Installation Instructions

Introduction

This kit is designed to remove residual chemicals from a sprayer tank and affected hoses. It is a dedicated attachment for a turf spray application vehicle and is intended to be used by professional, hired operators in commercial applications.

The information in this manual can help you and others avoid injury and product damage.

Figure 1 illustrates the location of the model and serial numbers on the product.

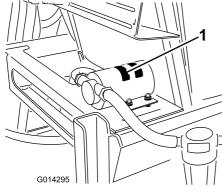


Figure 1

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1. Model and serial number plate

Model No.		
Serial No		

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

A WARNING

CALIFORNIA Proposition 65 Warning

Use of this product may cause exposure to chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.



Safety

Read the safety and operation instructions in the machine *Operator's Manual*.

Chemical Safety

A WARNING

Chemical substances used in the spray system may be hazardous and toxic to you, bystanders, animals, plants, soils, or other property.

- Carefully read and follow the chemical warning labels and material safety data sheets (MSDS) for all chemicals used and protect yourself according to the chemical manufacturer's recommendations. For example, use appropriate personal protective equipment (PPE) including face and eye protection, gloves, or other equipment to guard against personal contact with the chemical.
- Keep in mind that there may be more than 1 chemical used and information on each should be assessed.
- Refuse to operate or work on the sprayer if this information is not available!
- Before working on a spray system make sure the system has been triple rinsed and neutralized according to the recommendations of the chemical manufacturer(s).
- Verify there is an adequate supply of clean water and soap nearby, and immediately wash off any chemicals that contact you.
- Obtain proper training before using or handling chemicals.
- Use the correct chemical for the job.
- Follow the chemical manufacturer's instructions for the safe application of the chemical.
- Handle chemicals in a well-ventilated area.
- Wear goggles and other protective equipment as instructed by the chemical manufacturer. Ensure that as little skin as possible is exposed while using chemicals.
- Have clean water available especially when filling the spray tank.

- Do not eat, drink, or smoke while working with chemicals.
- Always wash your hands and other exposed areas as soon as possible after finishing the work.
- Properly dispose of unused chemicals and chemical containers as instructed by the chemical manufacturer and your local codes.
- Chemicals and fumes in the tanks are dangerous; never enter the tank or place your head over or in the opening.
- Follow all local, state, and federal requirements for the spraying of chemicals.

Installation

Loose Parts

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

Procedure	Description	Qty.	Use
1	No parts required	-	Prepare the machine.
	Hose—1.9 x 73.7 cm (3/4 x 29)	1	
	Rinse tank	1	
	Tank cap	1	
	Bulkhead fitting	1	
2	Clear gasket	1	Install the rinse tank bulkhead fitting.
_	Plastic flange nut	1	
	90° fitting	1	
	Retaining fork	1	
	Hose clamp	1	
	Hold down (rinse tank)	2	
	Bolt (3/8 x 1-1/2 inches)	2	
3	Washer (3/8 inch)	4	Install the rinse tank.
	Flange locknut (3/8 inch)	2	
	Rinse nozzle	2	
	Bulkhead fitting	2	
	Gasket	1	
	Shoulder bolt	2	
4	Bushing	2	Install the rinse nozzle.
	Rinse vane	2	
	Plastic flange nut	2	
	90° fitting	2	
	Rinse-tank pump	1	
	Bolt (1/4 x 1-3/4 inches)	4	
5	Washer (1/4 inch)	4	Install the pump.
_	Serrated-flange nut (1/4 inch)	4	
	Pump cover	1	
	Hose—1.9 x 61 cm (3/4 x 24 inches)	2	
	Hose clamp	9	
	T-fitting	1	Install the hoses and filter.
•	Hose—1.9 x 180 cm (3/4 x 71 inches)	1	
6	Straight-barb fitting	2	
	Filter assembly	1	
	Convoluted conduit	1	
	Cable tie	2	

Procedure	Description	Qty.	Use
	Delay timer	1	
	Locknut (#10–24)	2	
	Fuse (40 A)	1	Install the delay timer and dash switch.
	Relay	1	
7	Power relay	1	
<i>I</i>	Flange-head bolt (#10-24 x 1/2 inch)	2	
	3-position switch (with indicator light—2015 and before turf sprayers)	1	
	3-position switch (without indicator light—2016 and after turf sprayers)	1	
8	No parts required	_	Finish the rinse tank kit installation.

1

Preparing the Machine

No Parts Required

Preparing the Sprayer System

A CAUTION

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.
- Move the machine to a level surface, fully press in the brake pedal, set the parking brake, turn off the engine, and remove the key.
- 2. Clean the sprayer; refer to Cleaning the Sprayer in the *Operator's Manual* for the machine.

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.

Disconnecting the Battery

A WARNING

Electrical sparks can cause the battery gasses to explode, resulting in personal injury.

Incorrect battery cable routing could damage the sprayer and cables, causing sparks.

- Always disconnect the negative (black) battery cable before disconnecting the positive (red) cable.
- Always connect the positive (red) battery cable before connecting the negative (black) cable.

Battery terminals or metal tools could short against metal sprayer components, causing sparks.

- When removing or installing the battery, do not allow the battery terminals to touch any metal parts of the sprayer.
- Do not allow metal tools to short between the battery terminals and metal parts of the sprayer.
- Always keep the battery strap in place to protect and secure the battery.
- 1. Remove the battery cover and disconnect the negative (black—ground) cable from the battery post (Figure 2 and Figure 3).

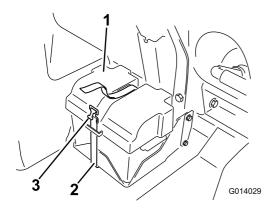


Figure 2

- 1. Battery cover
- 3. Buckle

2. Strap

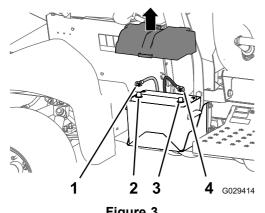


Figure 3

- Positive battery cable
- 3. Negative battery post
- Positive battery post
- 4. Negative battery cable
- Disconnect the positive (red) cable from the battery post (Figure 3).

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Preparing the Rinse Tank

Parts needed for this procedure:

1	Hose—1.9 x 73.7 cm (3/4 x 29)
1	Rinse tank
1	Tank cap
1	Bulkhead fitting
1	Clear gasket
1	Plastic flange nut
1	90° fitting
1	Retaining fork
1	Hose clamp

Cutting the Hose

Measure 20.3 cm (8 inches) from the end of the hose 1.9 x 73.7 cm (3/4 x 29) and mark that location (Figure 4).

