Form No. 3370-403 Rev B

TORO®

Count on it.

Operator's Manual

ProPass 200 Top Dresser with Twin Spinner and Wireless Control

Model No. 44700—Serial No. 310001001 and Up

Model No. 44700—Serial No. 311000001 and Up

Model No. 44701—Serial No. 311000001 and Up

Model No. 44701—Serial No. 310001001 and Up

CE

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: LOBSBU200-Base, LOBSHH200-Hand Held

IC: 7955A-SBU200-Base, 7955A-SHH200-Hand Held

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.

Introduction

This Top Dresser is intended to be used by professional, hired operators in commercial applications. It is primarily designed for metering and dispersing materials, under a range of moisture conditions, without clogging or drastically affecting the dispersion.

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.

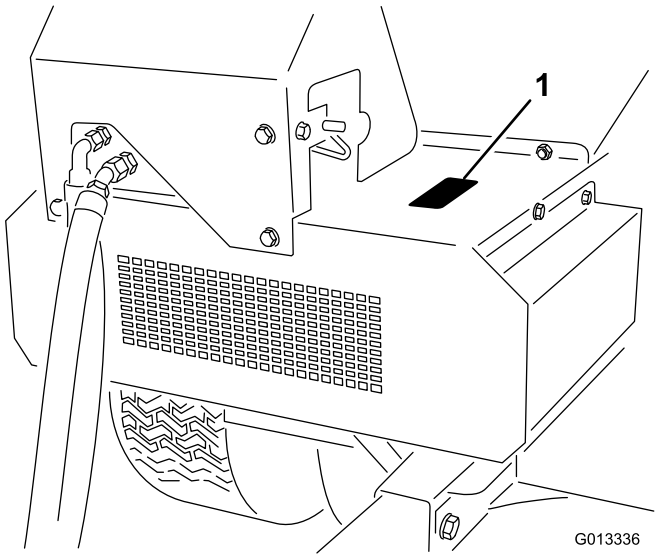

Figure 1

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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Contact us at www.Toro.com.
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Safety

Improper use or maintenance by the operator or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety alert symbol, which means Caution, Warning, or Danger—personal safety instruction. Failure to comply with the instruction may result in personal injury or death.

Safe Operating Practices

Training

- Read the *Operator's Manual* and other training material carefully. Be familiar with the controls, safety signs, and the proper use of the equipment.
- Never allow children or people unfamiliar with these instructions to use the machine. Local regulations may restrict the age of the operator.
- Never operate the machine while people, especially children, or pets are nearby.
- Keep in mind that the operator or user is responsible for accidents or hazards occurring to himself or herself, other people, or property.
- Do not carry passengers.
- All drivers and mechanics should seek and obtain professional and practical instruction. The owner is responsible for training the users. Such instruction should emphasize:
  - the need for care and concentration when working with ride-on machines;
  - control of a ride-on machine sliding on a slope will not be regained by the application of the brake. The main reasons for loss of control are:
    - ◊ insufficient wheel grip;
    - ◊ being driven too fast;
    - ◊ inadequate braking;
    - ◊ the type of machine is unsuitable for its task;
    - ◊ lack of awareness of the effect of ground conditions, especially slopes;
    - ◊ incorrect hitching and load distribution.

Preparation

- While operating the machine, always wear substantial footwear, long trousers, hard hat, safety glasses, and hearing protection. Long hair, loose clothing or jewelry may get tangled in moving parts. Do not operate the equipment when barefoot or wearing open sandals.
- Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by the manufacturer.
- Check that operators presence controls, safety switches, and shields are attached and functioning properly. Do not operate unless they are functioning properly.

Operation

- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
- Operate the machine only in daylight or in good artificial light.
- Remember there is no such thing as a safe slope. Travel on grass slopes requires particular care. To guard against overturning:
  - Do not stop or start suddenly when going up or downhill.
  - The machine speed should be kept low on slopes and during tight turns.
  - Stay alert for humps and hollows and other hidden hazards.
  - Never operate the machine across the face of the slope, unless the machine is designed for that purpose.
- Stay alert for holes in the terrain and other hidden hazards.
- Use care when using heavy equipment.
  - Do not turn sharply. Use care when reversing.
  - Do not go from reverse to forward or forward to reverse without coming to a complete stop.
  - Use counterweight(s) or wheel weights when suggested in the *Operator's Manual*.
- Watch out for traffic when crossing or near roadways.
- When using any attachments, never direct discharge of material toward bystanders nor allow anyone near the machine while in operation.
- Never operate the machine with damaged guards, shields, or without safety protective devices in place. Be sure all interlocks are attached, adjusted properly, and functioning properly.
- When loading with sand, distribute load evenly. Operate the tow vehicle with extra caution when the hopper is full of sand. Keep load balanced to prevent it from shifting.

- Do not get water on the Wireless remote controller.
- Do not change the engine governor settings or overspeed the tow vehicle engine. Operating the engine at excessive speed may increase the hazard of personal injury.
- Before leaving the operators position:
  - Stop on level ground.
  - Disengage the power take-off and the attachments.
  - Change into neutral and set the parking brake.
  - Stop the engine and remove the key.
- Disengage drive to attachments, stop the engine, and remove the ignition key:
  - before clearing blockages;
  - before checking, cleaning, or working on the machine;
  - if the machine starts to vibrate abnormally (check immediately).
- Disengage drive to attachments when transporting or not in use.
- Stop the engine and disengage drive to attachment:
  - before refuelling;
  - before making an adjustment unless adjustment can be made from the operator's position.
- Reduce the throttle setting before stopping engine and close the fuel shut-off valve at the conclusion of operation.
- Keep hands and feet out of the hopper when the machine is operating or when the hydraulic power pack engine, on the tow vehicle, is running.
- Keep hands and feet away from the spinner assembly when the machine is operating or when the hydraulic power pack engine, on the tow vehicle, is running.
- Keep hands from the hopper guard on the spinner guard when the machine is operating or when the hydraulic power pack engine, on the tow vehicle, is running.
- Look behind and down before backing up to be sure of a clear path.
- Slow down and use caution when making turns and crossing roads and sidewalks.
- Do not operate the machine under the influence of alcohol or drugs.
- 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.
- The operator shall turn on flashing warning lights, if provided, whenever traveling on a public road, except where such use is prohibited by law.

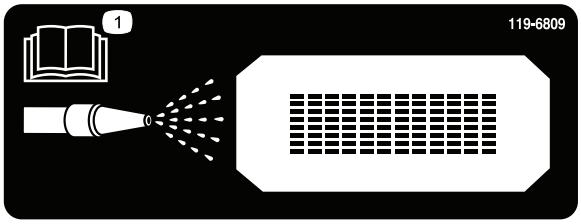
Maintenance and Storage

- Tighten any loose nuts, bolts and screws to assure machine is in safe operating condition. Make sure Top Dresser mounting pins, pivot pins and hydraulic cylinder pins are in place and secure.
- Never store the equipment with fuel in the tank inside a building where fumes may reach an open flame or spark.
- Allow the engine to cool before storing in any enclosure and do not store near flame.
- To reduce the fire hazard, keep the engine, silencer/muffler, battery compartment, drives, and fuel storage area free of grass, leaves, or excessive grease. Clean up oil or fuel spillage.
- Replace worn or damaged parts for safety.
- If the fuel tank has to be drained, do this outdoors.
- Disengage drives, shift the transmission to Neutral, set parking brake, stop engine and remove key. Wait for all movement to stop before adjusting, cleaning or repairing.
- Shut off fuel while storing or transporting. Do not store fuel near flames.
- Park machine on level ground. Never allow untrained personnel to service machine.
- Use jack stands to support components when required.
- Carefully release pressure from components with stored energy.
- Disconnect battery before making any repairs. Disconnect the negative terminal first and the positive last. Reconnect positive first and negative last.
- Keep hands and feet away from moving parts. If possible, do not make adjustments with the engine running.
- Charge batteries in an open well ventilated area, away from spark and flames. Unplug charger before connecting or disconnecting from battery. Wear protective clothing and use insulated tools.

- Make sure all hydraulic line connectors are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- Keep your body and hands away from pin hole leaks or nozzles that eject hydraulic fluid under high pressure. Use paper or cardboard, not your hands, to search for leaks. Hydraulic fluid escaping under pressure can have sufficient force to penetrate the skin and cause serious injury. If fluid is injected into the skin it must be surgically removed within a few hours by a doctor familiar with this form of injury or gangrene may result.

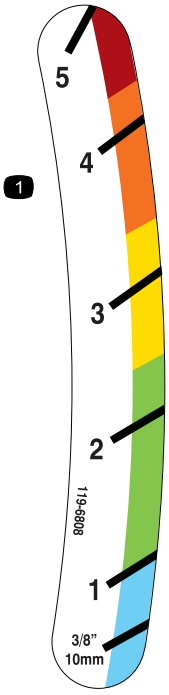
Safety and Instructional Decals

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.



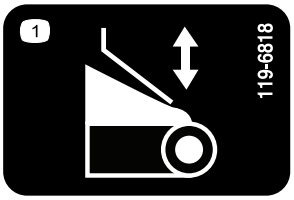
119-6809

1. Read the *Operator's Manual* for instructions on cleaning the machine.



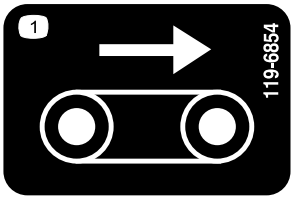
119-6808

1. Tailgate height indicator



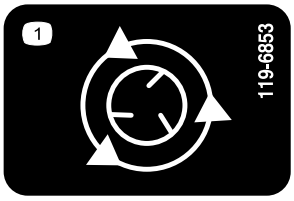
119-6818

1. Tailgate adjustment



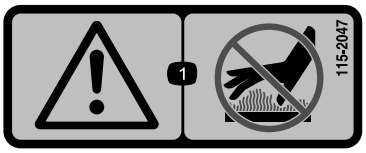
119-6854

1. Floor speed



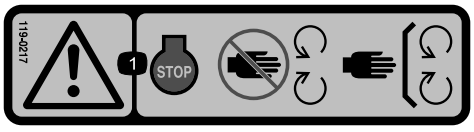
119-6853

1. Spinner speed



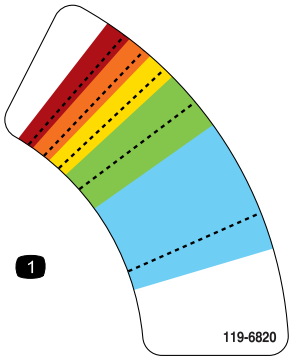
115-2047

1. Warning—do not touch the hot surface.



119-0217

1. Warning—stop the engine; stay away from moving parts; keep all guards and shields in place.

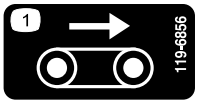


119-6820

1. Spinner speed adjustment

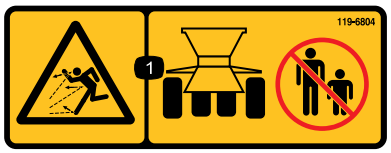
119-6855

1. Spinner speed



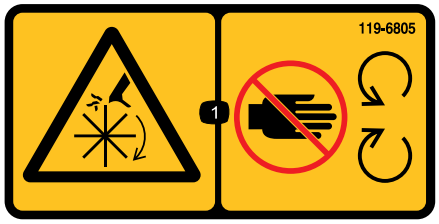
119-6856

1. Floor speed



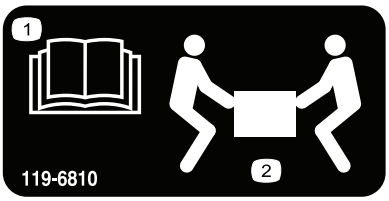
119-6804

1. Thrown object hazard—keep bystanders a safe distance from the machine.



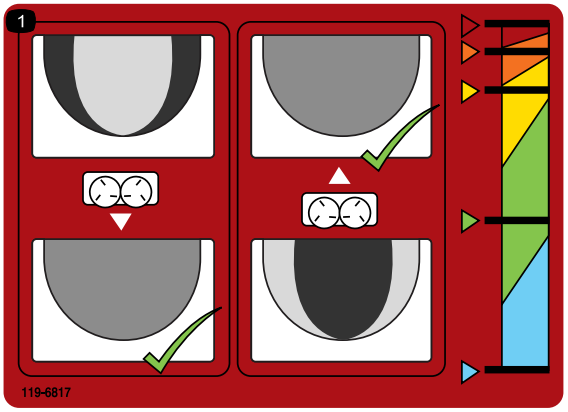
119-6805

1. Cutting/dismemberment hazard, impeller—stay away from moving parts, keep all guards and shields in place.



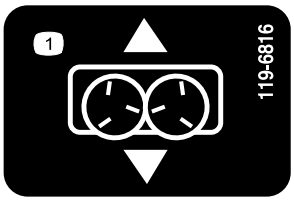
119-6810

1. Read the *Operator's Manual*.
2. Two people required to lift.



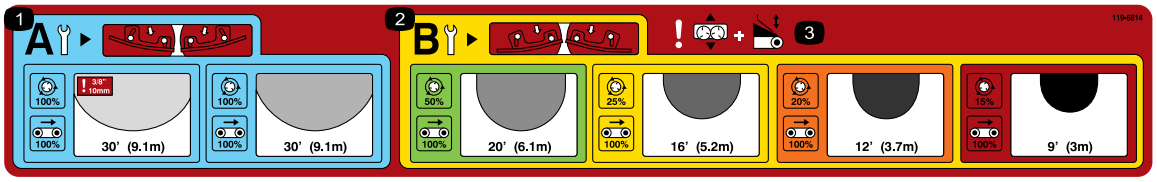
119-6817

1. Fine tuning spinners



119-6816

1. Slide adjustment

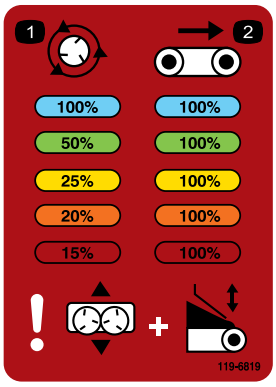


119-6814

1. Light spread spinner adjustment settings (refer to the Operation section for more information).
2. Heavy spread spinner adjustment settings (refer to the Operation section for more information).
3. Warning—slide adjustment and tailgate adjustment.

119-6806

1. Warning—read the *Operator's Manual*.
2. Warning—do not operate the machine unless you are trained.
3. Thrown object hazard—keep bystanders a safe distance from the machine.
4. Warning—stop the engine, remove the ignition key and read the *Operator's Manual* before performing maintenance on the machine.
5. Warning—no riders on machine.
6. Warning—stay away from moving parts; keep all guards and shields in place.



