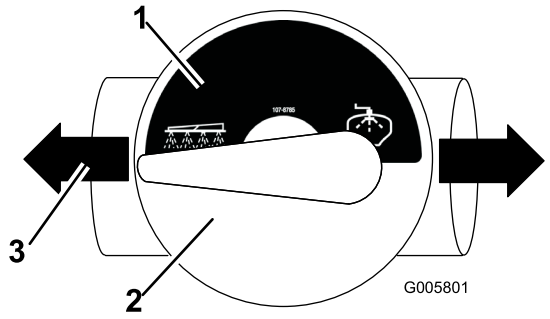


Figure 14

1. Rinse nozzle valve decal, part number 107-8785
2. Rinse nozzle valve, green
3. Flow of valve

3. Brush a non-petroleum based lubricate such as vegetable oil on the bulkhead fitting reducer (Figure 12).
4. Install the bulk reducer fitting and O-ring to the rinse tank side of the valve (Figure 13).
5. Install the valve onto the lower mixer tee as shown in Figure 13.

Install the Rinse Nozzle Valve (Machines with Spray Gun or Electric Hose Reel Attachments)

Note: Depending on the current attachments installed on your machine, the location and orientation of the valve will change.

Install the rinse nozzle valve in the orientation shown in Figure 15 for machines with a spray gun or electric hose reel attachments installed.

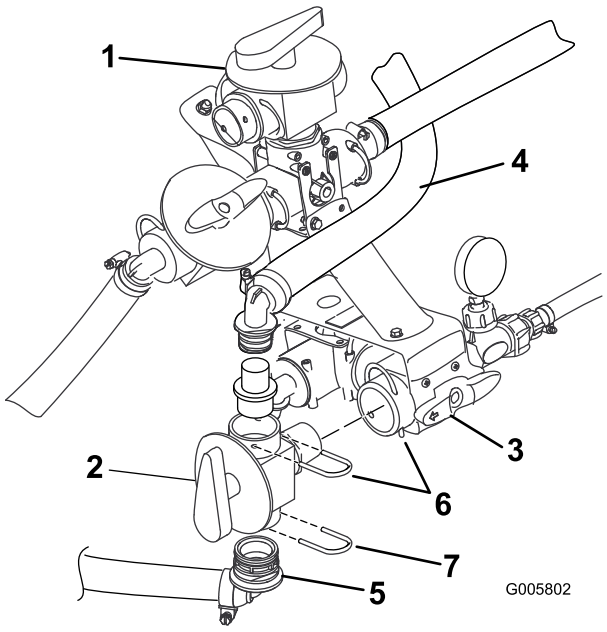


Figure 15

1. Rinse tank valve, blue
2. Rinse nozzle valve, green
3. Control valve, spray gun
4. Rinse nozzle hose
5. Boom supply hose, existing
6. Retainer fork, large
7. Retainer fork, large, existing

1. Remove the retaining fork and the boom supply hose from the spray gun control valve.
2. Install the rinse nozzle valve into the control valve at the now open port. Orientate the flow of the valve vertically so the rinse nozzle hose side of the decal is on the top and the boom supply side is on the bottom.
3. Use the existing retaining fork to secure the rinse nozzle valve in the correct orientation.

Complete the installation using the following procedures. Refer toFigure 15 above for the alternate routing of the affected hoses when necessary.

5

Installing the Hoses

Parts needed for this procedure:

