Form No. 3365-182 Rev A

TORO®

Count on it.

Operator's Manual

ProPass-200 Top Dresser

Model No. 44700-Serial No. 310000001 and Up
Model No. 44701-Serial No. 310000001 and Up
Model No. 44704
Model No. 44705
Model No. 44706
Model No. 44707

Register your product at www.Toro.com

Original Instructions (EN)

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KEEP YOUR PROPASS CURRENT – CHECK FOR UPDATES & PRODUCT ACCESSORIES AT

www.toro.com

Model Name and Serial Number

The model number and serial number of each ProPass product are located on an identification plate (Figure 1), along with the date of manufacture and the product's gross weight. The identification plate is mounted near the front of the conveyor belt on the ProPass body (Figure 2).When you contact an authorized Toro Distributor for service or parts, the distributor will ask for the ProPass model and serial number.

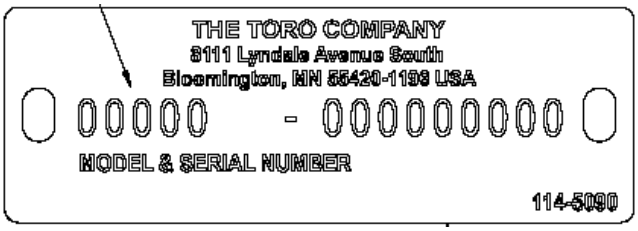


Figure 1: Identification plate

Figure 2: Identification plate on Base Model

ProPass Base Model

ProPass Twin Spinner

ProPass Conveyor and Swivel Kit

ProPass Power Pack

Purchase Date and Distributor Information

Date of Purchase

Distributor Name

Distributor Phone

Specifications

IMPORTANT: These specifications are subject to change without notice. They are provided for reference purposes only. Contact an authorized Toro distributor for up-to-date or additional information.

Weights	
Base Model	248 kg (546 lb)
Truckster Direct Connect	236 kg (520 lb)
Tow-behind chassis	218 kg (480 lb)
Tow-behind payload	905 kg (2,000 lb)
GVWR tow-behind Base Model	1,405 kg (3,100 lb)
GVWR truck mount	Do not exceed vehicle rating
Twin Spinner	68 kg (150 lb)
Conveyor and Swivel Kit	63 kg (140 lb)
ProGator truck-mount	41 kg (90 lb)
Workman truck-mount	41 kg (90 lb)
Truck-mount storage stand	30 kg (65 lb)
11 hp – Hydraulic Power Pack	100 kg (220 lb)

Dimensions			
	Length	Width	Height
Overall dimensions TRUCKSTER Direct Connect	2.64 m (104 in)	1.7 m (65 in)	1.52 m (60 in)
Overall dimensions tow behind	3.4 m (134 in)	1.7 m (65 in)	1.4 m (56 in)
Overall dimensions truck mount	1.98 m (78 in)	1.7 m (65 in)	1.4 m (56 in)
Shipping dimensions Base Model	2.18 m (86 in)	1.47 m (58 in)	0.91 m (36 in)
Shipping dimensions Twin Spinner	1.24 m (49 in)	0.69 m (27 in)	0.66 m (26 in)
Shipping dimensions Conveyor and Swivel Kit	1.68 m (66 in)	0.46 m (18 in)	0.45 m (18 in)

Tires	
Size	60 x 32.5 x 30 cm – 4 ply (24 x 13 x 12 in)
Maximum Inflation pressure	124 kPa (18 psi)

Hydraulic System	
Minimum flow	23 L/min (6 U.S. gal/min)
Maximum flow	38 L/min (10 U.S. gal/min)
Minimum input pressure	138 bar (2,000 psi)
Maximum input pressure	190 bar (2,800 psi)
Fluid type	ISO VG-68 fluid
Fluid viscosity	60.09 cSt @ 40°C
Fluid Capacity	2 L (0.53 US gal)
Fluid capacity (11hp power pack)	32.9 L (8.7 US gal)
11hp power pack engine model number	Honda GX340U1QNR6

Tow Vehicle Requirements	
Towing capacity (for maximum payload with options)	1,550 kg (3,400 lb)
Tongue weight (for maximum payload)	136 kg (300 lb)
Tow vehicle minimum power	13 kW (18 hp)
Hitch	Use 19 mm (0.75 in) diameter safety rated hitch pin and safety clip

Electrical System	
Voltage	12 V
Fuse	10 A
Pendant Batteries	4 x AA Alkaline

Other Specifications	
Maximum payload capacity	0.57 m^3 (20 ft^3)
Maximum conveyor belt speed	3.2 rpm or 20 m (66 ft) per minute (with Honda engine at maximum)
Vibration	Under normal operating conditions, the ProPass does not produce vibrations over 2.0 m/s^2 (6.6 ft/s^2) to the operator's arms, or over 0.5 m/s^2 (1.6 ft/s^2) to the operator's body. (Note: values = weighted root mean square acceleration.)
Noise	Under normal operating conditions, the ProPass has an equivalent, continuous, 'A'-weighted sound level, no greater than 75 dB (decibels). When operated with the 11HP Hydraulic Power Pack the equivalent, continuous, 'A'-weighted sound level is 85dB(A). When operated in conjunction with a tow vehicle, the sound level may exceed 85 dB. Use approved hearing protection.

Safety Instructions

Read this Operator's Manual carefully. Follow all safety precautions and operating recommendations to ensure the safe and trouble-free operation of the ProPass Top Dresser.

WARNING: The ProPass is equipped only for off-road use. Do not use it on public roads.

Safe Operating Practices

- The ProPass has different balance, weight, and handling characteristics compared to some other types of pulled equipment. Before using the ProPass, take the time to become familiar with it.
- Observe all safety laws and regulations applicable to your area.
- Replace any safety decal that becomes damaged or illegible. The safety decals are listed in the Parts Catalog; order them from an authorized Toro Distrubtor.
- Any modification to the ProPass that is not performed by, or under the guidance of an authorized Toro Distrubtor could affect the safety, performance, or durability of the ProPass. If problems result, this may violate local regulations, or service may not be covered under the warranty.
- To ensure safe and trouble-free operation, always purchase genuine Toro replacement parts from an authorized Toro Distrubtor. Using replacement parts from other sources may void your warranty.

Supervisor's Responsibilities

- Ensure that all operators have read this Operator's Manual, and understand all the safety decals on the ProPass.
- Prevent accidents by training operators to operate the ProPass. Continuously supervise its operation.

Do the Following

- Read and understand this Operator's Manual completely before operating the ProPass.
- Walk around the ProPass and inspect it. Check all decals, guards, shields, and other hardware. Also check the jack stand, hitch clevis, and locking clamps.
- If any parts are broken or missing, repair or replace them before operating the ProPass.
- Ensure that qualified personnel have made all recommended maintenance and adjustments to the ProPass before you operate it. Notify your supervisor about any adjustments made to the ProPass.
- Wear approved hearing and eye protection when operating the ProPass.

Never Do the Following

- Do not allow people under 16 years of age to operate the ProPass.
- Do not operate the ProPass if you have any doubts about any aspect of its operation.
- Do not carry passengers on the ProPass.
- Do not operate the ProPass while under the influence of drugs or alcohol.
- Do not leave the ProPass unattended while it is running.
- Do not operate the ProPass when other people (or animals) are in the work area.
- Do not get water on the Wireless control pendant.

Hydraulic Safety

Tow Vehicle Requirements

CAUTION: Do not operate the ProPass above or below the required hydraulic pressure. This can damage the ProPass, or cause it to operate incorrectly.

The tow vehicle must meet the following hydraulic pressure requirements.

Hydraulic Pressure	
Minimum	22.7 L/min (6 U.S. gpm) 138 bar (2,000 psi)
Maximum	37.9 L/min (10 U.S. gpm) 193 bar (2,800 psi)

Hoses and Lines

Hydraulic hoses and lines can fail because of physical damage, kinks, age, and exposure. Check the hoses and lines regularly and replace them if necessary.

Fluid connections can loosen because of physical damage and vibration. Check and tighten the connections regularly.

Fluid that escapes under high pressure can cause serious injury. Disconnect the hydraulic or other lines to relieve the pressure. Tighten the connections before applying pressure.

WARNING: Protect your hands and body from high-pressure fluids. Search for hydraulic leaks with a piece of cardboard.

If an accident occurs, see a doctor immediately. Any fluid that penetrates the skin must be removed by a doctor within a few hours.

Engine Safety

Gasoline is highly flammable - handle it carefully. Use an approved non-metal, portable fuel container. Static discharge may ignite gasoline vapours in an ungrounded fuel container.

Do not remove the fuel cap when the engine is hot or running.

Do not smoke while handling gasoline.

Do not overfill the fuel tank. Fill to 25 mm (1 in) below the top of the tank.

Stop the engine before doing maintenance work.

CAUTION: Do not touch the engine, exhaust, or hydraulic reservoir while the engine is running or soon after. Hot surfaces may cause burns.

Tow Vehicle Safety

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.

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

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

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

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

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 24 km/h (15 mi/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; see Figure 3. On Truckster direct connect chassis two jack stands are used; see Figure 4, Use the jack storage mounts on the rear of the chassis during operation.

Figure 3: Jack stand On Tow-Behind

Figure 4: Jack stands On Truckster Direct Connect

WARNING: Avoid serious injury by keeping your hands, body, and clothing away from moving parts.

