



Chemical Pre-Mix Kit

2015 and After Multi Pro® 1750 Turf Sprayer

Model No. 41158—Serial No. 31500001 and Up

Operator's Manual

Whenever you need service, genuine Toro parts, or additional information, contact an Authorized Service Dealer or Toro Customer Service and have the model and serial numbers of your product ready. **Figure 1** illustrates the location of the model and serial numbers on the product.

This kit is designed to aid in the mixing of chemicals in preparation for turf spray applications on well-maintained lawns in parks, golf courses, sports fields, and on commercial grounds. It is a dedicated attachment for a turf spray application vehicle and is intended to be used by professional, hired operators in commercial applications.

This product complies with all relevant European directives. For details, please see the Declaration of Incorporation (DOI) at the back of this publication.

Read this manual carefully to learn how to operate and maintain your product properly. The information in this manual can help you and others avoid injury and product damage. Although Toro designs and produces safe products, you are responsible for operating the product properly and safely.

You may contact Toro directly at www.Toro.com for product safety and operation training materials, accessory information, help finding a dealer, or to register your product.

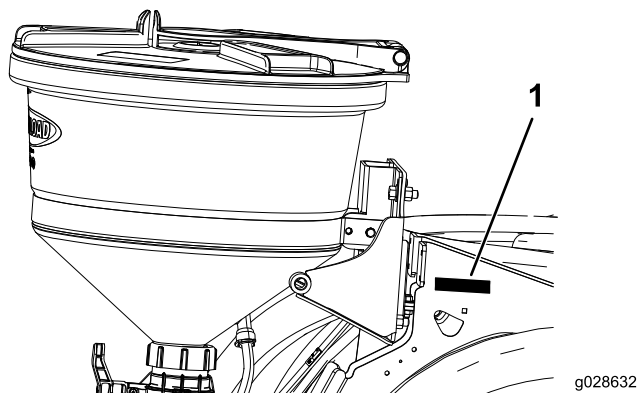


Figure 1

1. Model and serial number plate

Model No.	_____
Serial No.	_____

⚠ WARNING

CALIFORNIA
Proposition 65 Warning

This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

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

This manual identifies potential hazards and has safety messages identified by the safety alert symbol (Figure 2), which signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.



Figure 2

1. Safety alert symbol

This manual uses 2 words to highlight information.

Important calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

⚠ WARNING

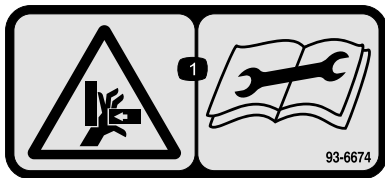
Chemical substances used in the spray system may be hazardous and toxic to you, bystanders, animals, plants, soils, or other property.

- 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 chemical 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 that the system has been triple rinsed and neutralized according to the recommendations of the chemical manufacturer(s).
- Verify that there is an adequate supply of clean water and soap nearby, and immediately wash off any chemicals that contact you.

Safety and Instructional Decals

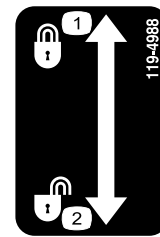


Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or lost.



93-6674

1. Crushing hazard, hand—read the instructions before servicing or performing maintenance.



119-4988

1. Lock
2. Unlock

Setup

Loose Parts

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

Procedure	Description	Qty.	Use
1	Support-frame assembly	1	Assemble the frame.
	Thick square spacer	2	
	Thin square spacer	2	
	Carriage bolt (3/8 x 1-1/2 inch)	2	
	Flanged locknut (3/8 inch)	1	
	Cradle arm, right	1	
	Cradle arm, left	1	
	Pivot pin	2	
	Bolt (3/8 x 1-1/4 inches)	2	
	Jam nut (3/8 inch)	2	
	Handle	2	
	Flat washer	2	
	Hair pin	2	
	Back-plate assembly	1	
	Flanged bushing (1/2 inch inside diameter)	2	
	Flanged bushing (3/4 inch inside diameter)	2	
Set screw	2		
2	Spring	2	Install the latching components.
3	Handle	1	Install the eductor.
	Socket-head screw (#10-24 x 1/2 inch)	2	
	Latch post	1	
	Spring clip	1	
	Bolt (#10-24 x 1/2 inch)	2	
	Locknut (#10-24)	2	
	Eductor	1	
	Flange-head bolt (5/16 x 3/4 inch)	2	
	Flanged-locknut (5/16 inch)	2	
	Latch handle	1	
	Bolt (3/8 x 1 inch)	4	
	Flanged-serrated nut (3/8 inch)	4	
	T-fitting and drain valve	1	
	Gasket	1	
Flange clamp	1		
4	Bulkhead fitting	1	Install the eductor hose.
	O-ring	1	
	Locking ring	1	

Procedure	Description	Qty.	Use
5	Eductor valve	1	Install the eductor valve.
	Supply hose—86 cm (33-3/4 inch)	1	
	Retainer	2	
	Eductor-bypass hose—65 cm (25-3/4 inch)	1	
	Inlet hose—22 cm (6-5/8 inch)	1	
	Flange clamp	1	
	Gasket	1	
	Eductor valve bracket	1	
	Flanged-head bolt (5/16 x 3/4 inch)	1	
	Flanged locknut (1/4 inch)	4	
6	Tank hose—141 cm (55-5/8 inch)	1	Connect the eductor valve hoses.
	Retainer	1	
	Flange clamp	2	
	Gasket	2	
7	Suction lance and hose (optional accessory)	1	Finish the installation.

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

1

Assembling the Frame

Parts needed for this procedure:

1	Support-frame assembly
2	Thick square spacer
2	Thin square spacer
2	Carriage bolt (3/8 x 1-1/2 inch)
1	Flanged locknut (3/8 inch)
1	Cradle arm, right
1	Cradle arm, left
2	Pivot pin
2	Bolt (3/8 x 1-1/4 inches)
2	Jam nut (3/8 inch)
2	Handle
2	Flat washer
2	Hair pin
1	Back-plate assembly
2	Flanged bushing (1/2 inch inside diameter)
2	Flanged bushing (3/4 inch inside diameter)
2	Set screw

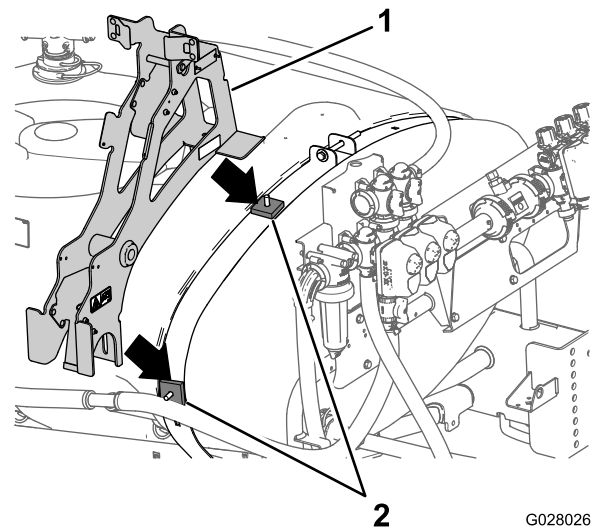


Figure 3

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1. Main-support-frame assembly
2. Square spacers

6. Install the main-support frame over the square spacers and carriage bolts as shown in Figure 3.

Note: Adjust the spaces as needed to ensure that the frame is flush with the tank.

7. Secure the main-support frame to the tank strap (Figure 4) using 2 flanged locknuts (3/8 inch).

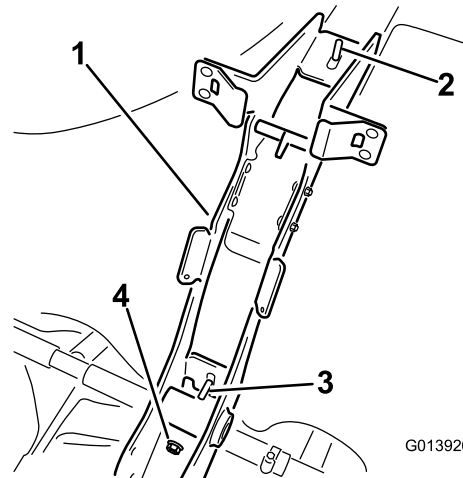


Figure 4

G013926

1. Main-support-frame assembly
2. Carriage-bolt threads (upper position)
3. Carriage-bolt threads (lower position)
4. Flanged locknut (3/8 inch)

Installing the Support Frame to the Tank

1. Park the machine on a flat area, set the parking brake, stop the pump, stop the engine, and remove the ignition key.
2. Remove the fasteners securing the rear tank straps at the top of the tank.