1	Suction hose
1	Rinse tank suction hose
1	Rinse nozzle hose
3	Retainer fork, small
1	Retainer fork, large
3	Plastic tie

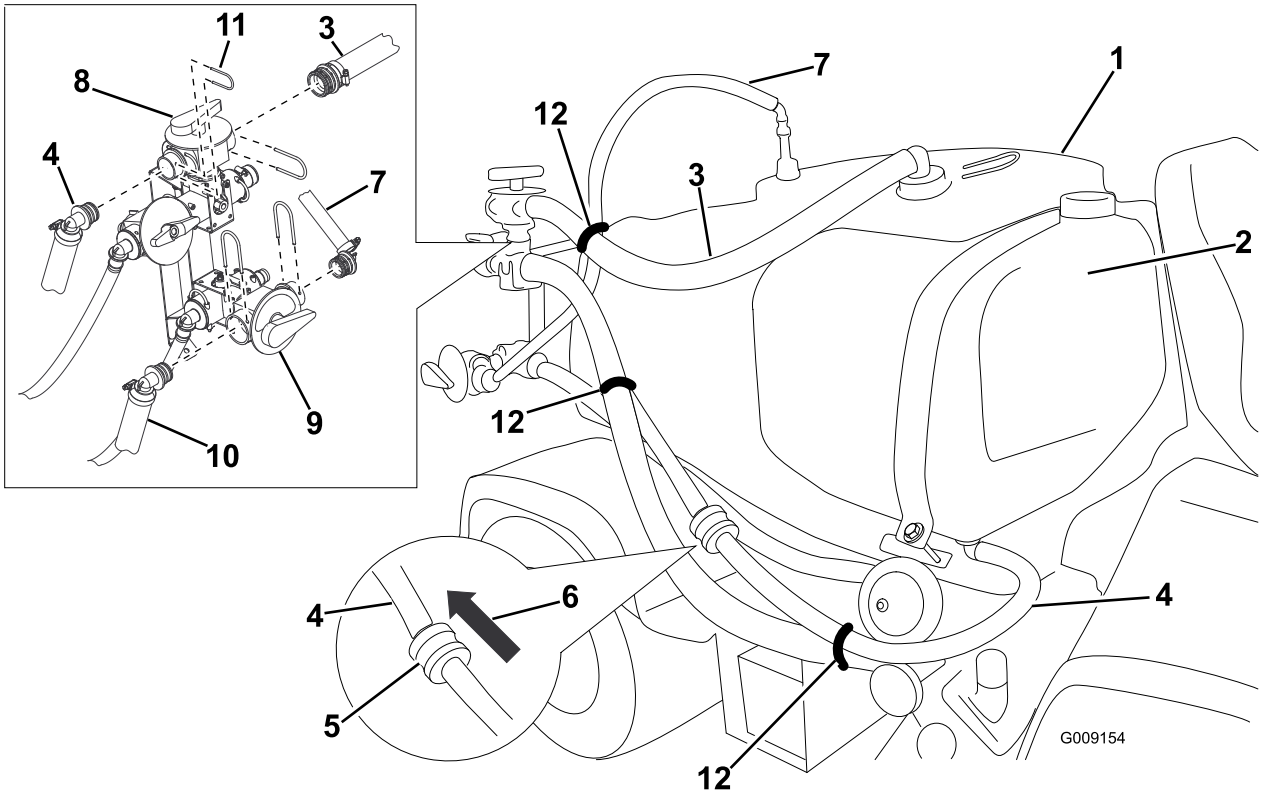


Figure 16

1. Main tank
2. Rinse tank
3. Suction hose
4. Rinse tank suction hose
5. Check valve
6. Correct flow direction
7. Rinse nozzle hose
8. Rinse tank valve
9. Rinse nozzle valve
10. Boom supply hose, existing
11. Retainer fork
12. Plastic tie

Installing the Suction Hose

1. Locate suction hose in loose parts.
2. Install the hose from the main tank upper port to the main tank side of the rinse tank rinse valve (Figure 16).
3. Secure one end of the hose with the existing, extra large retainer fork to the upper port on the main tank.
4. Secure the other end of the hose to the rinse tank valve with a large retainer fork from loose parts.

Install the Rinse Tank Suction Hose

1. Locate rinse tank suction hose from the loose parts.

2. Plumb the hose from the bottom of the rinse tank to the rinse tank valve so that the hose wraps around the pump and is routed along the main pump hose.
3. Route the rinse tank suction hose behind the valve assembly to the rinse tank side of the rinse tank valve.

   Important: Install the rinse tank suction hose so that the check valve arrow shows the direction of flow from the rinse tank to the rinse tank valve.
4. Secure the hose to the rinse tank using the small retainer fork in loose parts.
5. Install the hose to the input side of the rinse tank valve and secure it with the retainer fork included in loose parts.
6. Use the plastic ties located in loose parts to secure the rinse tank suction hose to the main pump hose as shown in Figure 16.

Installing the Rinse Nozzle Hose

1. Locate rinse nozzle hose assembly set aside earlier.
2. Install the hose to the input side of the rinse nozzle valve.
3. Plumb the hose under and behind the main pump and main tank suction hose, to the barbed elbow fitting in the rinse tube (Figure 16).
4. Secure the rinse nozzle hose to the 60 degree elbow fitting by threading the small retainer nut over the elbow fitting. Make sure the small, clear O-ring is seated in the small retainer nut at the end of the rinse nozzle hose. Hand tighten.

Operation

Rinse Kit Operation

The operator can use the Rinse Kit to remove residual chemicals from a sprayer tank and affected hoses while the machine is in transit.

The use of the Rinse Kit will result in a **rinsate**; a diluted solution of residual chemicals. In many cases it is appropriate to apply the rinsate onto the treated areas. However, before doing so, check with the manufacturers of the chemical to ensure the application of a diluted solution to the treated areas will not adversely affect the performance of the product.

Important: The Rinse Kit is *NOT* intended to dislodge clumped masses of wetable powder or "water-soluble" chemicals that occur when chemicals are not properly introduced into the main tank.