Safety Attire

Every time you operate the ProPass:

- Wear safety glasses or safety goggles with side shields.
- Wear hearing protection.
- Wear sturdy footwear that fully covers your feet.
- Avoid loose clothing or jewellery that may get caught in moving parts.

Safety Decals

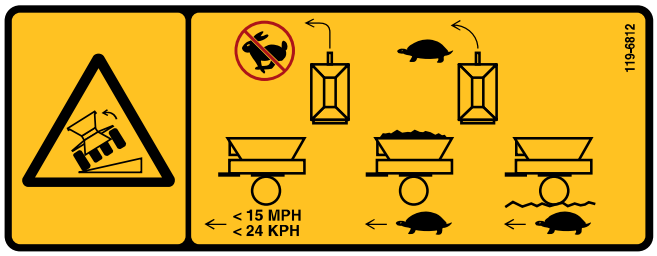
Important safety decals on your PP-200 indicate areas with potential safety hazards. Replace any decal that becomes lost, damaged, or illegible.

119-6806: Read the Operator's Manual
Get appropriate training before operating
Projectile hazard stay a safe distance from the machine
No maintenance while machine is in use
No passengers
Do not operate with guards removed

119-6844: Shear hazard
Avoid rotating shaft

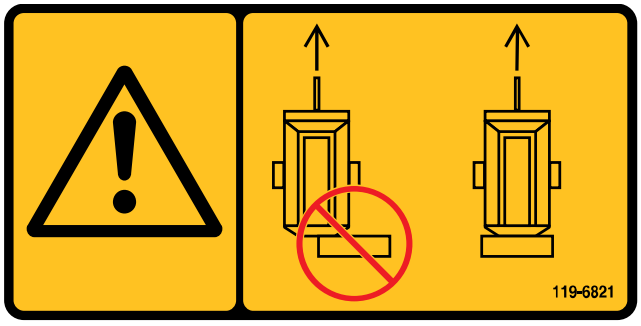
119-6805: Shear hazard
Avoid rotating spinner disks

119-3841: Directional Arrows

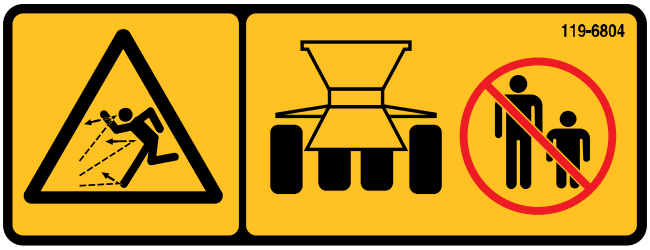


119-6812: Tip over hazards, clockwise
Do not drive on steep slopes
Slow down and turn gradually
Do not exceed 15 mph (24 km/h)
Drive slowly over uneven surfaces or when carrying a full or heavy load

115-2047: Warning – Hot surface



119-6821: Warning
Do not travel with cross conveyor extended
Always center cross conveyor when traveling

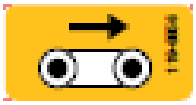


119-6804: Thrown object hazard
Stay a safe distance from the machine

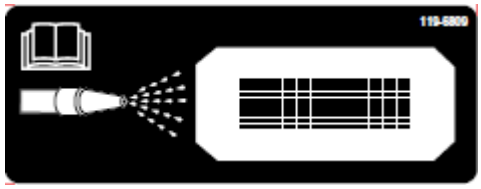
119-6853: Spinner Direction

119-6854: Belt Direction

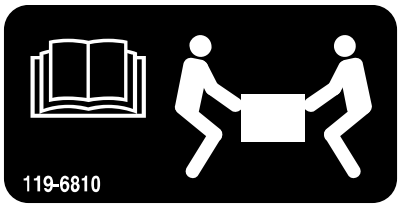
119-6855: Spinner Direction



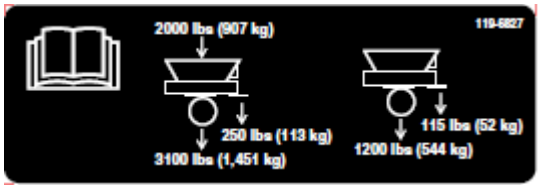
119-6856: Belt Direction



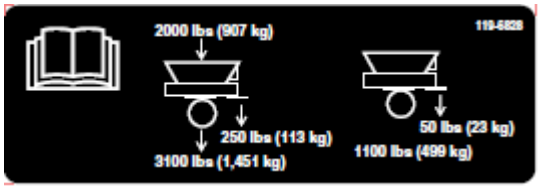
119-6809 Read the Operator's Manual
Clean out



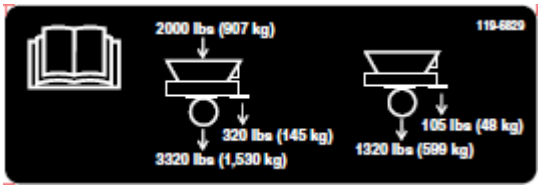
119-6810: Read the Operator's Manual
Use two people to lift



119-6827: Read the Operator's Manual
Maximum load - 2,000 lb (907 kg)
Maximum gross vehicle weight – 3,100 lb (1,451 kg)
Maximum tongue weight - 250 lb (131 kg)
Vehicle weight 1,200 lb (544 kg)
Tongue weight - 150 lb (52 kg)



119-6828: Read the Operator's Manual
Maximum load - 2,000 lb (907 kg)
Maximum gross vehicle weight – 3,100 lb (1,451 kg)
Maximum tongue weight - 250 lb (131 kg)
Vehicle weight 1,100 lb (499 kg)
Tongue weight - 50 lb (23 kg)



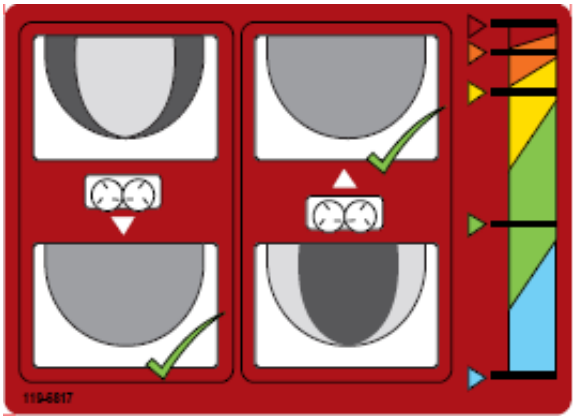
119-6829: Read the Operator's Manual
Maximum load - 2,000 lb (907 kg)
Maximum gross vehicle weight – 3,200 lb (1,530 kg)
Maximum tongue weight - 320 lb (145 kg)
Vehicle weight 1,320 lb (599 kg)
Tongue weight - 105 lb (48 kg)

119-6840: Tipping hazard
Lower hopper before driving

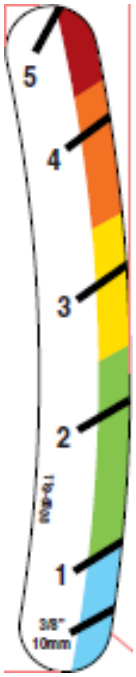
119-6843: Entanglement Hazard
Do not operate with guards removed

119-6807: Warning - Do not step

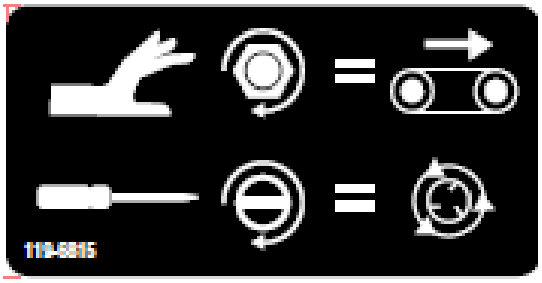
119-0217: Warning
Do not operate with guards removed



119-6817 Fine Tuning Spinners



119-6808: Tailgate Height Indicator



119-6815 Manual Override

Setup Instructions

An authorized TORO Distributor normally sets up the ProPass Top Dresser at the time of purchase. See the Setup Manual for details.

This section covers only how to install the Twin Spinner option.

Installation of the Twin Spinner

1. Remove the holding straps from the option.
2. To lift the option:

- Lift the Twin Spinner using the support handles on each side (Figure 5).

CAUTION: For safety, use two people to lift the Twin Spinner. It weighs 68 kg (150 lb).

Figure 5: Twin Spinner

3. Slide the option onto the flanges of the side rails (at the rear of the ProPass), lining up the mounting guides on each side.
4. Lock the option into place with the locking clamps on each side.
5. Adjust the locking clamps until the clamps are just firm when closing (See Figure 6).

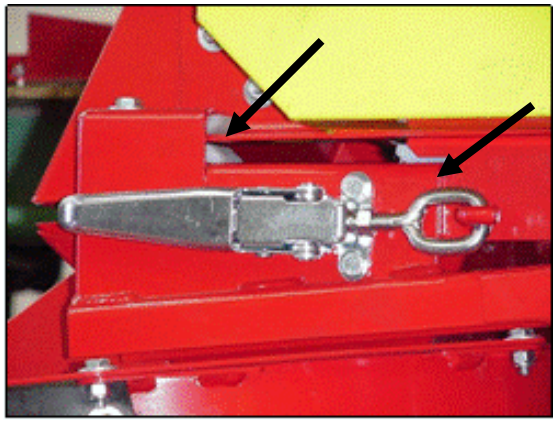


Figure 6: Locking clamps for Twin Spinner

6. Install the safety pins on the Twin Spinner option.
7. Connect the option's hydraulic couplers to the ProPass hydraulic couplers.