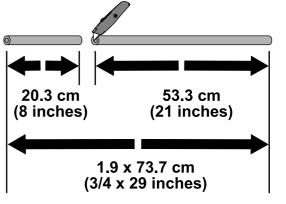


Figure 4

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- Cut the hose at the mark with a utility knife so that you have the following lengths of hose section:
 - 20.3 cm (8 inches)
 - 53.3 cm (21 inches)

Assembling the Rinse Tank

- 1. Install the bulkhead fitting into the hole at the bottom of the rinse tank as follows:
 - A. Install a clear gasket onto the bulkhead fitting as shown in Figure 5.

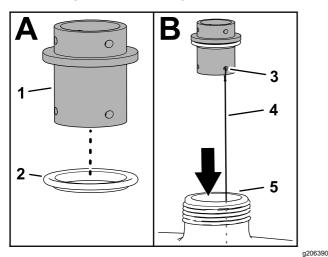


Figure 5

- Bulkhead fitting
- Clear gasket
- 3. Retaining-fork hole (bulkhead fitting)
- 4. Wire—approximately 122 cm (48 inches)
- 5. Neck (rinse tank)
- B. Attach a piece of wire, approximately 122 cm (48 inches) in length, through 1 of the retaining-fork holes in the bulkhead fitting as shown in Figure 5.

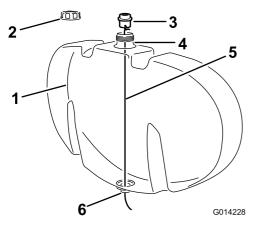


Figure 6

- Rinse tank
- 2. Tank cap
- 3. Bulkhead fitting
- Filler opening of the rinse tank
- 5. Wire
- 6. Bottom hole of the rinse tank
- C. If the cap is installed, remove it from the rinse tank. (Figure 6).

- D. Lower the wire through the opening in the tank fill hole and route it through the open hole at the bottom of the tank (Figure 5 and Figure 6).
- E. Use the wire to guide the bulkhead fitting to the open hole at the bottom of the tank (Figure 7).

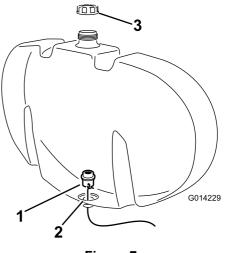
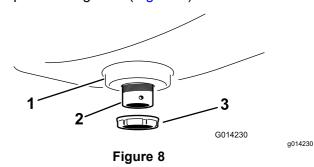


Figure 7

- Bulkhead fitting with the wire attached
- 2. Bottom hole of the rinse tank
- Filler cap

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- F. Move the bulkhead fitting into position making sure that the clear gasket seats against the interior wall of the rinse tank (Figure 7).
- 2. Secure the bulkhead fitting to the rinse tank with a plastic flange-nut (Figure 8).



- 1. Rinse-tank sump
- 3. Plastic flange nut
- Bulkhead fitting (installed)
- 3. Install a 90° fitting to the bulkhead fitting, and secure the 90° fitting with a retaining fork (Figure 9).

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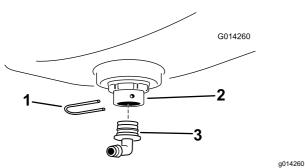
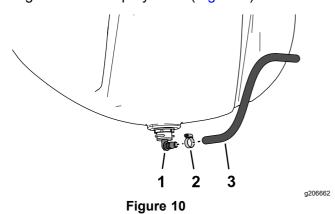


Figure 9

- Retaining fork
- 3. 90° fitting
- 2. Bulkhead fitting
- Rotate the fitting so that it faces rearward. 4.
- Assemble the hose segment—53.3 cm (21 inches) that you cut in Cutting the Hose (page 5) onto the 90° fitting with a hose clamp, and tighten the clamp by hand (Figure 9).



- 90° fitting
- 3. Hose-53.3 cm (21 inches)
- 2. Hose clamp

Installing the Rinse Tank

Parts needed for this procedure:

2	Hold down (rinse tank)
2	Bolt (3/8 x 1-1/2 inches)
4	Washer (3/8 inch)
2	Flange locknut (3/8 inch)

Preparing the Spray Tank

1. Loosen the 4 flange-head bolts (3/8 x 1 inch) and 4 flange locknuts (3/8 inch) securing the valve mount to the tank frame (Figure 11).

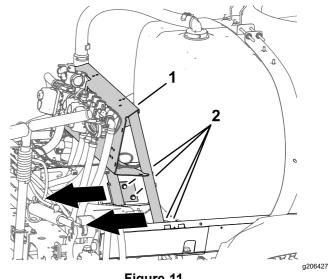
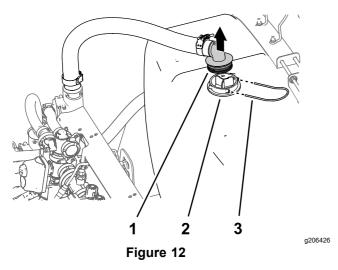


Figure 11

- 1. Valve mount
- 2. Flange-head bolt (3/8 x 1 inch) and flange locknut (3/8 inch)
- Move the valve mount rearward (Figure 11).

Note: This is a adjustment in the valve mount location allows space for installing the rinse tank.

- Torque the 4 flange-head bolts (3/8 x 1 inch) and 4 flange locknuts (3/8 inch) to 37 to 45 N·m (27 to 33 ft-lb).
- Remove the retainer fork that secures the 90° barbed fitting of the supply hose to the housing of the suction screen (Figure 12).



- 90° barbed fitting (supply hose)
- Retaining fork
- 2. Housing (suction screen)
- 5. Separate the 90° barbed fitting from the housing and move the supply hose aside.

Installing the Rinse Tank

 Assemble the rinse tank onto the machine as shown in Figure 13.