Note: Retain all parts.

3. Install 2 carriage bolts (3/8 x 1-1/2 inch) to the inboard side of the holes at the left side, rear tank strap.
4. Install the tank strap fasteners removed previously to secure the straps to the tank.

Note: Make sure that the strap is secure to the tank. Do not overtighten the strap.

5. Mount 2 square spacers over the previously installed carriage bolts (Figure 3).

Note: Use the appropriate quantity and thickness of square spacers as needed to ensure that the frame is flush with the tank.

Preparing the Cradle Arms

1. Assemble the pivot pin through the upper hole in the cradle arm (Figure 5).

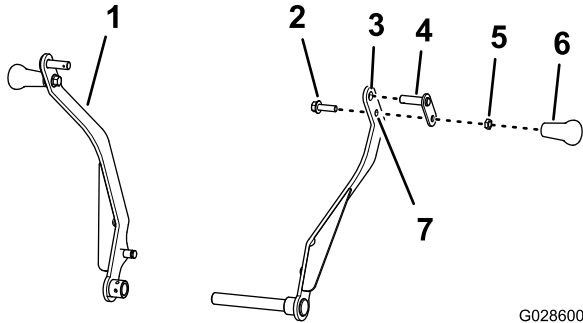


Figure 5

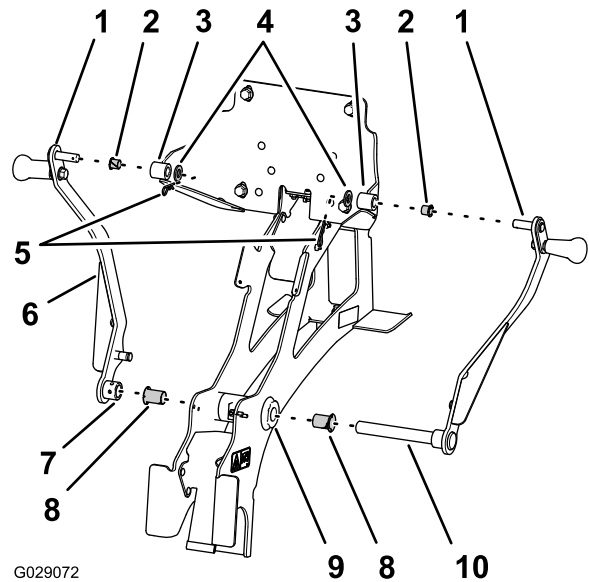
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- | | |
|---------------------------------|---------------------------------|
| 1. Cradle arm (left) | 5. Jam nut (3/8 inch) |
| 2. Bolt (3/8 x 1-1/4 inches) | 6. Handle |
| 3. Upper hole (Cradle arm—left) | 7. Lower hole (Cradle arm—left) |
| 4. Pivot pin | |

2. Apply medium-grade, thread-locking compound to the threads of the bolt (3/8 x 1-1/4 inch).
3. Assemble the bolt (3/8 x 1-1/4 inch) through the lower hole in the cradle arm and the retainer of the pivot pin (Figure 5) with the jam nut (3/8 inch), and tighten the jam nut to 15 to 17 N·m (11 to 13 ft lb).
4. Thread the handle onto the bolt (3/8 x 1-1/4 inch) and tighten the handle against the jam nut and tighten the handle by hand (Figure 5).
5. Repeat steps 1 through 4 to the other cradle arm (Figure 5).

Assembling the Cradle Arms to the Support Frame

1. Insert a flanged bushing (3/4 inch inside diameter) into each end of the pivot tube in the main-support frame (Figure 6).



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Figure 6

- | | |
|---|---|
| 1. Upper pivot pins (1/2 inch) | 6. Cradle arm (left) |
| 2. Flanged bushing (1/2 inch inside diameter) | 7. Hub (left cradle arm) |
| 3. Hubs (back plate—left and right) | 8. Pivot tube (main-support frame) |
| 4. Washers (1/2 inch) | 9. Flanged bushing (3/4 inch inside diameter) |
| 5. Hair pins | 10. Lower pivot pin (3/4 inch—right cradle arm) |

2. Insert a flanged bushing (1/2 inch inside diameter) into the left and right hubs of the back plate (Figure 6).

Note: Ensure that the flange of the bushings are aligned to the outward side of the hubs.

3. Assemble the lower pivot pin of the right cradle arm through the flanged bushing at the right side of the pivot tube and the pivot (Figure 6).

Note: Align the upper pivot pin of the arm with the right hub of the back plate.

4. Assemble the upper pivot pin of the right cradle arm through the right hub of the back plate (Figure 6).
5. Secure the upper pivot pin to the back plate with a washers (1/2 inch) and hair pin (Figure 6).
6. Assemble the hub of the left cradle arm over the end of the lower pivot pin of the right cradle arm that is protruding to the left of the left flanged bushing in pivot tube (Figure 6).

Note: Align the upper pivot pin of the arm with the left hub of the back plate.

7. Assemble the upper pivot pin of the left cradle arm through the left hub of the back plate (Figure 6).
8. Secure the upper pivot pin of the left cradle arm to the back plate with a washer (1/2 inch) and hair pin (Figure 6).

- Install 2 set screws to the left arm at the lower hinge point (Figure 7).

Note: Do not tighten the set screw at this time to allow for later adjustment of the cradle system.

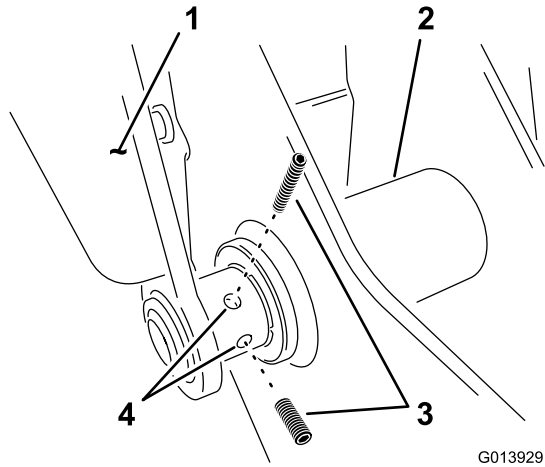


Figure 7

- | | |
|----------------------|------------------------|
| 1. Cradle arm (left) | 3. Set screw |
| 2. Pivot tube | 4. Holes in cradle arm |

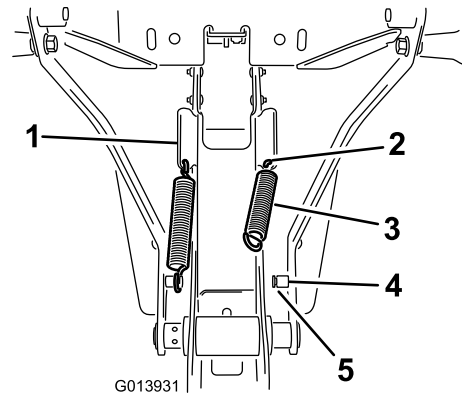


Figure 8

- | | |
|----------------|-----------|
| 1. Angled tab | 4. Post |
| 2. Hole in tab | 5. Groove |
| 3. Spring | |

- Hook the end of a spring into the hole in the angle tab and hook the other end onto the spring post (Figure 8).
- Make sure that the spring end is seated properly in the groove in the post (Figure 8).
- Repeat steps 1 through 3 for the other side.
- Tighten the 2 set screws in the left arm.

2

Installing the Latching Components

Parts needed for this procedure:

2	Spring
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Installing the Springs

- Install the spring in the hole in the lower end of the angled tab on the side of the frame assembly (Figure 8).

Adjusting the Tongue Position

Move the cradle assembly into the upper, transport position to adjust the tongue.

- Lift up on the handles to raise the assembly while slightly tipping it toward the tank.
 - Guide the tongue under the crossbar with the welded tab in the upper portion of the frame assembly.
 - Let the assembly pivot down, toward the tank.
- Making sure that the plastic stops are in contact with the spring tabs, apply enough pressure against the back-plate assembly of the cradle to compress the spring tabs midway (Figure 9).



Figure 9

1. Spring tab under pressure
2. Back plate
3. Spring tab

2. While maintaining the pressure on the back plate, slide the tongue toward you until the lip of the tongue plate contacts the crossbar (Figure 10).