11HP Hydraulic Power Pack

Before starting the Honda engine, read the engine owner's manual.

1. Check that the oil drain port is tight and completely fill the hydraulic tank with ISO VG-68 hydraulic fluid—about 32.9 L (8.7 U.S. gal). See the chart in this manual for recommended hydraulic fluids.

IMPORTANT: The hydraulic system will not completely fill with fluid until the system is powered up. The hydraulic fluid must therefore be checked and topped up after initial running.

2. Connect the clevis hitch of the ProPass to the tow vehicle. Use a high-strength hitch pin approved for tow vehicles.
3. Check the engine's oil level and fill if required. See the engine owner's manual.
4. Fill the fuel tank. Use unleaded fuel with an octane rating no less than 87.

CAUTION: Ensure that all control systems are turned off when working on the Power Pack.

5. Turn on the fuel valve, place the throttle lever at half throttle, engage the choke, and start the engine. Once the engine starts, turn off the choke and increase the throttle to max.

6. Test the ProPass operation. Ensure that there are no hydraulic leaks and make any adjustments needed.

7. After testing the hydraulic system, check the hydraulic fluid and add more if required.

IMPORTANT: Ensure that the pendant and any cords do not drag on the ground during 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 33 cm (13 in) unloaded. For a ProPass mounted on a Truckster direct connect chassis, the ground clearance is 43 cm (17 in) unloaded.

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

How to Connect the ProPass to the Tow Vehicle

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 18 mm (3/4 in) 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 four-prong electrical cord into the tow vehicle.

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).

How to Disconnect the ProPass from the Tow Vehicle

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 four-prong 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.

How to Install a Truck Mount ProPass from the Storage Stand

1. With the vehicle in neutral gear and the parking brake set, start the work vehicle's engine.

2. Release the parking brake, look over your left shoulder, and slowly reverse the work vehicle towards the ProPass truck-mount on the storage stand (Figure 7).

Figure 7: Installing the ProPass onto the work vehicle (or uninstalling it onto the storage stand)

3. Stop when the left rear mounting bracket on the frame rail of the work vehicle is located directly under and between the mounting bracket arms at the left rear of the ProPass (Figure 8).

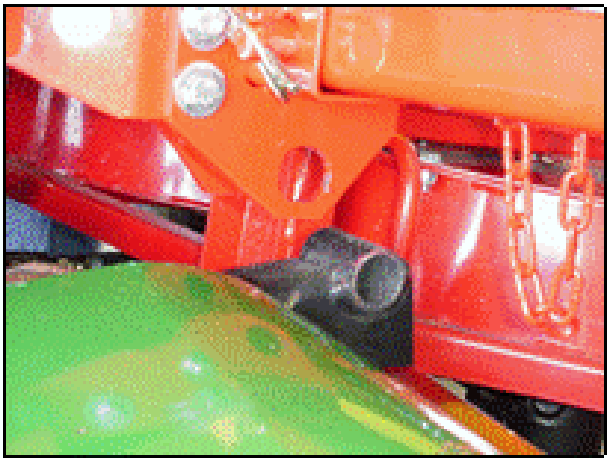


Figure 8: Mounting brackets at ProPass rear

4. Turn off the engine and set the parking brake.

5. Lower each of the two rear storage jack stands until the holes in the mounting bracket align with the holes in the work vehicle's frame rail.

6. Insert the mounting pin and the safety pin, first at one rear corner, then the other. If necessary, move the storage stand legs to correctly align with the rear mounting bracket holes.

7. Lower the rear storage jack stands. Remove and store them.

CAUTION: Do not operate the ProPass with the storage stand installed.

8. With one hand, lift and position the lift cylinder. With the other hand, insert the existing locking pin. (If necessary, start the work vehicle, then gently raise or lower the lift cylinder until the hole in the connecting arm of the cylinder aligns with the hole in the ProPass mounting bracket.)

CAUTION: Keep your hands and feet away from the engine when it is running.

9. With the work vehicle in neutral gear and the parking brake set, start the engine.

10. Using the work vehicle's lift cylinder, raise the front of the ProPass until the front storage stand legs are off the ground.

11. Remove the two front storage stand legs and store them.

12. Lower the front of the ProPass onto the frame rails of the work vehicle.

13. Turn off the engine.

14. Connect the electrical power connection to the work vehicle, see Figure 9.

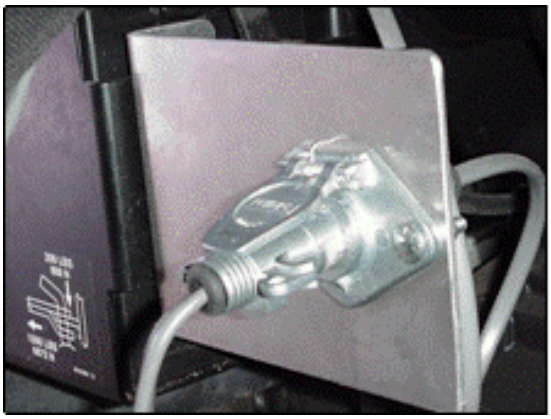


Figure 9: Electrical connection on work vehicle

15. Connect the ProPass hydraulic lines to the work vehicle's hydraulic connections (at the rear; see Figure 10). The line with the one-way flow check valve connects to the return connection on the work vehicle.

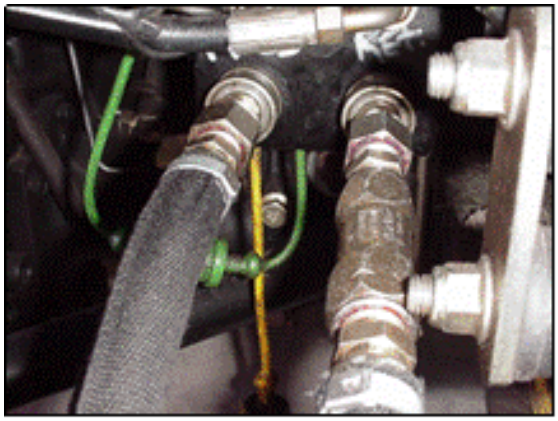


Figure 10: Hydraulic connections

How to Remove a Truck Mount ProPass from the Storage Stand

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

2. Disconnect the electrical connection from the work vehicle (Figure 9).

3. Disconnect the ProPass hydraulic lines from the work vehicle (Figure 10).

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 for the front storage stand legs.

6. Turn off the engine.

7. Insert the front and rear storage stand legs and secure them with locking pins.

8. With the work vehicle in neutral gear, set the parking brake and start the engine.

9. Using the vehicle lift cylinder, lower the front of the ProPass until the front storage stand legs begin to touch the ground.

10. Turn off the engine.

11. Raise the two rear storage jack stands until the pressure is off the rear mounting pins.

12. Remove the rear mounting pins.

13. With one hand, hold the lift cylinder. With the other hand, remove the lift cylinder's locking pin.

14. Rest the lift cylinder in the appropriate location on the work vehicle's frame.

15. 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.

16. With the work vehicle in neutral gear, set the parking brake and start the engine.

17. Release the parking brake and slowly drive the work vehicle forward, away from the ProPass truck-mount on the storage stand (Figure 7).

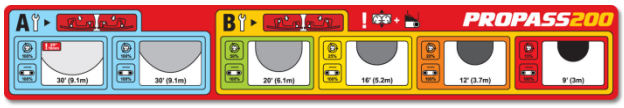
WARNING: Do not climb under or perform work on the ProPass while it is on the storage stand.

The Color-Coded Operating System

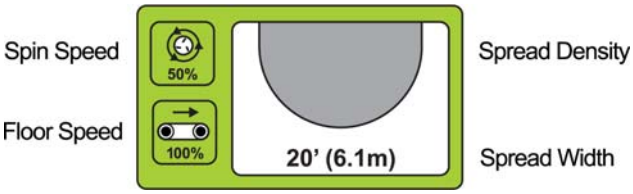
The ProPass features a unique color-coded operation system that takes the guess-work out of setting up your Top Dresser. Simply choose your spread, identify the color and then adjust each setting to match that color to get a perfect spread every time.

1. CHOOSE YOUR SPREAD

The system starts with the main operation decal found on the tailgate of the ProPass.



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



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

2. CHECK YOUR BLADES

The lighter spreads (BLUE PANEL) remind the operator to ensure the spinner blades are in **A POSITION**.

When the blades are in 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 **B POSITION** to provide the best distribution at higher volumes and slower disc speeds.

When the blades are in 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.

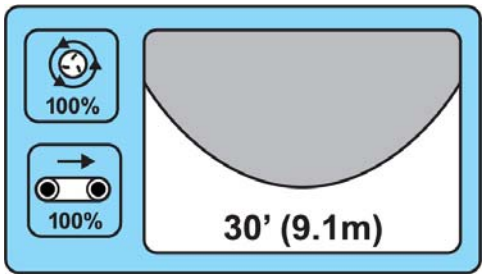
It takes only a few minutes to slide the blades into the proper position – incorrect blade position is one of the main reasons spread patterns fail.