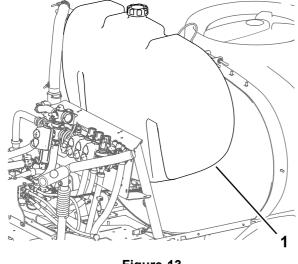
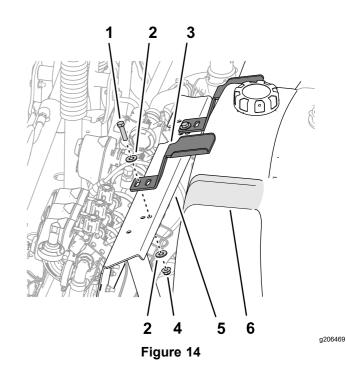


Figure 13

- 1. Rinse tank
- 2. Align the hold down with the recess in the top of the rinse tank (Figure 14).



- . Bolt (3/8 x 1-1/2 inches)
- Washer (3/8 inch)
- 3. Hold down (rinse tank)
- 4. Flange locknut (3/8 inch)
- 5. Valve mount
- 6. Recess (rinse tank)
- 3. Align the slot in the hold down with the hole in the valve mount (Figure 14).
- 4. Loosely assemble the hold down to the valve mount with a bolt (3/8 x 1-1/2 inches), 2 washers (3/8 inch), and a flange locknut (3/8 inch).
- 5. Repeat steps 2 through 4 for the other hold down at the other recess in the rinse tank (Figure 14).
- 6. Carefully tighten the bolts and flange nuts by hand.

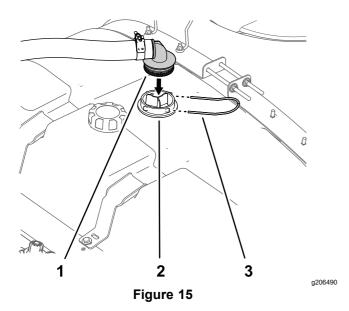
Important: The rinse tank must be seated and secure, but the hold down should not deform or warp the tank.

 Replace the supply hose at the rear of the tank and secure it with the retaining fork removed previously.

Note: Once the rinse tank has been initially filled, check the hold downs and the rinse tank for play (the weight of the water in the tank can further seat the tank against the frame). If needed, tighten the bolt(s) and flange locknut(s) until the hold downs are snug against the rinse tank—do not deform the tank; refer to Inspecting the Rinse Tank Hold Downs (page 23).

Assembling the Supply Hose

 Align the 90° barbed fitting of the supply hose with the housing for the suction screen (Figure 15).



- 1. 90° barbed fitting (supply hose)
- 3. Retaining fork
- 2. Housing (suction screen)
- 2. Secure the 90° barbed fitting to the housing (Figure 15) with the retainer fork that you removed in step 4 of Preparing the Spray Tank (page 7).



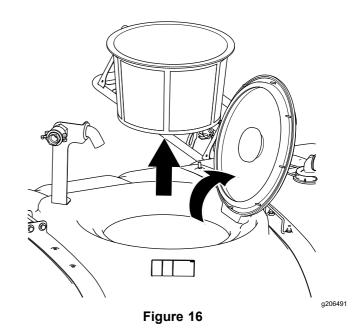
Installing the Rinse Nozzles

Parts needed for this procedure:

2	Rinse nozzle
2	Bulkhead fitting
1	Gasket
2	Shoulder bolt
2	Bushing
2	Rinse vane
2	Plastic flange nut
2	90° fitting

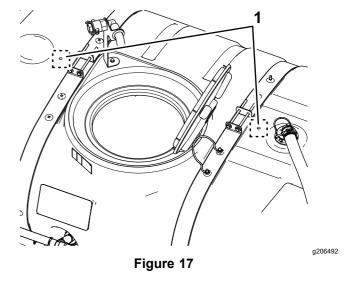
Drilling the Spray Tank

1. Open the tank lid and remove the strainer basket (Figure 16).



 Locate the 2 drill marks in the main tank (Figure 17).

Note: The drill marks are dimples molded into the tank.

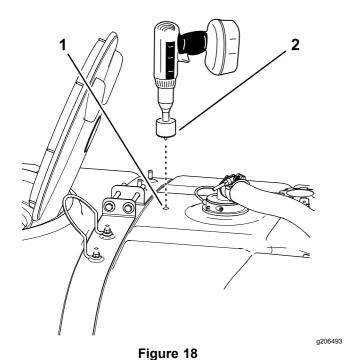


- 1. Drill marks
- 3. Move to the drill mark behind the tank lid.

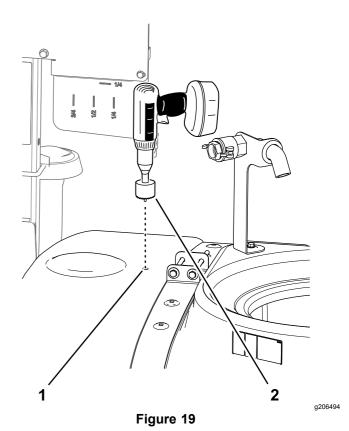
Note: Place a container inside the tank below the areas where you are drilling to catch falling debris.

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

Use a hole saw to make a hole—4.5 cm (1-3/4 inches) at the drill mark (Figure 18).



- Drill mark (behind the lid)
- 2. Hole-saw bit—4.5 cm (1-3/4 inch)
- 5. Remove any rough edges cut in the tank.
- 6. Clean any debris that entered the main tank.
- 7. Repeat steps 4 through 6 at the forward drill mark (Figure 19).

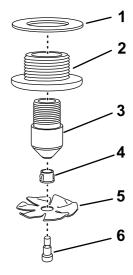


- Drill mark (forward of the lid)
- 2. Hole-saw bit—4.5 cm (1-3/4 inch)

Assembling the Rinse Nozzles

Owner provided material: PTFE sealant

1. Assemble the rinse vane and bushing over the shoulder bolt (Figure 20).



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- Figure 20
- 2. Bulkhead fitting

1. Gasket

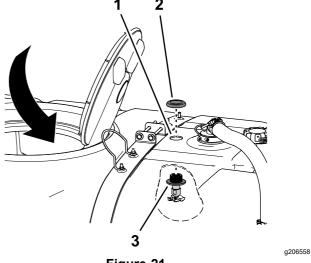
- 3. Rinse nozzle
- 4. Bushing
- 5. Rinse vane
- 6. Shoulder bolt

- 2. Assemble the rinse vane, bushing, and shoulder bolt onto the rinse nozzle (Figure 20).
- Apply PTFE thread sealant to the threads of the rinse-nozzle.
- 4. Install the rinse-nozzle assembly into the bulkhead fitting and tighten by hand (Figure 20).
- Assemble the gasket over the bulkhead fitting (Figure 20).
- Repeat steps 1 through 4 for the other rinse nozzle.

