



Road Light Kit

Groundsmaster® 4000-D Traction Unit

Model No. 30428

Form No. 3326-252

Installation Instructions

Contents of the Kit

DESCRIPTION	QTY.	USE
Turn signal controller	1	Mounting to the turn signal controller
Dual rate flasher	1	Mounting the flasher to the steering column
Flasher mounting bracket	1	
#10–24 x 1/2 in. slotted-head screw	4	
#10–24 Keps nut	4	
Toggle switch	1	Mounting the toggle switch
Wire harness	1	
Headlight assembly	2	Mounting the headlights
Headlight bracket	2	
1/2–13 x 3 in. screw	2	
1/2–13 locknut	2	
Flat washer	2	
Tail light assembly	2	Mounting the tail lights to the ROPS
5/16–18 locknut	4	
ROPS bracket	1	
U-bolt	2	
3/8–16 locknut	2	
SMV emblem	1	Mounting the SMV emblem to the ROPS bracket
1/4–20 x 3/4 in. screw	2	
Flat washer	2	
1/4–20 locknut	2	
20-amp fuse	1	Connecting the road light kit to the electrical system
Cable tie	22	
Mounting pads	4	
Parts catalog	1	Installing the road light kit
Installation instructions	1	

Disconnecting the Battery

1. Position the machine on a level surface. Set the parking brake, lower the cutting units, turn the ignition off, and remove the key.



Caution



If you leave the key in the ignition switch, someone could accidentally start the engine and seriously injure you or other bystanders.

Remove the key from the ignition switch before you do any maintenance.

2. Remove the battery cover.
3. Remove the negative battery cable from the battery post.

Installing the Dual Rate Flasher

1. Remove the steering tower housing (Fig. 1).

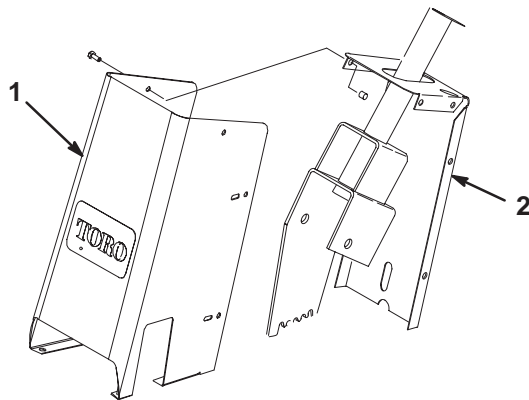


Figure 1

1. Steering tower housing
2. Steering column

2. Use the dimensions shown in Figure 2 to locate, mark, and drill a hole (1/4 in. diameter) in the left-hand side of the steering column mount. Use the flasher bracket as a template to locate, mark, and drill a second hole (1/4 in. diameter) diagonal to the first hole.

Important Center the flasher bracket on the steering column mount (with equal clearance on each side) to avoid interfering with the tilt mechanism.

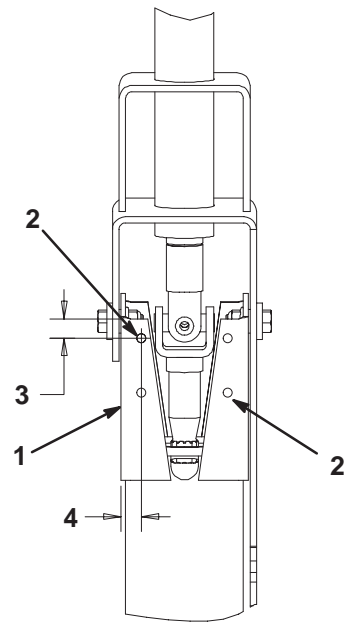


Figure 2

1. Steering Column mount
2. 1/4 in. diameter hole
3. 0.54 in.
4. 0.57 in.

3. Mount the flasher bracket to the steering column mount with 2 slotted-head screws (#10-24 x 1/2 in.) and 2 Keps nuts (Fig. 3).
4. Mount the dual rate flasher to the bracket with 2 slotted-head screws (#10-24 x 1/2 in.) and 2 Keps nuts (Fig. 3).