119-6819

1. Spinner speed percentage 2. Belt speed percentage

Setup

Loose Parts

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

Procedure	Description	Qty.	Use
1	Hopper guard Button head bolt, 1/4 x 5/8 inch Lock nut	1 3 3	Set Up the ProPass Base Model
2	Wire harness Socket bracket Socket bracket, heavy Carriage screw Flange nut Screw Flange nut	1 1 1 2 2 2 2	Installing the power harness
3	Hopper extension-front Hopper extension-rear Bolt Flange nut	1 1 9 9	Install the hopper extension kit
4	Bolt Flange nut	6 6	Mount the hopper to the tow chassis
5	Intermediate wire harness	1	Connect the intermediate wire harness
6	On/Off Pendant	1	Connect the On/Off Pendant
7	Controller mount assembly Wireless remote assembly	1 1	Mount the Wireless Remote (Model 44700 only)
8	No parts required	–	Connect the ProPass to the tow vehicle
9	No parts required	–	Disconnect the ProPass from the tow vehicle

Media and Additional Parts

Description	Qty.	Use
Operators Manual	1	
Parts Catalog	1	
Operator Training Materials	1	
Declaration of conformity	1	

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

1

Setting Up the ProPass Base Model

Parts needed for this procedure:

1	Hopper guard
3	Button head bolt, 1/4 x 5/8 inch
3	Lock nut

Procedure

1. Remove the base model ProPass from the shipping crate.
2. At the rear of the twin spinner, remove the 1/4 x 3/4 inch bolt and nut attaching the ProPass lifting device shipping bracket to the twin spinner (Figure 3).

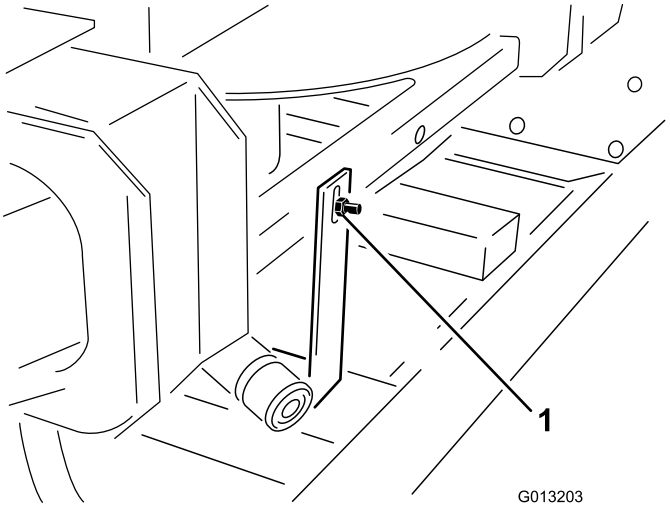


Figure 3

1. Shipping bracket

3. At the front of the twin spinner, remove the two 1/4 x 3/4 inch bolts and nuts attaching the ProPass lifting device shipping bracket to the Twin Spinner (Figure 4).

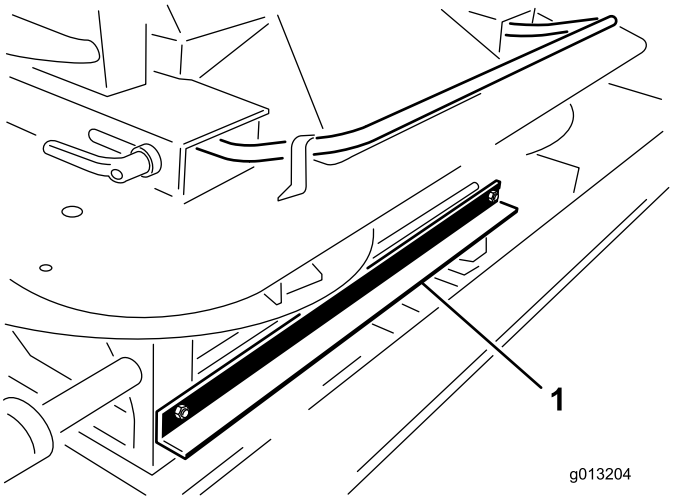


Figure 4

1. Shipping bracket

4. This step requires two people. Lift the twin spinner out of the hopper using the twin spinner outer grab handles. Place the twin spinner unit on the ground (Figure 5).

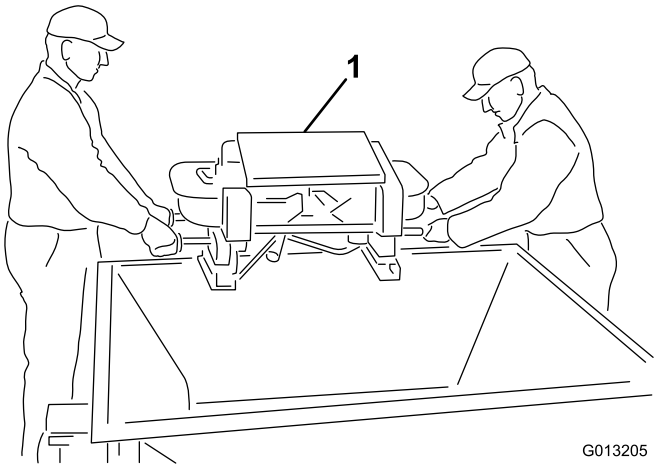


Figure 5

1. Twin spinner

5. Remove the four screws from the legs of the twin spinner. With the help of a partner, lift the twin spinner and remove the packing studs and packing foam (Figure 6).

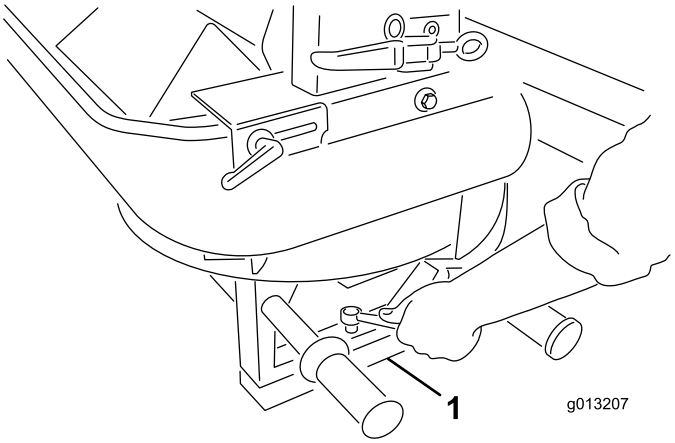


Figure 6

1. Packing studs and foam

6. Install the hopper guard using the supplied 1/4 x 5/8 inch button head bolts and nylon lock nuts (Figure 7).

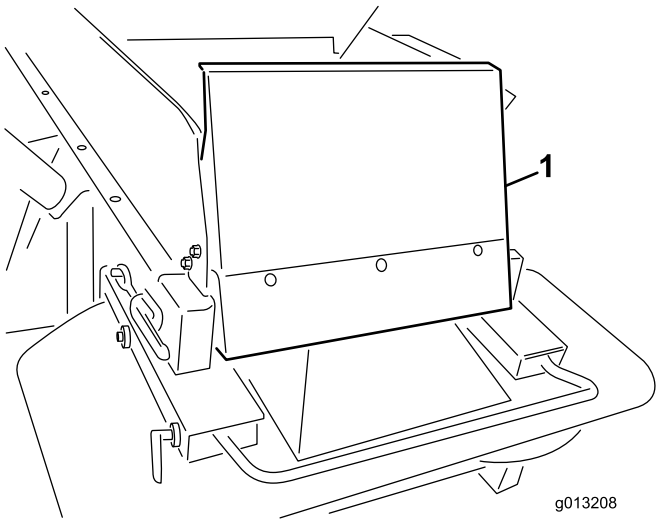


Figure 7

1. Hopper front guard

2

Installing the Power Harness

Parts needed for this procedure:

1	Wire harness
1	Socket bracket
1	Socket bracket, heavy
2	Carriage screw
2	Flange nut
2	Screw
2	Flange nut

Procedure

The tow vehicle wire harness provides the electrical power required by the control systems of the ProPass. These wire harness should be installed on the vehicle that will be used to operate the ProPass. If more than one vehicle will be used to operate the ProPass, additional components can be purchased from your local distributor.

The wire harness is primarily designed to be installed on a Toro Workman vehicle, however, they can also be easily installed on many other tow-vehicles.

1. Mount the socket bracket to a fixed point at the rear of the tow vehicle using one of the mounting brackets provided (Figure 8).

   Note: Ensure that the bracket will not come in contact with anything if the tow vehicle is equipped with a dump box.

   Important: Ensure that none of the wiring is loose or in the way of any mechanical components.

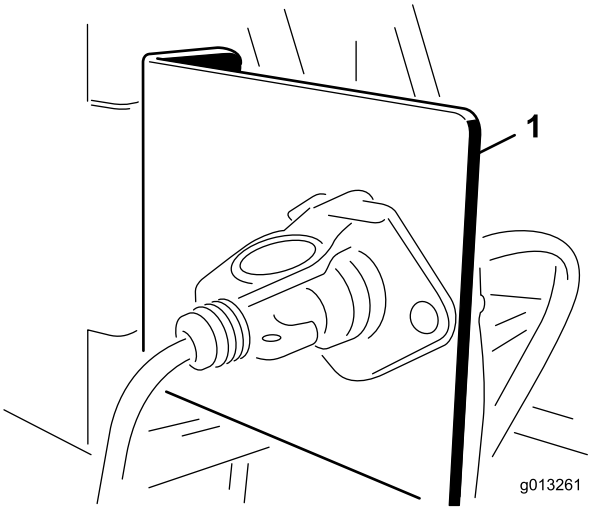


Figure 8

1. Socket bracket

2. Route and secure the electrical wiring from the battery to the electrical plug bracket (Figure 9).

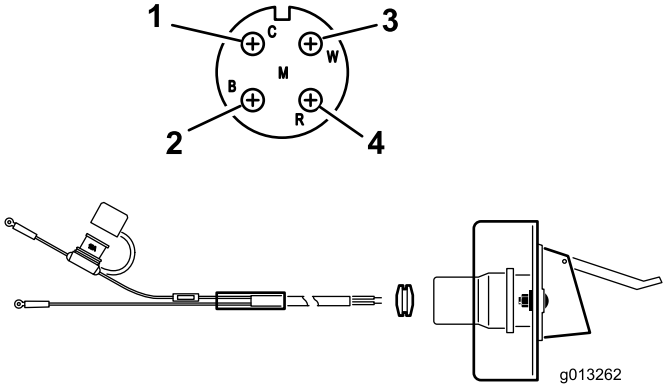


Figure 9

1. White wire (brass)
2. No wire silver (silver)
3. No wire (brass)
4. Black wire (brass)

3. Feed the wiring through the socket bracket, install the black rubber grommet over the wiring (Figure 9).
4. Bolt the socket to the socket bracket using the 1/4 inch bolts supplied.
5. Connect the red wire (power) to the positive post on the battery, then connect the black wire (ground) to the negative post on the battery.

3

Installing the Hopper Extension Kit

Parts needed for this procedure:

1	Hopper extension-front
1	Hopper extension-rear
9	Bolt
9	Flange nut

Procedure

1. Remove the hopper extensions from the box and identify the front and the rear (Figure 10 and Figure 11).

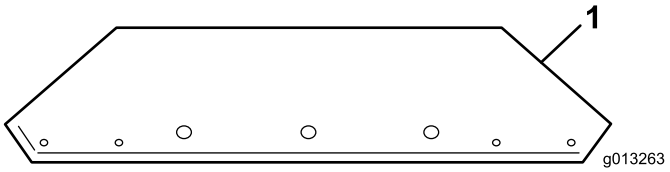


Figure 10

1. Front hopper extension

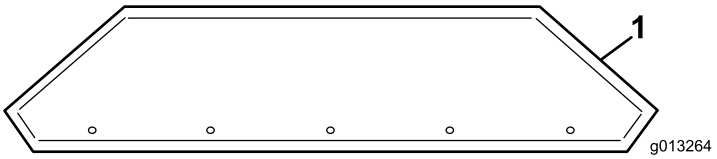


Figure 11

1. Rear hopper extension

2. Using the hardware provided, attach the hopper extensions to the hopper. The nuts are to be placed on the outside of the hopper.

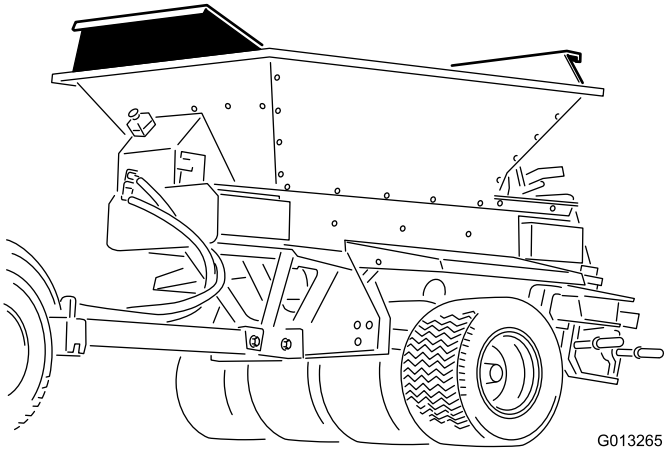


Figure 12
Hopper extension kit installed

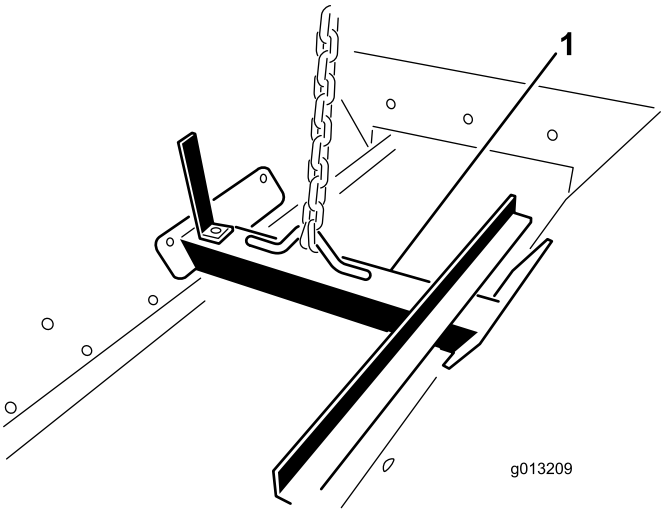


Figure 13

1. Lifting bracket

4

Mounting the Hopper to the Tow Chassis

Parts needed for this procedure:

6	Bolt
6	Flange nut

Procedure

Note: If mounting the ProPass hopper to other equipment, refer to the installation instructions for the equipment.

1. Attach a lifting device to the lifting bracket bolted inside the hopper assembly (Figure 13).

⚠ WARNING

Do not attempt to lift the bed and hopper with the Tow-Behind Chassis, ProGator, Workman or TDC Chassis connected. The lifting bracket is not capable of lifting the entire machine.

2. Using a lifting mechanism, position the ProPass over the Tow Chassis.
3. Line up the (6) mounting holes (three per side) and install the 5/16 x 1 inch bolts and flange nuts.