Installing the Rinse Nozzles

Owner provided material: PTFE sealant

1. Working inside the tank through the 41 cm (16 inch) opening, align the nozzle assembly up through the 4.5 cm (1-3/4 inch) hole that you drilled in Drilling the Spray Tank (page 9)as shown in Figure 21.



- Figure 21
- 1. Hole—4.5 cm (1-3/4 inch)—rear
- 2. Plastic flange nut
- 3. Rinse-nozzle assembly
- 2. Assemble the plastic flange nut over the threads of the bulkhead fitting at top of the tank, and tighten the flange nut by hand (Figure 21).
- 3. At the forward 4.5 cm (1-3/4 inch) hole in the spray tank, repeat steps 1 through 2 for the other rinse-nozzle assembly (Figure 22).

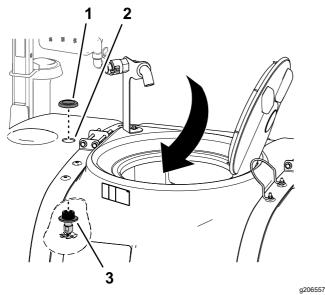
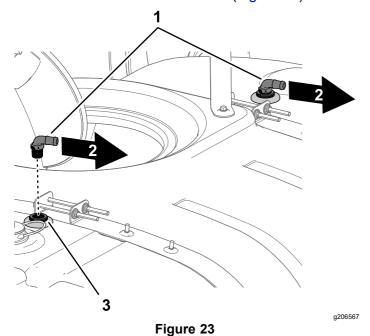


Figure 22

- 1. Plastic flange nut
- 2. Hole 4.5 cm (1-3/4 inch)—forward
- 3. Rinse-nozzle assembly
- 4. Apply PTFE thread sealant to the threads of the both 90° fittings.
- 5. Install the 90° fittings into the bulkhead fittings of the rinse-nozzle assemblies (Figure 23).



- 1. 90° fitting
- 3. Bulkhead fitting (rinse-nozzle assembly)
- 2. Right side of the machine
- 6. Align the hose barb of the 90° fittings to the right side of the machine (Figure 23).
- 7. Install the filter basket and close the lid of the spray tank.

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Installing the Rinse-Tank Pump

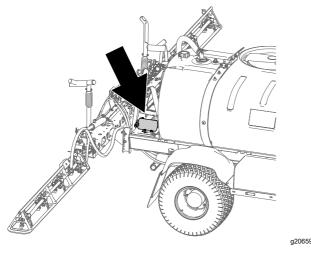
Parts needed for this procedure:

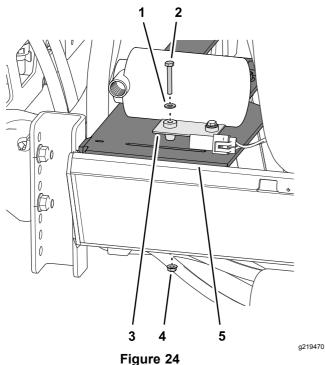
1	Rinse-tank pump
4	Bolt (1/4 x 1-3/4 inches)
4	Washer (1/4 inch)
4	Serrated-flange nut (1/4 inch)
1	Pump cover

Assembling the Pump to the Machine

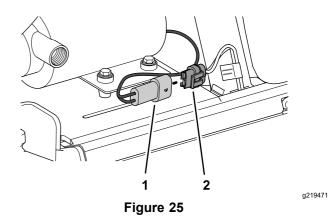
Owner provided material: PTFE sealant

1. Align the holes in the mounting-flange spacers of the rinse-tank pump with the holes in the saddle plate of the tank frame (Figure 24).





- 1. Washer (1/4 inch)
- Serrated-flange nut (1/4 inch)
- 2. Bolt (1/4 x 1-3/4 inches)
- 5. Saddle plate (tank frame)
- Mounting-flange (rinse-tank pump)
- Assemble the rinse-tank pump to the saddle plate (Figure 24) with 4 bolts (1/4 x 1-3/4 inches), 4 washers (1/4 inch), and 4 serrated-flange nuts (1/4 inch).
- 3. Torque the bolts and flange nut to 1017 to 1234 N⋅cm (90 to 101 in-lb).
- 4. Remove the dust plug from the 2-socket electrical connector of the machine harness labeled RINSE PUMP (Figure 25).



- 2-socket electrical connector—machine harness (RINSE PUMP)
- 2. 2 pin connector (rinse-tank pump harness)
- 5. Plug the 2 pin connector of the rinse-tank pump harness into the 2-socket of the machine harness labeled RINSE PUMP (Figure 25).

Positioning the Rinse-Pump Cover

Align the pump cover over the rinse-tank pump as shown in Figure 26.

Note: Do not insert the tabs into the slots in the saddle plate.

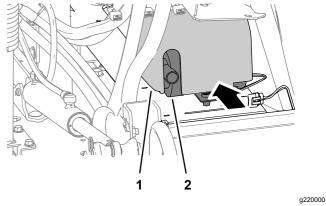


Figure 26

Rinse-pump cover

2. Rinse-tank pump



Installing the Hoses and Filter

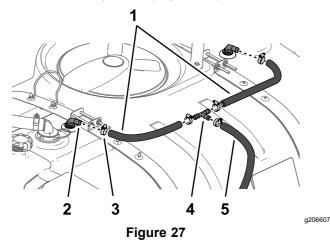
Parts needed for this procedure:

2	Hose—1.9 x 61 cm (3/4 x 24 inches)
9	Hose clamp
1	T-fitting
1	Hose—1.9 x 180 cm (3/4 x 71 inches)
2	Straight-barb fitting
1	Filter assembly
1	Convoluted conduit
2	Cable tie

Install the Rinse Nozzle Hoses

Note: Lightly lubricate the barbed end of the hose fittings with a non-petroleum based lubricant, such as vegetable oil, to ease the process of installation.

1. Assemble 2 hoses—1.9 x 61 cm (3/4 x 24 inches) and 2 hose clamps onto each the 90° fitting at the rinse nozzle assemblies, and tighten the clamps by hand (Figure 27).



