

# Chemical Pre-Mix Kit Multi Pro® WM Turf Sprayer

Model No. 41244—Serial No. 403200001 and Up

**Operator's Manual** 

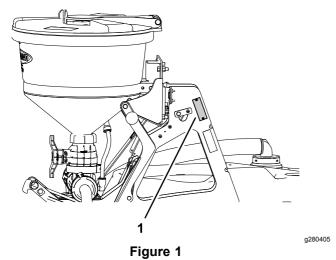
# Introduction

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. Using this product for purposes other than its intended use could prove dangerous to you and bystanders.

Read this information carefully to learn how to operate and maintain your product properly and to avoid injury and product damage. You are responsible for operating the product properly and safely.

Visit www.Toro.com for product safety and operation training materials, accessory information, help finding a dealer, or to register your product.

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 identifies the location of the model and serial numbers on the product. Write the numbers in the space provided.



1. Model and serial number plate

Model No.		
Serial No		

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

g000502

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.

This product complies with all relevant European directives; for details, please see the separate product specific Declaration of Conformity (DOC) sheet.

#### **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

#### **A WARNING**

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

- Carefully read and follow the chemical warning labels and Safety Data Sheets (SDS) 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 one 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.

Shut off the machine, remove the key (if equipped), and wait for all movement to stop before you leave the operator's position. Allow the machine to cool before adjusting, servicing, cleaning, or storing it.

Improperly using or maintaining this machine can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety-alert symbol A, which means Caution, Warning, or Danger—personal safety instruction. Failure to comply with these instructions may result in personal injury or death.

# Safety and Instructional Decals



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



93-6674

decal93-6674

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



119-4988

decal119-4988

1. Lock

2. Unlock



dec

138-6117

 Warning—do not stand near the exhaust pipe; the muffler is hot.

# Setup

# **Loose Parts**

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

Procedure	Description	Qty.	Use
1	No parts required	_	Prepare to install the kit.
	Support frame assembly Flange locknut (3/8 inch) Back-plate assembly	1 2 1	
	Cradle arm, right Cradle arm, left Bushing, small Pivot pin	1 1 2 2	
2	Jam nut (3/8 inch) Handle Bolt (3/8 x 1-1/4 inches)	2 2 2 2	Assemble the frame.
	Set screw	2	
	Hairpin	2	
	Flat washer	2 2	
	Thick square spacer Thin square spacer	2	
	Carriage bolt (3/8 x 1-1/2 inch)	2	
3	Spring	2	Install the latching components.
	Handle	1	
	Socket-head screw (#10-24 x 1/2 inch)	2	
	Latch post Spring clip	1 1	
	Bolt (#10-24 x 1/2 inch)	2	
	Locknut (#10-24)	2	
	Eductor	1	
4	Flange-head bolt (5/16 x 3/4 inch)	2	Install the eductor.
-	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 Gasket	1	
	Flange clamp	1 1	
	Bulkhead	1	
	O-ring	1	
_	Locking ring	1	I watall the advictor be
5	Retainer pin	2	Install the eductor hose.
	Eductor hose assembly	1	
	Supply hose assembly	1	

Procedure	Description	Qty.	Use
6	Retainer pin Valve bracket Eductor valve Pressure hose assembly	2 1 1 1	Install the valve assembly.
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.

# Preparing to Install the Kit Assembling the Frame

#### No Parts Required

#### **Procedure**

- 1. Clean the sprayer; refer to Cleaning the Sprayer in the Operator's Manual for the machine.
- Park the machine on a level surface, engage the parking brake, shut off the engine, remove the key, and wait for all movement to stop before you leave the operator's position; refer to the Operator's Manual for your vehicle.

#### Parts needed for this procedure:

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

### Installing the Support Frame to the Tank

1. Remove the fasteners securing the rear tank straps at the top of the tank.

Note: Retain all parts.

- Install 2 carriage bolts (3/8 x 1-1/2 inch) to the inboard holes on the left side of the rear tank strap.
- 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.