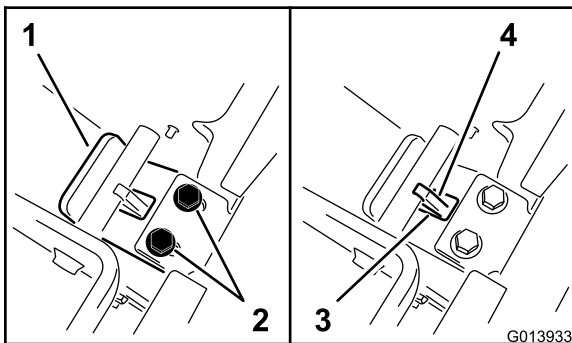


Figure 10

1. Tongue-plate lip
2. Fasteners
3. Slot in plate
4. Welded tab

3. Tighten the fasteners in the tongue to secure its position, then release pressure on the back plate.

Note: Check to see if there is any play in the cradle. It should be held snug to the frame assembly. You can repeat this procedure once you have installed the eductor to adjust the locked position.

3

Installing the Eductor

Parts needed for this procedure:

1	Handle
2	Socket-head screw (#10-24 x 1/2 inch)
1	Latch post
1	Spring clip
2	Bolt (#10-24 x 1/2 inch)
2	Locknut (#10-24)
1	Eductor
2	Flange-head bolt (5/16 x 3/4 inch)
2	Flanged-locknut (5/16 inch)
1	Latch handle
4	Bolt (3/8 x 1 inch)
4	Flanged-serrated nut (3/8 inch)
1	T-fitting and drain valve
1	Gasket
1	Flange clamp

Assembling the Eductor Handle

Note: You can install the latch handle and latch post at either the left or right side of the eductor handle.

1. Assemble the latch post to the handle of the eductor (Figure 11) using the 2 socket-head screws (#10-24 x 1/2 inch).

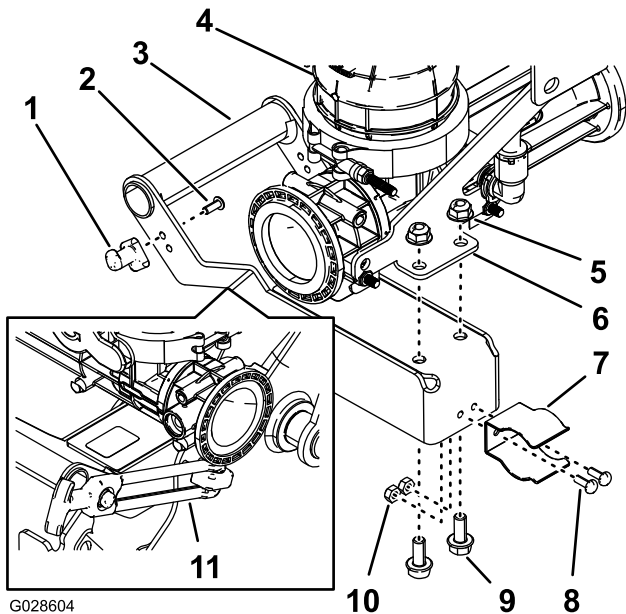


Figure 11

- | | |
|--|---------------------------------------|
| 1. Latch post | 7. Spring clip |
| 2. Socket-head screw (#10-24 x 1/2 inch) | 8. Bolt (#10-24 x 1/2 inch) |
| 3. Eductor handle | 9. Flange-head bolt (5/16 x 3/4 inch) |
| 4. Eductor assembly | 10. Locknut (#10-24) |
| 5. Flange locknut | 11. Latch handle |
| 6. Mount plate (eductor) | |

2. Assemble the spring clip to the latch handle (Figure 11) with the 2 bolts (#10-24 x 1/2 inch) and 2 locknuts (#10-24).
3. Assemble the handle to the mount plate for the eductor (Figure 11) with 2 flange-head bolts (5/16 x 3/4 inch) and flange locknuts (5/16 inch).
4. Lower the cradle into the down position.

Assembling the Eductor to the Sprayer

1. Align the holes in the eductor mount plate with the slots in the cradle support frame (Figure 12).

Note: The fasteners need to be loose enough so that they can travel in the slot when the eductor is initially raised up into the transport position. This allows you to adjust the travel and alignment of the eductor.

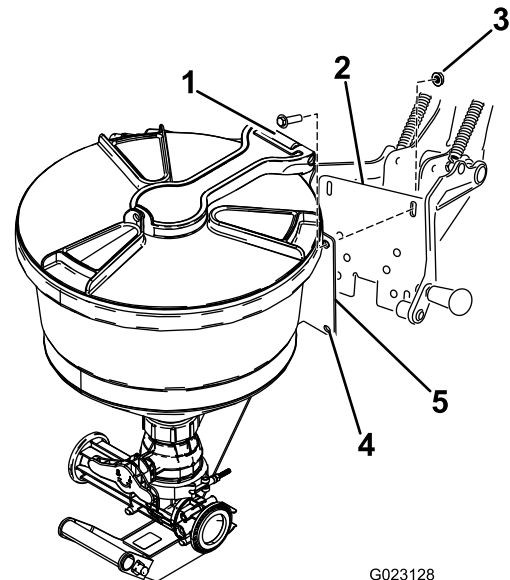


Figure 12

- | | |
|------------------------------------|--------------------------------|
| 1. Bolt (3/8 x 1 inch) | 4. Eductor assembly mount hole |
| 2. Back plate | 5. Eductor assembly mount |
| 3. Flanged-serrated nut (3/8 inch) | |

2. Install 4 bolts (3/8 x 1 inch) and locknuts (3/8 inch) to mount the eductor.

Note: Do not tighten the bolts at this time.

3. To carefully raise the eductor in the cradle assembly up to the transport position, do the following:
 - A. Lift the lower handle to raise the eductor while slightly tipping it toward the tank.
 - B. Guide the tongue under the crossbar with the welded tab in the upper portion of the frame assembly.
 - C. Then pivot the assembly toward the tank, taking care to line up the spring clip with the large pivot tube in the lower portion of the frame.
 - D. Push until the spring clip snaps over the pivot tube as shown in Figure 13.

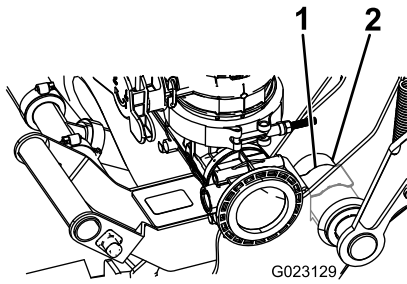


Figure 13

1. Spring clip
2. Pivot tube

4. Check the eductor height on the cradle back plate and adjust as necessary.
5. Tighten the fasteners securing the eductor to the cradle.

Note: Torque the fasteners to 36-45 N-m (27-33 ft-lb).

6. Tighten the 2 set screws on the left hand pivot arm, refer to [Figure 7](#) in [Assembling the Cradle Arms to the Support Frame](#) (page 6).
7. Check the overall position of the eductor assembly on the tank strap.

Note: The eductor should be upright, in the transport position. Loosen the lower locknut on the frame assembly securing it to the tank. Do not remove the locknut. Adjust the position as necessary and tighten the locknut. Make sure that the strap is secure to the tank.

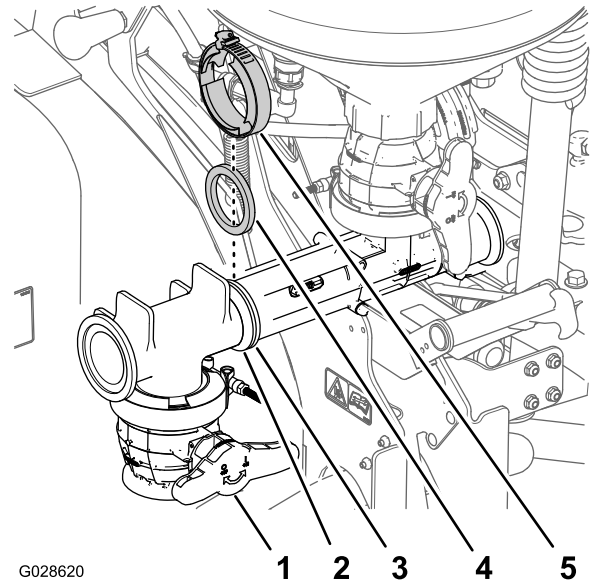


Figure 14

1. Drain valve
2. Flange (T-fitting)
3. Forward flange (eductor)
4. Gasket
5. Flange clamp

2. Secure the T-fitting the eductor with a gasket and flange clamp ([Figure 14](#)).

Assembling the T-fitting and Drain Valve

1. Align the flange of the upper T-fitting to the forward flange of the eductor ([Figure 14](#)).

Note: Ensure that the handle for the drain valve is located outward.