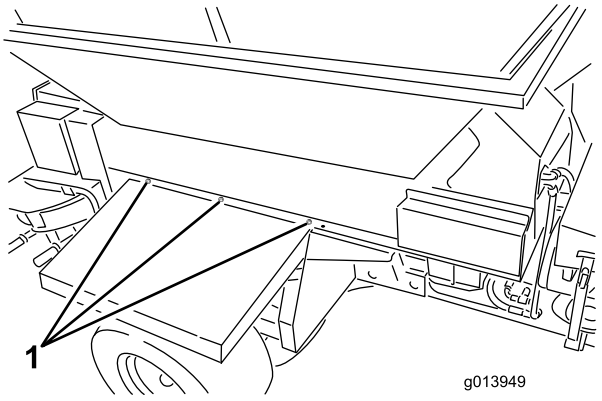


Figure 14

1. Mounting locations (3 each side)

4. Remove the lifting bracket from the hopper sides and reinstall the bolts to the hopper sides.

   Note: Retain the lifting bracket for future use. Do not discard.

5

Connecting the Intermediate Wire Harness

Parts needed for this procedure:

1	Intermediate wire harness

Procedure

Plug the intermediate wire harness into the power harness connector on the ProPass (Figure 15 or Figure 16.

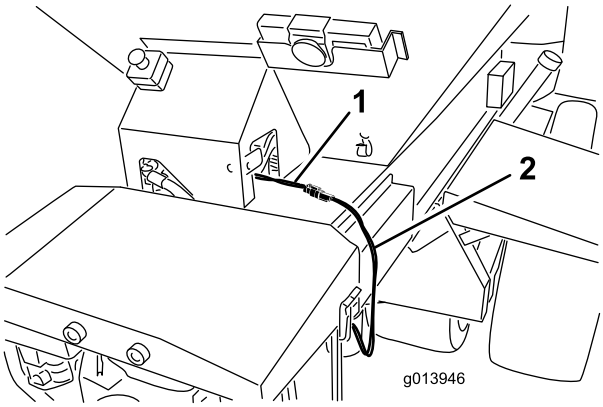


Figure 15
Model 44700

1. Power harness
2. Intermediate wire harness

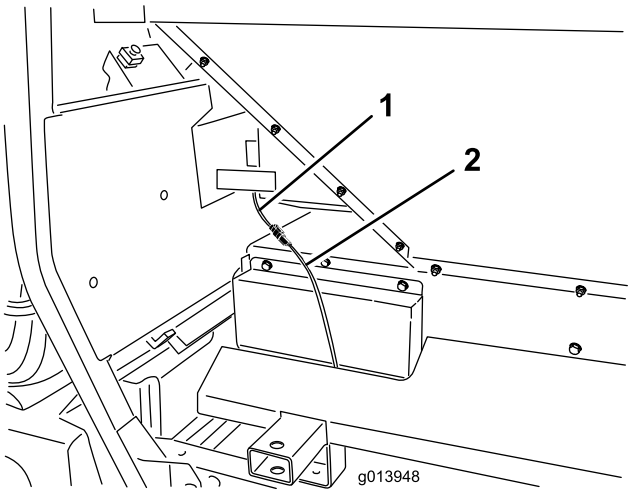


Figure 16
Model 44701

1. Power harness
2. Intermediate wire harness

6

Connecting the On/Off Pendant (Model 44701)

Parts needed for this procedure:

1	On/Off Pendant

Procedure

Plug the On/Off pendant connector into the connector on the ProPass (Figure 17).

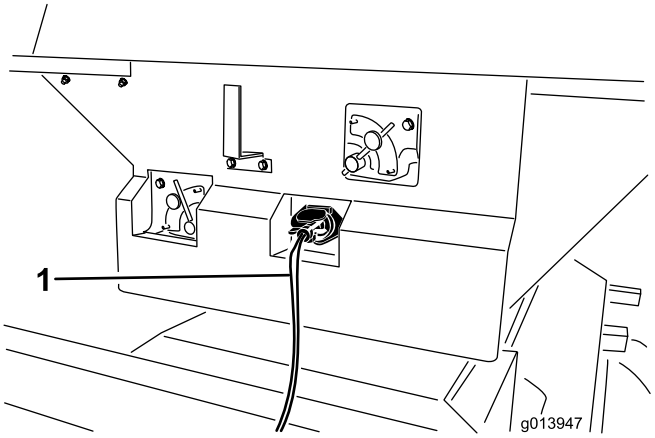


Figure 17

1. On/Off pendant

7

Mounting the Wireless Remote (Model 44700 only)

Parts needed for this procedure:

1	Controller mount assembly
1	Wireless remote assembly

Procedure

Insert the controller mount assembly into a cup holder or similar opening on the tow vehicle and use to store wireless remote. Also, the wireless remote magnet will stick to any metal component.

8

Connecting the ProPass to the Tow Vehicle

No Parts Required

Procedure

⚠ WARNING

Do not stand between the ProPass and the tow vehicle during coupling.

1. Adjust the hitch height by turning the jack stand handle(s) to keep the ProPass level.

   Important: The hitch pin must be high-strength and approved for tow vehicles.

2. Connect the clevis-style hitch of the ProPass to the tow vehicle using a 3/4 in (18 mm) diameter hitch pin and safety clip. Install the hitch pin through the ProPass hitch and the tow vehicle's draw bar on tow-behind chassis and through the supplied hitch mount on Truckster direct connect.
3. Lower the hitch using the jack stand(s).
4. When the full weight of the ProPass has been transferred to the tow vehicle's draw bar from the jack stand(s), pull the pin holding the jack stand(s) in place.
5. On tow-behind chassis turn the jack stand 90 degrees counter-clockwise until the bottom of the jack stand points to the rear of the ProPass. This is the traveling position.
6. On Truckster direct connect chassis move the jack stands to the rear of the machine and turn them 90 degrees until the bottom of both jack stands points to the center of the ProPass. This is the traveling position

   ⚠ CAUTION

   Raise and stow the jack(s) into the traveling position before towing the ProPass.

7. Attach the pressure hose and the return hose to the correct hydraulic outputs on the tow vehicle. The return hose has an inline check valve. If the hoses are reversed, some ProPass functions may run backwards or not work at all. Test the hydraulics before operating the ProPass for the first time.

   Important: The hydraulic lines, the power cable, and the pendant cables must not drag on the ground during operation. Avoid locations where they could become pinched or cut.

8. Plug the intermediate wire harness into the tow vehicle power connector.
9. Check the hydraulic oil level in the tank and add more to fill it, if necessary. (See the tow vehicle's owner's manual).

9

Disconnecting the ProPass from the Tow Vehicle

No Parts Required

Procedure

1. Park the tow vehicle and the ProPass on dry, level ground.
2. Set the parking brake on the tow vehicle, shut off the engine, and remove the key.
3. Place blocks under two wheels of the ProPass (front and back).
4. Relieve the pressure from the hydraulic system.
5. Disconnect the hydraulic hoses, coil and store them on the front of the ProPass.
6. Disconnect the intermediate power cord from the tow vehicle.
7. On tow-behind chassis, turn the jack stand 90 degrees (clockwise) to the down position to support the ProPass
8. On Truckster direct connect chassis, move the jack stands to the front of the machine and turn them 90 degrees until the bottom of both jack stands points to the ground.
9. Lift the ProPass with the jack stand(s) until the weight is off the tow vehicle's draw bar. Pull out the hitch pin.
10. Ensure that there is no further connection between the ProPass and the tow vehicle.

Product Overview

Controls

The Color-Coded Operating System

The ProPass features a unique color-coded operation system that takes the guess-work out of setting up your Top Dresser. Simply choose your spread, identify the color and then adjust each setting to match that color to get a perfect spread every time.

1. Choose Your Spread

The system starts with the main operation decal found on the tailgate of the ProPass (Figure 18).

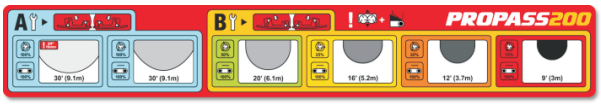


Figure 18

This decal shows the range of spreads available and classifies them by color (Figure 19). Each color represents a different rate of application from Ultra-Light through Ultra-Heavy.

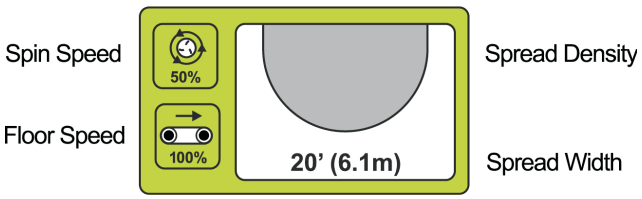


Figure 19

The spread density is indicated by the shaded ovals (light through heavy). The approximate width is also indicated

2. Check Your Blades

Note: The Top Dresser is shipped with the spinner blades in the **B position**.

The lighter spreads (blue panel) remind the operator to ensure the spinner blades are in A position (Figure 20).

Figure 20

When the blades are in the A position, the inside bolts (closest to the center of the disc) are tight to the blade wall and the outside bolts (closest to the edge of the disc) are away from the blade wall.

This is critical as this position is engineered to give the optimum spread and distribution at high speeds and low sand volume.

For heavier settings (gold panel) the blades should be in the **B position** to provide the best distribution at higher volumes and slower disc speeds (Figure 21).

Figure 21

When the blades are in the B position, the inside bolts (closest to the center of the disc) are away from the blade wall and the outside bolts (closest to the edge of the disc) are tight to the blade wall.

It takes only a few minutes to slide the blades into the proper position – incorrect blade position is one of the main reasons spread patterns fail.

3. Set Adjustments

Once you have selected the desired spread and ensured the blades are properly adjusted the rest of the ProPass adjustments can be set.

Each setting is indicated on the machine by corresponding color decals (Figure 22).

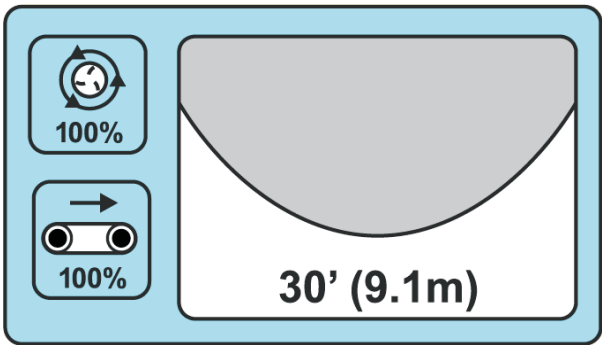


Figure 22

If you want a light dusting, the blue area indicates that your tailgate, floor speed, spinner speed and base slide adjustment should all be in their blue positions (Figure 22).

LIGHT

Approximate Width: 30 feet

Blade Position: A

Floor Speed: 100%

Spinner Speed: Blue/100%
Tailgate: Blue

Slide Adjustment: Blue

For filling aerification holes, simply adjust all settings to RED.

ULTRA HEAVY

Approximate Width: 9 feet

Blade Position: B

Floor Speed: 100%

Spinner Speed: Red/15%
Tailgate: Red

Slide Adjustment: Red

Tailgate

Figure 23

The tailgate controls the volume of material that flows from the ProPass. The 5 inch tailgate is divided into colors with a target starting line in each color section.

You can increase or decrease the amount of material with the tailgate as long as you stay within the corresponding color section.

Figure 24

Spinner Speed

Figure 25

Standard Hydraulics: Set the hydraulic control to the dotted start line in the corresponding color area. You can vary the speeds if required within the corresponding color section.

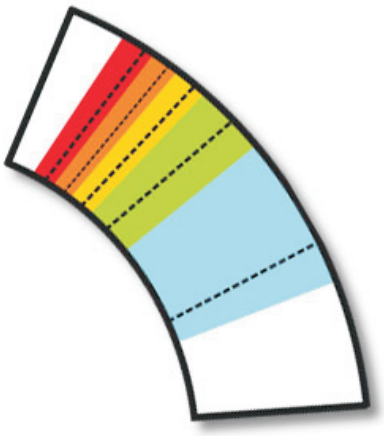


Figure 26

Wireless Control: Set according to the percentage indicated in the colored section of the decal and on the chart on the back of the wireless controller.

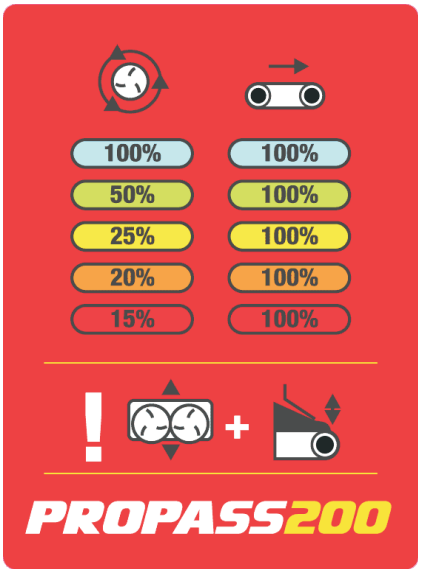


Figure 27

Slide Adjustment

Figure 28

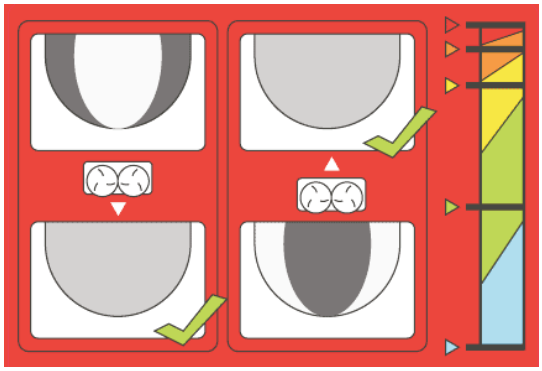


Figure 29

The slide adjustment provides ideal positioning of the sand as it falls onto the discs. The decal not only indicates the color coded start position for each application, it illustrates the adjustment required to fine tune your spread. (see Fine Tuning)

Floor Speed

Figure 30

The floor speed for every setting is 100% - this was developed and tested in order to have one less factor to adjust in the Color-Coded Operating System.

Note: Use the tailgate to reduce material volume. If the minimum tailgate height is insufficient to reduce material flow, then decrease floor speed.

4. Fine Tuning

The color-coded operation system was developed to take the guess work out of getting a perfect spread. However, with so many variables such as sand weight, granule size, moisture content etc. there may unevenness in your spread.

To correct this, the **base setting adjustment** has an illustration indicating the correct re-positioning of the base.

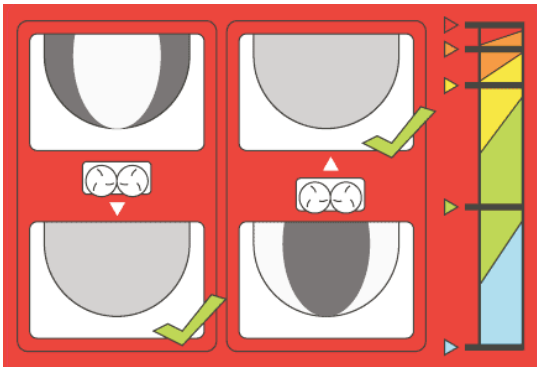


Figure 31

When the spread pattern is heavy on the inside of the spread simply slide the base in - towards the hopper. If your spread is heavy on the outside, slide the base out - away from the hopper.