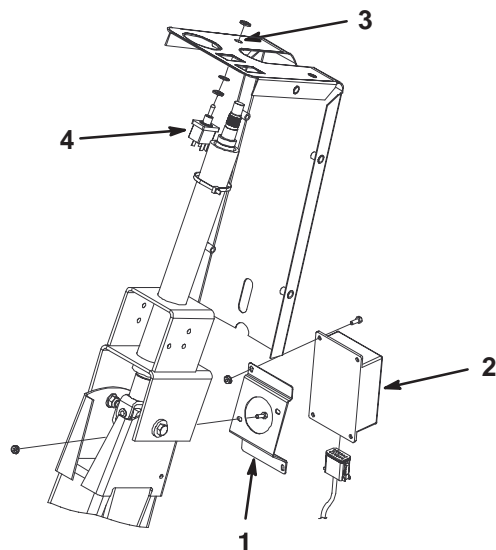


Figure 3

1. Flasher bracket
2. Dual rate flasher
3. Hole location
4. Toggle switch

5. Locate the pilot hole beneath the steering column decal on top of the steering tower cover (Fig. 3).

6. Use the pilot hole as a guide to drill a hole (1/2 in. diameter) through the cover.
7. Mount the toggle switch to the steering tower cover with the washer and nuts supplied in the kit. Orient the keyway toward the rear of the machine (Fig. 3).
8. Install the turn signal controller (Figs. 4 and 5) to the steering column with fasteners and hardware supplied in the kit as follows:
 - Insert the screws into anchors
 - Insert the assembled anchor screws into the slots in the turn signal controller. **Do not tighten.**
 - Bend the strap end through and around the clip. Engage the clip between the anchor and the turn signal controller housing.
 - Hold the turn signal controller against the steering column in the desired position and bend the strap around the column.
 - Estimate the strap length required and cut it as necessary. Insert the unbent portion of the strap through the other clip and assemble as described above.
 - Catch the clip under the anchor and tighten the screws equally until the turn signal controller is clamped firmly to the steering column.

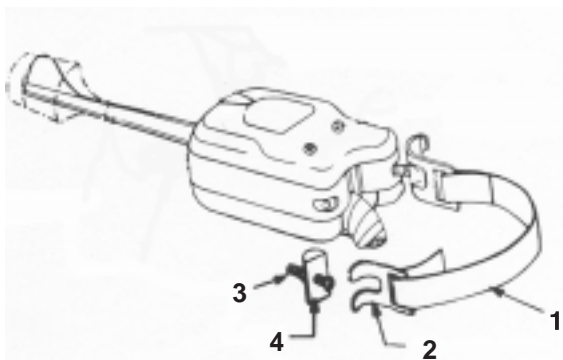


Figure 4

- | | |
|----------|-----------|
| 1. Strap | 3. Screw |
| 2. Clip | 4. Anchor |

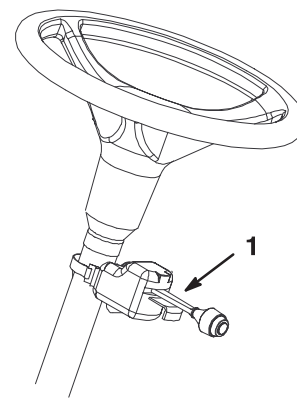


Figure 5

1. Turn signal controller

Note: If you install a replacement turn signal controller, disassemble the controller, remove the hazard plate, and assemble the controller.