4. Mount 1 thick square spacer and 1 thin square spacer over the 2 previously installed carriage bolts (Figure 3).

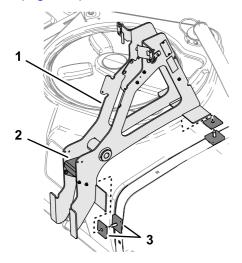


Figure 3

- Main support frame assembly
- 2. Guide plate
- 3. Thick square spacer and thin square spacer)
- 5. Remove and retain the 4 bolts and nuts securing the guide plate to the main-support-frame assembly (Figure 3).
- 6. Install the main support frame over the square spacers and carriage bolts as shown in Figure 3.
- 7. Check the fit of the main support frame to the tank.

When shimmed correctly, the feet of the main support frame are flush with the surface of the tank.

Important: If the main support frame is not flush, add or remove the installed thick and thin square spacers until the feet of the main support frame are flush with the surface of the tank.

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

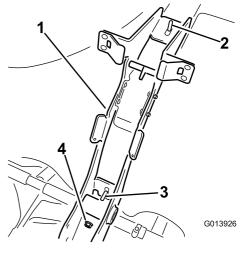


Figure 4

- Main-support-frame assembly
- 2. Exposed bolt
- 3. Exposed bolt
- 4. Flange locknut (3/8 inch)

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9. Install the previously removed guide plate with the 4 bolts and nuts retained in step 5.

## **Preparing the Cradle Arms**

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

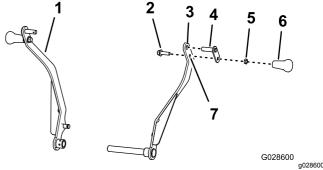


Figure 5

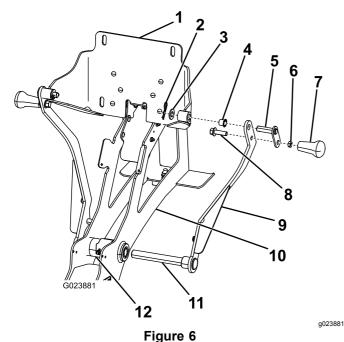
- 1. Cradle arm (left)
- 2. Bolt (3/8 x 1-1/4 inches)
- 3. Upper hole (Cradle arm—left)
- 4. Pivot pin

- 5. Jam nut (3/8 inch)
- 6. Handle
- 7. Lower hole (Cradle arm—left)
- 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 the axle of the right cradle arm through the hinge shaft (Figure 6).

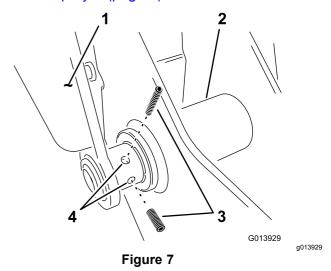


- 1. Back-plate assembly
- 2. Hairpin
- 3. Flat washer
- 4. Bushing
- 5. Pivot pin
- 6. Jam nut (3/8 inch)

- 7. Handle
- 8. Bolt (3/8 x 1-1/4 inches)
- 9. Right cradle arm
- 10. Main-support-frame assembly
- 11. Cradle-arm axle
- 12. Pivot housing
- 2. Loosely attach the left arm to the exposed axle on the other side of the frame. (Figure 6).
- On the back-plate assembly, install the 2 small bushings into the back-plate pivot points (Figure 6).
- Move the back-plate assembly into position between the upper holes in each arm. (Figure 6).
- 5. Install a pivot pin through the upper hole in the arm and the back-plate assembly. (Figure 6).
- 6. Secure the handle to the back-plate assembly using a flat washer and hairpin as shown in Figure 6.
- 7. Secure the handles to the lower holes on the arms (Figure 6) with a bolt (3/8 x 1-1/4 inches) and a jam nut (3/8 inch).

- 8. Secure the upper pivot pin of the left cradle arm to the back plate with a washer (1/2 inch) and hairpin (Figure 6).
- 9. Thread 2 set screws into the left arm at the lower hinge point (Figure 7).