A Perfect Spread

The color-coded operation system helps the ProPass achieve a perfect spread at any depth. From ultra-light to ultra-heavy, from your greens to your tee-boxes, from light dustings to deep.

Standard Hydraulic Control

⚠ WARNING

Before operating the ProPass, read and understand the entire Operator's Manual and all safety decals.

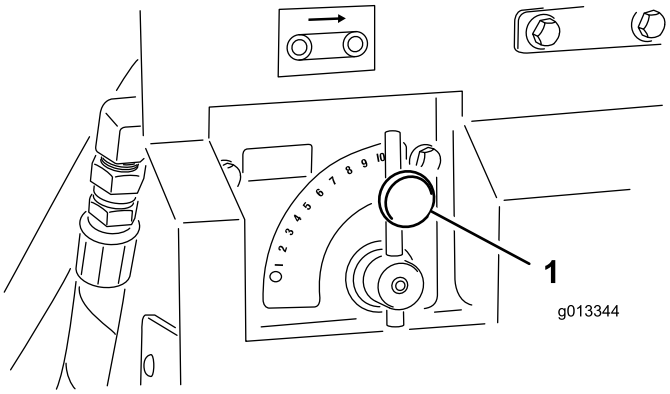


Figure 32

1. Floor control valve

Flow Control Valve for Floor

A hydraulic flow control valve controls the speed of the conveyor belt.

The highest speed setting is 10 and is typical for most applications found on the Color-Coded Operation System decals. Use lower settings for very light applications.

Flow Control Valve for Options

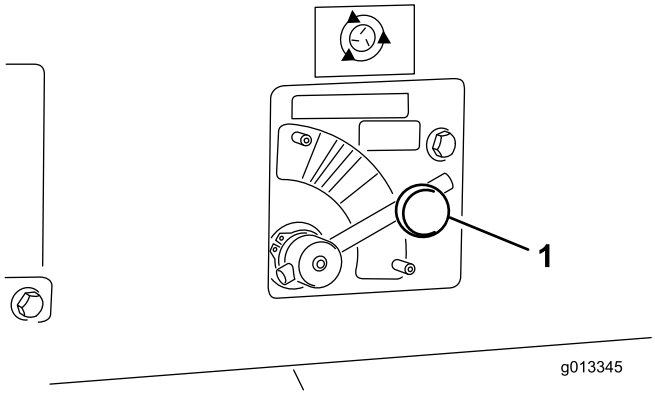


Figure 33

1. Option control valve

A hydraulic flow control valve controls the speed of the option (Twin Spinner). The spinner icon indicates the speed percentage for the wireless controller only – for standard hydraulics, place the control in the appropriate color area, starting at the dotted line and adjust speeds within the color zone as required.

⚠ WARNING

Do not leave the ProPass unattended while it is running.

On/Off Pendant

Use the two switches on the on/off pendant to run the conveyor belt or the option (Figure 34). The on/off pendant should be kept within reach of the operator.

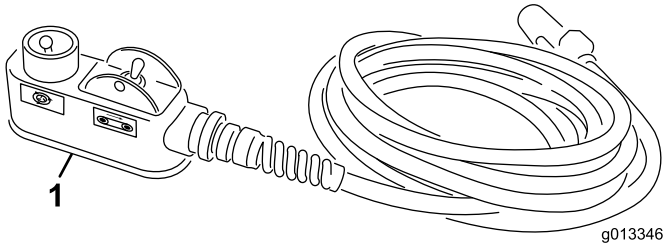


Figure 34

1. On/off pendant

Specifications

Weights	
Base Model	546 lb (248 kg)
Twin Spinner	150 lb (68 kg)

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

Operating Instructions

The ProPass Top Dresser has balance, weight, and handling characteristics that may be different from other types of pulled equipment. Read this Operator's Manual carefully.

With an option mounted, be aware of the ground clearance when traveling on hills. For a ProPass mounted on a tow-behind chassis, the ground clearance is 13 inches (33 cm) unloaded. For a ProPass mounted on a Truckster direct connect chassis, the ground clearance is 17 inches (43 cm) unloaded.

Important: Before loading the ProPass on or off of a trailer, remove the option to avoid damaging it.

Operating the ProPass

1. Fill the ProPass hopper with the material to be spread.
2. Ensure option is installed (Twin Spinner).
3. Adjust the gate height to the preferred setting. (See the ProPass Factory-Recommended Settings Guide in this manual).
4. Adjust both flow control valves to the preferred setting. On wireless models set the belt and option speeds to the preferred setting (Wireless-100%, Standard Hydraulics- #10.
5. Park the tow vehicle 10 ft (3 m) in front of the area required for top dressing.
6. Ensure that the on/off pendant switches are both off. On wireless models ensure the hand held functions are stopped.
7. Ensure that the tow vehicle's engine is at a low rpm (revolutions per minute).
8. Increase rpm of tow vehicle. Turn the option on, using the on/off pendant or the hand held on wireless models.
9. Drive forward to the area that requires top dressing, raising the rpm of the tow vehicle to the optimal operating range.
10. When the ProPass option is directly over the beginning of the top dressing area, use the on/off pendant or the control pendant on Wireless models to turn on the conveyer belt.
11. Travel in a straight line and spread the material at a constant speed until the spread reaches the edge of the top dressing area.
12. Turn off the conveyor belt, turn the ProPass around, and position it for the next pass.
13. Before making the next pass, check the spread pattern on the ground. Adjust the ProPass settings if necessary.
14. For Wireless models the ALL START function can be used in place of the option start and belt start functions as a single operation start feature. The option will start followed by the belt.
15. Continue steps 8 to 11 until the entire area requiring top dressing has been completed, or the hopper is empty
16. Turn off the conveyor belt and the option, lower the tow vehicle's rpm, and disengage the hydraulics.

    Note: Always shut the conveyor off first.

Wireless Controller (Model 44700 only)

The wireless controller activates rapidly rotating parts and pinch hazards. Be sure to always be in line of sight of the ProPass when operating, adjusting or programming the wireless controller.

To ensure that the activation of the spinners and the floor is intentional, you must press the start buttons twice: once to select and once to engage. This helps prevent accidental start when making manual adjustments on the machine

If no buttons are pressed for 10 seconds when programming or preparing to operate the wireless controller , it will enter into an idle mode and resort back to the last saved program or setting.

⚠ CAUTION

It is recommended that you power off your wireless controller and power-off your work vehicle (to ensure no hydraulic flow) when making any physical adjustments to the blades or floor.

Operating the Hydraulic Controls and Options on EH Models

Remote Control System

The Remote Control System consists of a Handheld Remote, a +12 to +14.4VDC Base Unit, and a wiring harness. The system is specifically designed to be used with and to control a ProPass 200 Top Dresser.

Handheld Remote

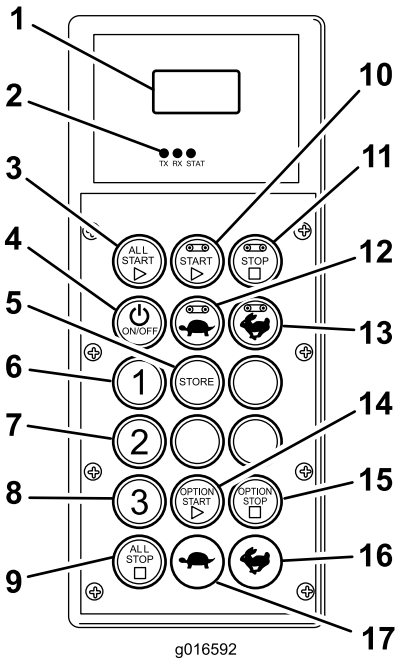


Figure 35

1. LCD Display
2. Controller Status LED's
3. All Start: Starts Floor and Option
4. On/Off
5. Store: Saves Preset Settings
6. Preset 1
7. Preset 2
8. Preset 3
9. All Stop: Stops all functions
10. Start: Floor
11. Stop: Floor
12. Increase Speed: Floor
13. Decrease Speed: Floor
14. Start: Option
15. Stop: Option
16. Increase Speed: Option
17. Decrease Speed: Option

Button Functions

Button	Name	Primary Function
	**ON/OFF**	Power controller on and off.
	**ALL START**	Provides functional control on both the Floor and Option including on/off and speed.
	**FLOOR START**	Provides functional control of the hopper conveyor floor belt including on/off and floor speed.
	**STOP FLOOR**	Stops the Floor.
	**FLOOR DEC**	Decreases the Floor speed.
	**FLOOR INC**	Increases the Floor speed.
	**PRESET 1** **PRESET 2** **PRESET 3**	Three separate Preset values may be stored for both FLOOR and OPTION are speeds.
	**STORE**	Used in conjunction with the Preset button to store or establish a Preset memory.
	**OPTION START**	Provides functional control of the rear Option including on/off and option speed.
	**OPTION STOP**	Stops the Option.
	**OPTION DEC**	Decreases the Option speed.
	**OPTION INC**	Increases the Option speed.
	**ALL STOP**	Stops both Floor and Option.

E-Stop Button

When finished working with the ProPass 200 , always press the E-Stop button (Figure 36) to disable the electrical system. When beginning work with the ProPass 200 , you must pull the E-Stop button back out before turning on the controller.

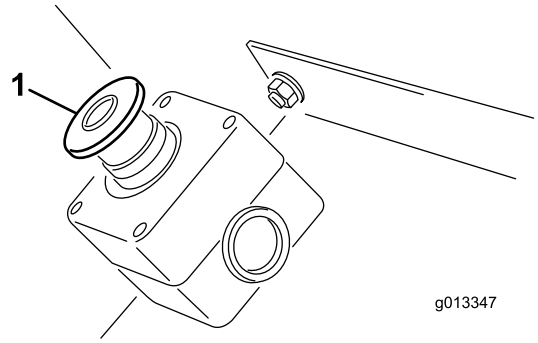


Figure 36

1. E-Stop Button

To Power On

Press the controller's On/Off button and wait for the hand held to find the base. Ensure that there are no buttons being pressed on the hand held while it is performing its start up routine.

Manual Override

Should the controller ever be lost, damaged or fail, the ProPass functions and operation are still possible to complete tasks or continue work until the problem is resolved.

The override access is on the driver side of the hydraulic system (Figure 37).

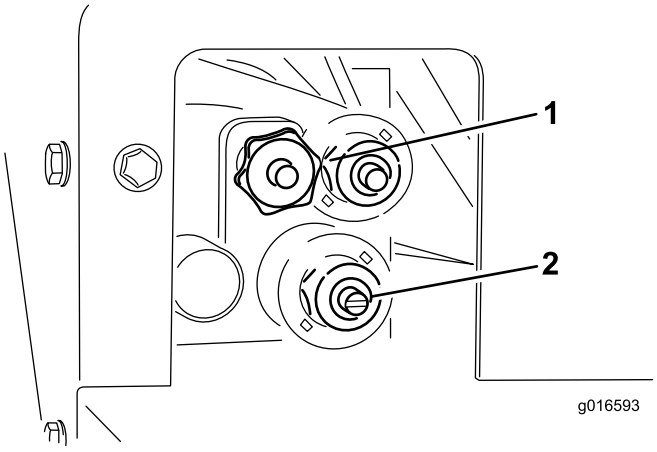


Figure 37

1. Floor speed
2. Spinner speed

To adjust the floor speed (Figure 37), turn the knob clockwise. Maximum floor speed is used in the Color-Coded Operating System so this adjustment can be made while no hydraulic flow is present. This is most relevant when you have a hopper full of sand.

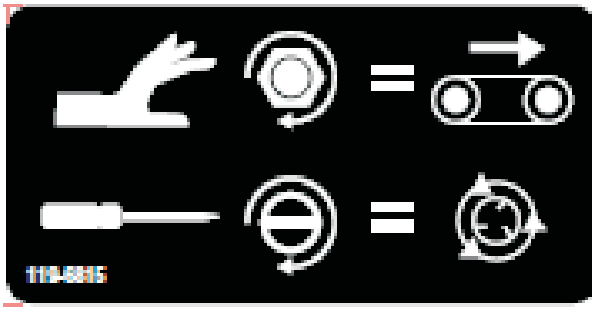


Figure 38

1. Manual Override Decal

To adjust the spinner speed (Figure 37), use a flat-head screwdriver to increase by turning clockwise or decrease by turning counter clockwise.

If adjusting with hydraulic flow active, ensure the floor is turned off if you do not wish to have sand being spread as you adjust.

Once your settings are acceptable, use the hydraulic flow control on your tow vehicle to turn the system on and off for operation.

Power Up Safety Feature

Upon power up, the Handheld Remote checks for all switches to be **OFF**. If any switches are found to be **ON**—a stuck switch—the display will show **SW STUCK** and the name of the switch that is at fault displays. The Handheld Remote will not send any commands to the Base Unit until the stuck switch is released and OFF.

The Base Unit also evaluates the initial incoming message and makes sure that all commands are clear before any outputs are allowed to be controlled.

Key Functionality Elements

- When the controller is first powered on, the display should read "FLR OFF and OPT OFF" in approximately 5 seconds. If the words "waiting for base" are in the display, check to ensure there is electrical power to the base unit and ensure the E-Stop button on the base unit is pulled out.
- There is always a **current working memory**. This is not the same as a preset. The last saved work settings will be in the current working memory when the controller is powered on.

- Operational sequence of the controller start buttons:
  - Pressing a start button once (All Start, Floor Start or Option Start) calls up the current working memory setting stored in the controller
  - By pressing the same start button a second time the component is activated if the hydraulics are not engaged (it shows numbers ramping up in display), or the component is turned on if the hydraulics are engaged.
  - Pressing the same start button a third time will store the new setting established in the controller's working memory.
- After pressing a start button once to view the current working memory setting in a non-working mode, there is approximately 10 seconds to begin adjusting the setting or the element will revert back to OFF. In a working mode, the 10 second rule is gone.
- To program a preset, the key to remember is the elements must be **activated or engaged**.
- To operate from a preset, the element speed percentages must be in the display to activate or engage them. If the words OFF are in the display, the preset must be recalled.

Liquid Crystal Display (LCD)

The two line, 8 character per line LCD (Liquid Crystal Display) shows status and activity as the Remote buttons are pressed. It features user adjustable backlighting and contrast. Changes are saved in the Remote current working memory. When the unit is turned on after being powered down, the last settings for Contrast and Backlighting are used for the display.

Please use the button references in Figure 2 Handheld Remote Front Panel Layout when adjusting Contrast and Backlighting.

To Increase the Contrast:

Hold the ALL STOP  and the OPTION INCREASE  buttons simultaneously while observing the display until the contrast is as desired.

To Decrease the Contrast:

Hold the ALL STOP  and the OPTION DECREASE  buttons simultaneously while observing the display until the contrast is as desired.

To Increase the Backlighting:

Hold the ALL STOP  and the FLOOR INCREASE  buttons simultaneously while observing the display until the backlighting is as desired.

To Decrease the Backlighting:

Hold the ALL STOP  and the FLOOR DECREASE  buttons simultaneously while observing the display until the backlighting is as desired.