9. Remove the steering tube cover located to the left of the steering column (Fig. 6).

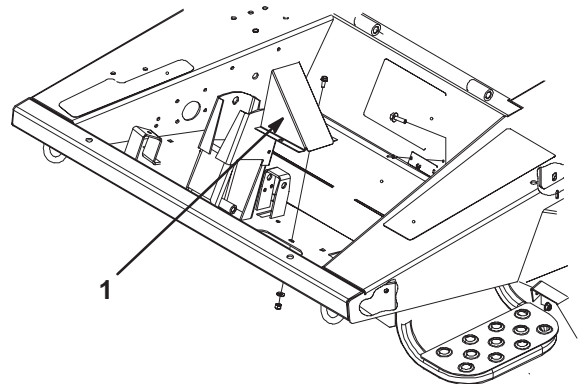


Figure 6

1. Steering tube cover

10. Remove the control panel cover located to the right of the operator's position (Fig. 7).

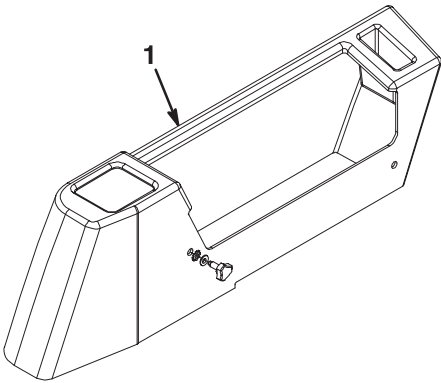


Figure 7

1. Control panel cover

11. Route the wire harness (Fig. 8) as follows:

Forward

- Through the opening at the left side of the steering tower past the front of the steering control valve
- Up the right side of the steering column to the toggle switch

Rearward

- Under the left front operator platform along the hydraulic steering lines
- Down the left side of the traction unit along the hydraulic steering lines
- Toward the right side of the traction unit under the seat base platform along the hydraulic lift lines
- Into the power panel located inside the control panel
- To the frame ground, located on the top bolt of the right hand side of the PTO manifold inside the frame member
- Up under the right side of the fuel tank between the fuel tank and the ROPS assembly (front face of the ROPS)
- Along the vent tube, located on the right side of the ROPS
- Along the inside bend of the taillight bracket to the left side of the ROPS

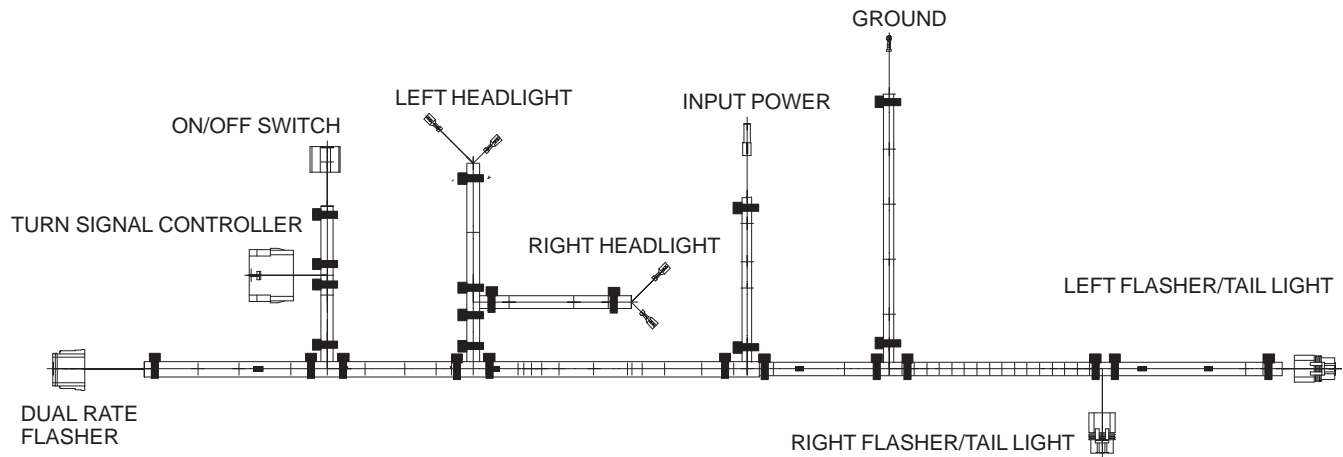


Figure 8

12. Secure the wire harness to the hydraulic steering lines with cable ties. Ensure that the harness does not interfere with the brake operation.
13. Plug the connector body from the wire harness into the toggle switch on the steering tower cover.

14. Plug the connector body from the wire harness into the dual rate flasher.

15. Plug the connector body from the wire harness into the connector from the turn signal controller on the steering tube.

16. Secure the dual rate flasher and the turn signal controller wires together with cable ties.

Note: When routing the wires, ensure that the operation of the tilt steering does not damage the harness or pull on the wires.