4

Installing the Bulkhead Fitting to the Sprayer Tank

Parts needed for this procedure:

1	Bulkhead fitting
1	O-ring
1	Locking ring

Drilling the Tank

1. Locate the forward location on the top of the tank as shown in [Figure 15](#).

Note: Locate the drill mark in the center of the molded circle.

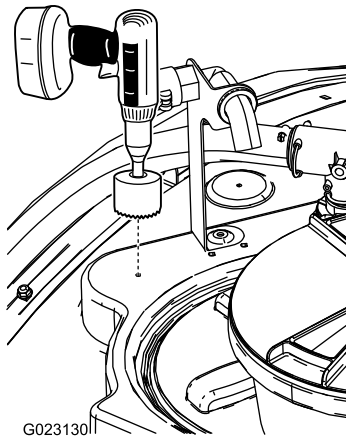


Figure 15

2. Use a 9 cm (3-5/8 inch) hole saw to drill a hole at the drill mark ([Figure 15](#)).

Note: You will need to increase the diameter slightly to accommodate the bulkhead.

3. After drilling the hole, remove any rough edges in the cut, and remove any debris that entered the main tank during the cutting process.

Installing the Bulkhead Fitting

1. Open the main tank lid and remove the filter screen.
2. Install the bulkhead fitting and the O-ring up from inside the tank through the previously cut opening ([Figure 16](#)).

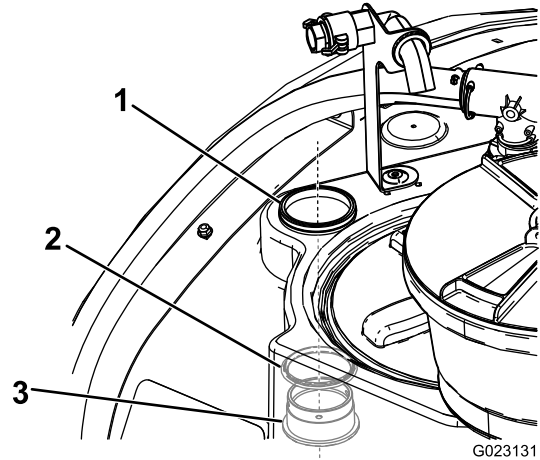


Figure 16

1. Locking ring
2. O-ring
3. Bulkhead fitting

3. Secure the bulkhead fitting to the tank with the locking ring.

5

Installing the Eductor Valve

Parts needed for this procedure:

1	Eductor valve
1	Supply hose—86 cm (33-3/4 inch)
2	Retainer
1	Eductor-bypass hose—65 cm (25-3/4 inch)
1	Inlet hose—22 cm (6-5/8 inch)
1	Flange clamp
1	Gasket
1	Eductor valve bracket
1	Flanged-head bolt (5/16 x 3/4 inch)
4	Flanged locknut (1/4 inch)

Preparing to Install the Eductor Valve

1. Remove the flange clamp, gasket, elbow, and inlet hose from the pressure-filter head (A of [Figure 17](#)).

Note: Retain the gasket and flange clamp for installation later.

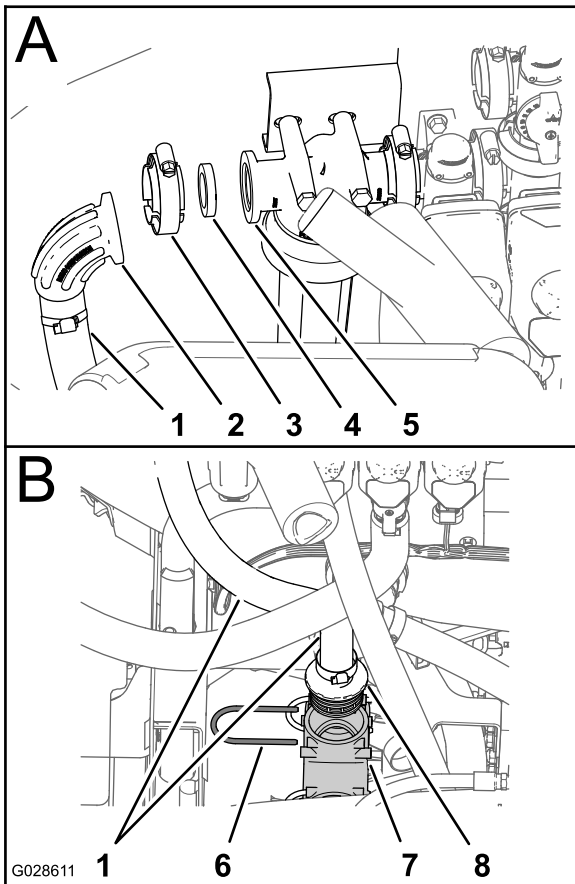


Figure 17

- | | |
|-----------------|---|
| 1. Inlet hose | 5. Pressure filter head |
| 2. Elbow | 6. Retainer |
| 3. Flange clamp | 7. Lower T-fitting |
| 4. Gasket | 8. Straight-barbed fitting (inlet hose) |

- Remove the retainer that secures the straight-barbed fitting of the inlet hose to the lower T-fitting of the sprayer system and remove the inlet hose from the machine (B of [Figure 17](#))

Note: Retain the retainer for installation later; discard the elbow, hose, and straight barbed fitting.

- Assemble the 90° elbow of the eductor supply hose into the bottom port of the eductor valve ([Figure 18](#)).

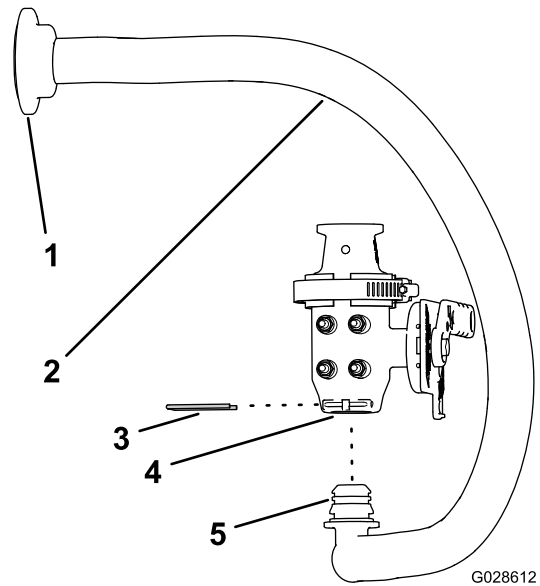


Figure 18

- | | |
|--|------------------------------------|
| 1. Flanged fitting (eductor supply hose) | 4. Bottom port (eductor valve) |
| 2. Eductor supply hose—86 cm (33-3/4 inch) | 5. 90° elbow (eductor supply hose) |
| 3. Retainer | |

- Secure the elbow to the valve with the retainer ([Figure 18](#)).
- Assemble the straight fitting of the eductor-bypass hose into the side port of the eductor valve ([Figure 19](#)).

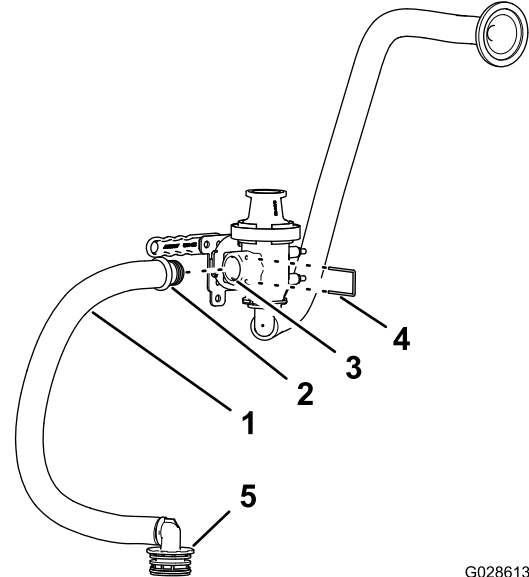
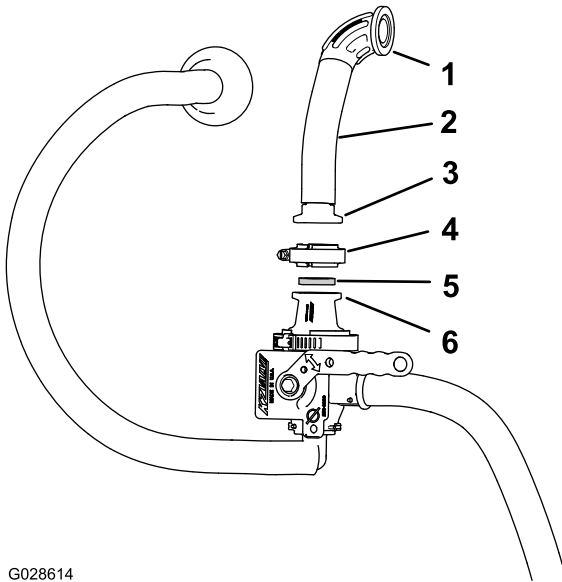


Figure 19

- | | |
|--|---|
| 1. Eductor-bypass hose—65 cm (25-3/4 inch) | 4. Retainer |
| 2. straight fitting (eductor-bypass hose) | 5. 90° barbed fitting (eductor—bypass hose) |
| 3. Side port (eductor valve) | |

- Secure the straight fitting to the valve with the retainer ([Figure 19](#)).