Note: Decreasing the Backlighting to zero effectively turns it off. Backlighting consumes the most energy of all Handheld Remote functions. Increasing the backlighting increases power consumption and will shorten the life span of the batteries; the lower the backlighting, the longer the battery life span.

Status LEDs

Two LEDs, a Green (Transmit) and Amber (Receive) are used to indicate Handheld Remote activity.

GREEN LED:

A flashing Green LED indicates a message is being transmitted to the Base Unit.

A solid Green LED indicates a Handheld Remote button is pressed.

AMBER LED:,

A flashing AMBER LED indicates a message is being received from the Base Unit.

A solid AMBER LED indicates one or more Base Unit outputs are active.

Power

The Handheld Remote is powered by four factory installed 1.5V AA Alkaline batteries and operates between 1.6 to 3.2V. Battery life expectation is approximately 300 hours (continuous operation, backlight off), but battery life longevity is affected by usage factors, particularly backlight intensity setting—the higher the backlight setting, the more power consumed resulting in shorter battery life.

Note: It is recommended that fresh spare batteries be at hand at all times that the system is in use.

Note: At some point, the Handheld Remote may sense that the voltage is at the low threshold (approximately 1.7V) at which the display will show the message LOW BATTERY. The message will cycle with the current

display message at periodic intervals while the unit is used. When displayed, the operator has a limited time – approximately ten (10) hours – to power down the system before the remote will automatically power down at which point the batteries must be replaced.

Batteries should be changed soon after the display shows the first low battery warning. The warning will periodically flash across the display as LOW BATTERY while the unit is in use. The Handheld Remote can be used for approximately ten (10) hours (assuming backlight is off) before ultimately powering down to a non operational condition at which time the batteries must be replaced with four (4) fresh AA alkaline batteries.

Install or Replace the Batteries

1. Place the Remote face down and remove the four screws holding the battery cover in place. Remove the battery cover.

   Note: The four screws holding the battery cover in place are 'captive' to the cover—the cover holes are threaded. Although they are not easily removed from the cover itself, be aware that the screws if over loosened while opening the battery compartment can be completely removed increasing the risk of loss.

2. Remove the discharged batteries and properly dispose in accordance with local regulations.

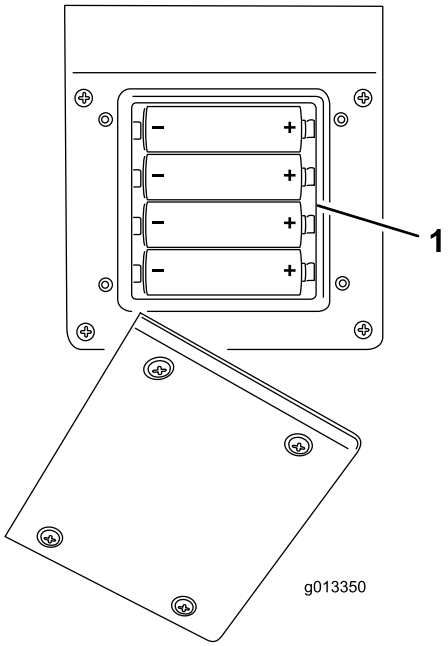


Figure 39

1. Battery Compartment

3. Plug each fresh battery into a terminal cradle observing proper polarity. (If the batteries are improperly installed, the unit will not be damaged, but it will fail to operate.) The cradle is embossed with polarity markings for each terminal—emphasized in Figure 3 - 4 AA Alkaline Battery Compartment below. Make sure they are firmly seated in the unit.
4. Replace the battery cover. Secure the cover with the four screws. Make sure they are tightened enough to compress the seal, but be careful not to over tighten.

Handheld Remote Care

Though the Handheld Remote is rugged, care should be taken not to drop the unit onto hard surfaces. To clean the Remote, use a soft cloth moistened with water or a mild cleaning solution to wipe it paying particular attention to avoid scratching the LCD (Liquid Crystal Display) screen.

Operation

Base↔Remote Communication

Communication between the Base and Handheld Remote units must be established before the system can be used. This link process is called Association and it is performed while the Handheld Remote is in Associate Mode.

Association between Remote and Base Unit is established at the factory; however, there may be instances in the field when a Handheld Remote and a Base Unit must be reassociated. When necessary, Association can be performed as described below.

Associate Mode (Remote ↔ Base Unit Association)

1. Press the E-Stop button to remove power from the base unit and make sure the handheld is OFF.
2. Stand near the base unit in clear line of sight.
3. Simultaneously press and continue to hold the ON/OFF and the ALL STOP buttons. The Handheld Remote goes through its initialization screens and settles on **ASSOC PENDING**.
4. Continue to hold both buttons and then quickly release them when **ASSOC ACTIVE** is displayed (approximately four (4) seconds).

   Note: If the buttons are pressed to long, **WAITING FOR BASE** will be displayed.

5. Release the two buttons. The displays will show **CLR CHAN SCAN**. The Handheld Remote scans

all available channels and chooses the channel with the least traffic.

6. Press and hold the **STORE** button 

. The Handheld will display **POW UP BUNIT**. Continue to hold the **STORE** button.
7. Pull out on the E-Stop button to power up the Base Unit. The Handheld will Associate (link) with the Base Unit. Upon success, the display will show **ASSOC SUCCESS.**
8. Release the **STORE** button.

Note: The Handheld Remote and Base Unit link can be viewed by holding down the ALL STOP 

and OPTION STOP 

buttons at the same time. The display will cycle and indicate the selected channel and the ID of the Base Unit.

Floor Start

Upon initially pressing Floor Start (where the floor is not running), the Handheld display shows the stored setting and during this time an OFF command is continuously sent to the Base Unit to ensure the output remains **OFF**. In this preview mode, an S is displayed after **FLR– FLRS** is displayed—indicating the Handheld is in a **SET ONLY** mode. In this preview mode, the setting can be adjusted up or down as desired using the Increase Floor Speed and Decrease Floor Speed buttons, but the actual output at the Base Unit remains OFF. This is useful as it allows the operator to pre set a desired floor speed setting, or use the stored setting, without causing unwanted movement. Upon settling on a desired speed, the FLOOR START button can be pressed again causing the Base Unit output to ramp to the chosen setting. Pressing FLOOR START for a third time causes the current value to be stored in memory.

Note: Changes to the Floor settings while the Floor is running are immediately effective, but they are temporary unless the setting is stored. For instance, an adjustment is made while the display shows FLRS, the Floor is started ramping to the adjusted setting, and then the Handheld Remote is turned off (powered down) without storing the change. The setting will revert to the previously stored value when the next time the Handheld Remote is used.

Note: A ten (10) second timer starts when the FLOOR START 

button is pressed and FLFS (SET ONLY mode) displays. If a button press is not sensed during the ten second interval, the display reverts to FLR and the previous state/value displays and is enforced. The timer resets to ten seconds if any button is pressed while the Handheld is in the SET ONLY mode.

Change or Store Floor Speed Setting

The starting speed for the Floor can be changed at will. When changed, the new value is not stored in the current working memory unless the ALL START 

button or FLOOR START 

button is pressed again while the Floor is active. The stored value is used any time thereafter when the ALL START 

is pressed or when the START FLOOR is pressed. To change the value

1. Press the FLOOR START 

button. The preview value displays.
2. Adjust the command to the desired speed setting using the INCREASE FLOOR SPEED 
button or the DECREASE FLOOR SPEED 
button while watching the display.
3. Press the FLOOR START 

button again to start the Base Unit Floor Output.
4. Press FLOOR START 

button once more (the third time).

   The LCD acknowledges the new stored command by displaying FLOOR STORE. This value is used when either the FLOOR START 

or ALL START 

button is pressed.

Alternate Store Floor Command Setting Method

1. Press the ALL START 

button to display the preview or SET ONLY mode (FLS and OPTS).
2. Adjust the command to the desired speed using the FLOOR Increase 
or FLOOR Decrease 
button.

3. Press the ALL START button again to run the Floor and Option.

4. Press the ALL START button while both Floor and Option are running. The display acknowledges the new stored commands with ALL STORE.

   Note: Both Floor and Option must be running for ALL STORE to work. If only one or neither are running, the ALL START command will be interpreted as a request to either start them both, or to start the one that was not running. Nothing is stored and the commands previewed are the previously stored Floor and the Option commands. It is important to realize that the stored command for the Floor is used twice, once in the event of an individual command using FLOOR START, and once in the event of a combined action using ALL START; in either case, it is the same number.

Option Start

Upon initially pressing OPTION START (where the Option is not running), the Handheld display shows the stored setting and during this time an OFF command is continuously sent to the Base Unit to ensure the output remains OFF. In this preview mode, an S is displayed after **OPT—OPTS** is displayed—indicating the Handheld is in a **SET ONLY** mode. In this preview mode, the setting can be adjusted up or down as desired using the Increase Floor Speed and Decrease Floor Speed buttons, but the actual output at the Base Unit remains OFF. This is useful as it allows the operator to pre set a desired option speed setting, or use the stored setting, without causing unwanted movement. Upon settling on a desired speed, the OPTION START button can be pressed again causing the Base Unit output to ramp to the chosen setting. Pressing OPTION START for a third time causes the current value to be stored in the current working memory.

Note: Changes to the Option setting while the Option is running are immediately effective, but they are temporary unless the setting is stored. For instance, an adjustment is made while the display shows OPTS, the Option is started ramping to the adjusted setting, and then the Handheld Remote is turned off (powered down) without storing the change. The setting will revert to the previously stored value the next time the Handheld Remote is used.

Note: A ten (10) second timer starts when the OPTION START button is pressed and OPTS (SET ONLY mode) displays. If a button press is not sensed during the ten second interval, the display reverts to OPT and the previous state/value displays and is enforced. The timer resets to ten seconds if any button is pressed while the Handheld is in the SET ONLY mode.

Change or Store the Option Speed Setting

The starting speed for the Option output can be changed at will. When changed, the new value is not stored in the current working memory unless the OPTION START button or ALL START button is pressed again while the Option is active. The stored value is used any time thereafter when the ALL START is pressed or when the OPTION START is pressed. To change the value:

1. Press the OPTION START button. The preview value displays.
2. Adjust the command to the desired speed setting using the OPTION INCREASE SPEED button or the OPTION DECREASE SPEED button while watching the LCD.
3. Press the OPTION START button again to start the Base Unit Option Output.
4. Press the OPTION START button once more. The LCD acknowledges the new stored command by displaying OPTION STORE. This value is used when either the OPTION START or ALL START button is pressed.

Alternate Store Option Command Setting Method

1. Press the ALL START button to display the preview or SET ONLY mode (FLS and OPTS).
2. Adjust the command to the desired speed using the OPTION Increase or OPTION Decrease button.
3. Press the ALL START button again to run the Option and Floor.
4. Press the ALL START button while both Option and Floor are running. The display acknowledges the new stored commands with ALL STORE .

   Note: Both Floor and Option must be running for ALL STORE to work. If only one or neither are running, the ALL START command will be interpreted as a request to either start them both, or to start the one that was not running. Nothing is stored and the commands previewed are the previously stored Floor and the Option commands.

   Note: It is important to realize that the stored command for the OPTION is used twice, once in the event of an individual command using OPTION START, and once in the event of a combined action using ALL START; in either case, it is the same number.

All Start

Upon initially pressing All Start (where the floor is not running), the Handheld display shows the stored setting and during this time an OFF command is continuously sent to the Base Unit to ensure the output remains **OFF**. In this preview mode, an S is displayed after **FLR– FLRS** and **OPT-OPTS** are displayed—indicating the Handheld is in a **SET ONLY** mode. In this preview mode, the setting can be adjusted up or down as desired using the Increase Floor or Option Speed and Decrease Floor or Option Speed buttons, but the actual output at the Base Unit remains OFF. This is useful as it allows the operator to pre set a desired floor speed setting, or use the stored setting, without causing unwanted movement. Upon settling on a desired speed, the ALL START button can be pressed again causing the Base Unit output to ramp to the chosen setting. Pressing ALL START for a third time causes the current value to be stored in memory.

Note: Changes to the Floor or Option settings while the Floor or Option is running are immediately effective, but they are temporary unless the setting is stored. For instance, an adjustment is made while the display shows FLRS, the Floor is started ramping to the adjusted setting, and then the Handheld Remote is turned off (powered down) without storing the change. The setting will revert to the previously stored value when the next time the Handheld Remote is used.

Note: A ten (10) second timer starts when the ALL START button is pressed and FLFS (SET ONLY mode) displays. If a button press is not sensed during the ten second interval, the display reverts to FLR and the previous state/value displays and is enforced. The timer resets to ten seconds if any button is pressed while the Handheld is in the SET ONLY mode.

Change or Store Floor Speed Setting

The starting speed for the Floor can be changed at will. When changed, the new value is not stored in the current working memory unless the ALL START button or FLOOR START button is pressed again while the Floor is active. The stored value is used any time thereafter when the ALL START is pressed or when the START FLOOR is pressed. To change the value

1. Press the FLOOR START button. The preview value displays.
2. Adjust the command to the desired speed setting using the INCREASE FLOOR SPEED button or the DECREASE FLOOR SPEED button while watching the display.
3. Press the FLOOR START button again to start the Base Unit Floor Output.
4. Press FLOOR START button once more (the third time).

The LCD acknowledges the new stored command by displaying FLOOR STORE. This value is used when either the FLOOR START or ALL START button is pressed.

Change or Store the Option Speed Setting

The starting speed for the Option output can be changed at will. When changed, the new value is not stored in the current working memory unless the OPTION START button or ALL START button is pressed again while the Option is active. The stored value is used any time thereafter when the ALL START is pressed or when the OPTION START is pressed. To change the value:

1. Press the OPTION START button. The preview value displays.
2. Adjust the command to the desired speed setting using the OPTION INCREASE SPEED button or the OPTION DECREASE SPEED button while watching the LCD.
3. Press the OPTION START button again to start the Base Unit Option Output.
4. Press the OPTION START button once more. The LCD acknowledges the new stored command by displaying OPTION STORE. This value is used when either the OPTION START or ALL START button is pressed.

Alternate Store Floor Command Setting Method

1. Press the ALL START button to display the preview or SET ONLY mode (FLS and OPTS).
2. Adjust the command to the desired speed using the FLOOR Increase or FLOOR Decrease button.
3. Press the ALL START button again to run the Floor and Option.
4. Press the ALL START button while both Floor and Option are running. The display acknowledges the new stored commands with ALL STORE.

Note: Both Floor and Option must be running for ALL STORE to work. If only one or neither are running, the ALL START command will be interpreted as a request to either start them both, or to start the one that was not running. Nothing is stored and the commands previewed are the previously stored Floor and the Option commands. It is important to realize that the stored command for the Floor is used twice, once in the event of an individual command using FLOOR START, and once in the event of a combined action using ALL START; in either case, it is the same number.

Store or Change the All Start Speed Setting (ALL STORE)

Both the FLOOR and the OPTION must be running before the ALL STORE speed setting can be stored in memory.

Note: If only one or neither FLOOR and OPTION are running, the ALL START command will be interpreted as a request to start both, or to start the one that is not running while the other is running. Nothing is stored and the active command is the previously stored FLOOR command and the previously stored OPTION command.