- 1. Hoses—1.9 x 61 cm (3/4 x 24 inches)
- 4. T-fitting
- 2. 90° fitting
- 5. Hose—1.9 x 180 cm (3/4 x 71 inches)
- 3. Hose clamp
- Loosely assemble the other end of the hoses—1.9 x 61 cm (3/4 x 24 inches) on to the T-fitting with 2 hose clamps as shown in Figure 27.

- 3. Assemble the hoses—1.9 x 180 cm (3/4 x 71 inches) and a hose clamp onto the T-fitting as shown in Figure 27.
- 4. Tighten the 3 hose clamps that secure the 3 hoses to the T-fitting by hand.

Assembling the Fittings to the Rinse-Tank Pump

Owner provided material: PTFE thread sealant

- 1. Apply PTFE sealant to the threads of the 2 Straight-barb fitting.
- 2. Install the 2 straight-barb fitting into the 2 ports of the rinse-tank pump (Figure 28).

Note: Move the pump cover as needed to provide access to the ports of the rinse-tank pump.

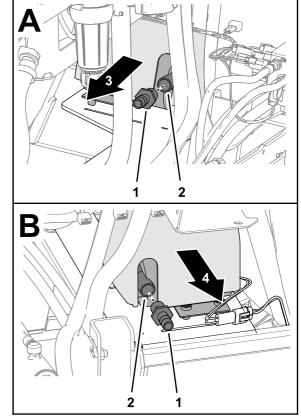


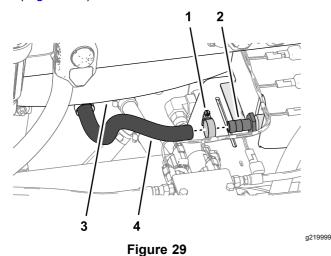
Figure 28

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- 1. Straight-barb fitting
- 2. Port (rinse-tank pump)
- 3. Left side of the machine
- 4. Right side of the machine

Installing the Hoses and Filter

1. Assemble the hose—53.3 cm (21 inches) at the bottom of the rinse tank onto the inboard straight-barb fitting of the rinse-tank pump with a hose clamp, and tighten the clamp by hand (Figure 27).



- 1. Hose clamp
- Straight-barb fitting (inboard—rinse-tank pump)
- 3. Rinse tank
- 4. Hose—53.3 cm (21 inches)
- Assemble the hose—20.3 cm (8 inches) that you cut in Cutting the Hose (page 5) onto the outboard straight-barb fitting of the rinse-tank pump with a hose clamp, and tighten the clamp by hand (Figure 30).

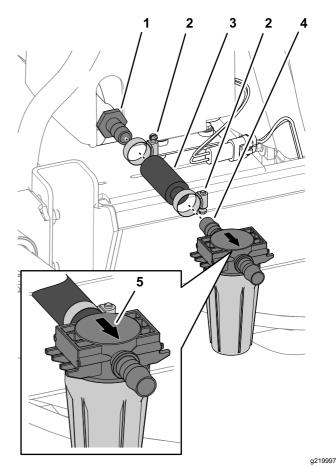


Figure 30

- . Straight-barb fitting (outboard—rinse-tank pump)
- 2. Hose clamp
- 4. Straight-barb fitting (inlet—filter head)
- 5. Arrow (toward the spray tank)
- 3. Hose—20.3 cm (8 inches)
- Loosely assemble the straight-barb fitting at the inlet of the filter head (filter assembly) into the hose—20.3 cm (8 inches) with a hose clamp (Figure 30).
- 4. Assemble the free end of the hose—1.9 x 180 cm (3/4 x 71 inches) onto the straight-barb fitting at the outlet of the filter head with a hose clamp (Figure 31).

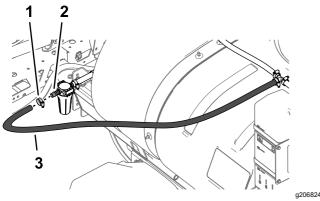


Figure 31

- Hose clamp
- 3. Hose—1.9 x 180 cm (3/4 x 71 inches)
- 2. Straight-barb fitting (outlet—filter)
- Adjust the position of the filter head so that the bowl of the filter assembly is vertical and tighten the 2 hose clamps by hand (Figure 30 and Figure 31).
- 6. Assemble the split convoluted tubing over the hose—43.3 cm (17 inches) between the rinse tank and the rinse-tank pump and secure the tubing with 2 tie wraps (Figure 32).

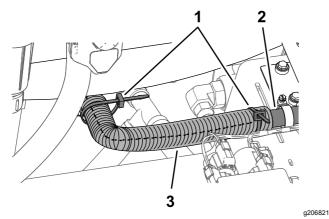
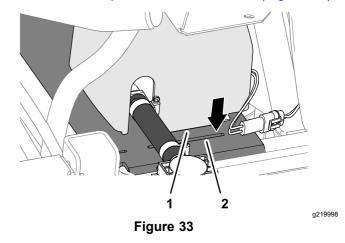


Figure 32

- 1. Cable ties
- 3. Convoluted tubing (split)
- Hose—43.3 cm (17 inches)

Installing the Rinse-Pump Cover

Insert the 2 tabs of the rinse-pump cover into the 2 slots in the saddle plate of the tank frame (Figure 33).



- 1. Tab (rinse-pump cover)
- 2. Slots (saddle plate)

7

Installing the Delay Timer and Dash Switch

Parts needed for this procedure:

1	Delay timer
2	Locknut (#10-24)
1	Fuse (40 A)
1	Relay
1	Power relay
2	Flange-head bolt (#10-24 x 1/2 inch)
1	3-position switch (with indicator light—2015 and before turf sprayers)
1	3-position switch (without indicator light—2016 and after turf sprayers)

Installing the Delay Timer, Relays, and Fuse

- 1. Raise the operator seat to access the electronic components under the seat.
- 2. For 2015 and before machines, perform the following:

Important: You do not need the delay timer for 2016 and after machines.

- Install the delay timer to the location shown in Figure 34 or Figure 35 with the locknut from the electrical panel.
- Connect the timer to the 2-socket connector labeled delay timer of the machine wire harness (Figure 34 or Figure 35).

