Form No. 3362-986 Rev A

TORO®

Count on it.

Operator's Manual

Pro Sweep 5200 Turf Sweeper

Model No. 07066—Serial No. 310000001 and Up

CE

To register your product or download an *Operator's Manual* or *Parts Catalog* at no charge, go to www.Toro.com.

Original Instructions (EN)

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

Electromagnetic Compatibility

Domestic: This device complies with FCC rules Part 15. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) this device must accept any interference that may be received, including interference that may cause undesirable operation.

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a FCC Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:Reorient the receiving antenna, relocate the remote control receiver with respect to the radio/TV antenna or plug the controller into a different outlet so that the controller and radio/TV are on different branch circuits.If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions.The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402. Stock No. 004-000-00345-4.

FCC ID: OF7PFB1

IC: 3575A-PFB1

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

If a user makes changes or modifications not expressly approved by the party responsible for compliance, they could void the user's authority to operate the equipment.

Introduction

This machine is intended to be used by professional, hired operators in commercial applications. The primary function of the machine is to facilitate core removal from large turf areas in one pass. The movable tongue provides an offset position for sweeping.

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.

You may contact Toro directly at www.Toro.com for product and 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.

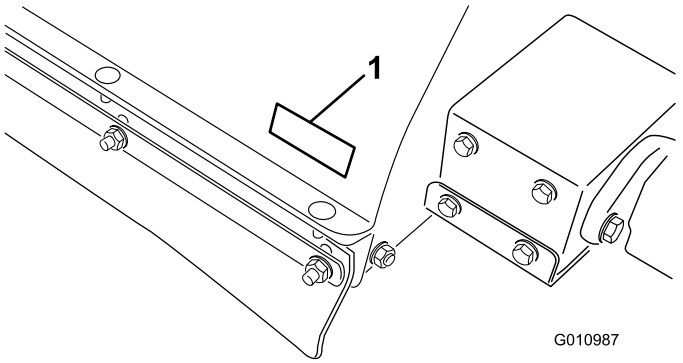


Figure 1

1. Model and serial number location

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

1. Safety alert symbol

This manual uses 2 other words to highlight information. **Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

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Contents

Introduction 2
Safety 4
- Safe Operating Practices 4
- Safety and Instructional Decals 6

Setup 9
- 1 Special Instructions for Workman and other Utility Tow Vehicles (tractors): 10
- 2 Removing the Hitch Tongue and Hydraulic Cylinder from Shipping Position 10
- 3 Installing the Hitch Tongue 10
- 4 Installing the Hydraulic Cylinder 12
- 5 Installing the Power Wire Harness 13
- 6 Mounting the Sweeper to the Tow Vehicle 13
- 7 Routing and Securing the Hydraulic Hoses and Wire Harness 14
- 8 Connecting the Hydraulic Hoses 14
- 9 Connecting the Harness' 15
- 10 Mounting the Windrow Blades 15

Product Overview 17
- Controls 17
- Specifications 17
- Dimensions and Weights (approx.) 17
- Attachments/Accessories 17

Operation 18
- Adjusting the Brush Height 18
- Adjusting the Roller Scraper 19
- Adjusting the Front Flap Height 19
- Checking the Tire Pressure 19
- Checking the Wheel Lug Nut Torque 19
- Operating the Sweeper 20
- Activating Controller 20
- Controller Time Out 20
- Using the Hopper Safety Support 20
- Checking Interlock System 21
- Operating Tips 21
- While Sweeping 22
- Dumping the Hopper 22
- Inspection and Cleanup after Operation 22
- Transporting Sweeper 23
- Cold Weather Operation 23

Maintenance 24
- Recommended Maintenance Schedule(s) 24
- Daily Maintenance Checklist 25
- Lubrication 26
- Synchronize the Remote Transmitter/Control Module 27
- Troubleshooting 28

Storage 29

Schematics 30

Safety

Hazard control and accident prevention are dependent upon the awareness, concern, and proper training of the personnel involved in the operation, transport, maintenance, and storage of the machine. Improper use or maintenance of the machine can result in injury or death. To reduce the potential for injury or death, comply with the following safety instructions.

The following instructions are from ANSI standard B71.4-2004.

Safe Operating Practices

Supervisor's Responsibilities

- Ensure operators are thoroughly trained and familiar with the Operator's Manual and all decals on the machine.
- Establish your own special procedures and work rules for unusual operating conditions (e.g., slopes too steep for machine operation, adverse weather conditions, etc.).

Before Operating

- Read, understand and follow the instructions in the Operator's Manual and on the machine before starting. Become familiar with all controls and know how to stop quickly. A free replacement manual is available by contacting Toro directly at www.Toro.com.
- NEVER allow children to operate the machine. NEVER allow adults to operate the machine without proper instruction. Only trained operators who have read this manual should operate this machine.
- NEVER operate the machine while under the influence of drugs or alcohol.
- Become familiar with the controls and know how to stop the tow vehicle engine quickly.
- Keep all shields, safety devices, and decals in place. If a shield, safety device, or decal becomes damaged, malfunctioning, or illegible, repair or replace it before operation is commenced. Also tighten loose nuts and bolts to ensure machine is in safe operating condition.
- Always wear substantial shoes. Do not operate machine while wearing sandals, tennis shoes, or sneakers or when barefoot. Do not wear loose-fitting clothing that could get caught in moving parts and possibly cause injury. Wearing safety glasses, safety shoes, long pants, and a helmet is advisable and required by some local ordinances and insurance regulations.
- Do not alter this equipment in any manner which may cause hazardous conditions.
- Safety interlock switches are for the operators protection. Disconnected or malfunctioning safety interlock switches could allow the machine to operate in an unsafe manner and may cause personal injury
  - Do not disconnect the safety interlock switches.
  - Check the operation of the switches daily to be sure the interlock system is operating correctly.
  - If a switch is malfunctioning, replace it before operating the machine.

While Operating

- Rotating parts can cause serious personal injury. Keep hands and feet away from sweeper reel while machine is running. Keep hands, feet, hair, and clothing away from all moving parts to prevent injury. NEVER operate the machine with covers, shrouds, or guards removed.
- **Don't take an injury risk!** When a person or pet appears unexpectedly in or near the sweeping area, **stop sweeping**. Careless operation, combined with terrain angles, ricochets, or missing or damaged guards, can lead to thrown object injuries. Do not resume sweeping until area is cleared.
- NEVER carry passengers.
- ALWAYS look to the rear of machine before backing up and assure no one is behind the machine.
- Operator must be skilled and trained in how to drive on hillsides. Failure to use caution on slopes or hills may cause loss of control, possibly resulting in personal injury or death.
- When using a Workman as a tow vehicle, it is recommended to put 500 pounds of weight into the vehicle bed when operating on any slopes.
- Lightning can cause severe injury or death. If lightning is seen or thunder is heard in the area, do not operate the machine; seek shelter.
- Tip over can cause serious injury or death.
  - NEVER operate on steep slopes.
  - Sweep slopes up and down, never across the face.
  - When going uphill or downhill, do not stop or start suddenly.
  - Stay alert for holes in the terrain or other hidden hazards. To avoid tipping or loss of control, do not drive close to a ditch, creek, or drop off.

  - Never transport the sweeper when the transport alarm is activated.
  - Never transport the sweeper when it is in the offset position.
  - If engine stalls or machine loses headway and cannot make it to the top of a slope, do not turn machine around. Always back slowly straight down the slope.
- Using the machine demands attention. Failure to operate machine safety may result in an accident, tip over of the machine, and possible serious injury or death. Drive carefully. To prevent tipping or loss of control:
  - Operate only in daylight or when there is good artificial light.
  - Drive slowly.
  - Watch for holes or other hazards.
  - Use care when backing machine.
  - Do not drive close to a sand trap, ditch, tall curb, creek, or other hazard.
  - Reduce speed when making sharp turns.
  - Avoid turning the sweeper on a hill side or embankment.
  - Avoid sudden stops and starts.
  - Do not go from reverse to forward or forward to reverse without first coming to a complete stop.
  - Do not attempt sharp turns or abrupt maneuvers or other unsafe driving actions that may cause loss of control.
  - Watch out for traffic when near or crossing roads. Always yield the right-of-way.

While Dumping

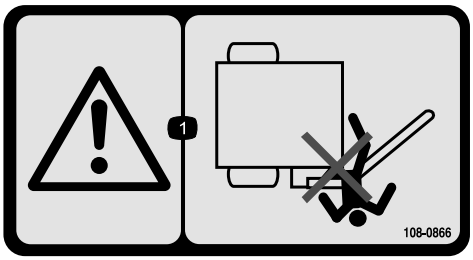
- The sweeper must be in the transport position (directly behind tow vehicle) before activating dump cycle.
- Dumping debris can cause serious injury. Stay clear of hopper while machine is backing up or dumping.
- Under rare circumstances wet, compressed grass clippings may generate heat. Always empty the hopper before storing the unit.
- Raising and lowering of hopper door could cause injury to bystanders or pets. Keep bystanders and pets a safe distance from hopper when operating to dump debris or when opening and closing hopper door.
- To avoid the risk of electrical shock, dump hopper only in area clear of overhead wires and other obstructions.
- NEVER dump hopper on a slope. Always dump hopper on level ground.
- Park machine on a level surface, empty hopper, lower hooper until roller is on the ground and block wheels before removing sweeper from tow vehicle.

Maintenance

- Hydraulic fluid escaping under pressure can penetrate skin and do serious damage. Keep body and hands away from pin hole leaks or nozzles that eject high pressure hydraulic fluid. Use cardboard or paper to find hydraulic leaks. Fluid accidentally injected into the skin must be surgically removed within a few hours by a doctor familiar with this form of injury or gangrene may result.
- Perform only those maintenance instructions described in this manual. If major repairs are ever needed or assistance desired, contact an Authorized TORO Distributor.
- Make sure all hydraulic line connectors are tight, and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- Performing maintenance on machine not properly supported with jack stands may cause machine to fall and could cause injury.
- To be sure of optimum performance and safety, always purchase genuine TORO replacement parts and accessories. Replacement parts and accessories made by other manufacturers could be dangerous. Altering this machine in any manner may affect the machine's operation, performance, or durability, or its use may result in injury or death. Such use could void product warranty of The Toro Company.

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.



