

# **Switch Adapter Kit**For Groundsmaster 300 Series Traction Unit Model No. 114-4110

**Installation Instructions** 

## Installation

### **Loose Parts**

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

Step	Description	Qty.	Use	
1	Switch	1		
	Adapter harness	1		
	Seat support bracket	1		
	Prop rod	1	Install the Seat Switch	
	Skid clip	2		
	Washer head screw	2		
	Roll pin	1		
2	Switch	1		
	Adapter harness	1		
	Switch bracket	1		
	Screw (3/8 x 3/4 inch)	2	In stall the DTO Coultab	
	Lock washer (3/8 inch)	2	Install the PTO Switch	
	Switch actuator bracket	1		
	Screw (1/4 x 3/4 inch)	1		
	Nut (1/4 inch)	1		

# Step

## **Replace the Seat Switch**

## Parts needed for this step:

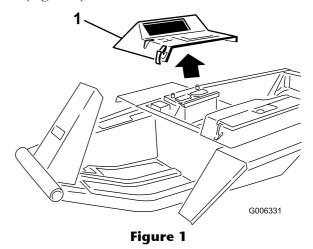
1	Switch
1	Adapter harness
1	Seat support bracket
1	Prop rod
2	Skid clip
2	Washer head screw
1	Roll pin

### **Procedure**

1. Park the machine on a level surface, lower the cutting unit, stop the engine, engage the

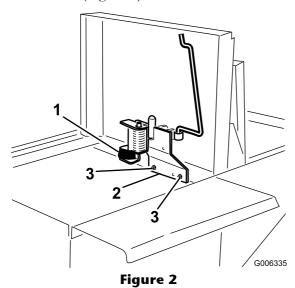
parking brake and remove the key from the ignition switch.

2. Unlatch and remove the instrument cover (Figure 1).



1. Instrument cover

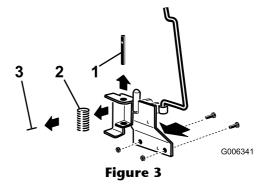
- 3. Disconnect the negative battery cable from the battery.
- 4. Pivot the seat forward and secure it to prevent it from falling accidentally. Do not use the seat prop rod to secure the seat.
- 5. On models used internationally, remove the flange screw, truss head screw, (2) locknuts and the spacer securing the sealing plate, over the fuel tank, to the frame. Remove the sealing plate.
- 6. Disconnect the seat switch wire connector from the traction unit main wire harness connector (Figure 2).



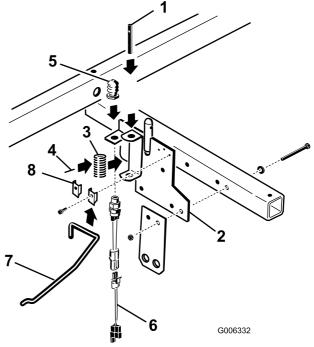
- Seat switch
- Seat support bracket
- 3. Cap screws and nuts
- 7. Remove the cap screws and nuts securing the seat support bracket to the frame and remove the seat support bracket Figure 2.

Spring under tension. Use caution when removing and installing the spring and pin.

8. Remove the roll pin securing the spring and pin to the seat support bracket (Figure 3) Remove the spring and the pin from the bracket.



- 1. Pin
- spring
- 3. Roll pin
- 9. Insert the spring into the new seat support bracket (Figure 4).

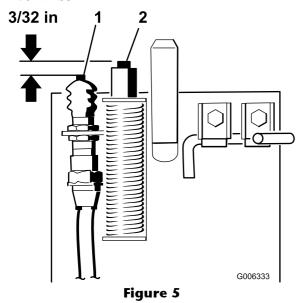


- Figure 4
- Pin
- Seat support
- Roll pin
- Rubber boot & top jam nut
- Wire harness adapter
- Prop rod
- Skid clip
- 10. Insert the pin into the new seat support bracket and spring (Figure 4).
- 11. Position the pin so the roll pin hole is just below the top of the bracket (Figure 4).
- 12. Pry the top of the spring down and insert the new roll pin through pin (Figure 4).
- 13. Remove the rubber boot and the top jam nut from the button end of the new seat switch (Figure 4).

14. Insert the button end of the seat switch up through the hole in the new seat switch bracket and loosely secure it to the bracket with the jam nut (Figure 4).

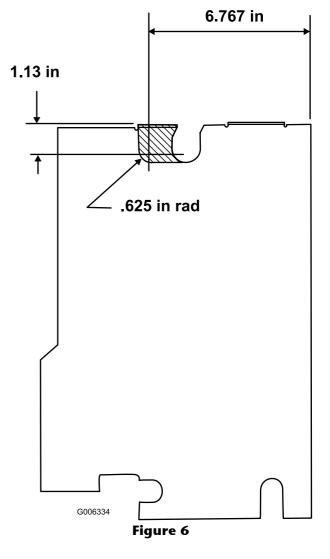
# **Important:** The switch threads will be damaged if the jam nuts are over tightened.