- Align a gasket and the straight-flanged fitting of the new inlet hose to the flange of the adapter at the top of eductor valve ([Figure 20](#)).



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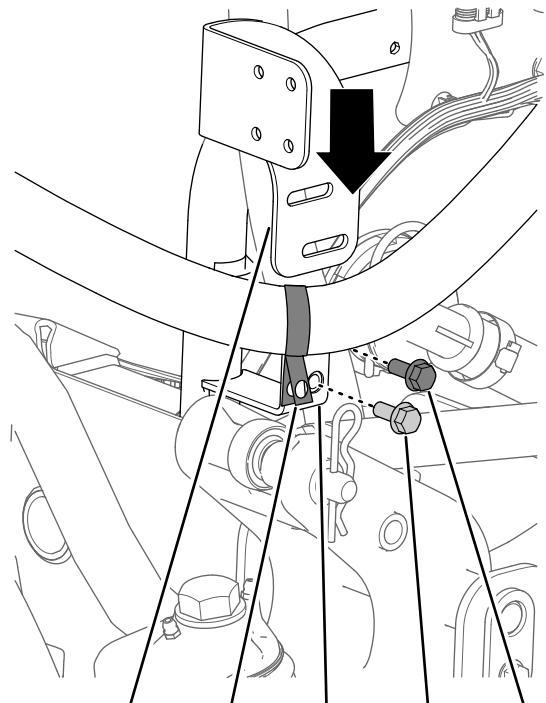
Figure 20

- | | |
|--|---------------------|
| 1. 90° flanged fitting (inlet hose) | 4. Flange clamp |
| 2. Inlet hose—22 cm (6-5/8 inch) | 5. Gasket |
| 3. Straight-flanged fitting (inlet hose) | 6. Flange (adapter) |

- Secure the straight-flanged fitting to the valve with a flange clamp ([Figure 20](#)).

Assembling the Eductor Valve and Bracket

- Remove the bolt that secures the R-clamp that supports the hose to the agitation throttle valve from the bracket on the mount tube ([Figure 21](#)).



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Figure 21

- | | |
|--------------------------|--|
| 1. Eductor valve bracket | 4. Flanged-head bolt (5/16 x 3/4 inch) |
| 2. R-clamp | 5. Bolt (sprayer) |
| 3. Bracket (mount tube) | |

- Align the eductor valve bracket between the R-clamp and hose and the mount-tube bracket ([Figure 21](#)).
- Align the holes in the eductor valve bracket with the holes in the mount-tube bracket ([Figure 21](#)).
- At the lower holes in the brackets, assemble the eductor valve bracket with the holes in the mount tube bracket ([Figure 21](#)) with a flanged-head bolt (5/16 x 3/4 inch).
- At the upper holes in the brackets, assemble the R-clamp and eductor valve bracket to the mount tube bracket with the bolt that you removed in 1 ([Figure 21](#)).
- Align the studs of the eductor valve to the holes in the eductor valve bracket and secure the valve to the bracket ([Figure 22](#)) with the 4 flanged locknuts (1/4 inch).

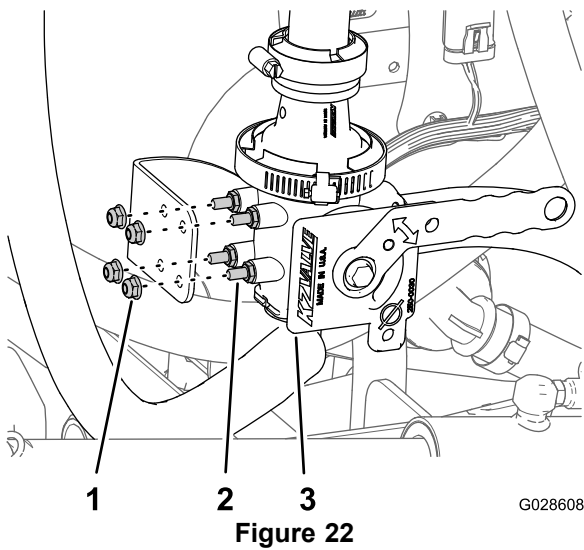


Figure 22

1. Flanged locknuts (1/4 inch)
2. Studs
3. Eductor valve

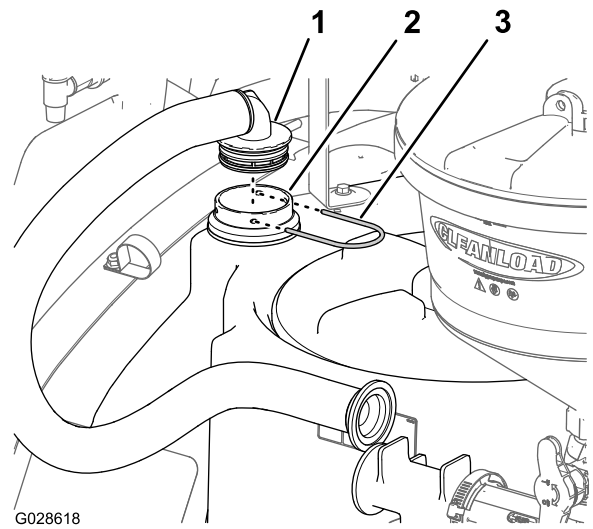


Figure 23

1. 90° barbed fitting (tank hose)
2. Bulkhead fitting
3. Retainer

6

Connecting the Eductor Hoses

Parts needed for this procedure:

1	Tank hose—141 cm (55-5/8 inch)
1	Retainer
2	Flange clamp
2	Gasket

Connecting the Tank Hose

1. Insert the 90° barbed fitting of the tank hose into the bulkhead fitting (Figure 23) that you installed in step 2 of [Installing the Bulkhead Fitting](#) (page 11).

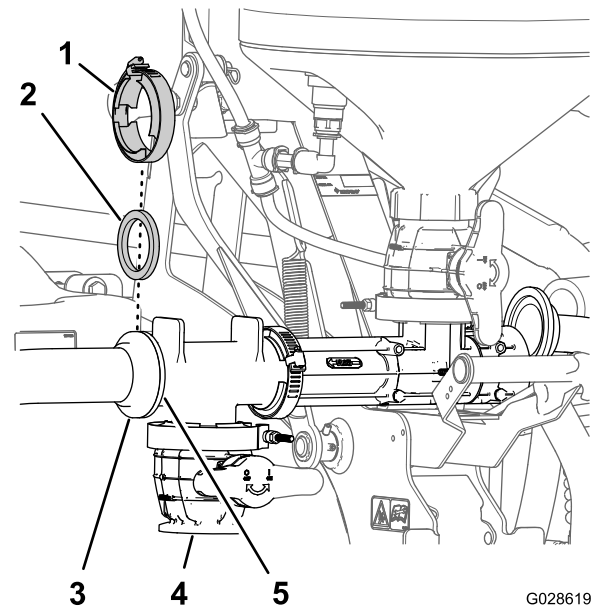


Figure 24

1. Flanged clamp
2. Gasket
3. Flanged fitting (tank hose)
4. Drain valve
5. Forward flange (T-drain fitting)

4. Secure the tank hose to the T-fitting with a gasket and flanged clamp (Figure 24).
5. Raise and lower the eductor to ensure that the tank hose will not catch on other parts of the sprayer (Figure 24).

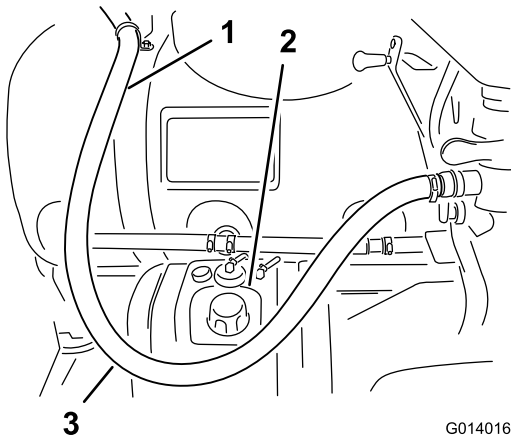


Figure 25

- 1. Tank hose
- 2. Fuel Tank
- 3. Slack in the hose

Connecting the Eductor Bypass Hose

1. Insert the 90° barbed fitting of the eductor bypass hose into the lower T-fitting (Figure 27) that you worked with in step 2 of [Preparing to Install the Eductor Valve](#) (page 11).