108–0866

1. Crushing hazard—keep bystanders a safe distance from the sweeper arm.



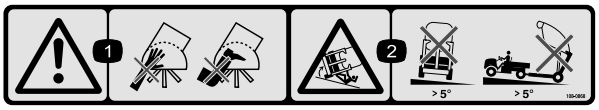
93-9899

1. Crushing hazard—install the cylinder lock.



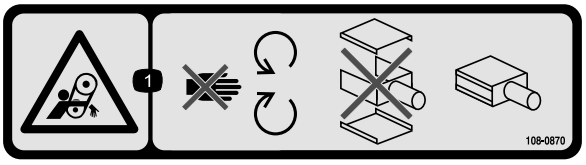
58-6520

1. Grease



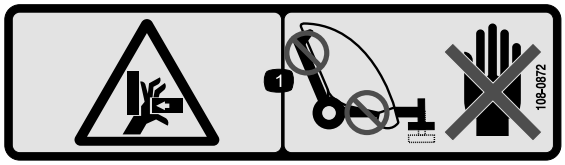
108–0868

1. Warning—keep hands and feet out of the sweeper brush.
2. Tipping hazard—do not operate with the sweeper in the raised position on slopes greater than 5 degrees.



108–0870

1. Entanglement hazard, belts—stay away from moving parts, keep all guards and shields in place; do not operate with covers removed.



108–0872

1. Crushing hazard of hand—keep hands away from pinch points.



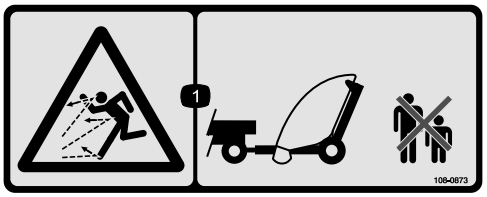
93-9852

1. Warning—read the *Operator's Manual.*
2. Crushing hazard—install the cylinder lock.



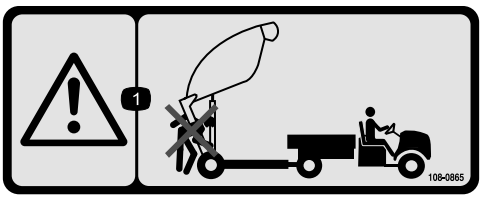
108–0862

1. Warning—read the *Operator's Manual*, do not operate this machine unless you are trained; keep bystanders a safe distance from the machine.
2. Entanglement hazard, belts—stay away from moving parts, keep all guards and shields in place; do not operate with covers removed.



108–0873

1. Thrown object hazard—keep bystanders a safe distance away.



108–0865

1. Warning—keep bystanders a safe distance from the machine when dumping sweeper.



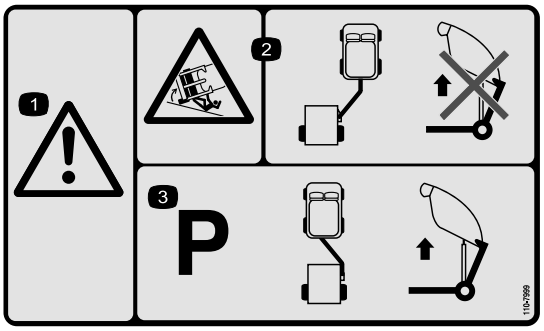
108–0861

1. Warning—read the *Operator's Manual*, do not operate this machine unless you are trained.
2. Crushing/dismemberment hazard of bystanders—do not carry passengers.
3. Electrical shock hazard, overhead power lines—watch for over head power lines.
4. Loss of control hazard—the maximum load at the sweeper is 3500 lbs (1590 kg), at the hitch is 250 (114 kg) lbs, do not drive down slopes.
5. Warning—keep speeds below 15mph (24 kmh).
6. Stored energy hazard, trailer—lower the sweeper, place it on blocks or jack stands, disconnect the sweeper, disconnect the hydraulics and wiring harness; do not drive the sweeper in the raised position.



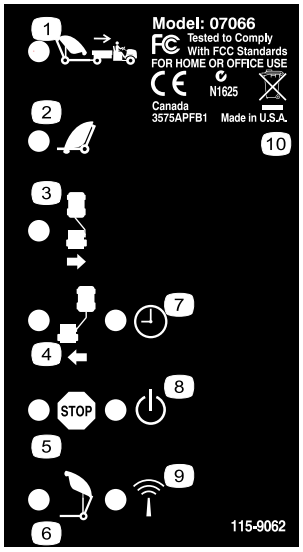
108–0863

1. Crushing hazard, falling object hazard—keep bystanders and vehicles a safe distance from the machine when the sweeper is raised.



110-7999

1. Warning
2. Tipping hazard—When the attachment is in the sweep position do not raise the attachment to dump.
3. The machine must be parked with the attachment in the tow position before raising the sweeper to dump.



115-9062

1. Raise the sweeper to transport position
2. Lower the sweeper
3. Move sweeper to off-set right
4. Move sweeper to off-set left
5. Stop
6. Hopper dump
7. Time out, 30 minutes
8. Power
9. RF activity
10. Contains recyclable materials, do not discard.

Setup

Loose Parts

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

Procedure	Description	Qty.	Use
1	No parts required	–	
2	No parts required	–	Remove tongue and hydraulic cylinder from shipping position
3	Hitch Tongue Hitch Pin Bolt, 3/8 x 1-1/4 inch Nut, 3/8-16 Large washer Large nut Square head set screw	1 1 1 1 1 1 1	Install the hitch tongue
4	Rear actuator tab Bolt, 1/2 x 2 inch Flat washer, .531 x .063 Locknut, 1/2 inch Bolt, 3/8 x 1–1/4 inch Pin assembly Flange nut, 3/8 inch	1 4 8 4 2 2 2	Install the hydraulic cylinder
5	Power wire harness Cable tie	1 2	Install the power wire harness
6	Hitch pin Hair pin cotter	1 1	Mount the sweeper to the tow vehicle
7	Cable tie	8	Route and secure the hydraulic hoses and wire harness
8	No parts required	–	
9	No parts required	–	
10	Blade mounting assembly Bolt, 7/16 x 3–1/4 inch Small washer Large washer Spacer Locknut Chain Bolt, 3/8 x 1–1/4 inch Flange nut Snap link	1 2 4 1 1 2 1 1 1 1	Mount the Windrow Blades

Media and Additional Parts

Description	Qty.	Use
Operator's Manual	1	Read before operating the aerator
Parts Catalog	1	Use to reference part numbers
CE Certificate	1	
Remote Control	1	Use to operate the sweeper

1

Special Instructions for Workman and other Utility Tow Vehicles (tractors):

No Parts Required

Procedure

- The Toro Pro Sweep can be towed by most utility tractors equipped with hydraulics producing 7 to 8 GPM @ 2000 p.s.i. and flotation tires for operation over golf greens. The tractor must have adequate brakes and drawbar hitch capacity to handle a 3500 lb. (1587 kg.) trailer. Refer to Tow Vehicle Operator's Manual for towing instruction and precautions.
- The Workman vehicle must be equipped with the High-Flow Hydraulics Kit. Also, on Workman vehicles with serial numbers prior to 900000001, the Heavy Duty Drawbar (Model 44212 or 44213) must be installed.

  Note: The 4WD Workman model is the best for hilly or bermed approaches to greens.

  Important: On older model Workman vehicles, Do Not attempt to pull the sweeper when loaded with material, with the standard Workman hitch. It is only rated to 1500 lbs. and may bend or damage the cross tube axle support or rear spring shackles. Always use the H.D. Drawbar Kit Model 44212 or H.D. Frame Drawbar Model 44213.

  Important: Do Not attempt towing a loaded sweeper with a light utility vehicle or run-about. They do not normally have adequate brakes, suspension, or frame strength to handle the weight of the sweeper.
- Trailer Brakes are highly recommended when using the sweeper in hilly terrain. When fully loaded the sweeper may weigh as much as 3500 lbs.(GVW). This weight is well over the recommended towing and braking limit of most utility vehicles. A special trailer brake kit is available for direct installation with the Workman vehicle. This kit could be adapted to other vehicles with a 12 volt brake light source.

2

Removing the Hitch Tongue and Hydraulic Cylinder from Shipping Position

No Parts Required

Procedure

1. Remove the pin assembly, bolt and nut securing the hydraulic cylinder and hoses to the hitch tongue for shipping. Also, cut the cable tie. Carefully lower the cylinder and hoses from the tongue. Retain the pin assembly and fasteners for re-use.
2. Remove the pin assembly, bolt and nut securing the hitch tongue to the lower shipping bracket.
3. Remove the hair pin cotter and hitch pin securing the hitch tongue to the upper shipping bracket. The hitch tongue is very heavy, use caution when removing the tongue from the shipping brackets.
4. Remove the fasteners securing the shipping brackets to the sweeper. Remove and discard the shipping brackets.

3

Installing the Hitch Tongue

Parts needed for this procedure:

1	Hitch Tongue
1	Hitch Pin
1	Bolt, 3/8 x 1-1/4 inch
1	Nut, 3/8-16
1	Large washer
1	Large nut
1	Square head set screw

Procedure

1. Insert the rear end of the hitch tongue between the mounting plates on the sweeper while aligning the mounting holes (Figure 3).

   Note: The hose guides are to be positioned on top of hitch tongue.
2. Insert the hitch pin through the mounting plates and the hitch tongue (Figure 3).
3. Secure the top of the hitch pin to the mounting plate with a 3/8 x 1-1/4 inch bolt and a 3/8 inch locknut (Figure 3).
4. Secure the bottom of the hitch pin with a large washer, large nut and square head set screw (Figure 3).

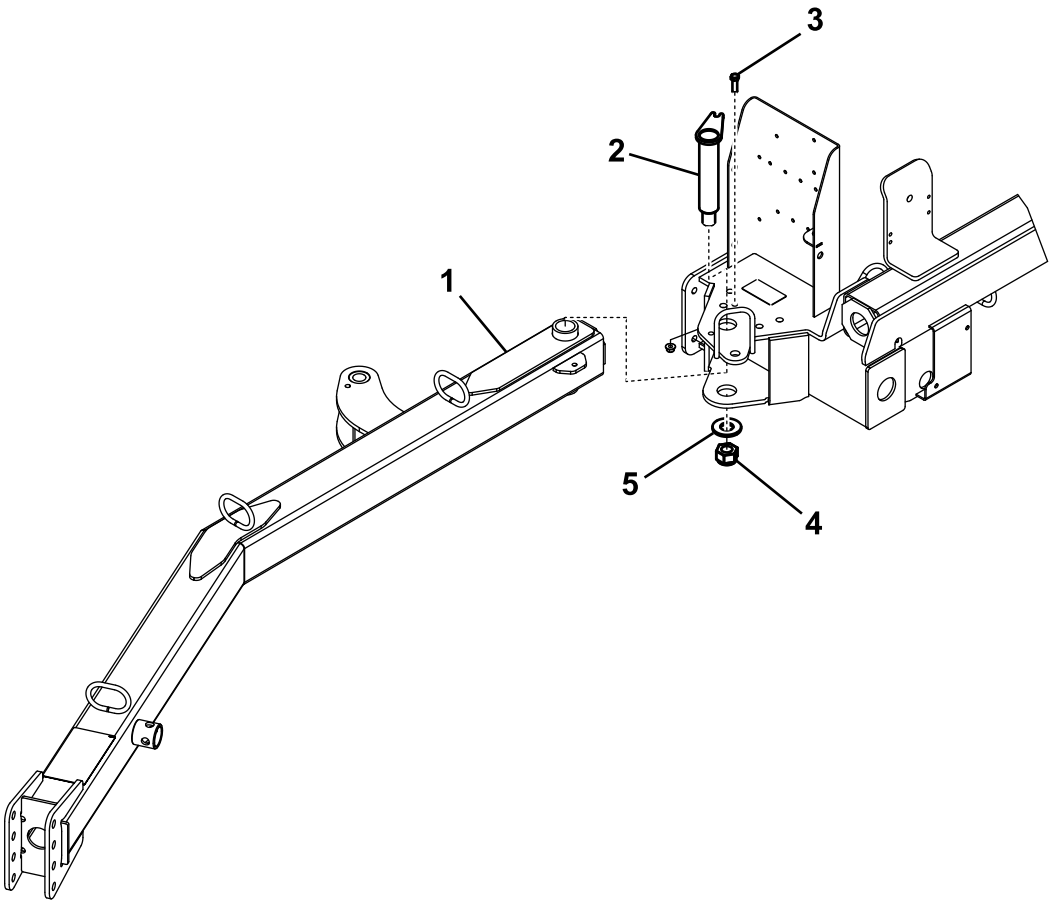


Figure 3

1. Hitch tongue
2. Hitch pin
3. Bolt, 3/8 x 1–1/4 inch & lock nut, 3/8 inch
4. Large Nut & square head set screw
5. Large washer