1. Press the ALL START button to start the FLOOR and the OPTION.
2. Set the desired speeds of both FLOOR and OPTION by using the appropriate Increase and Decrease speed buttons for each output.
3. Press the ALL START button while the FLOOR and OPTION are running.

   The LCD acknowledges the new regular command for both outputs by displaying ALL STORE.

Setting the Preset 1, 2, and 3 Buttons

Three Preset values that simultaneously affect both the FLOOR and the OPTION outputs are provided. Each Preset button acts essentially like a preview mode for the ALL START, except that they use different, user defined quick reference speed values. If the FLOOR and/or the OPTION happen to be running at the time the Preset is pushed, a preview value of both Floor and Option is displayed and if the ALL START button is then pressed the current operating values are replaced by the Preset values.

The user defined Preset values for PRESET 1, PRESET 2, and PRESET 3 are individually set as follows:

1. Start both FLOOR and OPTION either individually or by using the ALL START button 

.
2. Set the desired speeds of both FLOOR and OPTION by using the appropriate Increase and Decrease speed buttons for each output.
3. Press and hold the STORE 

button and then press the PRESET button (1, 2, or 3).

Note: If STORE is held and a Preset button pressed while either FLOOR or OPTION are off, no new value is stored for either Floor or Option; the Preset holds the values previously stored.

To Operate in Preset Mode

To begin work or operate from a Preset mode do the following:

1. Press the desired Preset button (1, 2 or 3) to display the Floor and Option settings.
2. Press All Start, All Start to store the settings to the current working memory. Note: this will turn on the Floor and Option if the hydraulics are turned on.
3. Use the Start and Stop buttons to control the Floor and Option as desired

Battery Life, BUMPS, Operating Frequency, Base & Remote ID Display

Holding down the ALL STOP 

and OPTION STOP 

buttons simultaneously results in display of multiple points of information. If the buttons remain held down, the display cycles approximately every two (2) seconds displaying first the battery life expectancy in percent remaining on line one, and BUMPS—Base Unit Messages Per Second—information on line two. The subsequent cycle displays the Operating Frequency (Channel) on which the units communicate, then the Handheld Remote ID number, followed by the associated Base Unit ID. Both handheld and base IDs are shown as hexadecimal values.

Tow Vehicle

⚠ WARNING

Always use a suitable tow vehicle to move the ProPass, even for short distances. An unsuitable tow vehicle can damage the ProPass, or cause injury or death.

The override access is on the driver side of the hydraulic system. (see Figure 15)

A suitable tow vehicle must have a minimum towing capacity 3,400 lb of (1,405 kg).

On tow-behind chassis the maximum carrying load for the ProPass is 2,000 lb (907 kg), with a resulting tongue weight of 250 lb (113 kg). The tare weight (no load) is 1,100 lb (499 kg), with a resulting tongue weight of 50 lb (23 kg).

The resulting tongue weight of the ProPass fitted with the 11 HP – Hydraulic Power Pack when operating with a full load is 145 kg (320 lb). The resulting no load tongue weight is 105 lb (48 kg). The tare weight (no load) is 1,320 lb (599 kg).

On Truckster direct connect chassis the maximum carrying load for the ProPass is 2,000 lb (907 kg), with a resulting weight transfer of 600 lbs (272 kg) to the tow vehicle. The tare weight (no load) is 1,200 lb (544 kg), with a resulting weight transfer of 115 lb (52 kg) to the tow vehicle.

Loading

⚠ WARNING

Ensure that the ProPass is connected to the tow vehicle before loading.

Do not carry loads that exceed the load limits of the ProPass, or the tow vehicle (see Specifications).

The stability of loads can vary - for example, high loads will have a higher center of gravity. Reduce the maximum load limits to ensure better stability, if necessary.

To avoid causing the ProPass to tip over (see safety decals in this manual):

- Carefully monitor the height and weight of the load. Higher and heavier loads can increase the risk of tipping.
- Distribute the load evenly, front to back and side to side.
- Be careful when turning and avoid unsafe manoeuvres.

Important: Do not put large or heavy objects into the hopper. Material that is larger than the rear gate opening may damage the belt and rear gate assembly. Also ensure that the load has a uniform texture. Small rocks in sand can become projectiles.

⚠ WARNING

Do not carry passengers in the hopper.

Unloading

⚠ WARNING

Keep hands and feet away from the hopper guard on the spinner guard and the spinner assembly when the machine is operating or when the hydraulic power pack engine, on the tow vehicle, is running.

Do not stand behind the ProPass when unloading or spreading. The Twin Spinner ejects particles and dust at a high speed.

Do not unload the ProPass while it is on a slope.

⚠ WARNING

Ensure that the ProPass is connected to the tow vehicle before unloading. Otherwise, the load may shift and the ProPass may tip over.

Traveling

The ProPass is designed only for off-road use. The maximum recommended speed without a load is 15 mph (24 km/h).

Maintain safe control of the ProPass. Do not attempt sharp turns, abrupt manoeuvres, or other unsafe driving actions.

Slow down before turning, especially on wet, sandy, and slippery surfaces. Turning clearances are limited if you have an option mounted on the ProPass.

⚠ CAUTION

Be aware of your surroundings when turning or backing up. Ensure that the area is clear and keep all bystanders at a safe distance. Proceed slowly.

Turn off the option when approaching people, vehicles, vehicle crossings, or pedestrian crossings.

Note: Heavy loads and wet or rough surfaces increase the time it takes to stop, and reduce the ability to turn quickly and safely.

Hills

⚠ WARNING

Use extreme caution when traveling on hills, especially when turning.

Always travel straight up and down hills—do not travel sideways or on a diagonal. Stopping distance increases when traveling down a hill.

Reduce the weight of the load when traveling on hills. Avoid piling the load high—a higher center of gravity increases the risk of the ProPass tipping over on hills.

If you have an option on the ProPass, be aware of the ground clearance when traveling on hills. When the ProPass begins to travel up a slope the ground clearance decreases.

Parking

Always park the ProPass on a firm, horizontal, and level surface. Place blocks under two wheels of the ProPass (front and back).

⚠ WARNING

Do not disconnect the ProPass from the tow vehicle on a slope. Ensure that the front jack is in the support position.

To rotate the jack stand from a down support position to a traveling horizontal position, pull out the jack stand support pin and swivel the jack. Ensure that the jack stand is attached to the ProPass and in the correct position during operation. On Toro tow-behind chassis the jack stand is located on the hitch tube (Figure 40). On Truckster direct connect chassis two jack stands are used (Figure 41). Use the jack storage mounts on the rear of the chassis during operation.

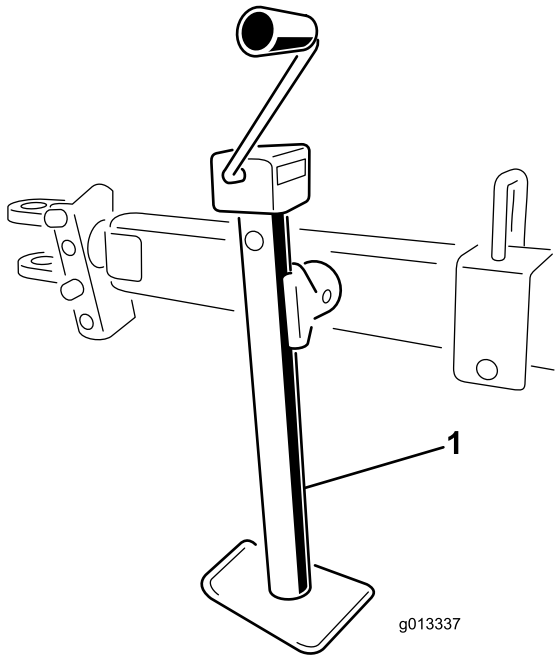


Figure 40

1. Jack stand On Tow-Behind

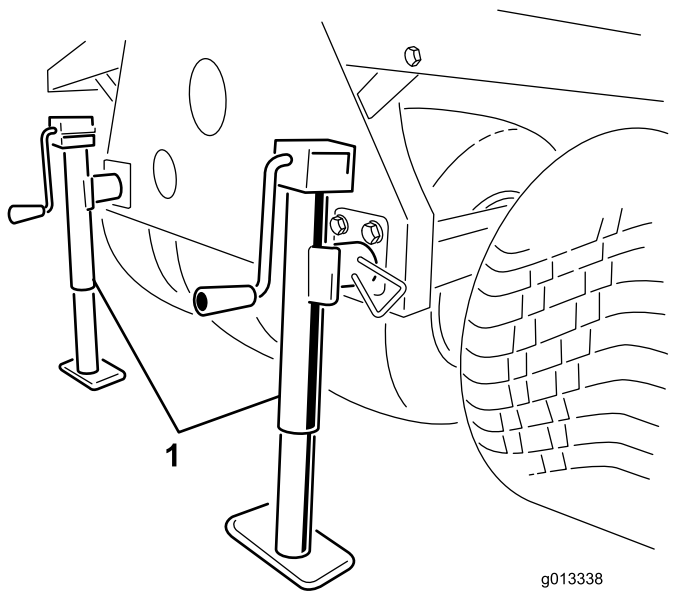


Figure 41

1. Jack stands On Truckster Direct Connect

Using the Storage Stand

1. Park the work vehicle in the storage spot for the ProPass.

   Note: The storage spot must be a hard and level surface.
2. Disconnect the electrical connection from the work vehicle.
3. Disconnect the ProPass hydraulic lines from the work vehicle.
4. With the work vehicle in neutral gear, set the parking brake and start the engine.
5. Using the vehicle lift cylinder, raise the front of the ProPass high enough to install the front storage stand legs.
6. Turn off the engine.

⚠ WARNING

Do not climb under or perform work on the ProPass while it is on the storage stand.

7. Insert the front storage legs and the rear jack stands into the ProPass tubes and secure them with the locking pins (Figure 42).

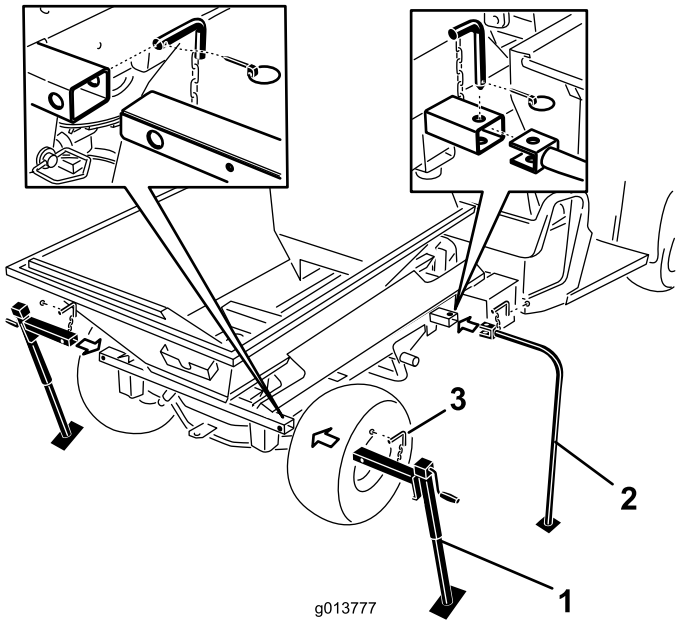


Figure 42

1. Rear jack stands
2. Front storage legs
3. Locking pin

8. Using the vehicle lift cylinder, lower the front of the ProPass until the front storage stand legs begin to touch the ground.
9. Raise the two rear storage jack stands until the pressure is off the mounting pins that secure the ProPass cross tube to the Workman frame.
10. Remove the rear lynch pins, hitch pins and washers (Figure 43).

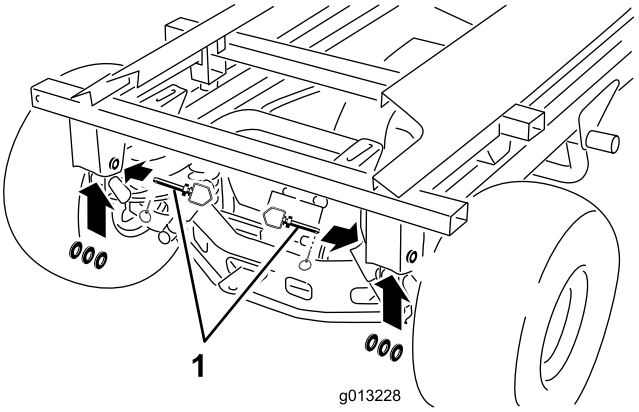


Figure 43

1. Hitch pin, washers & lynch pin

11. With one hand, hold the lift cylinder. With the other hand, remove the lift cylinder's locking pin (Figure 44).

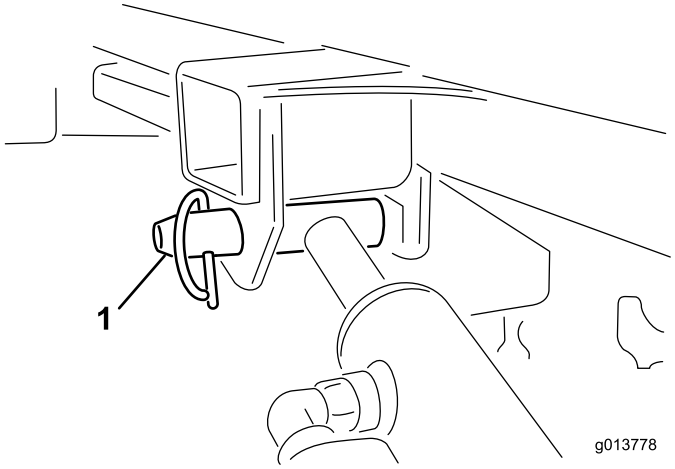


Figure 44

1. Lift cylinder locking pin

12. Store the cylinders in the storage clips. Engage the hydraulic lift lock lever on the vehicle to prevent accidental extension of the lift cylinders.
13. Raise the rear jack stands until enough clearance is attained to drive the vehicle away from the ProPass.
14. Walk around the ProPass. Ensure that it is clear of the work vehicle's frame and secured within each of the four storage stand legs.
15. With the work vehicle in neutral gear, set the parking brake and start the engine.
16. Release the parking brake and slowly drive the work vehicle forward, away from the ProPass truck-mount on the storage stand.

⚠ WARNING

Do not climb under or perform work on the ProPass while it is on the storage stand.

Maintenance

⚠ WARNING

Disconnect all power sources to the ProPass before doing maintenance work.

Lubrication

Lubricating the ProPass

- Use an automotive, all-purpose grease.
- Lubricate regularly, after 25 hours of normal operation.
- Lubricate daily when operating in extremely dusty and dirty conditions.
- Lubricate all bearings, bushings, and chains.

Lubrication Procedure

Several grease fittings are located on the ProPass and the tow-behind chassis (Figure 45, Figure 46 and Figure 47).