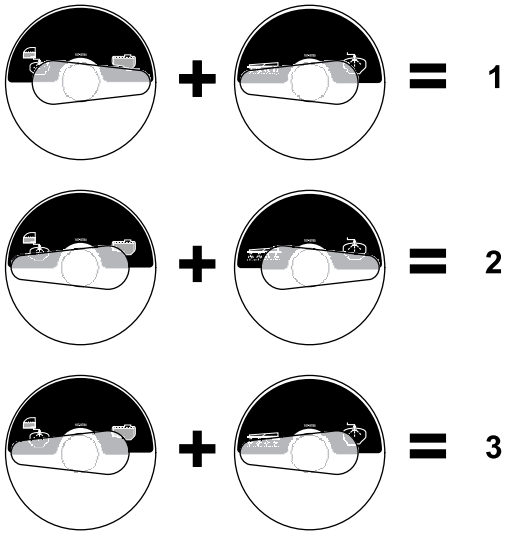


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Figure 17

Rinse Valve Orientations

1. Rinse tank valve to main tank supply, rinse nozzle valve to boom spray; Use this orientation to for spraying chemicals.
2. Rinse tank valve to rinse tank supply, rinse nozzle valve to rinse nozzle spray; Use this orientation to for rinsing the main tank with clean water.
3. Rinse tank valve to rinse tank supply, rinse nozzle valve to boom spray; Use this orientation to for rinsing the booms, or spray gun with clean water.

Preparing the Machine

Position the sprayer on a level surface, set the parking brake, stop the pump, stop the engine, and remove the ignition key.

Remove the rinse tank cap and fill the tank with approximately 20 gallons (75 l) with clean water.

Important: The 20 gallon (75 l) rinse tank is only intended to be filled with clean water. The introduction of any other substance to the rinse tank can cause a safety hazard and/or damage the machine.

The Rinse Cycle

1. Set the parking brake and stop the pump.
2. Turn the rinse nozzle valve from boom output to rinse nozzle output.
3. Turn the rinse tank valve from main tank input to rinse tank input.
4. Set the engine speed at no more than 1/2 throttle. Use the accelerator lock to set the engine speed. Refer to the Operator's Manual for more information.

   Important: Do not exceed 1/2 engine speed to avoid damaging the pump.

   Note: A high pump speed will increase pressure in the rinse nozzle and cause nozzle to produce a mist instead a stream of drops. This will result in poor cleaning of the tank. It is recommended to experiment to find the pump speed, i.e. pressure through the nozzle that works best for your specific application.

   Important: Engine speed may need to be reduced to accommodate certain chemicals. Please refer to you chemical instructions.
5. Turn the spray pump On.
6. Pump approximately 1/3 of the water from rinse tank.
7. Turn the spray pump Off and release the accelerator lock.
8. Turn the rinse nozzle valve from rinse nozzle output to boom output.
9. Turn the rinse tank valve from rinse tank input to main tank input.
10. Release the parking brake; drive the machine to a designated location (as required by Federal, State and Local regulations) and spray the rinsate through the booms until the main tank is empty.

    Note: If the spraying the rinsate is not possible for any reason, drain the main tank contents into a suitable container and dispose of the diluted solution as required by federal, state or local regulations.
11. Stop the spraying, turn the pump Off, stop the machine and set the parking brake.
12. Repeat the rinse cycle two more times.

The rinse cycle can be repeated again as necessary.

Maintenance

Inspect Rinse System of Leaks and Damage

Service Interval: Before each use or daily—Inspect the hoses for leaks.

After the first 5 hours—Inspect hoses for damage.

Every 100 hours—Inspect hoses and O-rings for damage

After the first 5 hours of operation, inspect all hoses and connections for any leaks or signs of damage. Inspect the hose clamps and retaining forks. Verify that all connections are secure. Replace any damaged parts. Repeat this inspection before each use of the Rinse system.

After 100 operating hours, inspect all hose and O–rings. Replace any damaged parts.

Contact your Authorized Toro Dealer to obtain replacement parts.

Troubleshooting

Problem	Possible Cause	Corrective Action
No suction of clean water.	1. Rinse hose installed incorrectly	1. Verify hose assembly is installed with the flow valve in the correct direction. Reverse if necessary.
	2. Rinse valve in wrong position	2. Move valve handle to the rinse tank.
Unclean tank after rinse.	1. Improper introduction of chemicals into the main tank during filling and mixing	1. Ensure the prop agitation while mixing the chemicals. In extreme cases, use a mixing station.
	2. Engine throttle set too high during operation	2. Slow down engine
	3. Engine throttle set too low during operation	3. Speed up engine

Notes:

Notes:

Count on it.