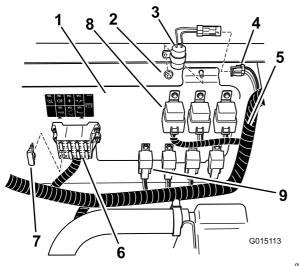
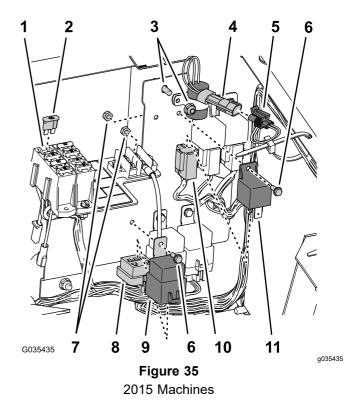


Figure 34 2014 and Before Machines

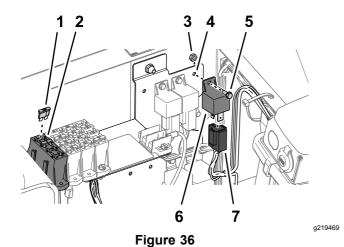
- Electrical panel
- Locknut (#10-24)
- 3. Delay timer
- Delay timer connector (machine wire harness)
- 5. Main wire harness

- g015113
- 6. Fuse block Fuse (40 A)
- Relay (5-pin)
- Power relay (4-pin)



- 1. Fuse block
- Fuse (40 A)
- Bolt and nut (electrical panel)
- 2-pin connector (delay timer)
- 5. 2-socket connector (machine wire harness)
- Flange-head bolt (#10-24 x 1/2 inch)

- 7. Locknut (#10-24)
 - 5-socket connector (machine wire harness)
- 9. Relay (5-pin)
- 4-socket connector (machine wire harness)
- 11. Power relay (4-pin)



2016 and After Machines

- 1. Fuse (40 A)
- 2. Fuse block
- 3. Locknut (#10-24)
- 4. Electrical panel
- 5. Flange-head bolt (#10-24 x 1/2 inch)
- 6. Power relay (4-pin)
- 7. 4-socket connector (machine wire harness)
- 3. Install a fuse (40 A) to the open slot in the fuse block as shown in Figure 34, Figure 35, or Figure 36.

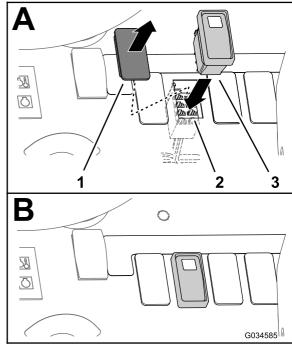
Note: If a lower amperage fuse already exists in the slot, replace it with the fuse (40 A).

- Locate relay and power relay in line with the other relays of the same style, and mount them to the panel (Figure 34, Figure 35, or Figure 36) with the 2 flange-head bolts (#10-24 x 1/2 inch) and 2 locknut (#10-24).
- 5. Locate the 4-socket connector and the 5-socket connector on the main harness and connect them to the relay (5-pin) and power relay (4-pin) as shown in Figure 34, Figure 35, or Figure 36.

Installing the Rocker Switch into the Dash

1. Remove the plug for the rinse tank switch from the dash panel (Figure 37 or Figure 38).

Note: It is the second plug to the right of the ignition key.



g034584

Figure 37 2015 and Before Machines

1. Plug

- 3. 3-position switch (with indicator light)
- 2. Connector for rinse tank (main wire harness)

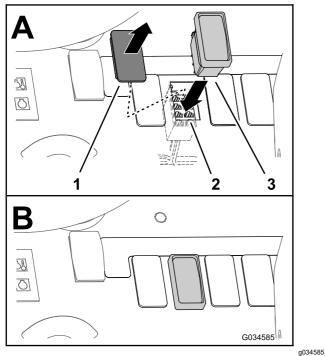


Figure 38 2016 and After Machines

1. Plug

- 3. 3-position switch (without indicator light)
- 2. Connector for rinse tank (main wire harness)
- 2. Working from underneath the dash panel, remove the cable tie that secures the 8-socket connector labeled RINSE TANK from the main harness.
- 3. Route the 8-socket connector toward the open hole in the dash (Figure 37 or Figure 38).
- 4. Connect the 3-position switch into the 8-socket connector through the dash panel (Figure 37 or Figure 38).
- 5. Insert the 3-position switch into the opening in the dash panel until the latch of the switch snap securely into the dash (Figure 37 and Figure 38).



Connecting the Battery

No Parts Required

Procedure

A WARNING

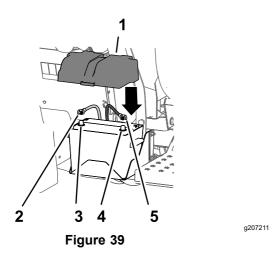
Electrical sparks can cause the battery gasses to explode, resulting in personal injury.

Incorrect battery cable routing could damage the sprayer and cables causing sparks.

- Always disconnect the negative (black) battery cable before disconnecting the positive (red) cable.
- Always connect the positive (red) battery cable before connecting the negative (black) cable.

Battery terminals or metal tools could short against metal sprayer components causing sparks.

- When removing or installing the battery, do not allow the battery terminals to touch any metal parts of the sprayer.
- Do not allow metal tools to short between the battery terminals and metal parts of the sprayer.
- Always keep the battery strap in place to protect and secure the battery.
- 1. Connect the positive battery cable to the positive post of the battery (Figure 39).



- 1. Battery cover
- 2. Positive battery cable
- 3. Positive battery post
- 4. Negative battery post
- 5. Negative battery cable
- 2. Connect the negative battery cable to the negative post of the battery (Figure 39).
- 3. Align the battery cover to the battery box and secure the cover with the strap (Figure 39).

Operation

Operating the Rinse Kit

Using 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 a treated area(s). However, before doing so, check with the chemical manufacturer to ensure that the application of a diluted solution to the treated area(s) does 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.

Controls

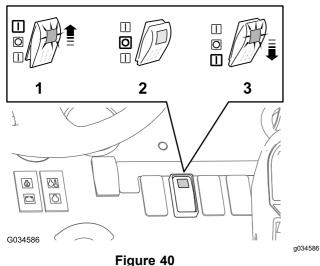
The Rinse Kit is controlled by a 3-position switch (Figure 40 or Figure 41).

 The rinse-tank pump is on with timed rinse when you press the 3-position switch up position and it locks—the delay timer runs the pump.

Note: For 2015 and before machines, the switch illuminates.