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.

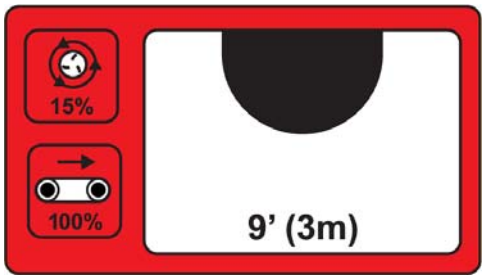
Each setting is indicated on the machine by corresponding color decals.

For example:



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.

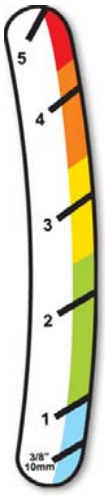
LIGHT
Approx. Width: 30'
Blade Position: A
Floor Speed: 100%
Spinner Speed: Blue / 100%
Tailgate: Blue
Slide Adjustment: Blue



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

ULTRA HEAVY
Approx. Width: 9'
Blade Position: B
Floor Speed: 100%
Spinner Speed: Red / 15%
Tailgate: Red
Slide Adjustment: Red

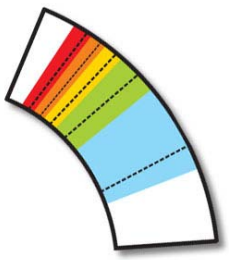
TAILGATE



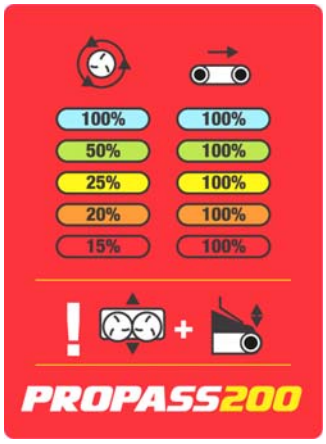
The **TAILGATE** controls the VOLUME of material that flows from the ProPass. The 5" tailgate is divided into colors with a target starting line in each color section.

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

SPINNER SPEED

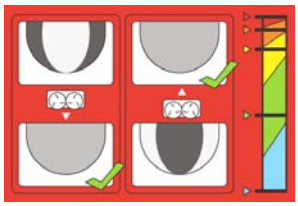


Standard Hydraulics: Set the hydraulic control to the dotted start line in the corresponding color area. You can vary the speeds if required within the corresponding color section.



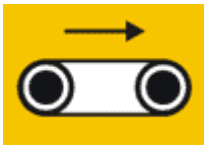
Wireless control: Set according to the percentage indicated in the colored section of the decal and on the chart on the back of the wireless controller.

SLIDE ADJUSTMENT



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 step 4 below)*

FLOOR SPEED

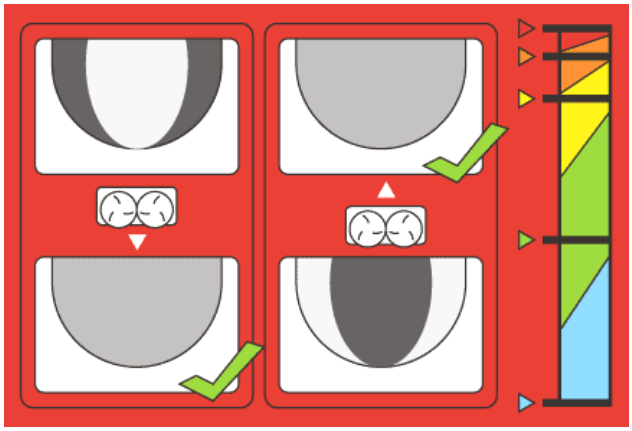


The floor speed for every setting is 100% - this was developed and tested in order to have one less factor to adjust in the Color-Coded Operating System.
NOTE: Use the tailgate to reduce material volume. If the minimum tailgate height is insufficient to reduce material flow, then decrease floor speed.

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.



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.

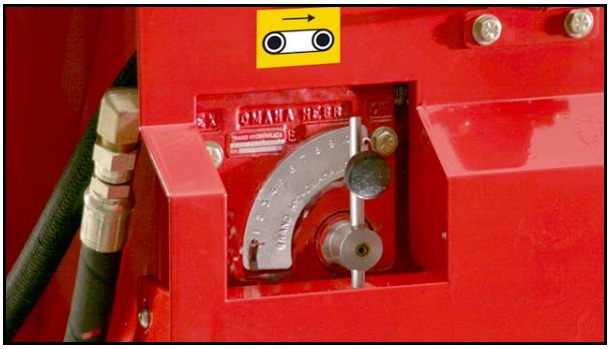


Figure 11: Floor Control Valve

Flow Control Valve for Floor

A hydraulic flow control valve controls the speed of the conveyor belt. It is color-coded to match the Color-Coded Operation System decals found on the spinner housing.

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 12: 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 13). The on/off pendant should be kept within reach of the operator.

Figure 13: On/off pendant

How to Operate the ProPass

1. Fill the ProPass hopper with the material to be spread as mentioned above.
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.

5. Park the tow vehicle 3 m (10 ft) 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 control pendant functions are stopped.

7. Ensure that the tow vehicle's engine is at a low rpm (revolutions per minute). Engage the tow vehicle's hydraulics to bring fluid to operating temperature.

8. Increase rpm of tow vehicle. Turn the option on, using the on/off pendant or the control pendent 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.

Wireless Control

When finished working with the ProPass, always press the E-Stop button (see Figure 14) to disable the electrical system. *When beginning work with the ProPass you must pull the E-Stop button back out before turning on the controller.*

Figure 14: E-Stop Button

To Power On

Press the controller's On/Off button and wait for the controller to find the base. Ensure that there are no buttons being pressed on the pendant 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 in order to complete tasks or continue work until the problem is resolved.

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

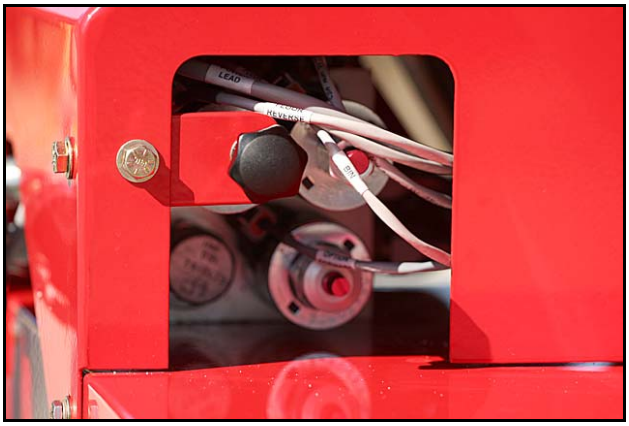


Figure 15: Manual Override

To adjust the floor, turn the black 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.

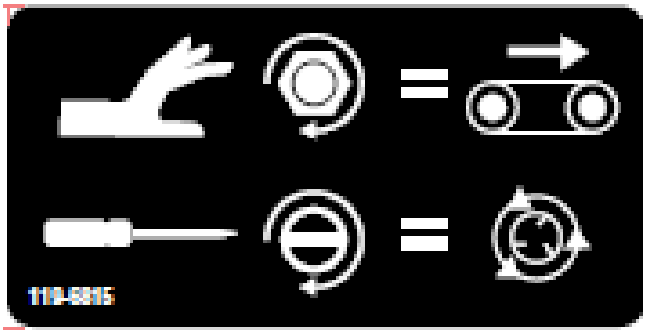


Figure 16: Manual Override Decal

To adjust the spinner speed, 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.

NOTE: Do not use the manual override while operating with the 11hp engine option. The hydraulic flow is constant and there is no safe on/off capability. Use the manual override for stationary operation only.

Wireless Controller

A. LCD Display

B. Controller Status LED's

C. ALL START: Start Floor and Option

D. On / Off

E. Preset 1

F. Preset 2

G. Preset 3

H. ALL STOP: Stops all functions

I. START: FLOOR

J. STOP: FLOOR

K. DECREASE SPEED: FLOOR

L. INCREASE SPEED: FLOOR

M. STORE: Saves preset settings

N. START: OPTION

O. STOP: OPTION

P. DECREASE SPEED: OPTION

Q. INCREASE SPEED: OPTION

Figure 17: Wireless Controller

Operating the Wireless Controller

The wireless controller operates the FLOOR and SPINNER speeds of the ProPass through the BASE RECEIVING UNIT that is located on the ProPass and connected to the hydraulic system. The BASE UNIT must have electric power in order to program or operate the WIRELESS CONTROLLER.

If your WIRELESS CONTROLLER reads WAITING FOR BASE then the BASE UNIT is not getting electric power. Check that your cables are properly connected and that the E-STOP button is not engaged.

Safety

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.

WORKING MODE

Any time the WIRELESS CONTROLLER is turned on it is set to operate in WORKING MODE. It defaults to the last SAVED setting and allows you to operate the ProPass according to those settings.