1. Clean the grease fittings.
2. Pump the grease into the bearings and the bushings.
3. Clean off the excess grease.
4. Clean and repack the wheel bearings every year or every 300 hours of operation

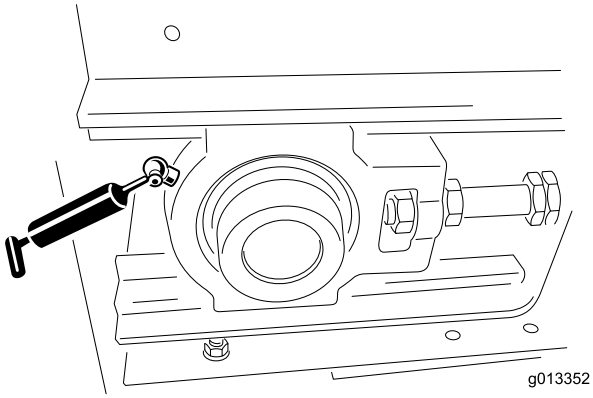


Figure 45

1. Grease fitting on Base Model (one at left front, one at right front)

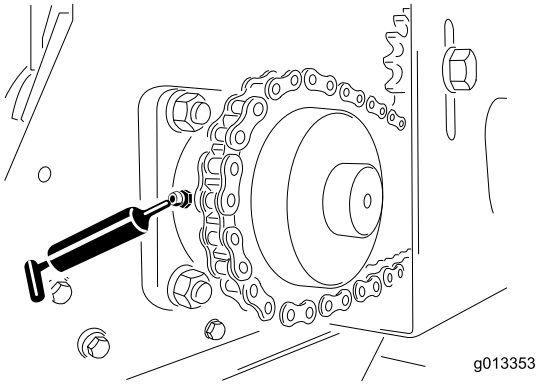


Figure 46

1. Grease fitting on Base Model (one at left rear, one at right rear)

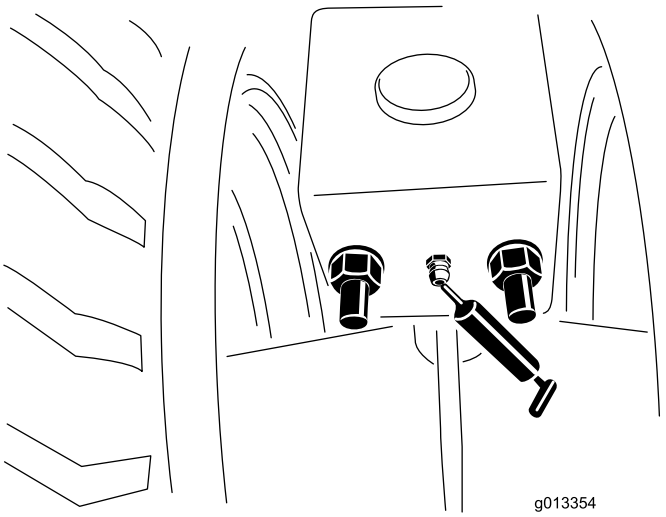


Figure 47

1. Grease fitting on tow-behind chassis (front and rear, left and right). Grease once per year.

Daily Checks

At the start of each day, complete these safety checks before operating the ProPass. Report any safety problems to your supervisor. See the Safety Instructions in this manual for details.

Tires and Wheels

- The recommended tire pressure for the Tow Chassis is 10 psi (69 kPa), or as recommended by the tire manufacturer. Refer to the Operator's Manual for the tow vehicle tire specifications.
- Check for excessive wear or visible damage.
- Check that the wheel bolts are tight and none are missing.

Rear Gate

Check that the adjustable section of the rear gate opens and closes without sticking.

Jack Stands

- Safely stow the jack stand(s) in the up position before traveling. On Truckster direct connect chassis stow the jack stands on the rear of the machine.
- Check that the hitch pin and jack stand are not damaged, and the safety pin is in place. (Replace safety pins if missing or damaged).
- Check that the hitch connections are not loose.

Hydraulic System

- Check the hydraulic system for oil leaks. If you find a leak, tighten the fitting, or replace or repair the damaged part.
- Check the hydraulic hoses for wear or visible damage.
- Check the hydraulic oil level. Fill up if necessary.

Belt and Rear Gate Seals

- Check all rubber seals for wear or damage. Replace or repair the seals if any leakage occurs.
- Check and adjust the conveyor belt cleaning scraper. Ensure the scraper is in full contact with the belt across its length.

Options

- Check the blades on the Twin Spinner discs for wear. Replace when they wear thin.
- Check the Twin Spinner housing for signs of cracking or corrosion. Replace wear plates as required
- Check that the safety decals are undamaged and legible, otherwise, replace them.

Hydraulic System

The machine is shipped from the factory filled with high quality hydraulic fluid. Check the level of hydraulic oil before the machine is first started and daily thereafter. The recommended replacement oil is as follows:

Toro PremiumTransmission/Hydraulic Tractor Fluid
(Available in 5 gallon pails or 55 gallon drums. See parts catalog or Toro distributor for part numbers.)

Alternate fluids: If the Toro fluid is not available, other petroleum-based Universal Tractor Hydraulic Fluids (UTHF) may be used provided its specifications fall within the listed range for all the following material properties and it meets industry standards. We do not recommend the use of synthetic fluid. Consult with your lubricant distributor to identify a satisfactory product.

Note: Toro will not assume responsibility for damage caused by improper substitutions, so use only products from reputable manufacturers who will stand behind their recommendation.

Material Properties:

Viscosity, ASTM D445	cSt @ 40°C 55 to 62 cSt @ 100°C 9.1 to 9.8
Viscosity Index ASTM D2270	140 to 152
Pour Point, ASTM D97	-35°F to -46°F

Industry Specifications:

API GL-4, AGCO Powerfluid 821 XL, Ford New Holland FNHA-2-C-201.00, Kubota UDT, John Deere J20C, Vickers 35VQ25, and Volvo WB-101/BM

Note: Many hydraulic fluids are almost colorless, making it difficult to spot leaks. A red dye additive for the hydraulic system oil is available in 2/3 oz. (20 ml) bottles. One bottle is sufficient for 4-6 gal (15-22 1) of hydraulic oil. Order part number 44-2500 from your authorized Toro distributor.

Wireless Controller

Base to Remote Communication

Communication between the Base and Handheld Remote units must be established before the system can be used. This link process is called Association and it is performed while the Handheld Remote is in Associate Mode.

Association between Remote and Base Unit is established at the factory; however, there may be instances in the field when a Handheld Remote and a Base Unit must be re-associated. When necessary, Association can be performed as described below.

1. Make sure power is removed from the base unit and the handheld is OFF.
2. Stand near the base unit in clear line of sight.
3. Simultaneously press and hold the ON/OFF and the ALL STOP buttons. The Handheld Remote goes through its initialization screens and settles on **ASSOC PENDING.**
4. Continue to hold both buttons until **ASSOC ACTIVE** displays (approximately four (4) seconds).
5. Release the two buttons. The displays will show **CLR CHAN SCAN**. The Handheld Remote scans all available channels and chooses the channel with the least traffic.

6. Press the **STORE** button. The Handheld will display **POW UP BUNIT?**
7. Power the Base Unit. The Handheld will Associate (link) with the Base Unit. Upon success, the display will show **ASSOC SUCCESS.**

Installing/Replacing the Batteries

1. Place the Remote face down and remove the four screws holding the battery cover in place. Remove the battery cover.

   Note: The four screws holding the battery cover in place are 'captive' to the cover—the cover holes are threaded. Although they are not easily removed from the cover itself, be aware that the screws if over-loosened while opening the battery compartment can be completely removed increasing the risk of loss.
2. Remove the discharged batteries and properly dispose in accordance with local regulations.
3. Plug each fresh battery into a terminal cradle observing proper polarity. (If the batteries are improperly installed, the unit will not be damaged, but it will fail to operate.) The cradle is embossed with polarity markings for each terminal (Figure 48). Make sure they are firmly seated in the unit.
4. Replace the battery cover. Secure the cover with the four screws. Make sure they are tightened enough to compress the seal, but be careful not to over-tighten.

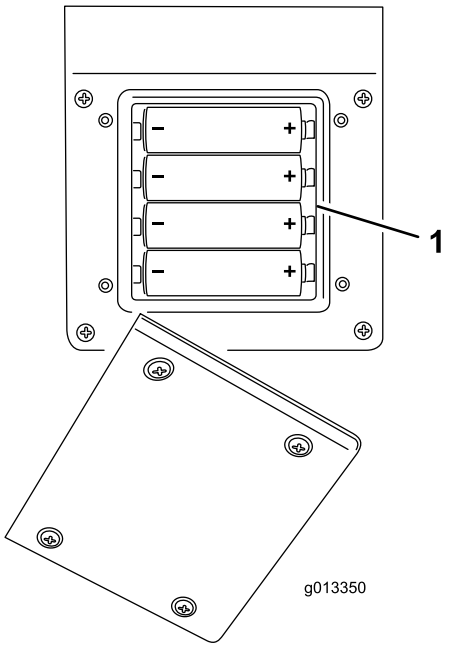


Figure 48

1. Battery compartment

Maintaining the Conveyor Belt System

Conveyor Belt and Rollers

- Check that the conveyor belt is tracking straight on the rollers and does not slip. Make adjustments if necessary. See the Conveyor Belt Tracking Procedure in this manual.
- Check the front and rear roller bearings every two months for wear or visible damage.
- Check the condition and tension of the drive chain and the sprockets.

  Important: Check for trapped spreading material between conveyor bed, belt, and rollers. See How to Wash the ProPass in this manual.

Conveyor Belt Tensioning

Perform the tensioning procedure only if the belt is slipping, if it has been replaced, or if it has been loosened to replace other parts.

1. Place the belt's V-guide in the guides of the front and rear rollers.
2. Tighten the two belt adjustment nuts evenly until the belt is snug. (If necessary, remove the front idler roller cover and the rear chute cover).
3. Fully load the ProPass with the heaviest material you expect to use.
4. With two wrenches, hold the end of the tensioner rod stationary and then loosen the locking nut, which is the nut closest to the end of the rod (Figure 49).

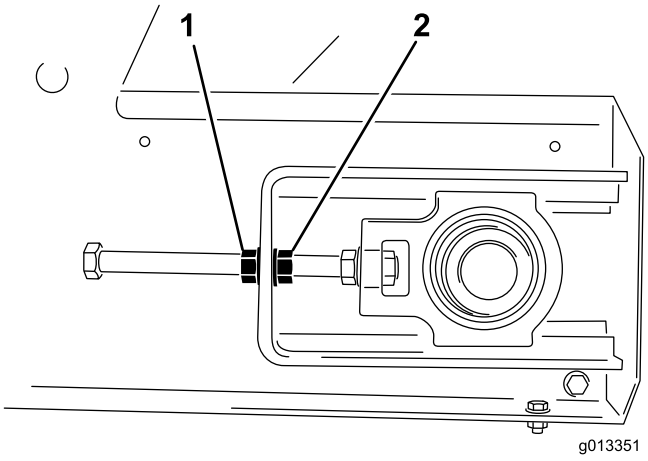


Figure 49

1. Locking nut
2. Adjuster nut

5. Turn the conveyor belt on and check if the belt is slipping.
6. If so, stop the belt and tighten both adjuster nuts half a turn. Do not over-tension.
7. Repeat steps 5 and 6 until the conveyor belt stops slipping.
8. Tighten the locking nuts and install the yellow safety covers

Conveyor Belt Tracking

The conveyor belt system is self-tracking. Both the front and rear rollers have a groove in the middle for the belt's V-guide to run in. Sometimes, the belt may track outside the grooves. To track the belt:

1. Determine which side the belt is tracking towards.
2. Remove the safety covers from both front corners.
3. On the side the belt is tracking towards, hold the end of the tensioner rod stationary, then loosen the locking nut and tighten the adjuster nut by two flats of the nut (Figure 49).
4. Tighten both locking nuts and turn on the conveyor belt.
5. Check the tracking movement. Repeat the above steps until the belt tracks back to the correct position.

   Important: Be patient! Do not over-tension the belt.
6. Install both of the safety covers.

Washing the ProPass

Salts, road tar, tree sap, fertilizers, or chemicals may damage the painted finish of the ProPass. Wash off these deposits as soon as possible with detergent and water. Additional cleaners or solvents may be needed, but ensure that they are safe for painted surfaces.

⚠ WARNING

Do not use flammable fluids or cleaners with toxic vapors. Follow the manufacturer's recommendations.

Important: Do not use a high-pressure washer. This can remove paint, safety decals, and grease, and can also damage components.

1. Remove the option before cleaning and wash it separately.
2. Remove hand held.
3. Wash the body of the ProPass with warm water and a mild detergent
4. Completely rinse off the detergent residue with clean water before it dries.
5. Remove the belt cleaning scraper assembly from the rear of the ProPass (Figure 50).

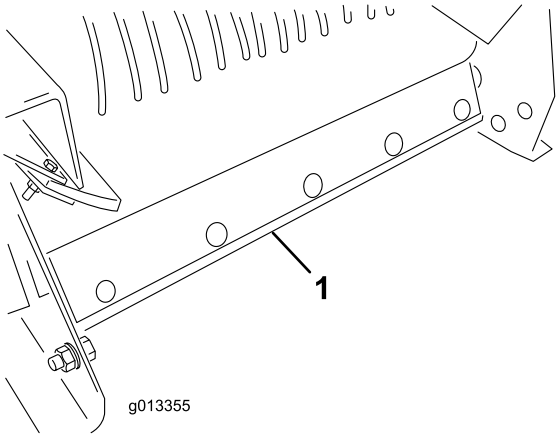


Figure 50

1. Belt cleaning scraper assembly

6. Raise the front of the ProPass as high as necessary.
7. If you have a truck-mounted ProPass, use the lift cylinder on the tow vehicle. (See the tow vehicle's owner's manual.)
8. If you have a tow-behind or Truckster direct connect chassis, use the jack stand on the chassis.
9. Fully open the rear gate and spray water inside the hopper assembly and the rear gate area. Inspect the side seals and replace if necessary.
10. Locate the clean out decal on the front of the ProPass (Figure 51), using a garden hose, spray through the front guard mesh until the belly pan is completely clear of material (Figure 52).

    Note: When the covers are removed for greasing, take the opportunity to wash out any trapped spreading material.