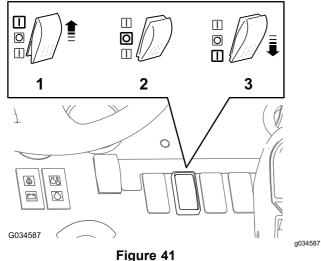
- The rinse-tank pump is off when you press the 3-position switch to the middle position.
- The rinse-tank pump is on momentarily: when you press and hold the 3-position switch in the down position to run the pump.

Note: For 2015 and before machines, the switch illuminates.



2015 Models and Before

- ON (up) position—timed rinse (the switch illuminates)
- ON (down)
 position—momentary
 rinse (the switch
 illuminates)
- 2. OFF (middle) position



2016 Models and After

- ON (up) position—timed rinse
- 3. ON (down) position—momentary rinse
- 2. OFF (middle) position

Description of Operation

Operating the 3-Position Switch for a Timed Rinse

Pressing up the 3-position switch starts a timed rinse. The pump runs for 110 seconds and it pumps approximately 1/3 of the rinse tank contents into the

main tank. During this time the switch stays in the up position.

Note: If you are operating a 2015 and before machine, the light on the 3-position switch will illuminate to indicate that the pump is running.

After 110 seconds, the pump stops running.

Note: If you are operating a 2015 and before machine, light on the 3-position switch shuts off to indicate that power to the pump is shut off.

The 3-position switch remains in the up position until you move it to the center or NEUTRAL position. When the switch is in the NEUTRAL position the power is not supplied to the pump and the rinse kit is OFF.

Note: If you are operating a 2015 and before machine, the light on the 3-position switch remains shut off in the NEUTRAL position.

Operating the 3-Position Switch for a Manually Controlled Rinse

Pressing down the 3-position switch energizes a momentary switch. Power is supplied to the pump for only for the duration while the switch is held down.

Note: If you have a 2015 and before machine, the 3-position switch illuminates and the pump runs while you hold the switch in the DOWN position.

Release pressure and the 3-position switch moves to the NEUTRAL position. Power to the pump is shut off.

Note: If you have a 2015 and before machine, the light in the 3-position switch shuts off.

Filling the Tank

Park the machine on a level surface, engage the parking brake, shut off the sprayer pump, shut off the engine, and remove the key.

Remove the rinse tank cap, fill the tank with approximately 113 L (30 gallons) with clean water, and install the cap.

Important: The 113 L (30 gallon) 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.

Using the Rinse Cycle

Once the rinse-tank pump has moved 38 L (10 US gallons) of water into the sprayer tank, the user can use the agitation switch at their disposal to put the

clean water into the agitation loop. Once finished, the rinsate can be sprayed out of the boom nozzles or manually drained from tank. This allows the machine to move during the rinse processes.

- Turn on the rinse-tank pump by performing 1 of the following:
 - Press up 3-position switch for a timed rinse.
 - Press and hold down the 3-position switch for a desired duration.
- Once the rinse-tank pump has moved 38 L (10 US gallons) of water into the sprayer tank, use the agitation switch to circulate the clean water through the agitation loop.
- Pump the rinsate out of the sprayer tank as required by federal, state, and local regulations by performing 1 of the following:
 - Spray the rinsate through the booms until the sprayer tank is empty.
 - Draining the sprayer tank contents into a suitable container and disposing of the diluted solution as required by federal, state, or local regulations.

The rinse cycle can be repeated again as necessary for 2 more timed rinse cycles.

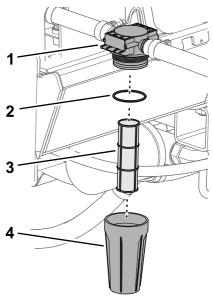
Maintenance

Inspect the Filter

Service Interval: After the first 5 hours

Every 50 hours

1. Rotate the filter counterclockwise to remove the bowl from the filter head (Figure 42).



9-

Figure 42

- 1. Filter head
- 2. O-ring

- 3. Filter element
- 4. Bowl (filter)
- 2. Inspect the filter element for damage or an accumulation sediment or debris (Figure 42).

Replace a damaged filter element. If there is an accumulation sediment or debris, clean the element as follows:

- A. Remove the filter element from the filter head (Figure 42).
- B. Rinse clean the element in fresh water.
- C. Insert the filter element into the filter head (Figure 42).
- Inspect the O-ring for damage (Figure 42).
 Replace the O-ring if it is damaged.
- 4. Thread the bowl clockwise into the filter head, and tighten it by hand (Figure 42).

Inspecting the Rinse System for 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

Contact your Authorized Toro Dealer to obtain replacement parts.

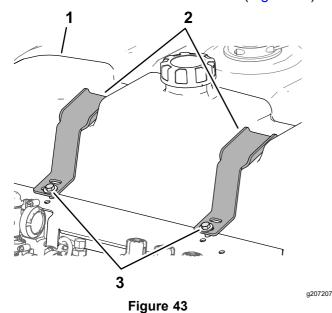
Inspecting the Rinse Tank Hold Downs

Service Interval: After the first hour—Check the rinse-tank hold downs.

Yearly—Check the rinse-tank hold downs.

Once the main tank has been filled with water, check to see if there is any play in the tank straps. If the straps are loose, tighten the fasteners at the top straps until they are flush with the tank. **Do not overtighten fasteners.**

1. Fill the rinse tank with clean water (Figure 43).



- 1. Rinse tank
- 3. Bolt (3/8 x 1-1/2 inches)
- 2. Hold downs
- 2. Check for play between the hold downs and the rinse tank (Figure 43).
- 3. If you find play between the hold downs and the rinse tank, tighten bolt(s) and flange locknut(s)

until the hold downs are snug against the rinse tank (Figure 43).

Note: Do not overtighten the bolt(s) and locknut(s) of the hold down(s), or deform the tank

Important: Overtightening the tank strap fasteners can deform and damage the hold downs.

Storage

Storing the Machine in Above-Freezing Temperatures Less than 30 Days

Drain the following components:

- Pump-inlet line
- Pump-outlet line
- Filter line

Storing the Machine in Freezing Temperatures or More than 30 Days

Before storing the machine, perform the following:

- 1. Add RV anti-freeze solution into the rinse tank.
- Circulate the anti-freeze through rinse pump.

When retuning the machine to service, drain the following components:

- Pump-inlet line
- Pump-outlet line
- Filter line

Notes:

Notes:

Notes:

European Privacy Notice

The Information Toro Collects

Toro Warranty Company (Toro) respects your privacy. In order to process your warranty claim and contact you in the event of a product recall, we ask you to share certain personal information with us, either directly or through your local Toro company or dealer.