5. Loosen the jam nuts securing the proximity switch to the frame and lower the switch until it is 0.13±0.03 inch (3.3±0.7 mm) from the sensing plate on the hitch tongue (Figure 4). Tighten the jam nuts to secure the adjustment.

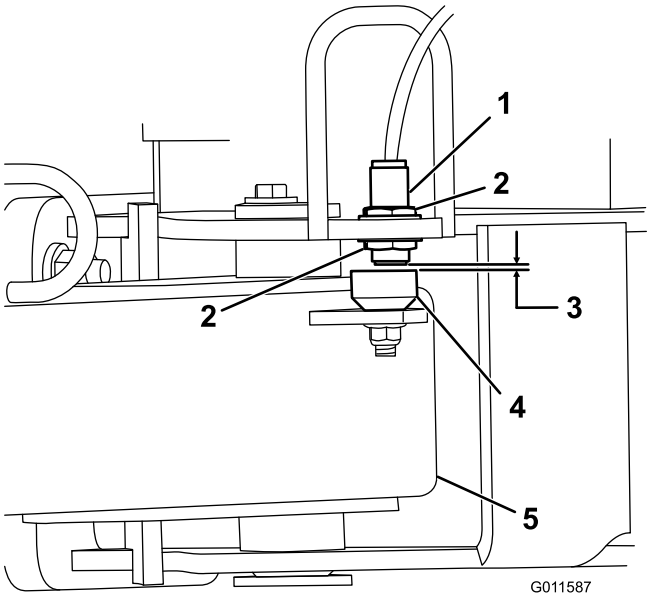


Figure 4

1. Proximity switch
2. Jam nut
3. 0.13±0.03 inch (3.3±0.7 mm)
4. Sensing plate
5. Hitch tongue

4

Installing the Hydraulic Cylinder

Parts needed for this procedure:

1	Rear actuator tab
4	Bolt, 1/2 x 2 inch
8	Flat washer, .531 x .063
4	Locknut, 1/2 inch
2	Bolt, 3/8 x 1–1/4 inch
2	Pin assembly
2	Flange nut, 3/8 inch

Procedure

1. Mount the rear actuator tab to the sweeper frame with (4) 1/2 x 2 inch bolts, (8) .531 x .063 flat washers and (4) 1/2 inch locknuts. Position the components as shown in Figure 5.

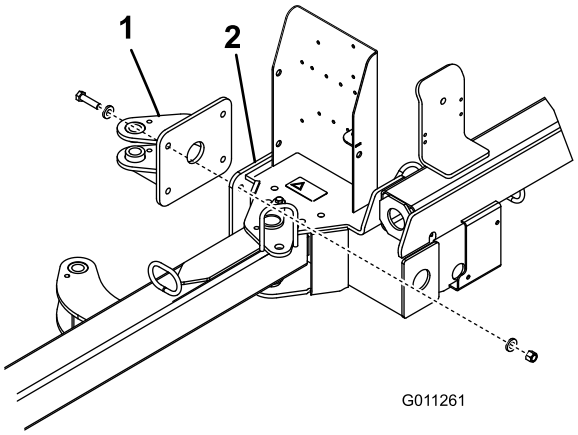


Figure 5

1. Rear actuator tab
2. Sweeper frame

2. Secure each end of the hydraulic cylinder to an actuator tab with a pin assembly, a 3/8 x 1–1/4 inch bolt and a 3/8 inch flange nut Figure 6). Make sure the rod end (working end) of the cylinder is attached to the front actuator tab.

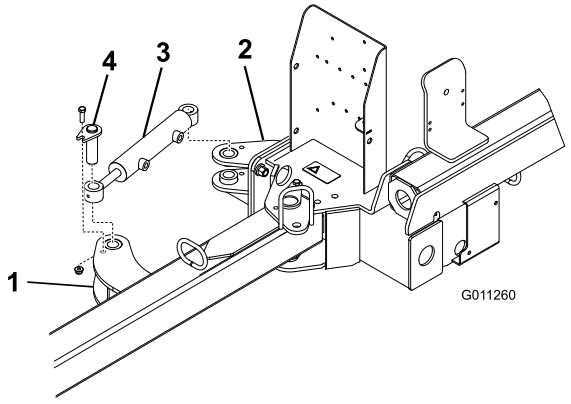


Figure 6

1. Front actuator tab
2. Rear actuator tab
3. Hydraulic cylinder
4. Pin assembly

5

Installing the Power Wire Harness

Parts needed for this procedure:

1	Power wire harness
2	Cable tie

Procedure

1. Disconnect the battery from the vehicle.
2. Attach the power wire harness ring terminal to the ground bolt near the vehicle fuse block.
3. Plug the harness wire into the red wire on the back of the fuse block.

   Note: If the Workman vehicle does not have open fuse slot, obtain and install a Toro Accessory Fuse Block, Toro Part no. 92–2641.
4. Route the wire harness alongside the main vehicle wire harness to the rear of the vehicle (Figure 7).

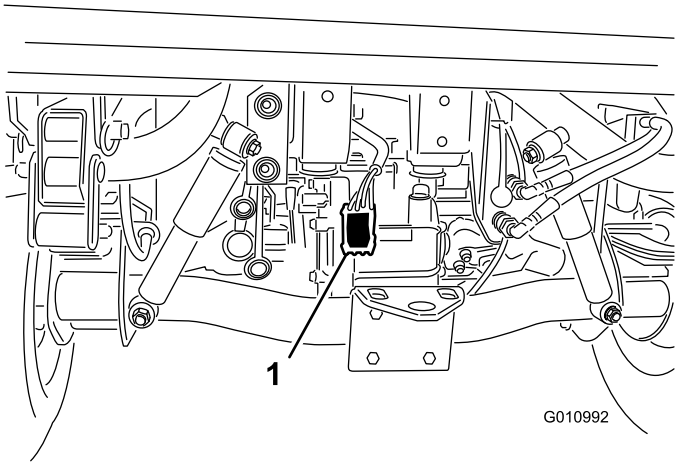


Figure 7

1. Power wire harness

5. Secure the wire harness to the vehicle in several places with wire ties. Keep the harness away from any hot or rotating components.

   Note: The harness is equipped with a connector for the optional brake control kit.
6. Reconnect the vehicle battery.

6

Mounting the Sweeper to the Tow Vehicle

Parts needed for this procedure:

1	Hitch pin
1	Hair pin cotter

Procedure

To assure proper debris pickup, make sure sweeper frame is parallel with the ground.

1. Position the sweeper on a flat, level surface.
2. Back the tow vehicle up to the sweeper.
3. Remove the spring pin, rotate the jack down and install the spring pin.

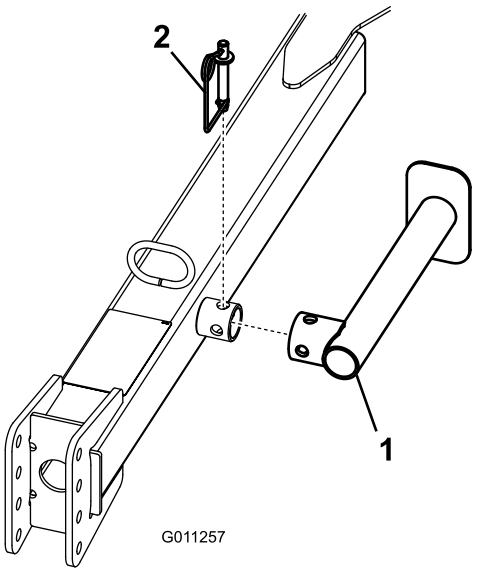


Figure 8

1. Jack
2. Spring pin

4. Jack up the hitch tongue until it is parallel to the ground.
5. Adjust the sweeper hitch clevis to the same level as tow vehicle hitch as follows:
   - Remove the bolts and locknuts securing the hitch clevis (Figure 9) to the hitch tongue.

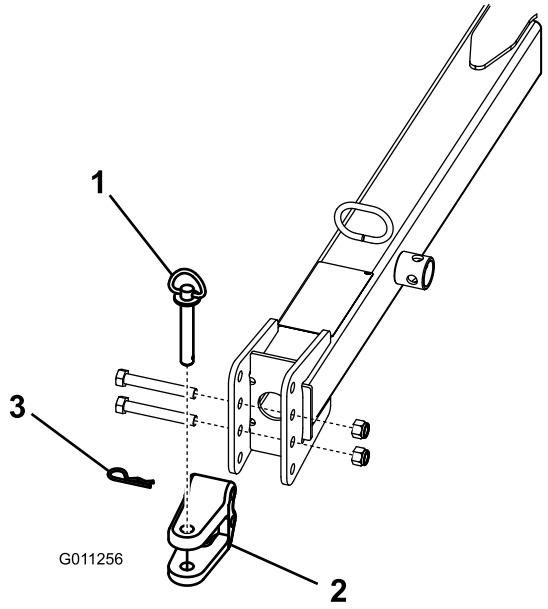


Figure 9

1. Hitch pin
2. Clevis
3. Hair pin cotter

- Raise or lower the hitch clevis to the position approximately level with the tow vehicle hitch.
- Secure the clevis to the hitch with the bolts and locknuts previously removed. Make sure sweeper is parallel with the ground.

6. Connect the sweeper clevis hitch to the tow vehicle hitch with the hitch pin and hair pin cotter.
7. Remove the spring pin, rotate the jack and up to the storage position and install the spring pin.