TO PROGRAM FOR WORKING MODE:

1) Connect the ProPass to the electrical power source - do not engage hydraulic flow
2) Power ON 

the WIRELESS CONTROLLER
3) Press 

to view current saved OPTION setting on LCD display
4) Set SPINNER SPEED  to desired percentage
5) Press 

to STORE the setting
6) Press 

to exit OPTION settings
7) Press 

to view current saved FLOOR setting on LCD display
8) Set the FLOOR SPEED  to desired percentage
9) Press 

to STORE the setting
10) Press 

to exit FLOOR Setting

11) Press 

to confirm your settings for WORKING MODE

The CONTROLLER is now set to operate at these settings. If the unit is powered off, these settings will be recalled automatically when powered back on.

WORKING MODE WITH ALL START:

You can also save both of your adjusted settings together.

1) Press 

to view both current saved settings on the LCD display

2) Set your  and  to desired percentages

3) Press 

to STORE

4) Press 

to exit

5) Press 

to confirm your settings for WORKING MODE

Keep in mind, the WIRELESS CONTROLLER will return to its last saved default setting after 10 seconds if no buttons are touched.

TO OPERATE IN WORKING MODE:

1) Ensure hydraulic flow is active

2) POWER ON 

the WIRELESS CONTROLLER

3) Press 

to SELECT the SPINNERS, press 

again to ENGAGE the SPINNERS.

4) The LCD display will indicate when the SPINNERS have reached their target speed percentage.

5) When you are ready to spread material, press 

to SELECT the FLOOR and then 

again to ENGAGE the FLOOR.

6) When you wish to STOP spreading, press 

to stop the flow of material.

7) To begin spreading again, press 

to SELECT and ENGAGE the FLOOR.

8) When you are finished topdressing press 

to stop the FLOOR then 

to stop the SPINNERS.

If you wish to START all functions at once:

1) Press 

to SELECT the FLOOR and the SPINNER and confirm the settings

2) Press 

to ENGAGE the FLOOR and the SPINNER

NOTE: With ALL START, the SPINNER starts first and after a brief delay, the FLOOR engages.

If you wish to STOP all functions at once:

1) Press 

to DISENGAGE the FLOOR and the SPINNER.

ADJUSTING THE SETTINGS

Adjustments can be made while the ProPass is in operation or when the ProPass is at idle. Any changes you make to the settings on the WIRELESS CONTROLLER can be SAVED and will become your new WORKING MODE.

If you make a change to the settings, and do not SAVE them, the WIRELESS CONTROLLER will default back to the last saved setting.

CAUTION: When SAVING changes to your adjustments, the ProPass will activate if there is any hydraulic flow. While adjusting or SAVING be sure to stay clear of moving parts and press STOP to complete.

TO SAVE SPINNER SPEED WHILE IDLE:

1) Press 

to view current saved setting on LCD display

2) Set  to desired percentage

3) Press 

to STORE the setting (hydraulics will activate)

4) Press 

to exit settings (hydraulics will stop)

TO SAVE FLOOR SPEED WHILE IDLE:

1) Press 

to view current saved setting on LCD display

2) Set  to desired percentage

3) Press 

to STORE the setting (hydraulics will activate)

4) Press 

to exit OPTION settings (hydraulics will stop)

ADJUSTING DURING OPERATION:

You can make settings adjustments as the ProPass is operating by increasing or decreasing the FLOOR or SPINNER speeds and observing the results directly. If you make a change to the settings and do not SAVE them, the WIRELESS CONTROLLER will default back to the last saved WORKING MODE. Any settings made while the ProPass is in OPERATION will remain active until SAVED or STOPPED.

TO SAVE SPINNER SPEED WHILE OPERATING:

1) Set  to desired percentage

2) Press 

to STORE the setting

TO SAVE FLOOR SPEED WHILE OPERATING:

1) Set  to desired percentage

2) Press 

to STORE the setting

PRESET MODE

The WIRELESS CONTROLLER comes with 3 PRESET buttons that allow you to STORE commonly used or recently adjusted settings for use in WORKING MODE.

For example: '1' may be an Light setting for frequent topdressing, '2' may be a Medium setting and '3' may be a Heavy setting.

Use your PRESET buttons to suit your course conditions, maintenance practices and topdressing program.

PROGRAMMING THE PRESETS:

1) Connect the ProPass to the electrical power – do not engage hydraulic flow

2) POWER ON 

the WIRELESS CONTROLLER

3) Select 

to view current saved setting

4) Adjust SPINNER  to desired setting

5) Press 

to ACTIVATE

6) Select 

to view current saved setting

7) Adjust the FLOOR  to desired setting

8) Press 

to ACTIVATE

9) Press and hold 

and ONE of the PRESET numbers 

10) Press 

to exit

Repeat this process for each PRESET number as required.

STORING WORKING MODE TO PRESET:

If you are in WORKING MODE and your ProPass is IDLE, you can add the current settings to one of the PRESET buttons.

CAUTION: When SAVING changes to your adjustments, the ProPass will activate if there is any hydraulic flow. While adjusting or SAVING be sure to stay clear of moving parts and press STOP to complete.

1) Press 

to view both settings

2) Press 

again to ACTIVATE (hydraulics will engage)

3) Press and hold 

and ONE of the PRESET numbers 

4) Press 

to exit (hydraulics will stop)

TO OPERATE IN PRESET MODE:

1) Ensure hydraulic flow is off

2) POWER ON 

the WIRELESS CONTROLLER

3) Press the 

– FLOOR and SPINNER settings will be displayed

4) Press 

to STORE to WORKING MODE

5) Press 

to exit

6) Ensure hydraulic flow is active

7) As you approach the area requiring topdressing press 

to SELECT the SPINNERS

8) Press 

to ENGAGE the SPINNERS.

9) When you are ready to spread material, press 

to SELECT the FLOOR

10) Press 

to ENGAGE the FLOOR.

11) When you wish to stop spreading, press 

to stop the flow of material.

12) To begin spreading again, press 

to ENGAGE.

If you wish to START all functions at once:

1) Press 

2) Press 

to SELECT the FLOOR and the SPINNERS.

1) Press 

to ENGAGE the FLOOR and the SPINNERS.

If you wish to STOP all functions at once:

1) Press 

to DISENGAGE the FLOOR and the SPINNER.

NOTE: With ALL START, the SPINNER starts first and after a brief delay, the FLOOR engages. When ALL STOP is pressed, the FLOOR stops first followed by the SPINNERS.

CHANGING PRESET WHILE IDLE:

You can change between PRESETS either at idle or while operating.

CAUTION: When changing or saving PRESETS while idle, the ProPass will activate if there is any hydraulic flow. While adjusting PRESETS be sure to stay clear of moving parts and press ALL STOP to complete.

1) Press 

– FLOOR and SPINNER settings will be displayed

2) Press 

to ACTIVATE

3) Press 

to STORE to WORKING MODE (hydraulics will engage)

4) Press 

to exit (hydraulics will stop)

CHANGING PRESET WHILE OPERATING:

1) Press 

– FLOOR and SPINNER settings will be displayed

2) Press 

to ENGAGE and STORE to WORKING MODE

TO STORE SPINNER SPEED TO PRESET WHILE IDLE:

1) Press 

to view current saved setting on LCD display

2) Set 
to desired percentage

3) Press 

to STORE the setting (hydraulics will activate)

4) Press and hold 

and ONE of the PRESET numbers 

5) Press 

to exit settings (hydraulics will stop)

TO STORE FLOOR SPEED TO PRESET WHILE IDLE:

1) Press 

to view current saved setting on LCD display

2) Set 
to desired percentage

3) Press 

to STORE the setting (hydraulics will activate)

4) Press and hold 

and ONE of the PRESET numbers 

5) Press 

to exit OPTION settings (hydraulics will stop)

TO STORE SPINNER SPEED TO PRESET WHILE OPERATING:

1) Set 
to desired percentage

2) Press 

to STORE to WORKING MODE

3) Press and hold 

and ONE of the PRESET numbers 

TO STORE FLOOR SPEED TO PRESET CHANGES WHILE OPERATING:

1) Set 
to desired percentage

2) Press 

to STORE to WORKING MODE

3) Press and hold 

and ONE of the PRESET numbers 

Maintenance Instructions

When it comes to maintenance, an authorized TORO Distributor knows the ProPass Top Dresser best. The Distributor can help you, by explaining how to use the ProPass, to improve the quality of your turf maintenance.

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

Safety 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.

Note: Photocopy these pages and use them as a regular safety checklist.

Tires and Wheels

- The recommended tire pressure is 69 kPa (10 psi), or as recommended by the tire manufacturer.
- 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 conections 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.

CAUTION: If the hydraulic lines are not properly connected, they may come apart during use. To test the connection, try to pull it apart.

Company	Recommended Hydraulic Fluids	Other Acceptable Fluids
Petro-Canada	Duratran Winter	Duratran All Season
Exxon	Hydraul 50	Hydraul 56
Texaco	TDH Oil W	TDH Oil
Shell	N/A	Donax TD
Mobile	N/A	Mobile Fluid 424
Chevron	N/A	Tractor Hyd Fluid
John Deere	N/A	J20D

Note: Use ISO VG-68 fluid, the oil used during ProPass manufacturing and testing. The ProPass will take longer to reach maximum efficiency with other oils, due to their higher viscosity.

Replace the hydraulic fluid filter, located beside the hydraulic pump, after the first 50 hours of operation and every 300 hours of operation regularily

IMPORTANT: tTe fluid used in the hydraulic components must be maintained at ISO Cleanliness Code 18/13 per SAE J1165. This code allows a maximum of 2,500 p/ml greater than 5 µm and a maximum of 80 p/ml greater than 15 µm.