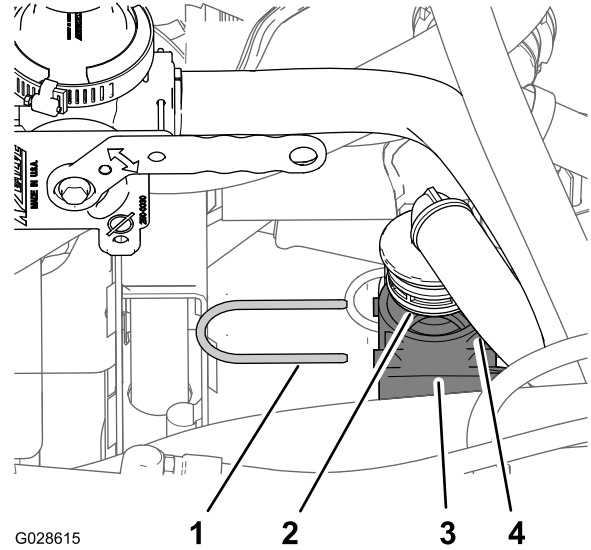


Figure 27

- 1. Retainer
- 2. 90° barbed fitting (eductor bypass hose)
- 3. Lower T-fitting
- 4. Eductor bypass hose

Connecting the Supply Hose

1. Align the flanged fitting of the supply hose to the flange of the eductor (Figure 26).

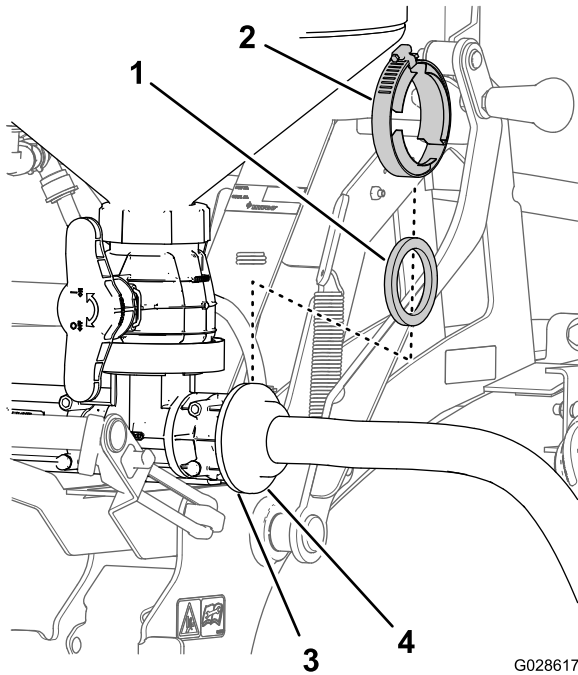


Figure 26

- 1. Gasket
- 2. Flanged clamp
- 3. Flange (eductor)
- 4. Flanged fitting (supply hose)

2. Secure the supply hose to the eductor with a gasket and flanged clamp (Figure 26).

Connecting the Inlet Hose

1. Align the flange of the 90° fitting of the inlet hose with the flange of the pressure filter head (Figure 28).

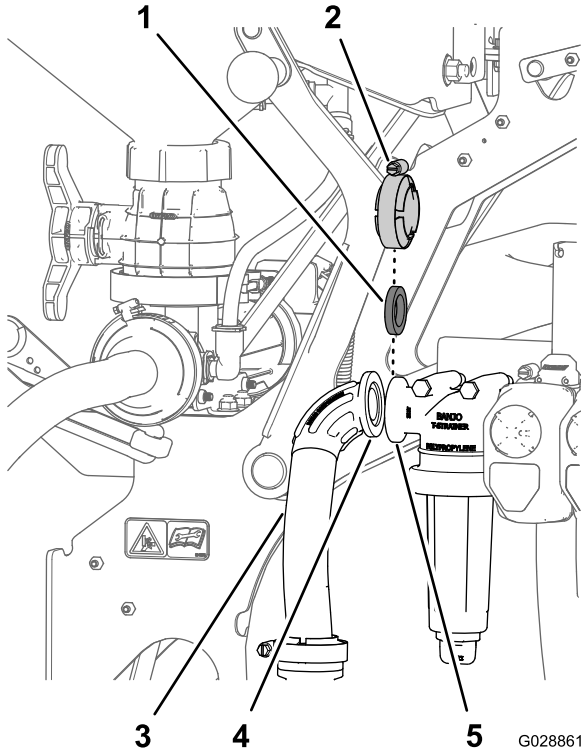


Figure 28

- | | |
|------------------|------------------------------------|
| 1. Gasket | 4. Flange (pressure filter head) |
| 2. Flanged clamp | 5. Flange (90° fitting—inlet hose) |
| 3. Inlet | |

2. Secure the inlet hose to the pressure filter head with the gasket and flanged clamp (Figure 28) that you removed in 1 of [Preparing to Install the Eductor Valve](#) (page 11).

7

Finishing the Installation

Parts needed for this procedure:

1	Suction lance and hose (optional accessory)
---	---

Procedure

Note: The suction lance and hose are optional accessories. Contact your Authorized Toro Distributor for more information.

Retain the suction lance and hose for later use. Read and retain the remaining documentation on using the Chemical Pre-Mix Kit.

Operation

⚠ 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.

Controls

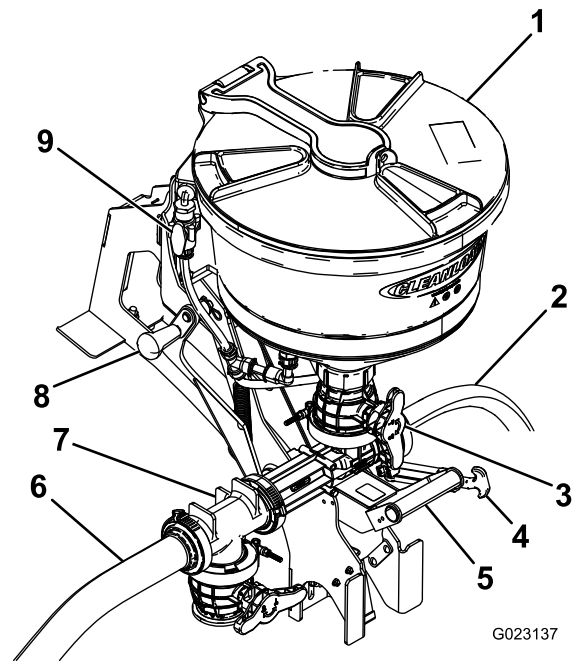


Figure 29

- | | |
|------------------------------|-----------------|
| 1. Lid | 6. Tank hose |
| 2. Supply hose | 7. T-valve |
| 3. Main valve (hopper valve) | 8. Upper handle |
| 4. Transport Strap | 9. Flush valve |
| 5. Lower handle | |

Lid

Rotate the lid counter clockwise to open it. Close the lid completely before turning it clockwise to lock it. You must close the lid and lock it, before you raised the eductor to the transport position.

Handles and Transport Strap

Use the upper and lower handles to raise and lower the eductor and to lock it into the transport position.

Main Valve

Use the main valve to introduce chemicals from the eductor into the hose leading to the main tank.

Bottle Rinse

The bottle rinse is located inside the eductor tank. Once the eductor switch is on, the bottle rinse has pressure and is supplied by the contents of the main tank. To use the bottle rinse, invert the chemical container over the spout and use the rim of the container to depress the rinse. Press down to actuate the spout and rinse the interior of the chemical container.

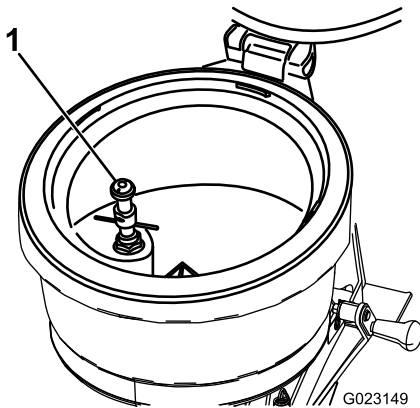


Figure 30

1. Bottle rinse

Flush Valve

The flush valve can rinse the inside of the eductor tank. Once the eductor switch is on, the flush valve will have pressure and is supplied by the contents of the main tank. To open the valve, turn the handle 90° counterclockwise. This will introduce water to the tank. Turn the handle 90° clockwise to close the valve.