7

Routing and Securing the Hydraulic Hoses and Wire Harness

Parts needed for this procedure:

8	Cable tie

Procedure

1. Route the hydraulic hoses and wire harness through the hose guides to the front of the hitch tongue (Figure 10).

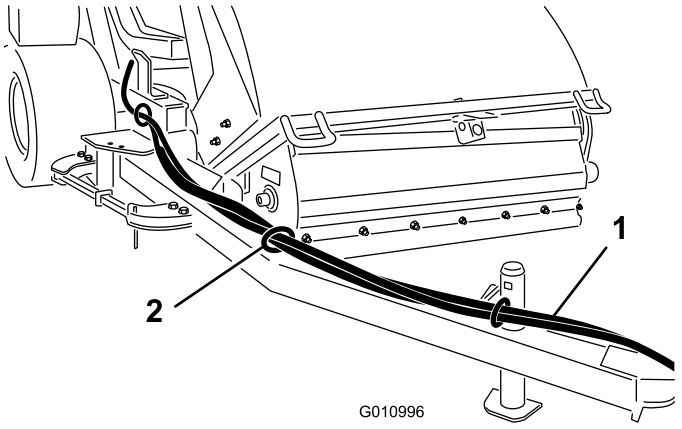


Figure 10

1. Hydraulic hoses and wire harness
2. Hose guide

2. Secure the hydraulic hoses and wire harness as shown in Figure 11 & Figure 12.

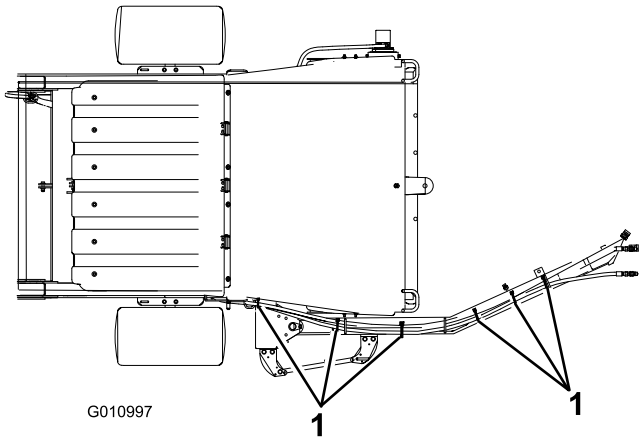


Figure 11
Front View

1. Cable tie (6)

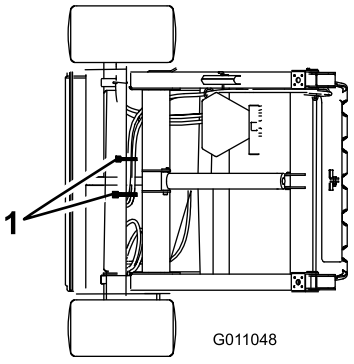


Figure 12
Rear View

1. Cable tie (2)

8

Connecting the Hydraulic Hoses

No Parts Required

Procedure

Connect the hydraulic hoses from the sweeper to the quick couplers on the tow vehicle (Figure 13).

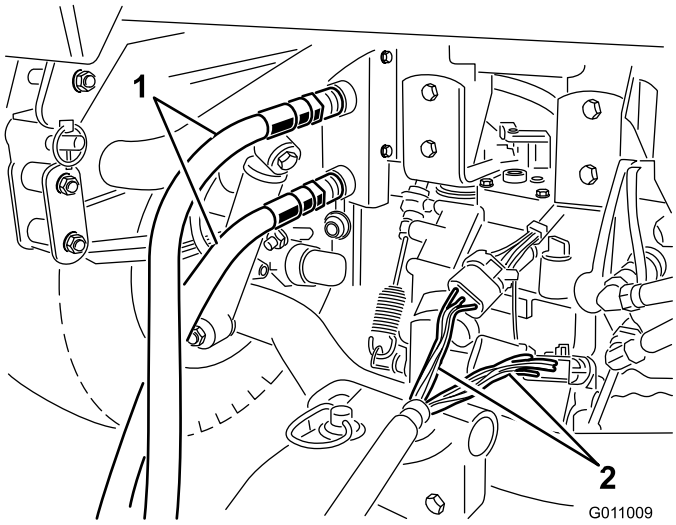


Figure 13

1. Hydraulic hoses
2. Harness'

Important: Make sure the brush rotates in the proper direction (when viewed from the motor end, the brush should rotate clockwise. If the brush is rotating counter-clockwise, reverse hydraulic hose connections.

Note: Mark the high pressure hose with a cable tie or something similar to identify the correct hose installation (Fig. 26).

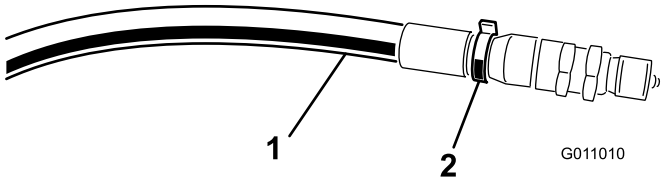


Figure 14

1. High pressure hose
2. Cable tie

9

Connecting the Harness'

No Parts Required

Procedure

Connect the harness from the sweeper to the power harness on the tow vehicle (Figure 13).

10

Mounting the Windrow Blades

Parts needed for this procedure:

1	Blade mounting assembly
2	Bolt, 7/16 x 3–1/4 inch
4	Small washer
1	Large washer
1	Spacer
2	Locknut
1	Chain
1	Bolt, 3/8 x 1–1/4 inch
1	Flange nut
1	Snap link

Procedure

1. Secure the blade mounting assembly to the left end of the sweeper frame with a 7/16 x 3-1/4 inch bolt, (2) small washers, a large washer and a locknut. Position components as shown in Figure 15.
2. Secure the windrow blade to the mounting assembly with a 7/16 x 3-1/4 inch bolt, (2) flatwashers, a spacer and a locknut. Assembly the components as shown in Figure 15. The longer end of the blade is to be positioned away from the sweeper.
3. Secure the chain to the blade mounting assembly with a 3/8 x 1-1/4 inch bolt and nut (Figure 15).
4. Secure the other end of the chain to the slot in the frame with the snap link (Figure 15). There should be some slack in the chain when connected.
5. Grease the fitting on the blade mounting assembly and on the windrow blade hub with No. 2 Lithium Based grease.

Note: When the windrow is not required, unhook the chain from the snap link, pivot the windrow assembly upward and hook the chain at the raised level.

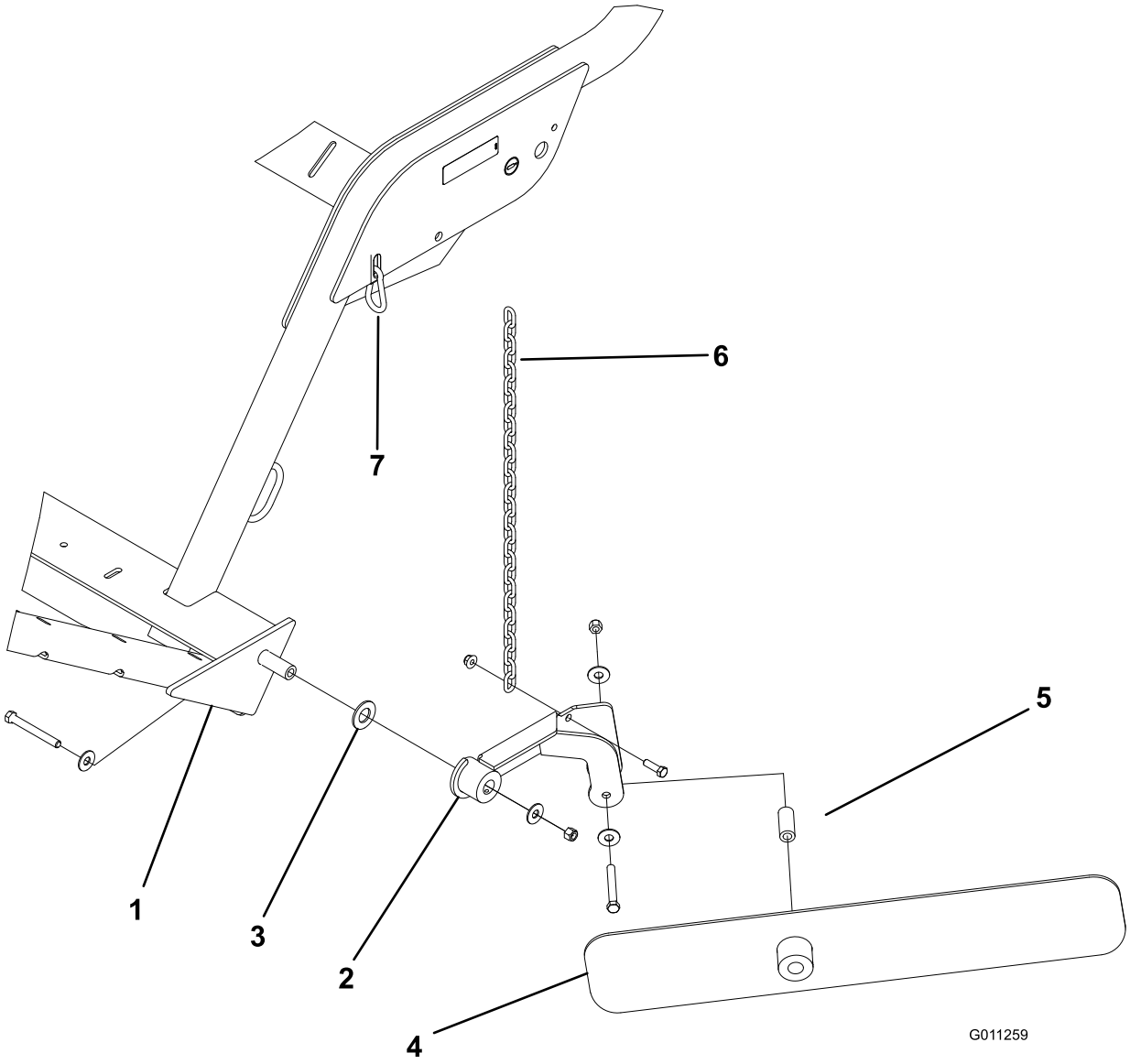


Figure 15

1. Left end of sweeper frame
2. Blade mounting assembly
3. Large washer
4. Windrow blade
5. Spacer
6. Chain
7. Snap link

Product Overview

Controls

Hopper Dump

To activate the dump sequence

Important: The sweeper must be directly behind the tow vehicle and in transport height before the dump sequence can be activated.

- Press the hopper dump button (Figure 16).
- Then press the off-set left button (Figure 16).
- Then press the off-set right button (Figure 16).
- Then press and hold the hopper dump button (Figure 16).