IMPORTANT: The small quantity used in the ProPass will allow it to be hooked up to tow vehicles using ARG oils without changing the oil.

In case of a hydraulic oil spill, use an appropriate spill treatment product and procedure.

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.

Wireless Controller

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.
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 18. 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.

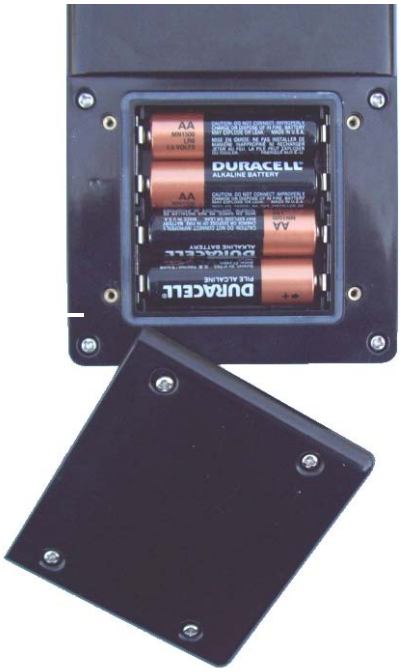


Figure 18: Battery Compartment

How to Maintain 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 Procedure

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 19).

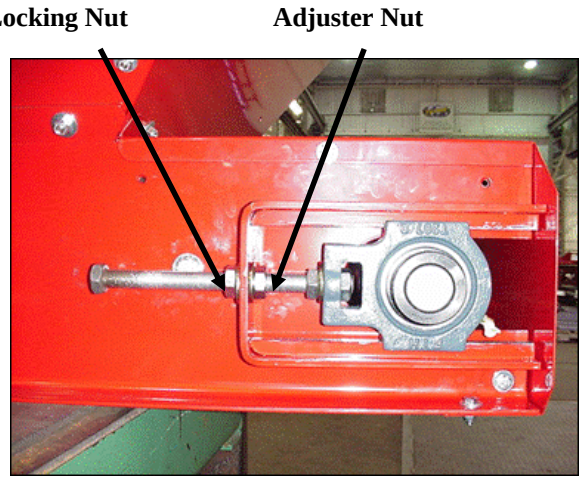


Figure 19: Tensioner rod and locking nuts

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 Procedure

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 yellow 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. See Figure 19.
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 yellow safety covers.

How to Lubricate 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 20).

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.

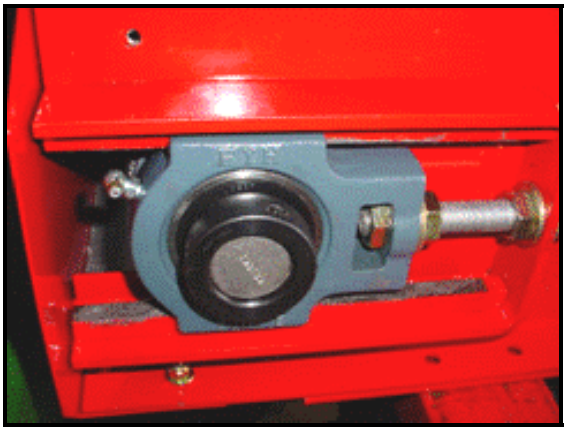


Figure 20: Grease fitting on Base Model (one at left front, one at right front)

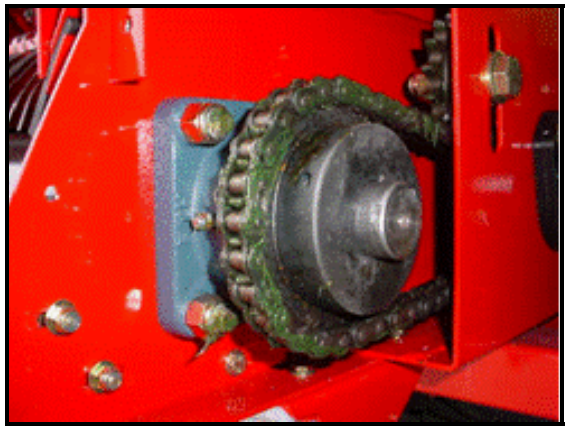


Figure 21: Grease fitting on Base Model (one at left rear, one at right rear)

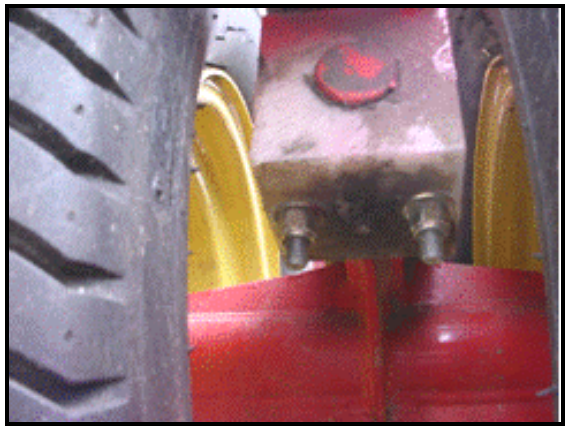


Figure 22: Grease fitting on tow-behind chassis (front and rear, left and right). Grease once per year.

How to Wash 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 vapours. 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 control pendant.
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 23: 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 (see Figure 24), using a garden hose, spray through the front guard mesh until the belly pan is completely clear of material (see Figure 25).
11. While the yellow covers are removed when greasing every 25 hours, insert a hose and to wash out trapped spreading material.

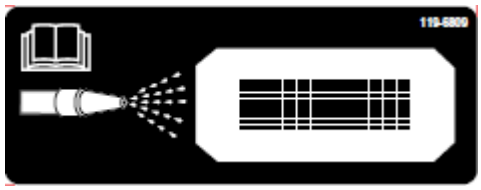


Figure 24: Clean Out Decal

Figure 25: Front Clean Out

12. Inspect the hopper, bottom guard, conveyor belt, bed, and rollers to ensure that all trapped material is gone.
13. Lower the ProPass back into the normal operating position.

12. Inspect the hopper, bottom guard, conveyor belt, bed, and rollers to ensure that all trapped material is gone.

13. Lower the ProPass back into the normal operating position.

14. 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.

Long-term Storage of the ProPass

Before storing the ProPass for the season:

1. Thoroughly clean the ProPass. Remove parts if necessary.

2. Remove the control pendant.

3. Check all fasteners and tighten if necessary.

4. Grease all fittings and pivot points. Wipe off any excess lubricant.

5. Apply a “never seize” product to the idler roller and the drive roller shafts.

6. Lightly sand any painted areas that are scratched, chipped, or rusted, and apply touch-up paint.

Store the ProPass indoors if possible

Hydraulic Schematics

Hydraulic Schematic – Standard Hydraulics

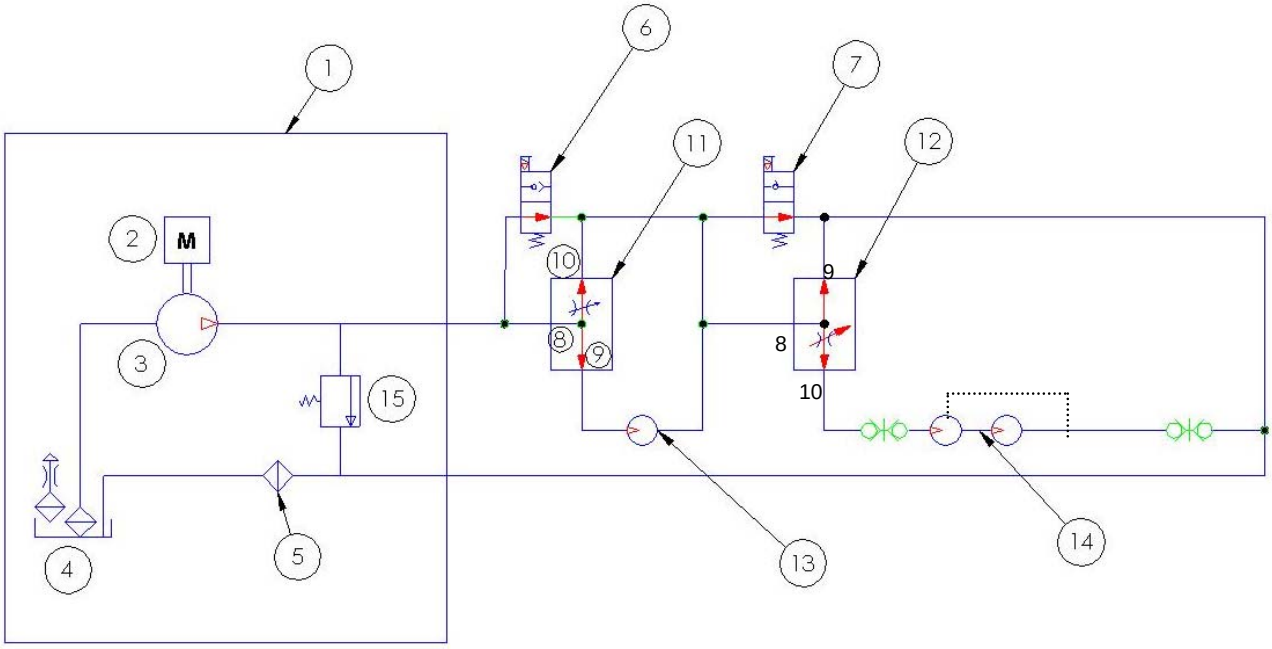


Figure 26: Hydraulic Schematic (11HP Hydraulic Power Pack Shown)