**Note:** Do not tighten the set screws. You will tighten the set screws in Assembling the Eductor to the Sprayer (page 8).



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

3

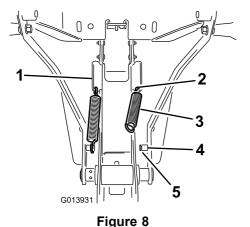
# Installing the Latching Components

Parts needed for this procedure:

2 Spring

### **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).



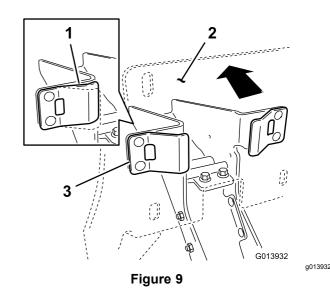
- 1. Angled tab
- 2. Hole in tab
- Spring

- 4. Post
- 5. Groove
- 2. Hook 1 end of the spring into the hole and the other end onto the spring post (Figure 8).
- 3. Make sure that the spring end is seated properly in the groove in the post (Figure 8).
- 4. Repeat steps 1 through 3 for the other side.

# **Adjusting the Tongue Position**

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

- 1. Lift the cradle 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.
- 3. Let the assembly pivot down, toward the tank.
- 4. 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).



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

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 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).

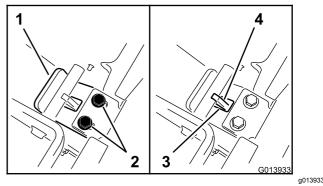


Figure 10

1. Tongue-plate lip

2. Fasteners

- 3. Slot in plate
- 4. Welded tab
- 6. 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 the eductor is installed to adjust the locked position.



# **Installing the Eductor**

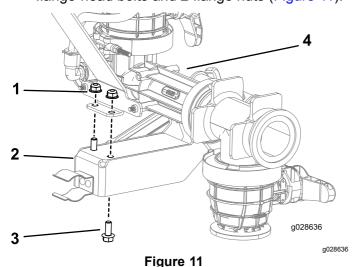
#### Parts needed for this procedure:

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. Attach the handle to the eductor using 2 flange-head bolts and 2 flange nuts (Figure 11).



- I. Flange nut (5/16 inch)
- 3. Flange-head bolt (5/16 inch)

2. Handle

- 4. Eductor
- 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.

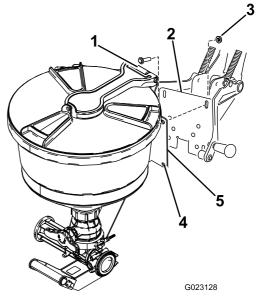


Figure 12

- 1. Bolt (3/8 x 1 inch)
- Eductor assembly mount hole

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- 2. Back plate
- 5. Eductor assembly mount
- 3. Flanged-serrated nut (3/8 inch)
- 2. Assemble the eductor to the back plate (Figure 12) with the 4 bolts (3/8 x 1 inch) and locknuts (3/8 inch).

**Note:** Do not tighten the bolts and locknuts.

- 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.

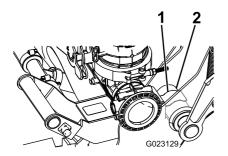


Figure 13

- 1. Spring clip
- 2. Pivot tube

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- Check the eductor height on the cradle back plate and adjust the eductor position as necessary.
- 5. Torque the bolts and locknuts securing the eductor to the to the back plate to 36 to 45 N·m (27 to 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 sprayer tank strap.

**Note:** When adjusted correctly, the eductor appears upright when positioned to 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. Ensure that the tank strap is secure to the tank.