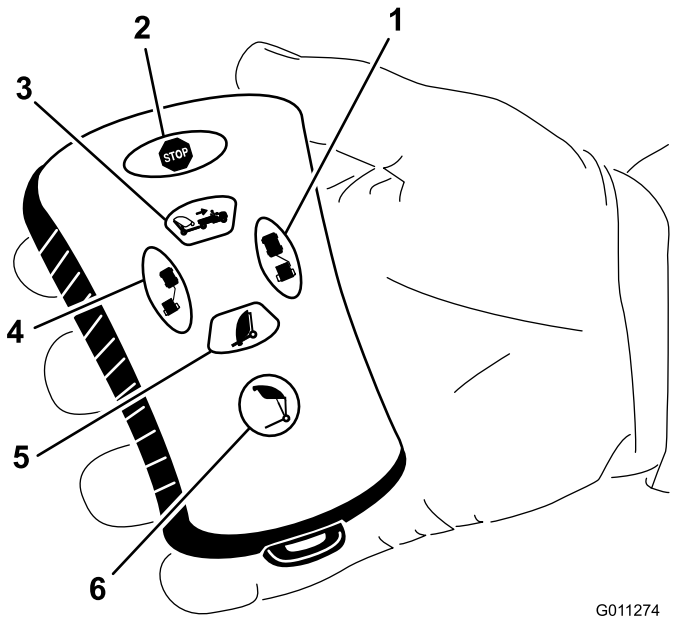


Figure 16

1. Off-set right
2. Stop
3. Sweeper up
4. Off-set left
5. Sweeper down
6. Hopper dump

Sweeper down

To lower the hopper, press the sweeper down button (Figure 16). The hopper can be lowered when it is at any of the following positions:

- Hopper dump height
- Transport height
- Turn around height

Note: The lower hopper function can be stopped at any time by pressing the hopper up button.

Off-Set Left

To off-set the sweeper to the left, press and hold the off-set left button (Figure 16). Releasing the button will stop the movement to the left.

Sweeper Up

To raise the hopper, press and hold the sweeper up button until the hopper reaches the desired height or stops at the pre-defined height (Figure 16).

- Transport height (home position) is 13–1/4 to 15–14 inches.
- Turn around height (off-set position) is 8–1/2 to 10–1/2 inches.

Off-Set Right

To off-set the sweeper to the right, press and hold the off-set right button (Figure 16). Releasing the button will stop the movement to the right.

Stop

Pressing the stop button will disable any active function.

Note: There is approximately a 3 second delay.

Specifications

Note: Specifications and design are subject to change without notice.

Dimensions and Weights (approx.)

Width	87 inches
Height	79-1/2 inches
Dump Height Clearance	68 inches
Length	Hopper Lowered - 68 inches Hopper Raised - 90-98 inches
Empty Weight	1500 lb.
Gross Vehicle Weight (GVW)	3500 lb.

Attachments/Accessories

A selection of Toro approved attachments and accessories are available for use with the machine to enhance and expand its capabilities. Contact your Authorized Service Dealer or Distributor or go to www.Toro.com for a list of all approved attachments and accessories.

Operation

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

Adjusting the Brush Height

The sweeper should be adjusted so the brush tips slightly touch the surface but do not penetrate the turf. If the brush tips do penetrate the turf, improper debris pickup could result.

Refer to the charts below for the recommended sweeper settings.

Condition	Roller/Brush Adjustment	Front Flap Adjustment	Notes
Greens/Tee Boxes	2 to 4 notches from bottom	1/4 inch to 1/2 inch from ground	Brush should be slightly engaged in the turf
Fairways	3 to 5 notches from bottom	1/2 inch to 1 inch from ground	Brush should be engaged into the top 1/3 of the grass height
Sports fields	5 to 7 notches from bottom	1 inch to 3 inches from ground	Brush should be engaged into the top 1/3 of the grass height
Leaves	5 to 9 notches from bottom	Remove front panel	Brush should be engaged into the top 1/3 of the grass height

A	B		C
Open Slots	Tab Up	Tab Down	
0	5.500		6.000
		5.625	6.125
1	5.750		6.250
		5.875	6.375
2	6.000		6.500
		6.125	6.625
3	6.250		6.750
		6.375	6.875
4	6.500		7.000
		6.625	7.125
5	6.750		7.250
		6.875	7.375
6	7.000		7.500
		7.125	7.625
7	7.250		7.750
		7.375	7.875
8	7.500		8.000
		7.625	8.125
9	7.750		8.250
		7.875	8.375
10	8.000		8.500
		8.125	8.625
11	8.250		8.750
		8.375	8.875
12	8.500		9.000
		8.625	9.125
13	8.750		9.250
		8.875	9.375

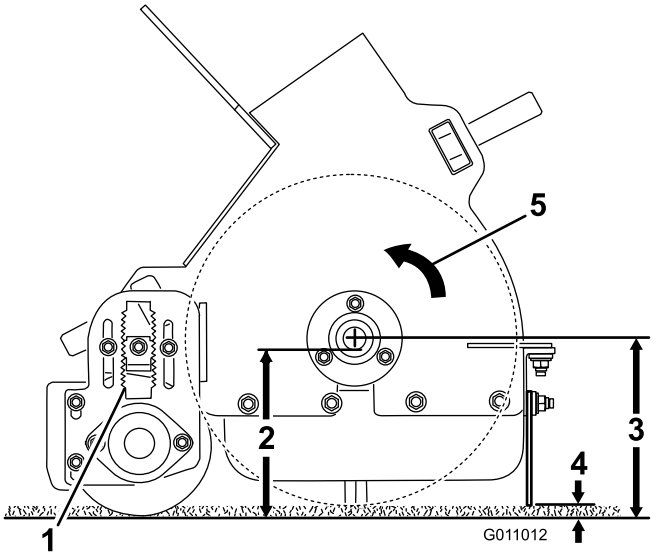


Figure 17

1. "A"
2. "B"
3. "C"
4. 1/4 inch to 1/2 inch
5. Brush direction

1. Position the sweeper on a level surface.
2. Raise the hopper and install the hopper safety support. Refer to Using the Hopper Safety Support.
3. Loosen the locknut on the height adjustment key (Figure 18) so it can be pulled out approximately 1/2 inch.

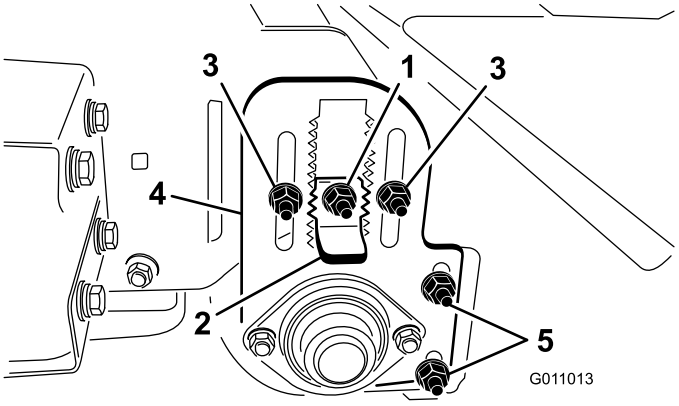


Figure 18

1. Locknut
2. Height adjusting key
3. Roller height adjusting nuts
4. Roller height adjusting plat
5. Roller scraper adjusting nuts

4. Loosen the roller height adjustment locknuts (Figure 18).
5. Pull out the height adjustor key and move the rear roller up or down by sliding the roller height adjusting plate to the desired height (Figure 18).
6. Tighten the locknuts securing the adjustment.
7. Repeat the procedure on the opposite end of the brush. Make sure the adjustments are the same.

Adjusting the Roller Scraper

The roller scraper (Figure 18) should be adjusted so there is 1/16" clearance between the scraper and the roller. Loosen the roller scraper adjusting nuts, position roller as desired and tighten nuts.

Adjusting the Front Flap Height

For best debris pick up results, the front flap (Figure 19) should be adjusted so there is 1/4" to 1/2" clearance between the bottom of the flap and surface. Raising the front flap all the way or removing the front flap may be required when picking up larger debris or if debris is to be picked up in long grass.

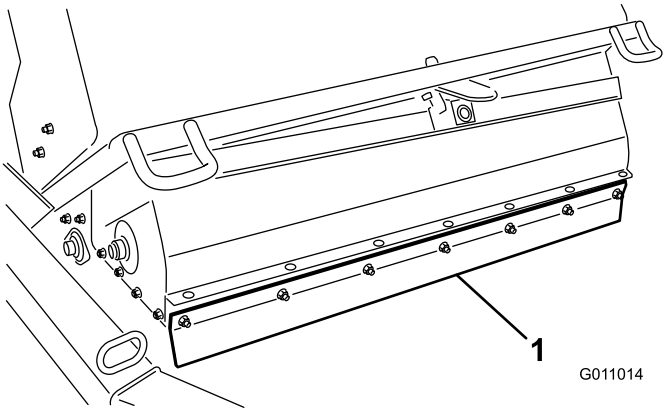


Figure 19

1. Front flap

1. Loosen the nuts securing the metal strap and the front flap to the brush housing (Figure 20).

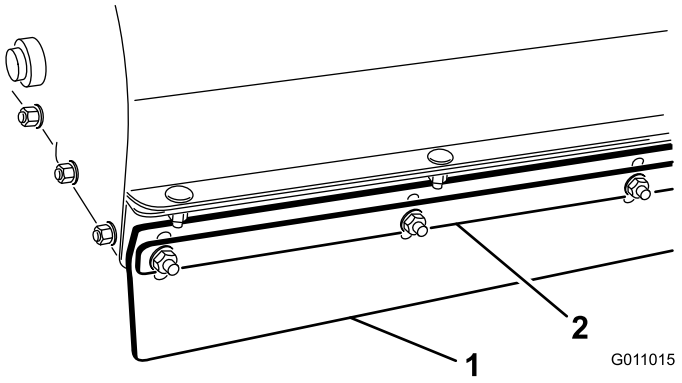


Figure 20

1. Front flap
2. Metal strap

2. Adjust the front flap to the desired operating height and tighten the nuts.

Checking the Tire Pressure

Check tire pressure daily to assure proper level.

Correct tire pressure is 12-1/2 psi. (Maximum 18 psi).

Note: The valve stem is located on the back side of the rim.

Checking the Wheel Lug Nut Torque

Failure to maintain proper torque could result in failure or loss of wheel and could result in personal injury. Torque wheel lug nuts to 45-55 ft. lb.