15. Adjust the jam nuts until the top of the switch button is 3/32 inch lower than the top of the spring pin (Figure 5). Tighten the jam nuts to 75 in-lbs.



- 1. Switch button
- 2. Spring pin
- 16. Reinstall the rubber boot to the top of the switch.
- 17. Connect the wire harness adapter to the seat switch wire harness (Figure 4).
- 18. Mount the seat prop rod to the seat support bracket with (2) skid clips and washer head screws (Figure 4).
- 19. Mount the seat support bracket assembly to the frame with the cap screws and nuts previously removed (Figure 4).
- 20. Carefully release the seat to its normally down position, but do not sit or apply pressure to the seat. There should be a slight gap between the seat switch and the seat plate.
- 21. Connect a continuity tester or ohm meter to the seat switch connector. With the seat in the down position and no one on the seat, the switch circuit should not have any continuity. If there is continuity, recheck switch installation.

- If there is no continuity, proceed to the next step.
- 22. Sit on the seat. The seat switch should have continuity. If there is no continuity, recheck switch installation. If there is continuity, disconnect the continuity tester or ohm meter from the seat switch connector and proceed to the next step.
- 23. Connect the wire harness adapter to the traction unit main wire harness connector (Figure 3).
- 24. On models used internationally, use the dimensions shown in Figure 6, to locate, mark and modify the slot in the sealing plate. Remove any sharp edges from the modified area.



25. Reinstall the sealing plate to the frame with the fasteners previously removed.

# Step 2

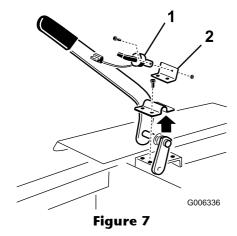
## **Replace the PTO Switch**

## Parts needed for this step:

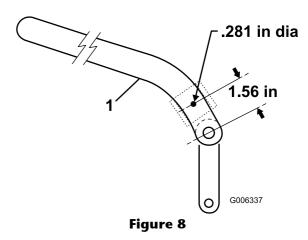
1	Switch
1	Adapter harness
1	Switch bracket
2	Screw (3/8 x 3/4 inch)
2	Lock washer (3/8 inch)
1	Switch actuator bracket
1	Screw (1/4 x 3/4 inch)
1	Nut (1/4 inch)

### **Procedure**

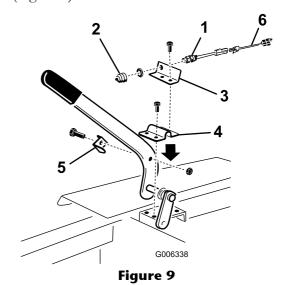
- 1. Move the PTO lever forward to the ON position.
- 2. Disconnect the PTO switch wire connector from the traction unit main wire harness connector (Figure 7).



- 1. PTO switch
- 2. PTO switch mount
- 3. Remove the two cap screws securing the PTO switch mount to the frame and remove the switch mount and switch (Figure 7).
- 4. Use the dimension shown in (Figure 8) and the actuator bracket, to locate, mark and drill a .281 inch diameter hole in the PTO lever.



- 1. PTO lever
- 5. Remove the rubber boot and the top jam nut from the button end of the new PTO switch (Figure 9).



- 1. New PTO switch
- 2. Rubber boot and nut
- 3. PTO switch bracket
- 4. Frame mounting bracket
- 5. Switch actuator bracket
- 6. Wire harness adapter
- 6. Insert the button end of the PTO switch through the hole in the PTO switch bracket and loosely secure it to the bracket with the jam nut. Position the switch as shown in Figure 9.
- 7. Mount the PTO switch bracket to the frame mounting bracket with (2) screws. Position the bracket as shown in Figure 9.
- 8. Mount the PTO switch actuator bracket to the PTO lever with a cap screw and nut. Position the bracket as shown in Figure 9.
- 9. Adjust the jam nuts so the switch button is depressed 1/2 inch when the PTO lever is

moved to the OFF position. Tighten the jam nuts to 75 in-lbs.

# **Important:** The switch threads will be damaged if the jam nuts are over tightened.

- 10. Connect the wire harness adapter to the switch wire harness (Figure 9).
- 11. Reinstall the rubber boot to the top of the switch (Figure 9).
- 12. Connect a continuity tester or ohm meter to the switch connector. With the PTO lever in the ON position the switch circuit should not have any continuity. If there is continuity, recheck switch installation. If there is no continuity, proceed to the next step.
- 13. Move the PTO lever to the OFF position. When the PTO lever is in its normal, released position, the PTO switch should have continuity. If there is no continuity, recheck switch installation. If there is continuity, disconnect the continuity tester or ohm meter from the switch connector and proceed to the next step.
- 14. Connect the wire harness adapter to the traction unit main wire harness connector.
- 15. Connect the negative battery cable to the battery.
- 16. Install the instrument cover.