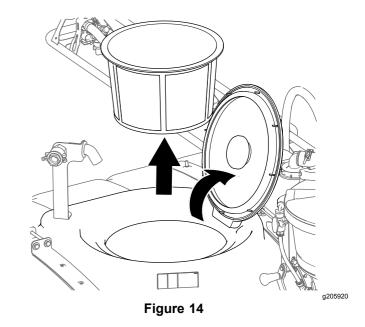
# **Installing the Eductor Hose**

#### Parts needed for this procedure:

1	Bulkhead
1	O-ring
1	Locking ring
2	Retainer pin
1	Eductor hose assembly
1	Supply hose assembly

## **Drilling the Tank**

 Open the lid of the spray tank and remove the filter basket (Figure 14).



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.

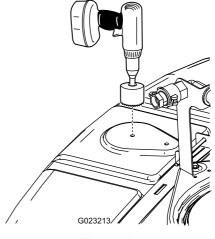


Figure 15

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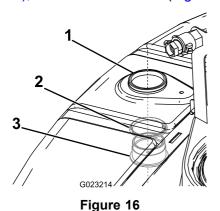
3. Use a 9 cm (3-5/8 inch) hole saw to drill a hole at the drill mark (Figure 15).

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

 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

1. Install the bulkhead fitting and the seal through the hole that you created in Drilling the Tank (page 9), from inside the tank (Figure 16).



1. Locking ring

3. Bulkhead

- 2. O-ring
- 2. Secure the bulkhead to the tank with the locking ring (Figure 16).
- 3. Install the filter basket and close the lid of the spray tank.

# **Installing the Hoses**

 Install the hose end with the 90° fitting to the previously installed bulkhead using a retainer pin (Figure 17).

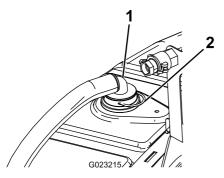
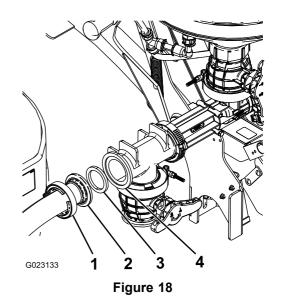


Figure 17

- Eductor-hose assembly
- 2. Retainer pin
- 2. Attach the other end of the hose to the forward-facing opening of the eductor using a gasket and hose clamp (Figure 18).



. Hose clamp

2. Hose

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3. Gasket

4. Eductor

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3. Raise and lower the eductor to ensure that the hose does not catch on anything.

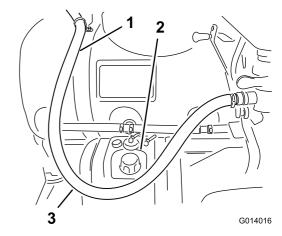


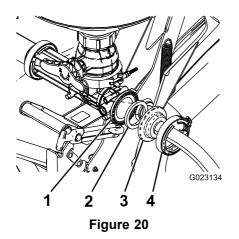
Figure 19

- 1. Eductor hose
- 2. Tank

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3. Slack in the hose

4. Secure the end of the supply hose without a bulkhead to the rear opening on the eductor valve using the gasket and hose clamp (Figure 20).



- 1. Eductor
- 2. Gasket

- 3. Hose
- 4. Hose clamp



# Installing the Eductor Valve Assembly

#### Parts needed for this procedure:

2	Retainer pin
1	Valve bracket
1	Eductor valve
1	Pressure hose assembly

## **Connecting the Valve Assembly**

 Remove the elbow, flange clamp, gasket, elbow, and inlet hose from the pressure filter head (Box A of Figure 21).

**Note:** Retain the gasket, flange clamp, and retainer pin for installation later.

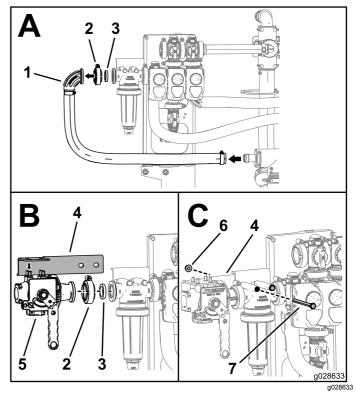
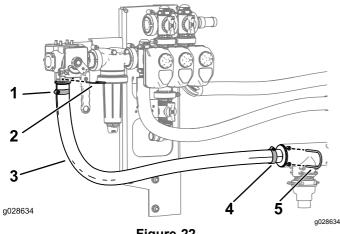