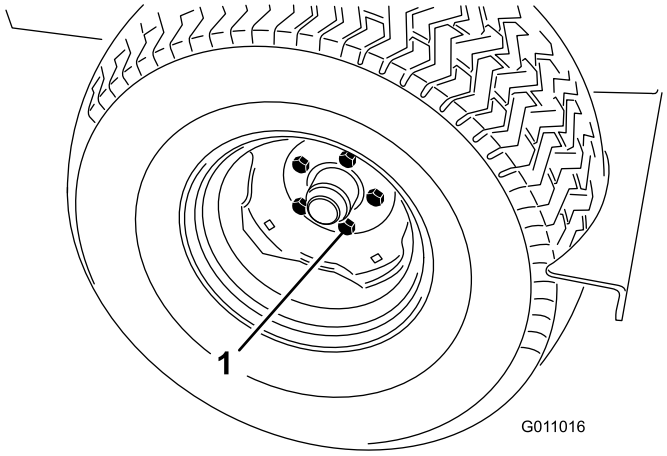


Figure 21

1. Lug nut

Operating the Sweeper

Rotating Parts Can Cause Serious Personal Injury

- **Keep hands and feet away from sweeper reel while machine is running.**
- **Keep hands, feet, hair, and clothing away from all moving parts to prevent injury.**
- **NEVER operate the machine with covers, shrouds, or guards removed.**

Activating Controller

The controller (Figure 22) will be activated as soon as the sweeper harness is plugged into the vehicle power harness.

- On Workman models with serial numbers prior to 899999999, the harness will have power.
- On Workman models with serial numbers 900000001 & up, turn the ignition key to the ON position to power the harness.

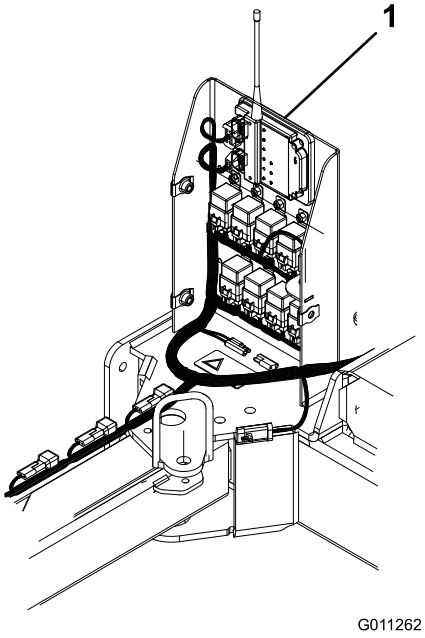


Figure 22

1. Controller

Controller Time Out

The sweeper is equipped with a time-out feature for the control module. The time-out feature is activated after 30 minutes of continuous remote transmitter **inactivity**.

- When in the time-out mode the remote transmitter will not control any function.
- To wake controller in time-out mode, plug the sweeper harness into the vehicle power harness.
  - On Workman models with serial numbers prior to 899999999, the harness will have power.
  - On Workman models with serial numbers 900000001 & up, turn the ignition key to the ON position to power the harness.
- To avoid controller time-out during operation, use the remote transmitter to off-set the sweeper at least every 30 minutes.

Using the Hopper Safety Support

Whenever any work has to be done under the raised hopper, the hopper safety support must be installed onto the extended lift cylinder.

1. Raise the hopper until the lift cylinder is extended.
2. Remove the hair pin cotter and pin securing the safety support to the storage bracket on the sweeper frame (Figure 23). Remove the safety support.

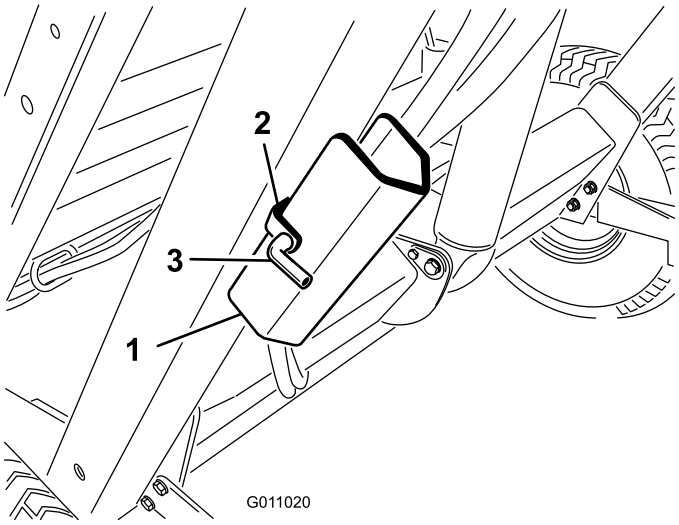


Figure 23

1. Hopper safety support
2. Storage bracket
3. Pin

3. Insert the hopper safety support onto the cylinder rod, making sure the support end rests against the cylinder barrel and the cylinder rod end (Figure 24). Secure the hopper safety support to the cylinder rod with the hair pin cotter and pin.

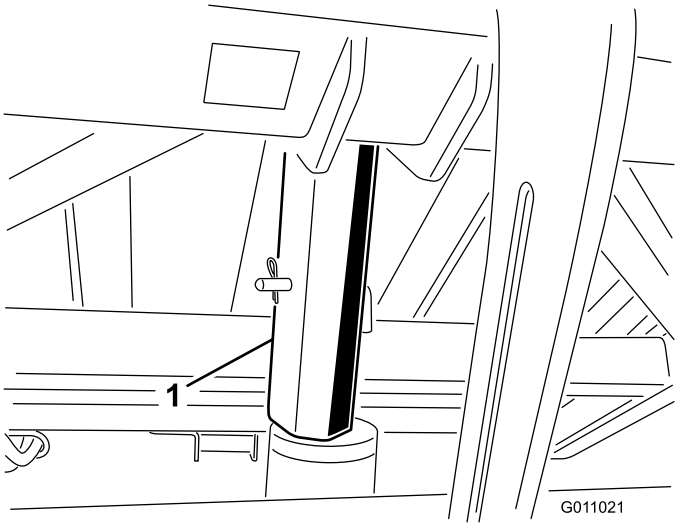


Figure 24

1. Safety support

4. To store the safety support, remove the safety support from the cylinder and secure it to the storage bracket on the sweeper frame.
5. Always install or remove the safety support from behind the hopper.
6. Do not try to lower the hopper with the safety support on the cylinder.

Checking Interlock System

Safety Interlock Switches Are For The Operator's Protection. Disconnected Or Malfunctioning Safety Interlock Switches Could Allow The Machine To Operate In An Unsafe Manner And May Cause Personal Injury.

- **Do not disconnect the safety interlock switches.**
- **Check operation of the switches daily to be sure the interlock system is operating correctly.**
- **If a switch is malfunctioning, replace it before operating the machine.**

The purpose of the safety interlock system is as follows:

- Prevents the brush from rotating when the hopper is in the raised position.
- Prevents the hopper from being dumped when the sweeper is in the off-set position.
- Audible alarm will sound when dumping hopper. Do not move tow vehicle when dumping the hopper.

Operating Tips

- Before starting to sweep, survey area to determine the best direction to sweep.

  Note: To maintain a straight line when sweeping, sight an object in the foreground.

- Always try to make a long, continuous run with a slight overlap on the return run.
- On turf areas, the brush will pick up turf cores, twigs, clippings, leaves, pine needles and cones, small debris.
- The sweeper also grooms the turf. The brush combs through and lifts the grass for a uniform cut when mowed. As it cleans, the light scarifying action increase water and pesticide penetration, thus reducing the need for renovation.

  Important: Do not make sharp turns when using the sweeper as damage to turf may occur.

While Sweeping

Tip Over Can Cause Serious Injury Or Death.

- **NEVER operate on steep slopes.**
- **Sweep slopes up and down, never across the face.**
- **When going uphill or downhill, do not stop or start suddenly.**
- **Stay alert for holes in the terrain or other hidden hazards. To avoid tipping or loss of control, do not drive close to a ditch, creek or drop off.**
- **If machine stops going uphill, disengage reels and back slowly downhill. Do not attempt to turn.**

When the hopper is full, the sweeper will no longer pickup as efficiently, leaving or throwing material back on the ground.

Dumping the Hopper

Tip Over/Electrical Shock Could Cause Serious Injury Or Death.

- **NEVER dump hopper on a slope. Always dump hopper on level ground.**
- **Dump only in area clear of overhead wires and other obstructions.**

Important: Make sure the sweeper is secured to the tow vehicle hitch with the hitch pin and the clevis pin during dumping operation.

Important: The sweeper must be directly behind the tow vehicle and in transport height before the dump sequence can be activated.

To activate the dump sequence

- Place the machine on a level surface and make sure it is in the transport position before dumping.
- Press the hopper dump button (Figure 25).
- Then press the off-set left button (Figure 25).
- Then press the off-set right button (Figure 25 Then press and hold the hopper dump button (Figure 25).
- Press the sweeper down button to lower the hopper (Figure 25).

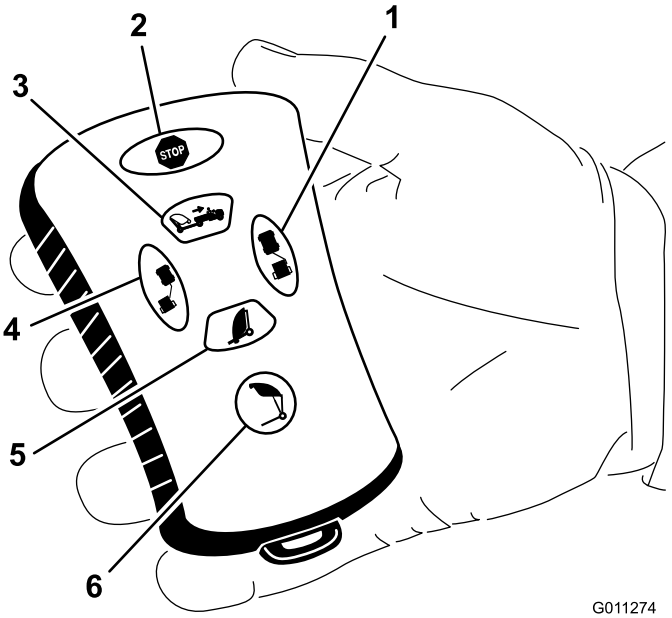


Figure 25

1. Off-set right
2. Stop
3. Sweeper up
4. Off-set left
5. Sweeper down
6. Hopper dump

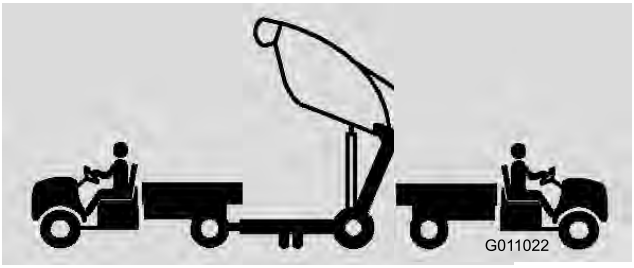


Figure 26

Dumping Hopper Can Cause Injury To Bystanders Or Pets.

Keep bystanders and pets a safe distance from hopper when dumping hopper.