1. 11HP Hydraulic Power Pack
2. Gasoline Engine
3. Hydraulic Pump
4. Hydraulic Reservoir
5. Filter
6. Floor Solenoid
7. Option Solenoid
8. In
9. EX
10. CF
11. Floor Speed Control
12. Option Speed Control
13. Conveyor belt motor
14. Option motors (Twin Spinner shown)
15. Relief Valve

Hydraulic Schematic – Wireless System

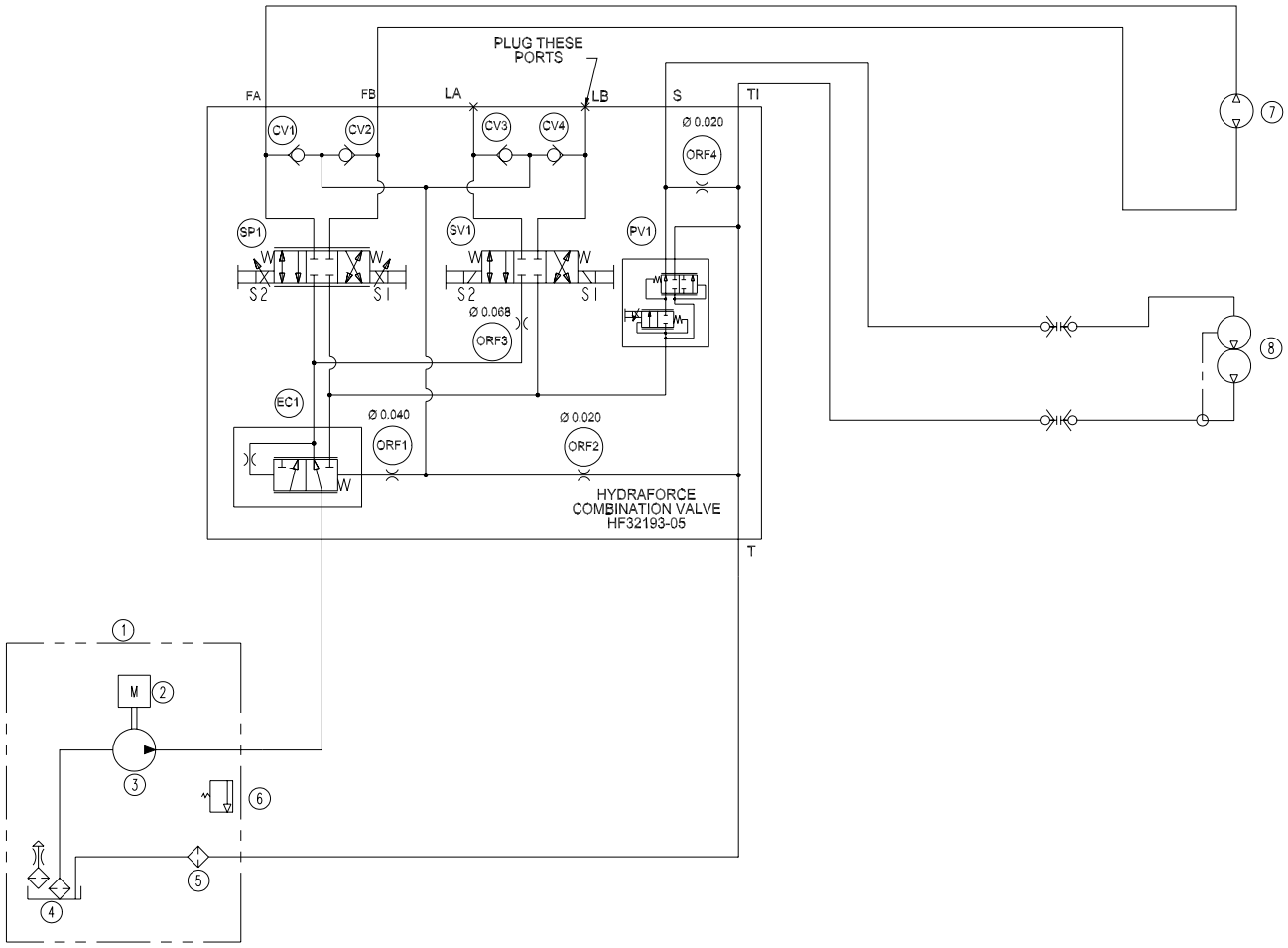


Figure 27: Hydraulic Schematic - Wireless Model (Shown With Optional Hydraulic Power Pack)

1. 11HP Hydraulic Power Pack
2. Gasoline Engine
3. Hydraulic Pump
4. Hydraulic Reservoir
5. Filter
6. Relief Valve
7. Conveyor belt motor
8. Option motors (Twin Spinner shown)

Electrical Schematics

Electrical Schematic - Standard Hydraulics

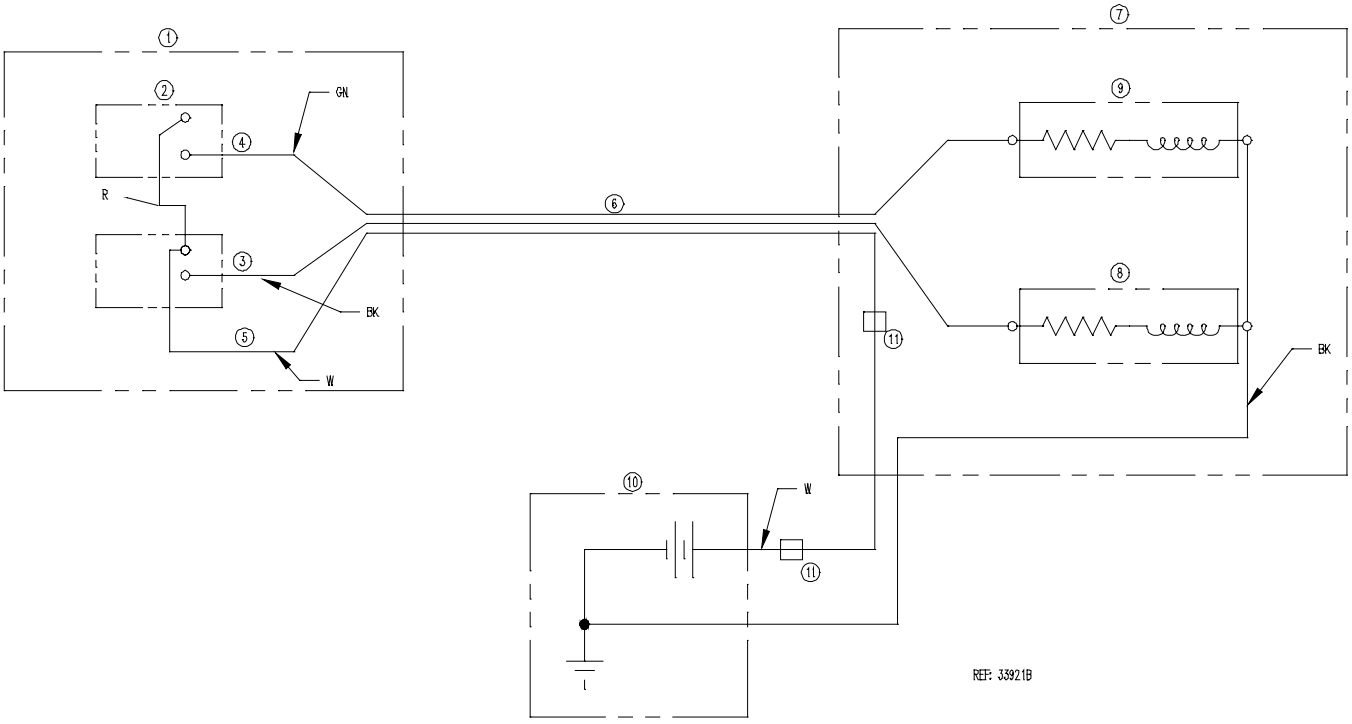


Figure 28: Electrical Schematic

1. Pendant Assembly
2. Toggle Switch (SPST)
3. Attachment
4. Conveyor Belt
5. Power
6. Pendant cable
7. ProPass Top Dresser
8. Option solenoid valve (SV2) — On valve actuates and closes flow path. Off valve opens flow path.
9. Conveyor belt solenoid valve (SV1) — On valve actuates and closes flow path. Off valve opens flow path.
10. 12 V electrical power supply
11. 15 A fuse

Key to Wire Colors:

R = Red BK = Black W = White GN = Green

Electrical Layout - Wireless System

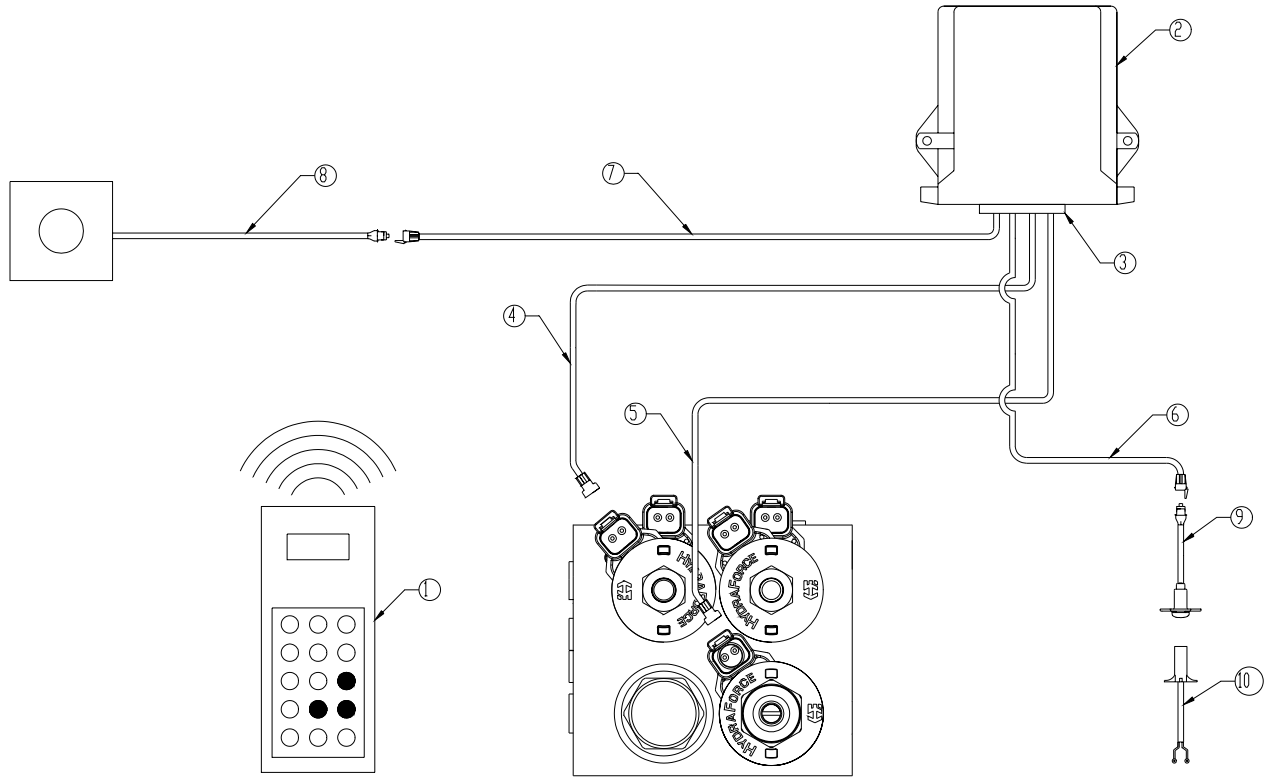


Figure 29: Electrical Schematic

1. Wireless Pendant
2. Receiver
3. Wiring Loom
4. Floor Forward
5. Option Forward
6. Power Lead
7. E-Stop Lead
8. E-Stop
9. Power Extension
10. Battery Harness

Electrical Schematic - Wireless System

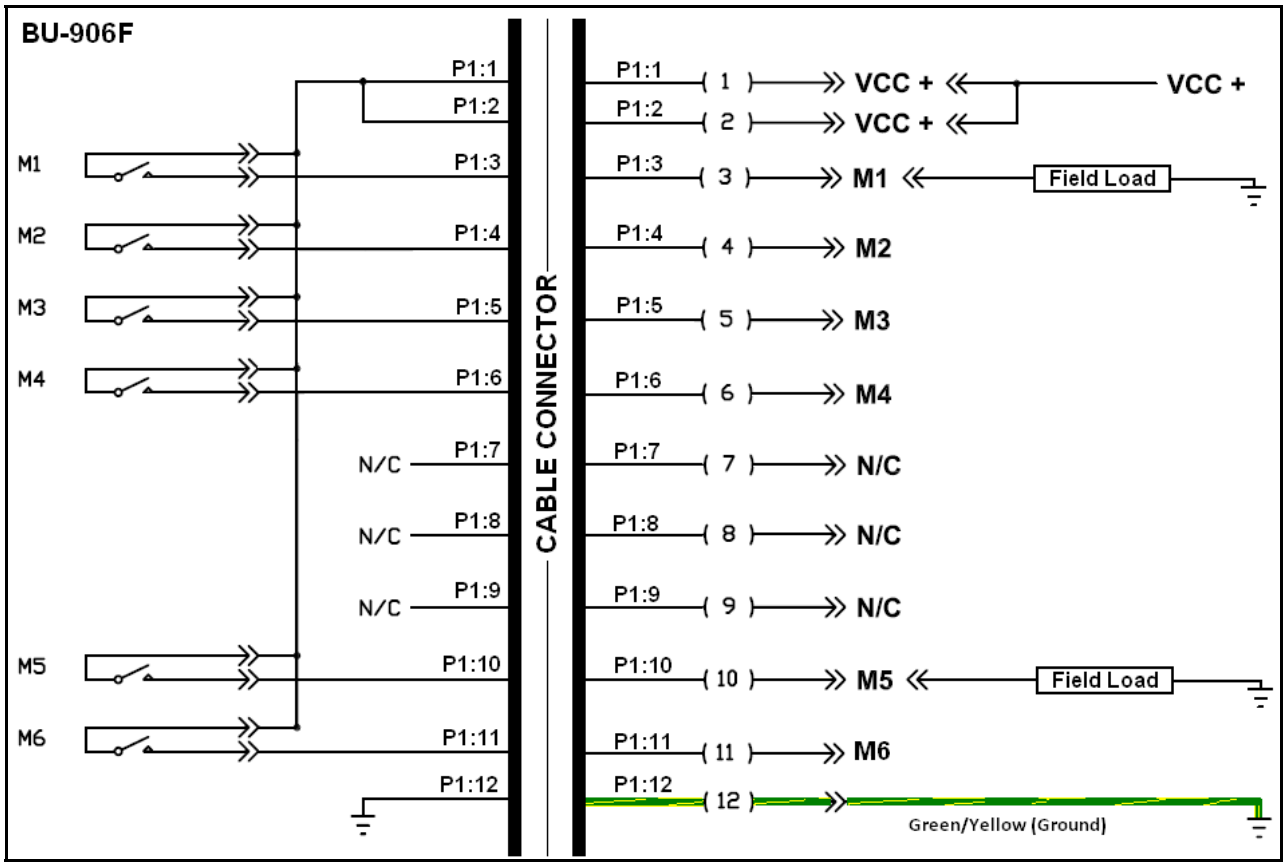


Figure 30: Base Unit Output Schematic

Figure 31: Base Unit Connector Pin Numbers

Troubleshooting

ProPass Troubleshooting Guide

If the problem is still occurring after all the checks listed below have been completed, contact an authorized TORO Distributor for service.

Symptom	Cause
Conveyor belt will not turn or is jerking	The hydraulic hose lines are not connected to the tow vehicle.
	The setting on the conveyor belt's flow control valve is not over #5–6
	The conveyor belt switch on the on/off pendant is off
	The rear drive roller on the conveyor belt is slipping (adjust tension).
	The tow vehicle has insufficient rpm during operation
	There is insufficient hydraulic pressure from the tow vehicle or Hydraulic Power Pack
	The vehicle's hydraulic reservoir tank is low on oil.
	The four-prong power supply cord from the ProPass is not connected to the tow vehicle during operation
	The conveyor belt's solenoid doesn't have 12 V; and check fuses.
	The 15 A fuse behind the front hydraulic valve panel is burnt out.
	The wiring harness isn't fully connected (if there is no power to the solenoid).
	The quick disconnect couplers aren't connected properly and in the right order at the tow vehicle and at the option.
Option will not operate	The quick couplers on the option cable are improperly connected.
	The option switch on the on/off pendant is off.
	The setting on the option's flow control valve isn't above #5.
	The four-prong power cord from the ProPass isn't connected to the tow vehicle during operation.
	There is insufficient hydraulic pressure from the tow vehicle (as indicated by the pressure gauge on the ProPass). See Specifications.
	The vehicle's hydraulic reservoir tank is low on oil.
	The option's solenoid doesn't have 12 V; and check fuses.
	The wiring harness isn't fully connected (if there is no power to the solenoid).

Maintenance Record Sheet

Service Performed	Date	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:

Commercial Products Service Department
Toro Warranty Company
8111 Lyndale Avenue South
Bloomington, MN 55420-1196
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, brakes pads and linings, clutch linings, blades, reels, bed knives, tines, spark plugs, castor wheels, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, and check valves, etc.
- Failures caused by outside influence. Items considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved coolants, lubricants, additives, fertilizers, water, or chemicals, etc.
- Normal noise, vibration, wear and tear, and deterioration.
- Normal "wear and tear" includes, but is not limited to, damage to seats due to wear or abrasion, worn painted surfaces, scratched decals or windows, etc.

Parts

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

Note Regarding Deep Cycle Battery Warranty:

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

Maintenance is at Owner's Expense

Engine tune-up, lubrication cleaning and polishing, replacement of Items and Conditions Not Covered 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 printed in your *Operator's Manual* 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. If all other remedies fail, you may contact us at Toro Warranty Company.