Figure 21

Elbow

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- 2. Flange clamp
- 3. Gasket
- 4. Valve bracket
- 5. Eductor valve
- 6. Nut
- 7. Bolt
- 2. Place the valve bracket on top of the eductor valve as shown in Box B of Figure 21.
- Install the eductor valve using the gasket and flange clamp removed in Step 1; refer to Box B of Figure 21.
- Secure the bracket to the boom valve assembly using the bolts and nuts that are currently installed on the pressure filter; refer to Box C of Figure 21.
- 5. Route and secure the pressure hose assembly as shown in Figure 22.



- Figure 22
- 1. Hose clamp
- 4. Hose clamp
- Retainer pin
- 5. Retainer pin (existing)
- 3. Pressure hose assembly
- Secure the supply hose to the valve using a retainer pin.

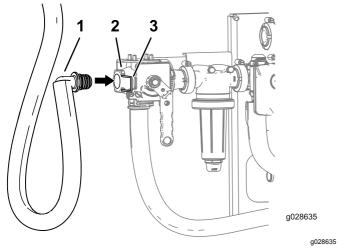


Figure 23

- 1. Supply hose assembly
- 3. Retainer pin
- 2. Eductor valve

# Finishing the Installation

#### Parts needed for this procedure:

Suction lance and hose (optional accessory)

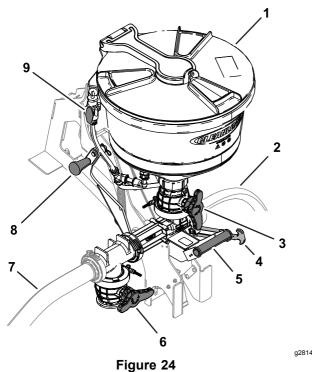
#### **Procedure**

**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.

# **Product Overview**

## **Controls**



- 1. Lid
- 2. Supply hose
- 3. Hopper valve
- 4. Transport Strap
- Lower handle
- 6. Drain valve
- 7. Tank hose
- 8. Upper handle
- 9. Rinse valve

#### Lid

Rotate the lid (Figure 24) 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 it is raised to the transport position.

## **Hopper Valve**

Use the hopper valve (Figure 24) to introduce chemicals from the hopper, into the eductor, and to the hose leading to the sprayer tank.

#### **Handles and Transport Strap**

Use the upper and lower handles (Figure 24) to raise and lower the eductor and to lock it into the transport position.

#### **Drain Valve**

Open the drain valve when cleaning the eductor tank. Close the drain valve when operating the eductor.

#### Rinse Valve

The rinse valve can rinse the inside of the eductor tank. Once the eductor switch is on, the rinse valve will have pressure and is supplied by the contents of the sprayer tank. To open the valve, turn the handle (Figure 24) 90° counterclockwise. This will in introduce fluid into the tank. Turn the handle 90° clockwise to close the valve.

#### **Bottle Rinse**

The bottle rinse is located inside the eductor tank (Figure 25). Once the eductor switch is on, the bottle rinse has pressure and is supplied by the content of the sprayer 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.

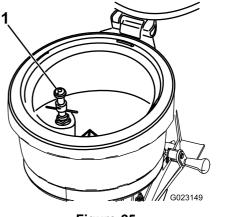


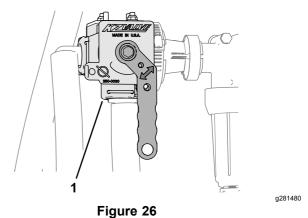
Figure 25

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1. Bottle rinse

#### **Eductor Valve**

Use the eductor valve to control sprayer system flow to the eductor circuit (Figure 26).



1. Eductor valve

# Operation Before Operation

#### **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.

# **During Operation**

# Raising and Lowering the Eductor

#### **Lowering the Eductor**

- Unlatch the rubber transport strap.
- 2. Place one hand on the lower handle and the other hand on the upper handle.
- 3. Lift the eductor away from the vehicle until the spring clamp disengages.
- Guide the eductor as it lowers to the operation position.