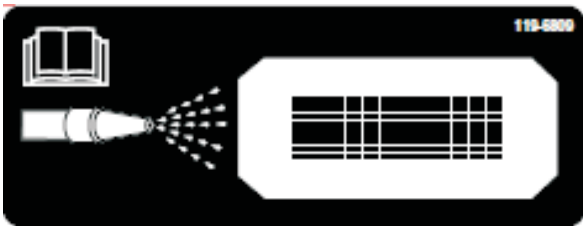


Figure 51

1. Clean Out Decal

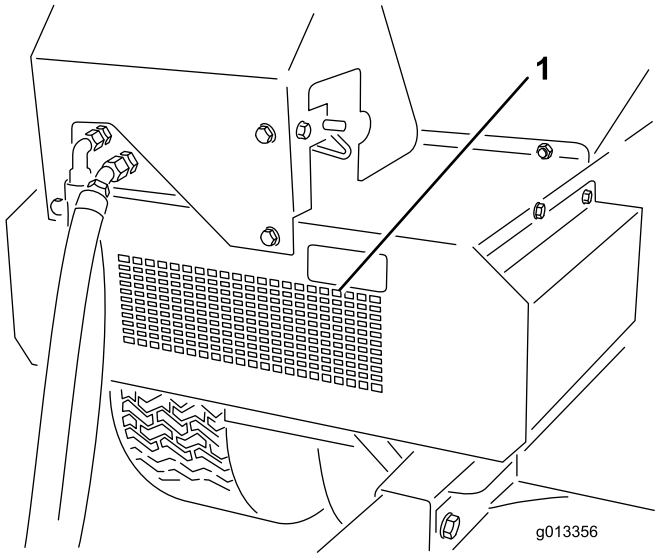


Figure 52

1. Front Clean Out

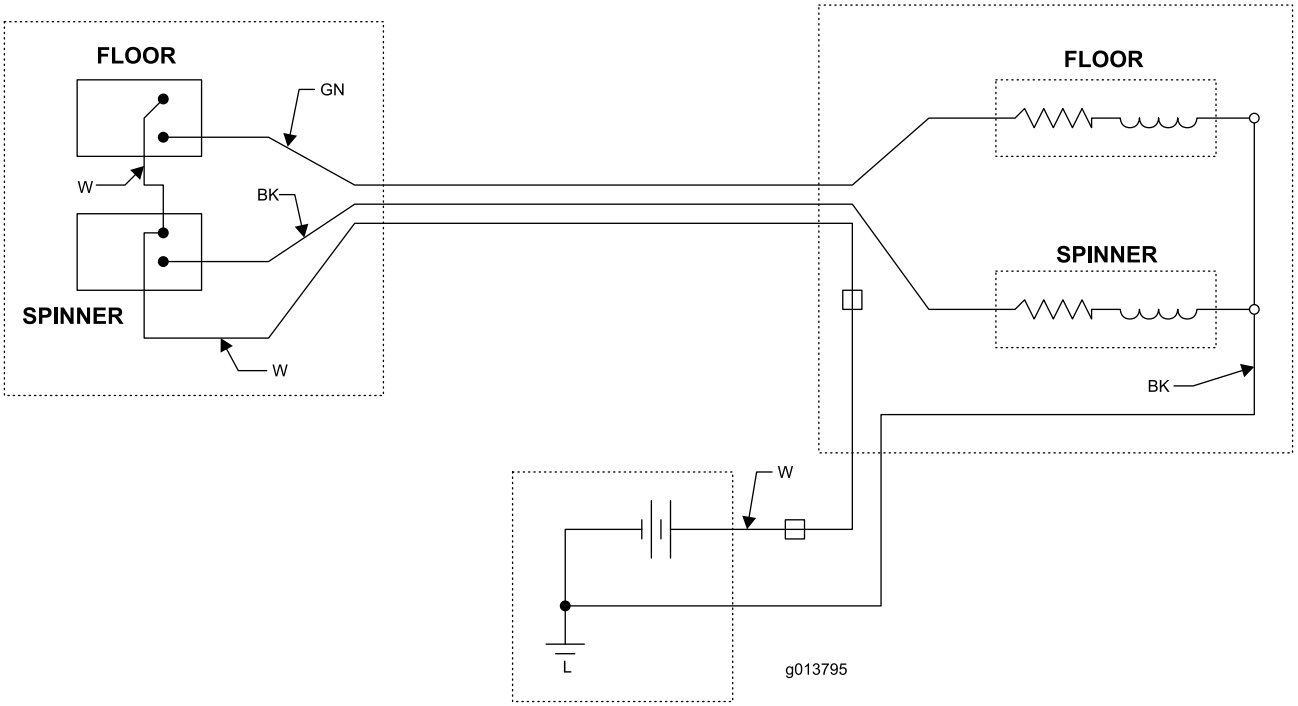
11. Inspect the hopper, bottom guard, conveyor belt, bed, and rollers to ensure that all trapped material is gone.
12. Lower the ProPass back into the normal operating position
13. Re-install the belt cleaning scraper assembly. Push the scraper mount bar onto the belt. Ensure that the scraper is as vertical as possible, but still in contact with the belt.

Storage

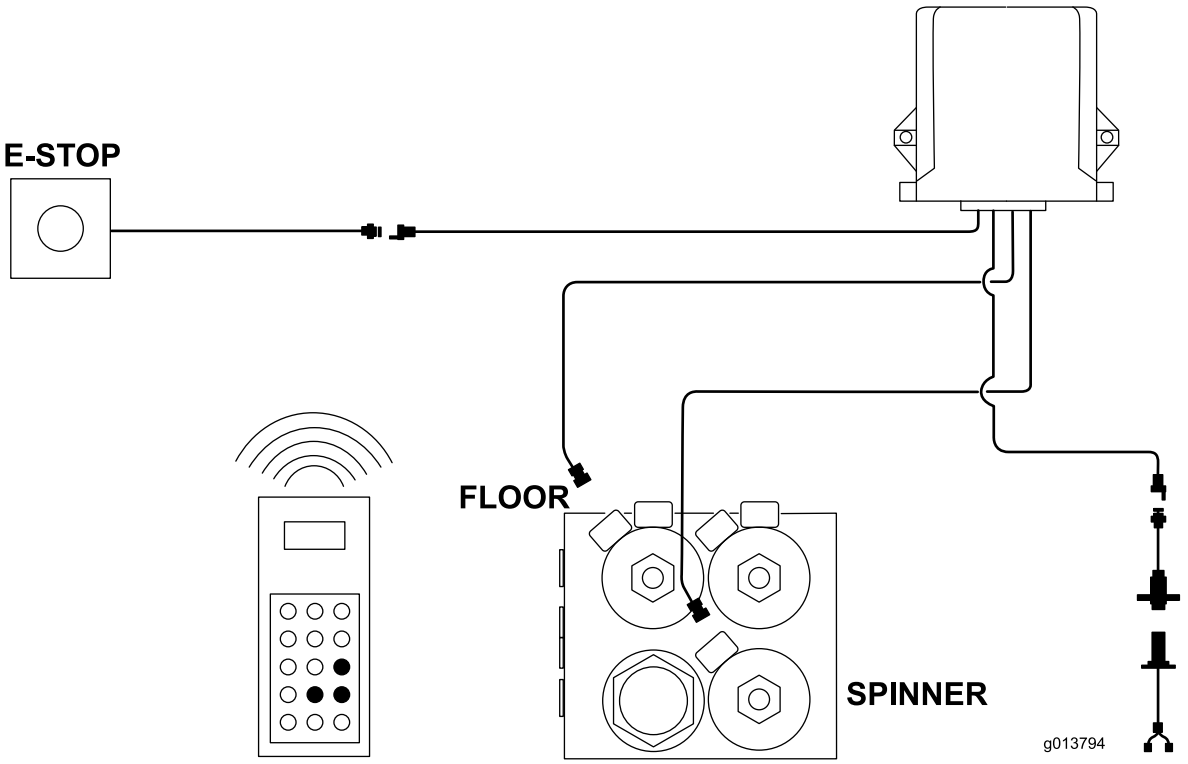
Before storing the ProPass for the season:

1. Thoroughly clean the ProPass. Remove parts if necessary.
2. Remove the hand held.
3. Make sure the emergency stop button is pushed.
4. Check all fasteners and tighten, if necessary.
5. Grease all fittings and pivot points. Wipe off any excess lubricant.
6. Lightly sand any painted areas that are scratched, chipped, or rusted, and apply touch-up paint.
7. Store the ProPass indoors, if possible.

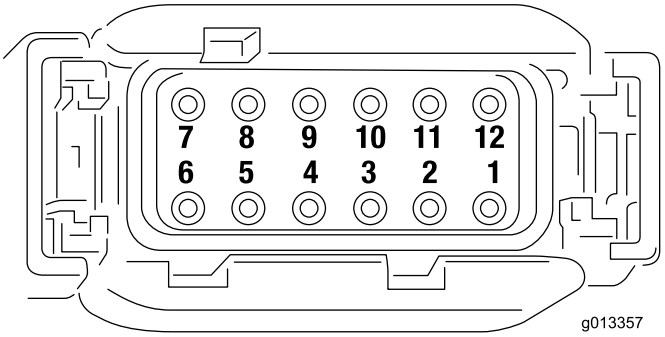
Schematics



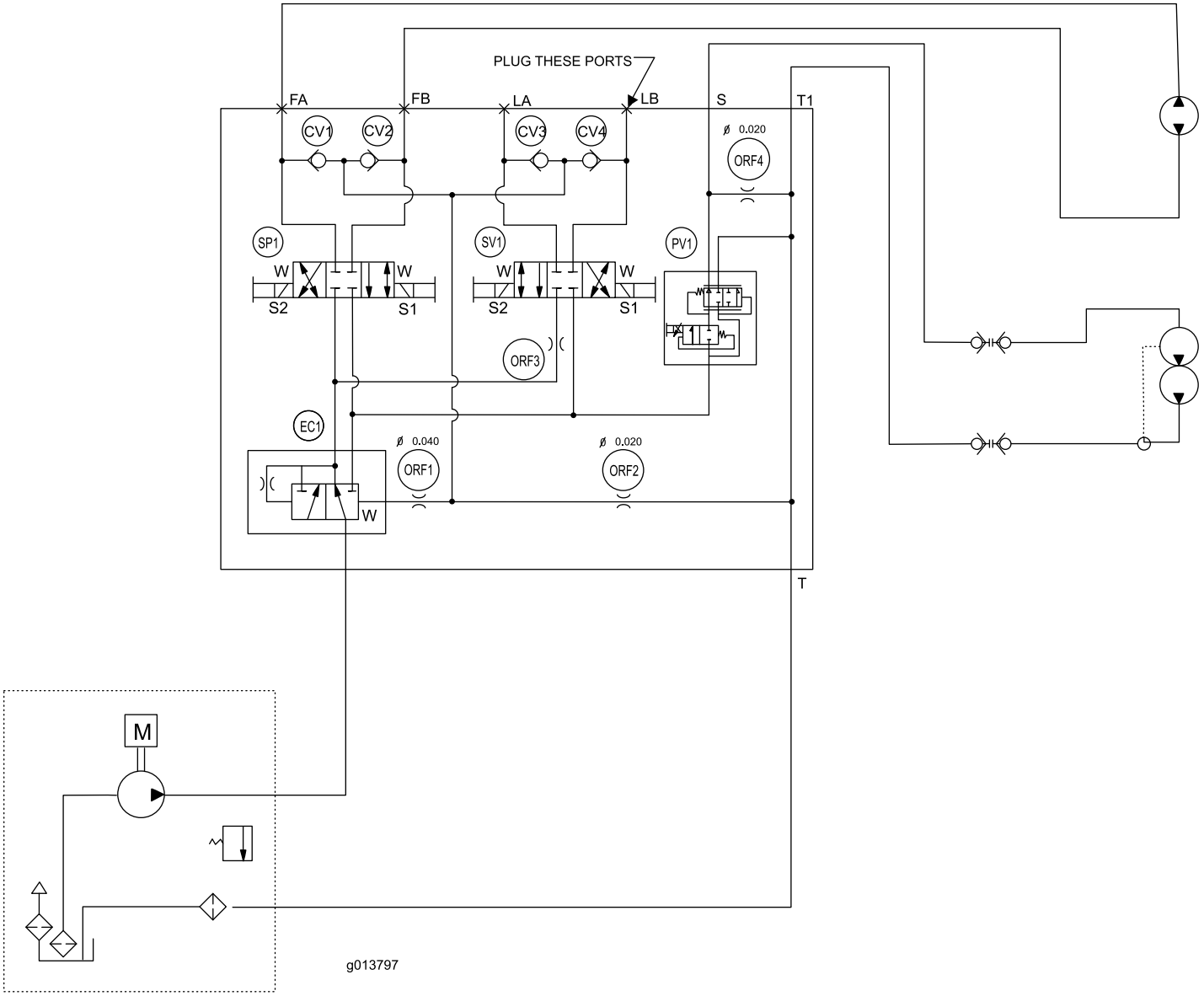
Electrical Schematic-Standard Hydraulics (Rev. -)



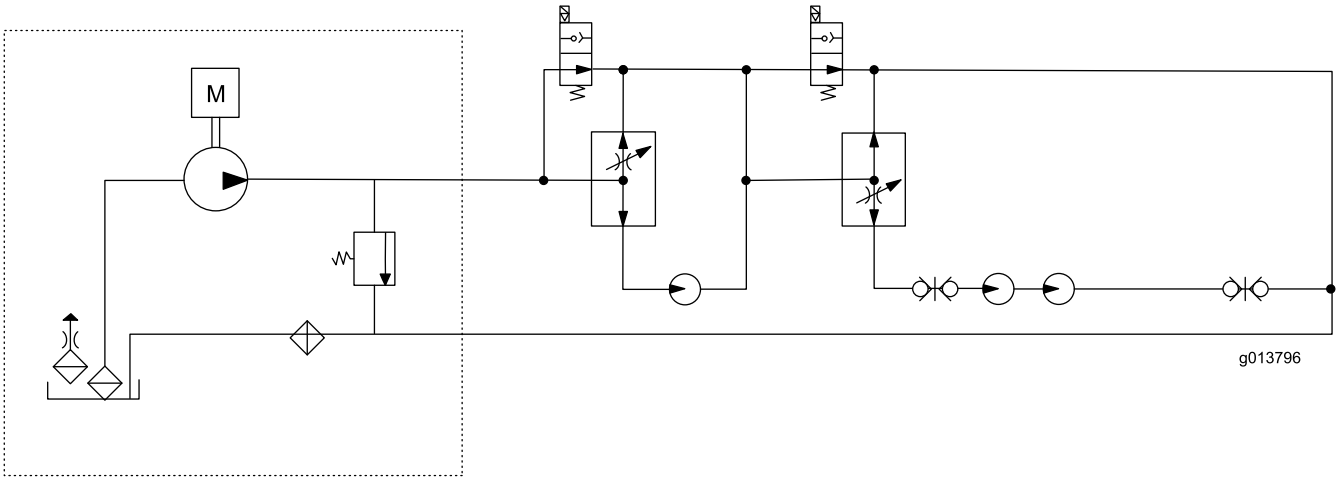
Electrical Schematic-Wireless System (Rev. -)



Base Unit Connector Pin Numbers (Rev. -)



Hydraulic Schematic-Wireless Hydraulics (Rev. -)



Hydraulic Schematic-Standard Hydraulic System (Rev. -)

Notes:

The Toro Total Coverage Guarantee

A Limited Warranty

Conditions and Products Covered

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

Instructions for Obtaining Warranty Service

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

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

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

Owner Responsibilities

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

Items and Conditions Not Covered

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

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

Parts

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

Deep Cycle and Lithium-Ion Battery Warranty:

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

Maintenance is at Owner’s Expense

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

General Conditions

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

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

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

Note regarding engine warranty:

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

Countries Other than the United States or Canada

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

374-0253 Rev B