Inspection and Cleanup after Operation

When sweeping has been completed, thoroughly clean and wash the machine. Air dry hopper. After cleaning, it is recommended that the machine be inspected for

possible damage to mechanical components. These procedures will assure that the machine will perform satisfactorily during next sweeping operation.

Transporting Sweeper

- Never transport the sweeper when the transport alarm and the light are activated.
- When transporting the sweeper, use the tie-downs to secure the front of the machine (Figure 27) and the axle (Figure 28) to secure the rear of the machine to the trailer. Use of anything other than the proper tie-down locations could cause damage to the machine.

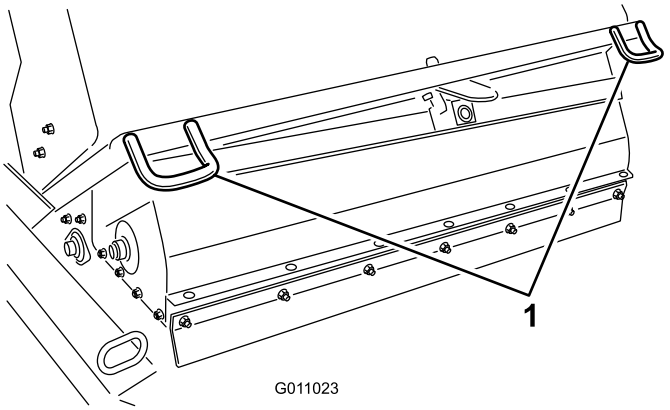


Figure 27

1. Front tie-downs

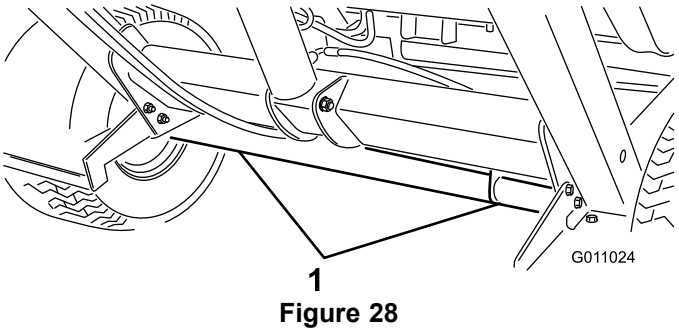


Figure 28

1. Rear tie-down locations

Cold Weather Operation

The Workman high flow hydraulics oil must reach a operating temperature of 180 degrees for proper operation of the floating sweeper head.

Maintenance

Recommended Maintenance Schedule(s)

Maintenance Service Interval	Maintenance Procedure
After the first 10 hours	• Torque the wheel lug nuts
Every 25 hours	• Clean the reel drive area
Every 50 hours	• Grease the sweeper
Every 100 hours	• Inspect the condition of the tires • Replace the brush
Every 200 hours	• Torque the wheel lug nuts • Replace the front flap
Every 600 hours	• Inspect the hopper for damage

Daily Maintenance Checklist

Duplicate this page for routine use.

Maintenance Check Item	For the week of:						
	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
Check the safety interlock operation.							
Check for unusual operating noises.							
Check the tire pressure							
Check hydraulic hoses for damage							
Check for fluid leaks							
Check control operation.							
Check hopper.							
Clean wrapped material from brush.							
Check brush wear.[1]							
Lubricate all the grease fittings[2]							
Touch-up any damaged paint							

[1]= .Replace if missing or broken

[2]= Immediately after **every** washing, regardless of the interval listed

Notation for Areas of Concern

Inspection performed by:		
Item	**Date**	**Information**

Lubrication

Service Interval: Every 50 hours

The sweeper has (11) grease fittings that must be lubricated regularly with No. 2 General Purpose Lithium Base Grease. If the machine is operated under normal conditions, lubricate all bearings and bushings after every 50 hours of operation or immediately after every washing. Bearings and bushings must be lubricated daily when operating conditions are extremely dusty and dirty. Dusty and dirty operating conditions could cause dirt to get into the bearings and bushings, resulting in accelerated wear.

1. Lubricate the following grease fittings:
   - Hopper pivot (upper) (2) (Figure 29).
   - Brush pivot (2) (Figure 30).
   - Lift cylinder (2) (Figure 31).
   - Hopper pivot (lower) (2) (Figure 32).
   - Hitch tongue pivot (1) (Figure 33).
   - Windrow blade mount (Figure 34).
   - Windrow blade hub (Figure 34).
2. Wipe grease fittings clean so foreign matter cannot be forced into the bearing or bushing.
3. Pump grease into the bearing or bushing.
4. Wipe up excess grease.

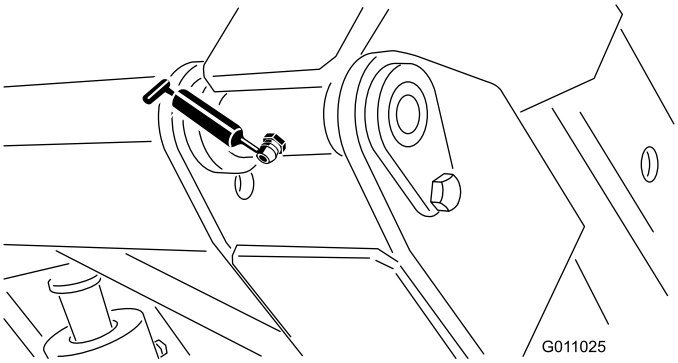


Figure 29

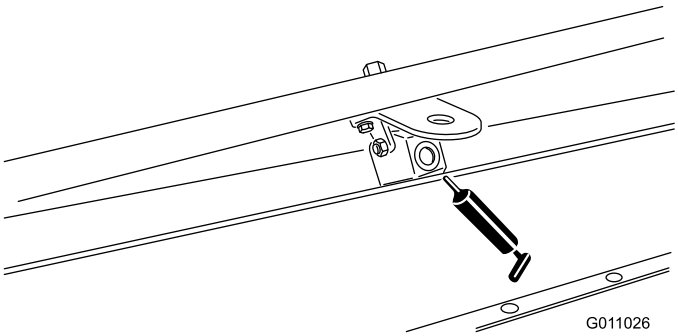


Figure 30

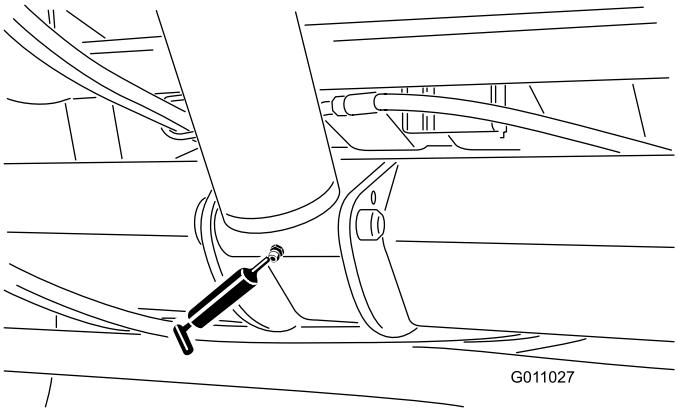


Figure 31

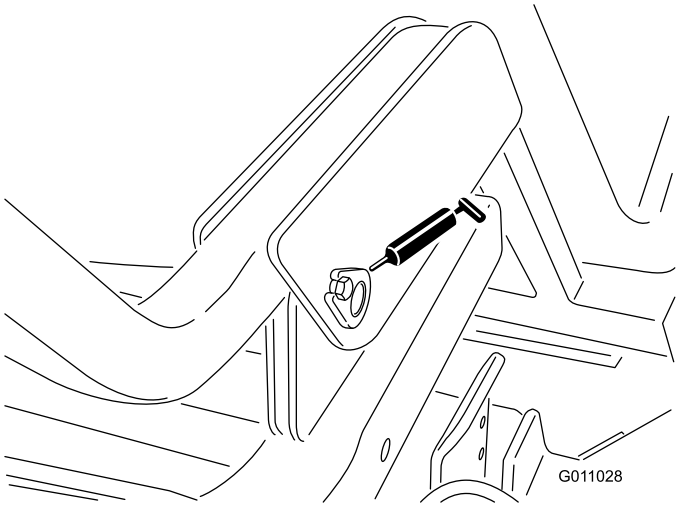


Figure 32

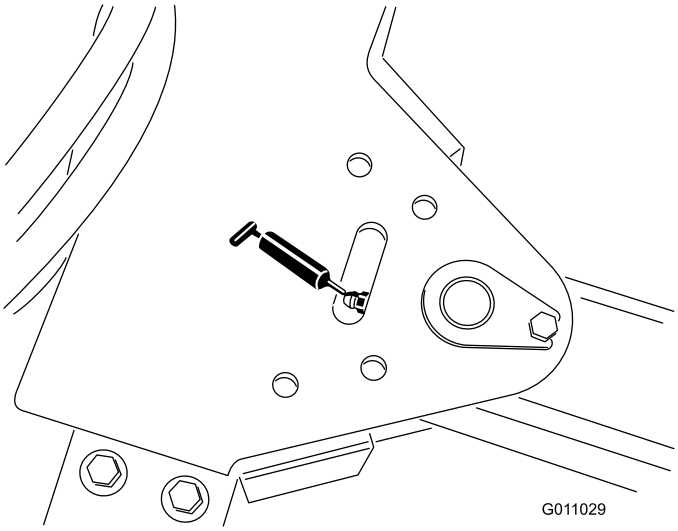


Figure 33

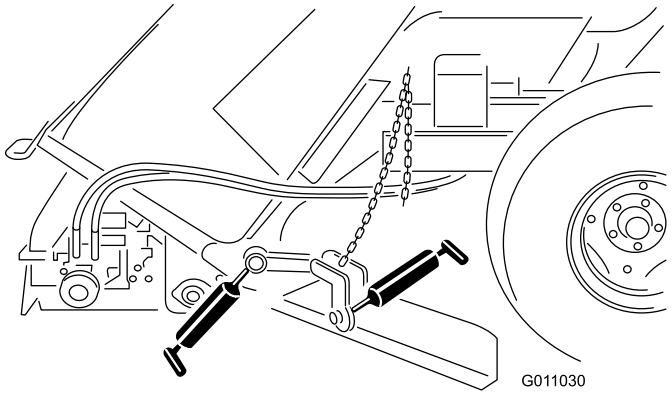


Figure 34

Synchronize the Remote Transmitter/Control Module

If the electronic control module receiver is not responsive to the remote transmitter when powered up, the transmitter and receiver need to synchronized.

To synchronize the transmitter and the receiver proceed as follows:

- Remove the (3) screws and washers securing the cover to the electrical box and remove the cover (Figure 35).