### Raising the Eductor

- Lift the lower handle to raise the eductor while slightly tipping it toward the tank.
- Guide the tongue under the cross bar with the welded tab in the upper portion of the frame assembly.
- 3. Pivot the assembly toward the tank, taking care to line up the spring clamp with the large pivot housing in the lower portion of the frame.
- 4. Push until the clamp snaps over the pivot housing.
- 5. Secure the handle with the transport strap.

# 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 mixing, 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.

**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 Eductor**

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 Eductor

- Close the eductor valve, hopper valve, rinse valve, and drain valve before starting the eductor.
- Lower the eductor; refer to Lowering the Eductor (page 14).
- Open the lid to check for foreign objects which may hinder performance or contaminate the system.
  - Clean the hopper as needed.
- Close and lock the lid by turning it clockwise.

- Rotate the eductor valve to open sprayer system flow to the eductor circuit.
- Open the hopper valve (the red handle located at the bottom of the hopper).
- Unlock and open the lid slowly by turning the cover counterclockwise.

## Loading Liquid or Powdered **Chemical into the Hopper**

Pour the required amount of chemical into the hopper.

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

If applicable, rinse the empty chemical containers by placing the opening of the container over the spout of the bottle rinse, press the container down, and removing the container when it is clean.

Pressing down the spout activates the rinse valve and rinses the container.

- Close and lock the lid by turning it clockwise.
- Open the rinse valve and rinse the hopper for 20 seconds.
- 5. Close the rinse valve.
- Open the lid and inspect the hopper for chemical residue.

Note: Repeat steps 3 through 6 until the chemical residue is flushed from the hopper.

- Close the eductor valve, hopper valve, rinse valve, and drain valve.
- Raise the eductor to the transport position and secure it with the transport strap; refer to Raising the Eductor (page 14).

# **Loading Chemicals with the Suction Lance (Optional** Accessory)

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

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

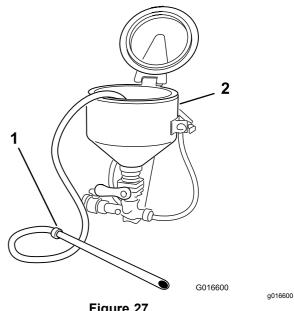


Figure 27

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

## **Shutting Down the Eductor**

- Close and lock the hopper lid by turning the cover clockwise.
- 2. Align a 19 L (5 US gallon) container under the drain valve.
- Open the drain valve.
- Allow the eductor to fully drain and close the valve.
- Raise the eductor to the transport position and secure it with the transport strap; refer to Raising the Eductor (page 14).

# **Operating Tips**

Perform the following steps if you are having difficulty getting the powered or granulated chemicals to mix in the sprayer tank:

- 1. Mix a portion the chemical into the sprayer tank.
- 2. Close the eductor valve and run sprayer tank agitation.
- 3. Open the eductor valve and mix another portion of the chemical into the sprayer tank.
- 4. Repeat steps 2 and 3 until all the chemicals are mixed into the sprayer tank.

# After Operation

# **Cleaning Eductor**

Service Interval: After each use

*Important:* Do not use brackish or reclaimed water to clean the machine.

- 1. Prepare the sprayer system for cleaning; refer to the Cleaning the Sprayer System in the *Operator's Manual* for your machine.
- Lower the eductor and ensure that the lid is closed and locked; refer to Lowering the Eductor (page 14).
- Open the eductor valve, hopper valve, and rinse valve
- 4. Clean the sprayer system; refer to the Cleaning the Sprayer System in the *Operator's Manual* for your machine.
- 5. Close the rinse valve, hopper valve, and eductor valve.
- 6. Align a 19 L (5 US gallon) container under the drain valve, open the drain valve, allow the eductor to fully drain, and close the valve.
- 7. Close and lock the hopper lid by turning the cover clockwise.
- 8. Wash the exterior of the eductor as needed using water alone or with a mild detergent.
- Raise the eductor to the transport position and secure it with the transport strap; refer to Raising the Eductor (page 14).