The Toro warranty system is hosted on servers located within the United States where privacy law may not provide the same protection as applies in your country.

BY SHARING YOUR PERSONAL INFORMATION WITH US, YOU ARE CONSENTING TO THE PROCESSING OF YOUR PERSONAL INFORMATION AS DESCRIBED IN THIS PRIVACY NOTICE.

The Way Toro Uses Information

Toro may use your personal information to process warranty claims, to contact you in the event of a product recall and for any other purpose which we tell you about. Toro may share your information with Toro's affiliates, dealers or other business partners in connection with any of these activities. We will not sell your personal information to any other company. We reserve the right to disclose personal information in order to comply with applicable laws and with requests by the appropriate authorities, to operate our systems properly or for our own protection or that of other users.

Retention of your Personal Information

We will keep your personal information as long as we need it for the purposes for which it was originally collected or for other legitimate purposes (such as regulatory compliance), or as required by applicable law.

Toro's Commitment to Security of Your Personal Information

We take reasonable precautions in order to protect the security of your personal information. We also take steps to maintain the accuracy and current status of personal information.

Access and Correction of your Personal Information

If you would like to review or correct your personal information, please contact us by email at legal@toro.com.

Australian Consumer Law

Australian customers will find details relating to the Australian Consumer Law either inside the box or at your local Toro Dealer.

TORO_®

The Toro Warranty

A Two-Year Limited Warranty

Conditions and Products Covered

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly warrant your Toro Commercial product ("Product") to be free from defects in materials or workmanship for two years or 1500 operational hours*, whichever occurs first. This warranty is applicable to all products with the exception of Aerators (refer to separate warranty statements for these products). Where a warrantable condition exists, we will repair the Product at no cost to you including diagnostics, labor, parts, and transportation. This warranty begins on the date the Product is delivered to the original retail purchaser. * Product equipped with an hour meter.

Instructions for Obtaining Warranty Service

You are responsible for notifying the Commercial Products Distributor or Authorized Commercial Products Dealer from whom you purchased the Product as soon as you believe a warrantable condition exists. If you need help locating a Commercial Products Distributor or Authorized Dealer, or if you have questions regarding your warranty rights or responsibilities, you may contact us at:

Toro Commercial Products Service Department Toro Warranty Company 8111 Lyndale Avenue South Bloomington, MN 55420-1196

952–888–8801 or 800–952–2740 E-mail: commercial.warranty@toro.com

Owner Responsibilities

As the Product owner, you are responsible for required maintenance and adjustments stated in your *Operator's Manual*. Failure to perform required maintenance and adjustments can be grounds for disallowing a warranty claim.

Items and Conditions Not Covered

Not all product failures or malfunctions that occur during the warranty period are defects in materials or workmanship. This warranty does not cover the following:

- Product failures which result from the use of non-Toro replacement parts, or from installation and use of add-on, or modified non-Toro branded accessories and products. A separate warranty may be provided by the manufacturer of these items.
- Product failures which result from failure to perform recommended maintenance and/or adjustments. Failure to properly maintain your Toro product per the Recommended Maintenance listed in the Operator's Manual can result in claims for warranty being denied.
- Product failures which result from operating the Product in an abusive, negligent, or reckless manner.
- Parts subject to consumption through use unless found to be defective. Examples of parts which are consumed, or used up, during normal Product operation include, but are not limited to, brake pads and linings, clutch linings, blades, reels, rollers and bearings (sealed or greasable), bed knives, spark plugs, castor wheels and bearings, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, and check valves, etc.
- Failures caused by outside influence. Conditions considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved fuels, coolants, lubricants, additives, fertilizers, water, or chemicals, etc.
- Failure or performance issues due to the use of fuels (e.g. gasoline, diesel, or biodiesel) that do not conform to their respective industry standards.

- Normal noise, vibration, wear and tear, and deterioration.
- Normal "wear and tear" includes, but is not limited to, damage to seats due to wear or abrasion, worn painted surfaces, scratched decals or windows, etc.

Parts

Parts scheduled for replacement as required maintenance are warranted for the period of time up to the scheduled replacement time for that part. Parts replaced under this warranty are covered for the duration of the original product warranty and become the property of Toro. Toro will make the final decision whether to repair any existing part or assembly or replace it. Toro may use remanufactured parts for warranty repairs.

Deep Cycle and Lithium-Ion Battery Warranty:

Deep cycle and Lithium-Ion batteries have a specified total number of kilowatt-hours they can deliver during their lifetime. Operating, recharging, and maintenance techniques can extend or reduce total battery life. As the batteries in this product are consumed, the amount of useful work between charging intervals will slowly decrease until the battery is completely worn out. Replacement of worn out batteries, due to normal consumption, is the responsibility of the product owner. Battery replacement may be required during the normal product warranty period at owner's expense. Note: (Lithium-Ion battery only): A Lithium-Ion battery has a part only prorated warranty beginning year 3 through year 5 based on the time in service and kilowatt hours used. Refer to the *Operator's Manual* for additional information.

Maintenance is at Owner's Expense

Engine tune-up, lubrication, cleaning and polishing, replacement of filters, coolant, and completing recommended maintenance are some of the normal services Toro products require that are at the owner's expense.

General Conditions

Repair by an Authorized Toro Distributor or Dealer is your sole remedy under this warranty.

Neither The Toro Company nor Toro Warranty Company is liable for indirect, incidental or consequential damages in connection with the use of the Toro Products covered by this warranty, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under this warranty. Except for the Emissions warranty referenced below, if applicable, there is no other express warranty. All implied warranties of merchantability and fitness for use are limited to the duration of this express warranty.

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

Note regarding engine warranty:

The Emissions Control System on your Product may be covered by a separate warranty meeting requirements established by the U.S. Environmental Protection Agency (EPA) and/or the California Air Resources Board (CARB). The hour limitations set forth above do not apply to the Emissions Control System Warranty. Refer to the Engine Emission Control Warranty Statement supplied with your product or contained in the engine manufacturer's documentation for details

Countries Other than the United States or Canada

Customers who have purchased Toro products exported from the United States or Canada should contact their Toro Distributor (Dealer) to obtain guarantee policies for your country, province, or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the Toro importer.

374-0253 Rev D