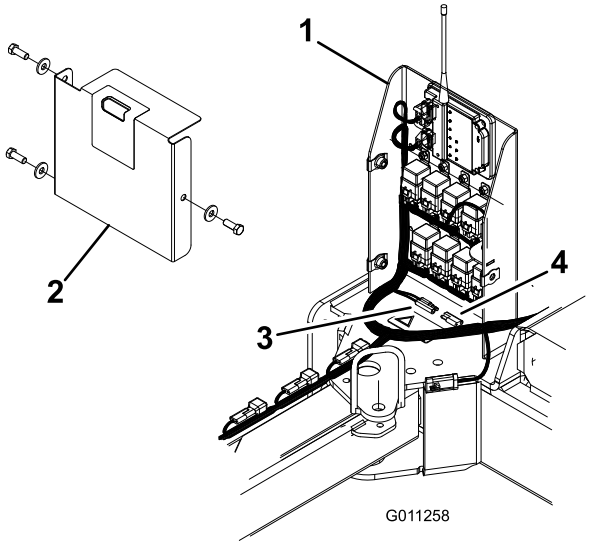


Figure 35

1. Electrical box
2. Cover
3. Orange and red wires
4. Cap

- Remove the cap from the connectors on the orange and red wires in the electrical box (Figure 35).
- Plug the two wires together, wait 10 seconds and unplug the wires.
- Install the cap on the wire connectors.
- Install the cover on electrical box with the screws and washers removed.
- On the remote control, press and hold any button until the receiver quits flashing (should be less than 20 seconds).

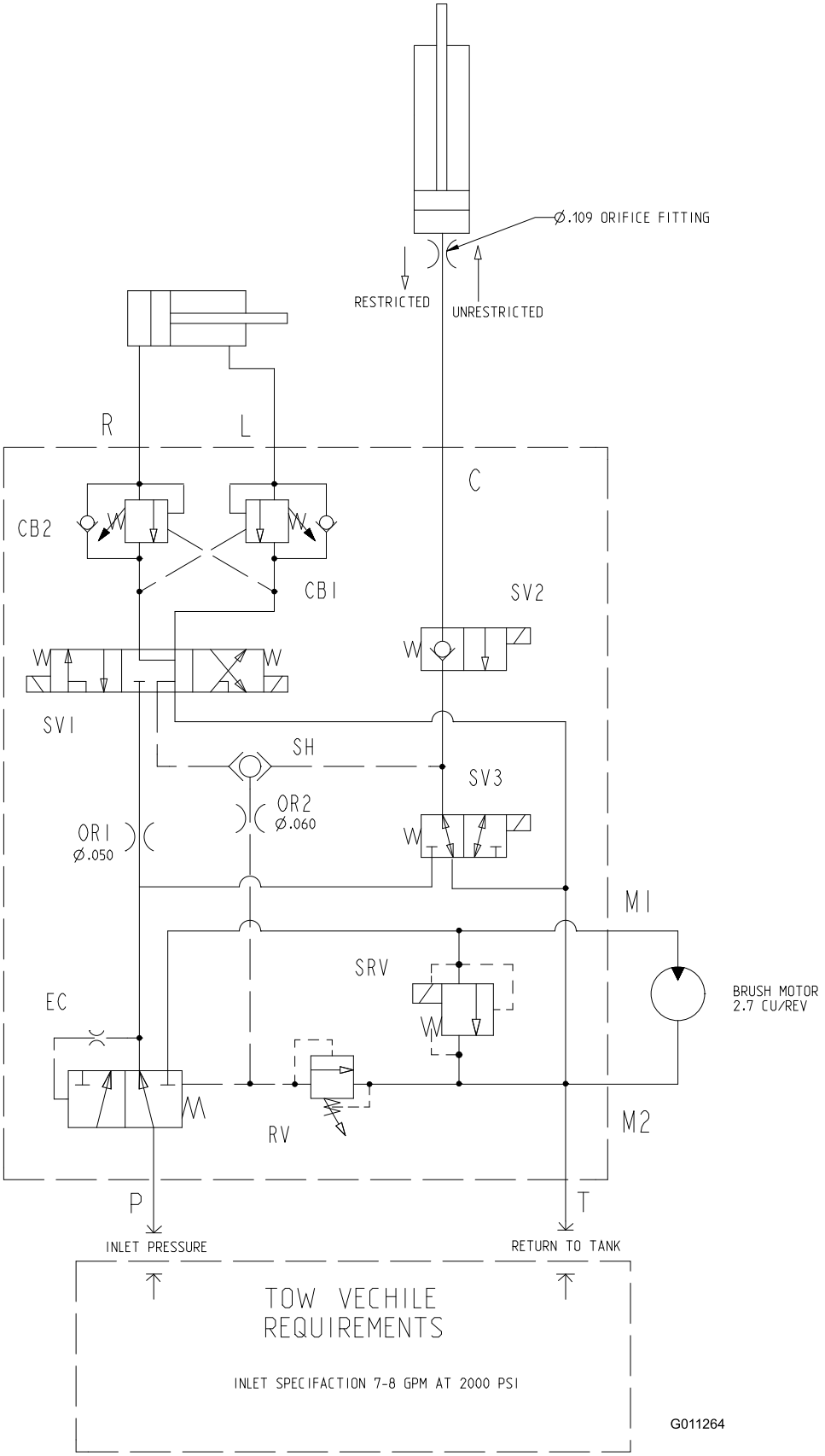
Troubleshooting

Condition	Possible Causes	Corrective Action
Sweeper Not Picking Up	Brush damaged	Replace brush.
	Brush height may be too high.	Adjust brush height. See Brush Height Adjustment.
	Front flap height might be too low or too high.	Adjust front flap height. See Front Flap Adjustment
Excessive Vibration	Check bearings on brush shaft. If they are excessively hot, they are probably damaged.	Replace any damaged bearings.
	Foreign materials wrapped around brush.	Clean off any foreign objects.

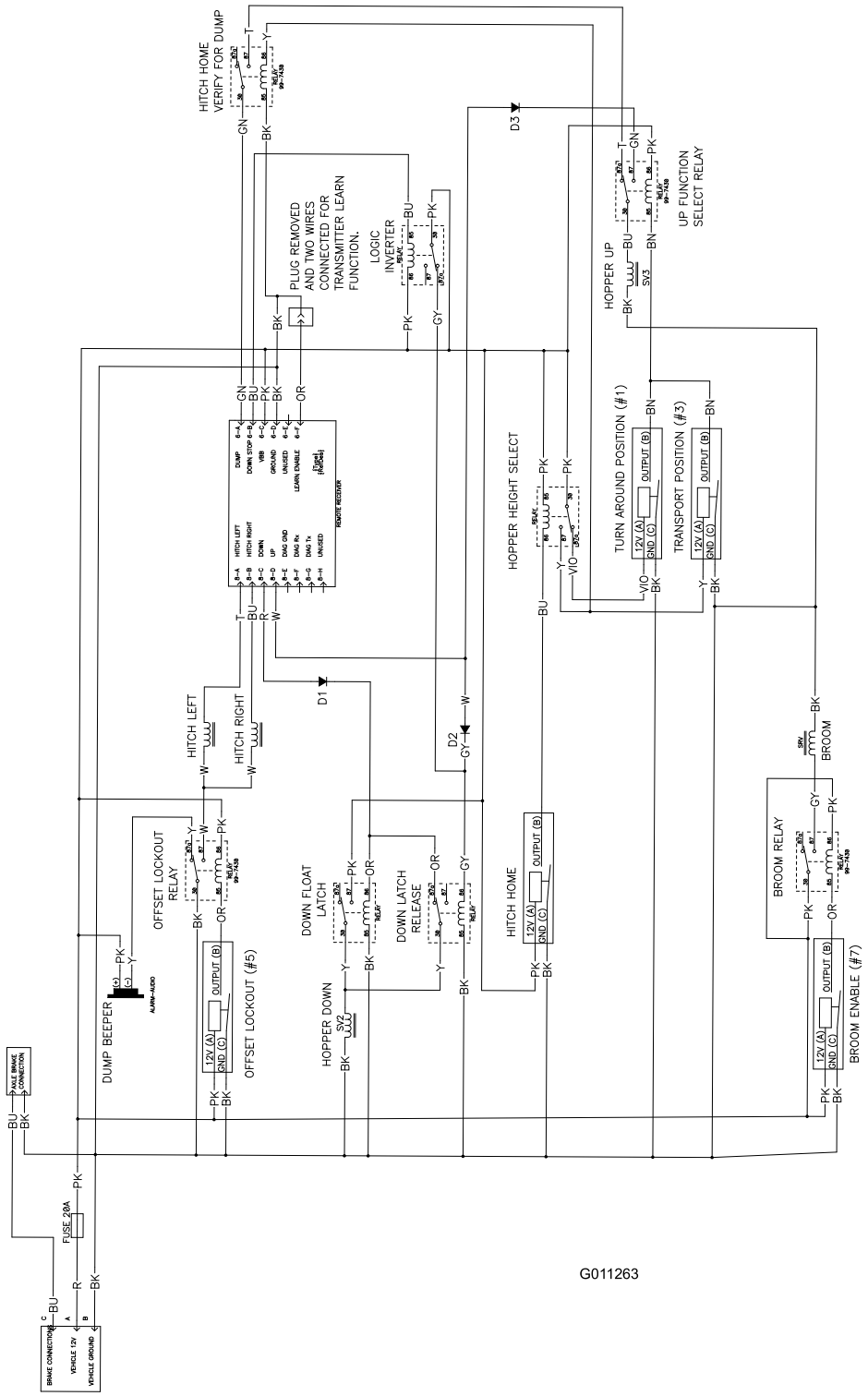
Storage

1. Thoroughly clean the sweeper so it is free of dirt, leaves and debris.
2. Inflate tires to 12-1/2 psi.
3. Check all fasteners. Tighten as necessary.
4. Grease all grease fittings. Wipe off excess lubricant.
5. Check the condition of the brush. Replace as required.

Schematics



Hydraulic Schematic (Rev. -)



Electrical Schematic (Rev. A)

Toro General Commercial Products 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 diagnosis, labor, parts, and transportation. This warranty begins on the date the Product is delivered to the original retail purchaser.

** Product equipped with 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 waranty may be provided by the manufacturer of these items.
- Product failures which result from failure to perform recomended 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, aerator crankshaft and stomper arm bearings, tines, 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 coolants, lubricants, additives, fertilizers, water, or chemicals, etc.
- 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.

Note Regarding Deep Cycle Battery Warranty:

Deep cycle batteries have a specified total number of kilowatt-hours they can deliver during their lifetime. Operating, recharging, and aintenance 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.

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 connetion with the use of the Toro Products covered by this warranty, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under this warranty. Except for the Emissions warranty referenced below, if applicable, there is no other express warranty. All implied warranties of merchantability and fitness for use are limited to the duration of this express warranty.

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

Note regarding engine warranty:

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

Countries Other than the United States or Canada

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

Part No. 374-0031 Rev. E