# **Troubleshooting**

Problem	Possible Cause	Corrective Action
The eduction rate is low.	There is a lack of flow and pressure to the eductor system.	Increase the pump speed. Turn the agitation throttling toward the closed position.
	2. The outlet/Inlet hose is obstructed.	Disassemble and remove any obstructions.
	Fittings with elbows or other flow-restrictions are in the eductor outlet.	Use only sweeping turns with flexible hoses.
There is no rinsing or flushing action.	The bottle rinse nozzle is plugged or clogged.	Disassemble the rotary portion of the nozzle from the lower valve assembly and back flush until the nozzle ports are clear of debris.
	2. The flush tee is plugged or clogged.	Disassemble the flush tee and clean until the nozzle ports are clear of debris.
There are leaks at the fittings.	The fittings are damaged.	Check for cracks in the fitting. Replace the fitting if necessary.
	2. The thread sealant is worn.	Disassemble and reseal the joint with joint seal compound if a leak occurs on the threads.

# **Notes:**

#### **EEA/UK Privacy Notice**

#### Toro's Use of Your Personal Information

The Toro Company ("Toro") respects your privacy. When you purchase our products, we may collect certain personal information about you, either directly from you or through your local Toro company or dealer. Toro uses this information to fulfil contractual obligations - such as to register your warranty, process your warranty claim or to contact you in the event of a product recall - and for legitimate business purposes - such as to gauge customer satisfaction, improve our products or provide you with product information which may be of interest. Toro may share your information with our subsidiaries, affiliates, dealers or other business partners in connection these activities. We may also disclose personal information when required by law or in connection with the sale, purchase or merger of a business. We will never sell your personal information to any other company for marketing purposes.

#### **Retention of your Personal Information**

Toro will keep your personal information as long as it is relevant for the above purposes and in accordance with legal requirements. For more information about applicable retention periods please contact legal@toro.com.

#### **Toro's Commitment to Security**

Your personal information may be processed in the US or another country which may have less strict data protection laws than your country of residence. Whenever we transfer your information outside of your country of residence, we will take legally required steps to ensure that appropriate safeguards are in place to protect your information and to make sure it is treated securely.

#### **Access and Correction**

You may have the right to correct or review your personal data, or object to or restrict the processing of your data. To do so, please contact us by email at legal@toro.com. If you have concerns about the way in which Toro has handled your information, we encourage you to raise this directly with us. Please note that European residents have the right to complain to your Data Protection Authority.

#### The Toro Warranty



Two-Year or 1,500 Hours 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 2 years or 1,500 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*. Repairs for product issues caused by failure to perform required maintenance and adjustments are not covered under this warranty.

#### **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.
- Product failures which result from failure to perform recommended maintenance and/or adjustments.
- Product failures which result from operating the Product in an abusive, negligent, or reckless manner.
- Parts consumed through use that are not 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.
- Failures caused by outside influence, including, but not limited to, weather, storage practices, contamination, use of unapproved fuels, coolants, lubricants, additives, fertilizers, water, or chemicals.
- 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.

#### **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. Note: (Lithium-Ion battery only): Pro-rated after 2 years. Refer to the battery warranty for additional information.

# Lifetime Crankshaft Warranty (ProStripe 02657 Model Only)

The Prostripe which is fitted with a genuine Toro Friction Disc and Crank-Safe Blade Brake Clutch (integrated Blade Brake Clutch (BBC) + Friction Disc assembly) as original equipment and used by the original purchaser in accordance with recommended operating and maintenance procedures, are covered by a Lifetime Warranty against engine crankshaft bending. Machines fitted with friction washers, Blade Brake Clutch (BBC) units and other such devices are not covered by the Lifetime Crankshaft Warranty.

#### 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 Emissions 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.

#### 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 your Authorized Toro Service Center.