Lowering and Raising the Eductor

Lowering the Eductor

1. Grasp the eductor handle and pull the latch handle off the latch post (Figure 31 and Figure 32).

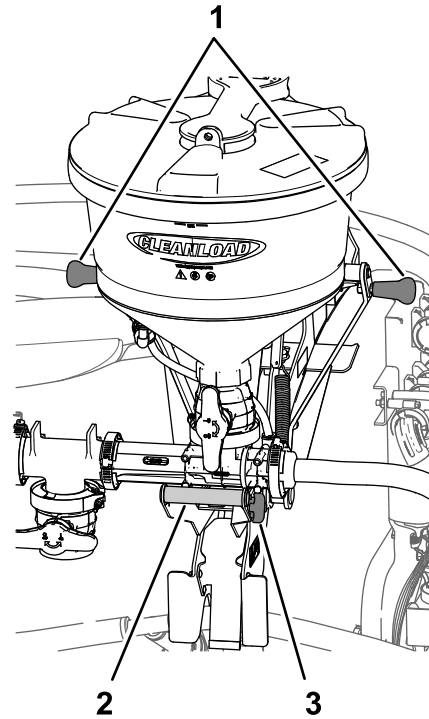


Figure 31

1. Handles (top of the cradle)
2. Eductor handle
3. Latch handle

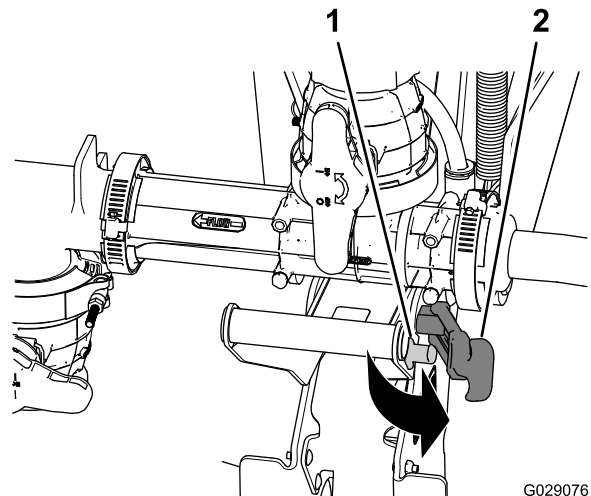


Figure 32

1. Latch post
2. Latch handle

2. Grasp the eductor handle at the top of the cradle in addition to the eductor handle and pull the eductor handle out until the spring clip releases from the pivot tube (Figure 31 and Figure 33).

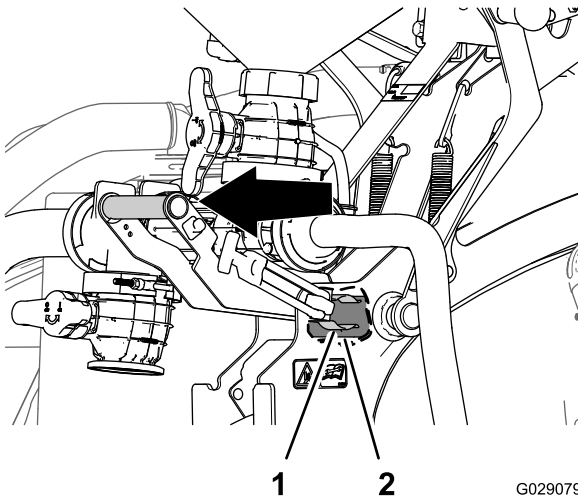


Figure 33 G029079

1. Spring clip 2. Pivot tube

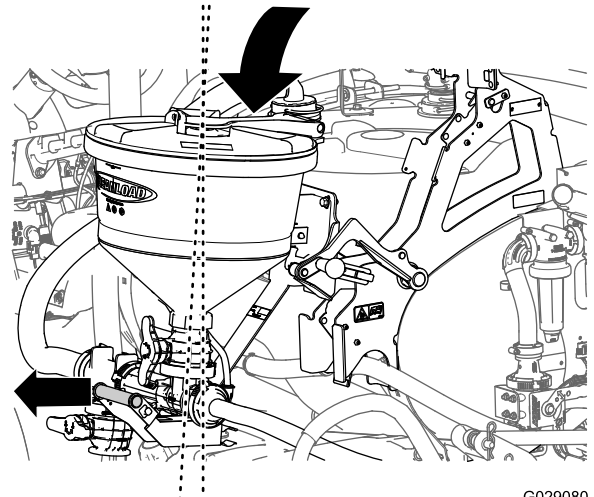


Figure 35 G029080

3. Pull the eductor handle outward and down until the hook of the latch at the inboard side of the back plate is clear of the latch rod of the main support-frame assembly (Figure 34).

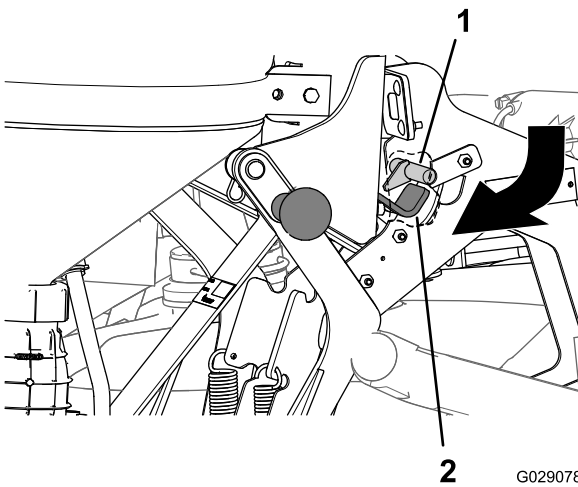


Figure 34 G029078

1. Latch rod (main-support frame) 2. Latch (back plate)

4. Fully lower the eductor while holding the eductor handle outward slightly (Figure 35).

Note: You will need to tip the bottom of the eductor outward so that you can align the hook of the latch under the spring plate at the bottom of the main-support frame.

5. When the latch of the back plate is under the spring plate (A of Figure 36), rotate the eductor handle inward so that the hook portion of the latch is aligned behind the spring plate (B of Figure 36).

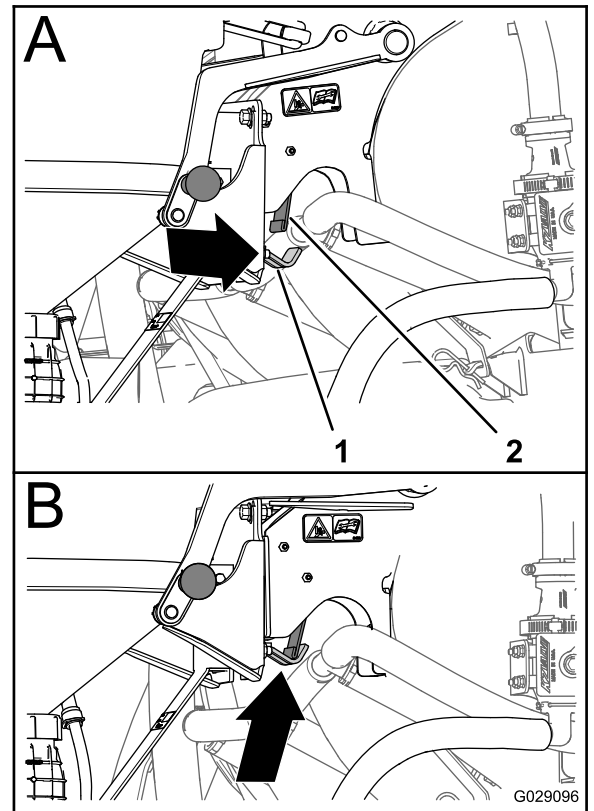


Figure 36 G029096

1. Latch hook 2. Spring plate

Raising the Educator

1. Grasp a handle at the top of the cradle in addition to the educator handle and pull the educator handle outward until the hook portion of the latch is aligned outward of the spring plate (Figure 33 and Figure 36).
2. Raise the educator while holding the educator handle outward slightly (Figure 35).
Note: Tip the top of the educator inward as needed so that you can align the latch at the inboard side of the back plate under the latch rod of the main-support-frame assembly.
3. Push in the handles at the top of the cradle until the hook portion of the latch is aligned behind the latch rod of the main-support frame (Figure 34).
4. Push in the educator handle so that the hook raises to the latch rod and the spring clip fully seats around the pivot tube (Figure 33).
5. Pull the latch handle onto the latch post (Figure 32).

Protecting the Turf when Operating a Stationary Machine

Important: Under some conditions, heat from the engine, radiator, and muffler can potentially damage the grass when operating the sprayer in a stationary mode. Stationary modes include tank agitation, hand spraying, or using a walking boom.

Take the following precautions:

- **Avoid** stationary spraying when conditions are very hot and/or dry, as turf can be more stressed during these periods.
- **Avoid** parking the machine on the turf while stationary spraying. Park the machine on a cart path whenever possible.
- **Minimize** the amount of time that the machine is left running over any particular area of turf. Both time and temperature affect how much the grass may be damaged.
- **Set the engine speed as low as possible** to achieve the desired pressure and flow. This will minimize the heat generated and the air velocity from the cooling fan.
- **Allow heat to escape** upward from the engine compartment by raising the engine guard/seat assemblies during stationary operation rather than being forced out under the vehicle. Refer to your *Operator's Manual* for more information on raising the seat assemblies.

Note: Use a heat-shield blanket underneath the vehicle during stationary operation for additional heat protection. Contact your Authorized Toro Distributor to obtain a Toro heat-shield blanket kit for turf sprayers.

Using the Educator

The following procedure assumes the following operational states exist for the standard tank agitation: The sprayer is started and running, the pump is engaged and set to the desired pressure, and the throttle is in the mid-range position.

Starting the Educator

Note: Close the educator hopper valve and hopper rinse ball valve(s) before starting the educator.

1. Lower the educator.
2. Open the lid to check for foreign objects which may hinder performance or contaminate the system.
3. Close and lock the lid by turning the cover clockwise.
4. Turn the educator valve to open the educator circuit.
5. Open the hopper valve (red handle) located on the bottom of the hopper.
6. Unlock and open the lid slowly by turning the cover counterclockwise.

Loading Liquid or Powdered Chemical into the Hopper

1. Pour the required amount of chemical into the hopper.

Note: Avoid splashing liquids or powdered chemicals outside of the hopper.

2. If applicable, rinse the empty chemical containers. Place the container opening over the container rinse valve and press down.

Note: This will activate the rinse valve and rinse the container.

3. Close and lock the lid by turning the cover clockwise. Open the rinse ball valve and turn it on for 20 seconds to rinse the hopper.

Note: Close the ball valve and return the locking band to the locked position.

4. Open the lid and inspect for chemical residue.
5. Repeat step 3 as necessary.
6. Close the hopper valve.

Loading Chemicals with the Suction Lance (optional accessory)

Note: Lance suction depends upon eductor pressure and flow. For best results, use pressure up to 10 bar (150 psi) maximum.

1. Insert the suction lance body into the eductor until the O-ring seals on the hopper drain.

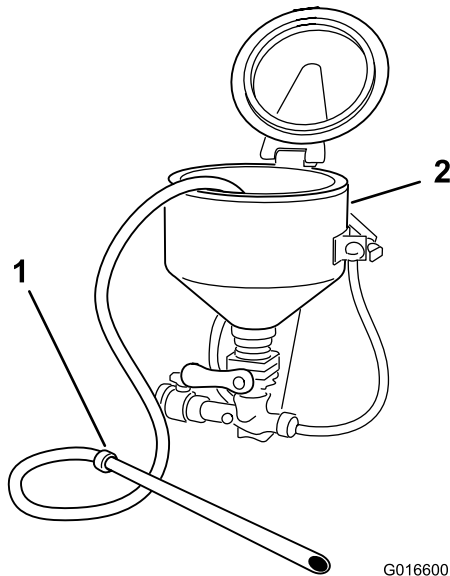


Figure 37

1. Suction lance
2. Eductor

Shutting down the Eductor

1. Close all the valves.

Note: Close the hopper valve first.

2. Remove all chemical residue.
3. Close and lock the hopper lid by turning the cover clockwise.
4. Return the agitation valve to the fully open position.
5. Close the eductor valve.
6. Return the eductor to the transport position, and lock it with the transport strap.

-
2. Use the free end of the lance to pierce the bag or container to vacuum powdered or liquid chemical.
 3. Place the lance end into a clean container of water to rinse the lance assembly.
 4. Remove the lance body from eductor and drain any remaining fluid into the hopper.
 5. Close the hopper valve (red handle).

Troubleshooting

Problem	Possible Cause	Corrective Action
The education rate is low.	<ol style="list-style-type: none"> 1. There is a lack of flow and pressure to the eductor system. 2. The outlet/Inlet hose is obstructed. 3. Fittings with elbows or other flow-restrictions are in the eductor outlet. 	<ol style="list-style-type: none"> 1. Increase the pump speed. Turn the agitation throttling toward the closed position. 2. Disassemble and remove any obstructions. 3. Use only sweeping turns with flexible hoses.
There is no rinsing or flushing action.	<ol style="list-style-type: none"> 1. The bottle rinse nozzle is plugged or clogged. 2. The flush tee is plugged or clogged. 	<ol style="list-style-type: none"> 1. Disassemble the rotary portion of the nozzle from the lower valve assembly and back flush until the nozzle ports are clear of debris. 2. Disassemble the flush tee and clean until the nozzle ports are clear of debris.
There are leaks at the fittings.	<ol style="list-style-type: none"> 1. The fittings are damaged. 2. The thread sealant is worn. 	<ol style="list-style-type: none"> 1. Check for cracks in the fitting. Replace the fitting if necessary. 2. Disassemble and seal the joint with joint seal compound if a leak occurs on the threads.

Notes:

International Distributor List

Distributor:	Country:	Phone Number:	Distributor:	Country:	Phone Number:
Agrolanc Kft	Hungary	36 27 539 640	Maquiver S.A.	Colombia	57 1 236 4079
Balama Prima Engineering Equip.	Hong Kong	852 2155 2163	Maruyama Mfg. Co. Inc.	Japan	81 3 3252 2285
B-Ray Corporation	Korea	82 32 551 2076	Mountfield a.s.	Czech Republic	420 255 704 220
Casco Sales Company	Puerto Rico	787 788 8383	Mountfield a.s.	Slovakia	420 255 704 220
Ceres S.A.	Costa Rica	506 239 1138	Munditol S.A.	Argentina	54 11 4 821 9999
CSSC Turf Equipment (pvt) Ltd.	Sri Lanka	94 11 2746100	Norma Garden	Russia	7 495 411 61 20
Cyril Johnston & Co.	Northern Ireland	44 2890 813 121	Oslinger Turf Equipment SA	Ecuador	593 4 239 6970
Cyril Johnston & Co.	Republic of Ireland	44 2890 813 121	Oy Hako Ground and Garden Ab	Finland	358 987 00733
Equiver	Mexico	52 55 539 95444	Parkland Products Ltd.	New Zealand	64 3 34 93760
Femco S.A.	Guatemala	502 442 3277	Perfetto	Poland	48 61 8 208 416
ForGarder OU	Estonia	372 384 6060	Pratoverde SRL.	Italy	39 049 9128 128
G.Y.K. Company Ltd.	Japan	81 726 325 861	Prochaska & Cie	Austria	43 1 278 5100
Geomechaniki of Athens	Greece	30 10 935 0054	RT Cohen 2004 Ltd.	Israel	972 986 17979
Golf international Turizm	Turkey	90 216 336 5993	Riversa	Spain	34 9 52 83 7500
Guandong Golden Star	China	86 20 876 51338	Lely Turfcare	Denmark	45 66 109 200
Hako Ground and Garden	Sweden	46 35 10 0000	Solvart S.A.S.	France	33 1 30 81 77 00
Hako Ground and Garden	Norway	47 22 90 7760	Spypros Stavrinides Limited	Cyprus	357 22 434131
Hayter Limited (U.K.)	United Kingdom	44 1279 723 444	Surge Systems India Limited	India	91 1 292299901
Hydroturf Int. Co Dubai	United Arab Emirates	97 14 347 9479	T-Markt Logistics Ltd.	Hungary	36 26 525 500
Hydroturf Egypt LLC	Egypt	202 519 4308	Toro Australia	Australia	61 3 9580 7355
Irrimac	Portugal	351 21 238 8260	Toro Europe NV	Belgium	32 14 562 960
Irrigation Products Int'l Pvt Ltd.	India	0091 44 2449 4387	Valtech	Morocco	212 5 3766 3636
Jean Heybroek b.v.	Netherlands	31 30 639 4611	Victus Emak	Poland	48 61 823 8369

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 General Commercial Product 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.

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.

- 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