17. Install the steering tower housing (Fig. 1).
18. Install the steering tube cover (Fig. 6).
19. Secure the wire harness to the hydraulic lift lines with cable ties.
20. Install the 20-amp fuse in the provided fuse block receptacle located inside the rear area of the control panel.
21. Install the control panel cover (Fig. 7).
22. Secure the wire harness to the vent tube on the right side of the right post of the ROPS.

Installing the Headlights

1. Fasten the headlight brackets to the existing holes in front of the operator's platform with a screw (1/2–13 x 3 in.), flat washers, and locknuts (Fig. 9).

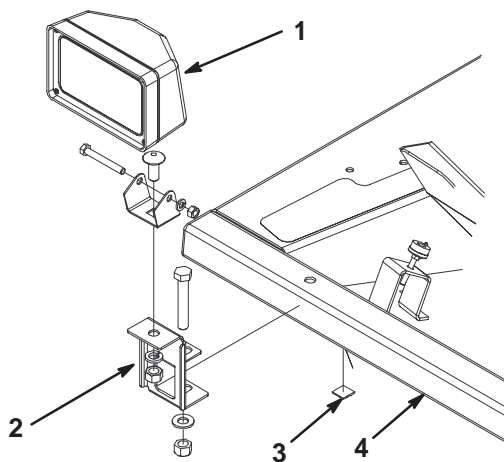


Figure 9

- | | |
|---------------------------|------------------------|
| 1. Headlight assembly (2) | 3. Mounting pad (4) |
| 2. Headlight bracket (2) | 4. Operator's platform |
-
2. Fasten the headlight assemblies to the headlight brackets (Fig. 9) with carriage bolts, lock washers, and hex nuts furnished in the kit.
 3. Route the headlight wires inside of the brackets and crimp a 1/4 in. male spade terminal to each wire.
 4. Route the main wire harness underneath the front edge of the operator's platform and connect it to the spade terminals on the headlight wires.
 5. Secure the headlight wiring harness to the operator's platform with the mounting pads and cable ties.

Note: Clean the mounting surface with rubbing alcohol before affixing the mounting pads.

Installing the Tail Lights and the SMV Emblem

1. Mount a tail light assembly to each end of the light bracket with 2 locknuts (5/16–18) as shown in Figure 10.

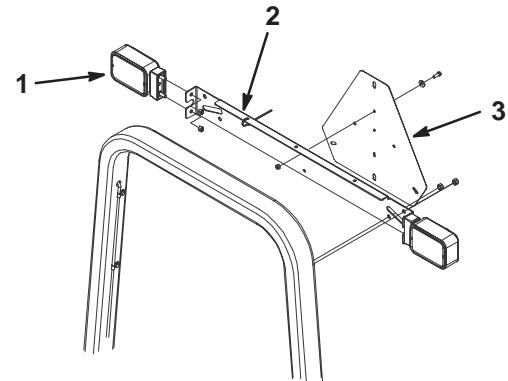


Figure 10

- | | |
|------------------|---------------|
| 1. Taillight | 3. SMV emblem |
| 2. Light bracket | |
-

2. Loosely mount each end of the light bracket to the ROPS with a U-bolt and 2 locknuts (3/8–16) as shown in Figure 10.

Note: Use the slot provided in the light bracket so that the tail light wires can wrap around the rear of the ROPS with the connector to the inside of the bracket.

3. Tighten the U-bolts evenly to avoid distorting the light bracket.
4. Mount the slow moving vehicle (SMV) emblem to the light bracket with 2 screws (1/4–20 x 3/4 in.), 2 flat washers, and 2 locknuts.

Note: Install the SMV emblem using a hole configuration that prohibits it from extending above the ROPS.

5. Connect the wire harness to the taillights.
6. Secure the harness to the holes in the light bracket with cable ties.

Connecting the Battery

1. Attach the negative battery cable to the battery post.
2. Install the battery cover.

Operating the Lights

To activate the headlights, taillight, and warning flashers, move the switch on steering tower to the **On** position.

Operating the Turn Signal Controller

Move the switch handle in the direction of the turn (Fig. 11).

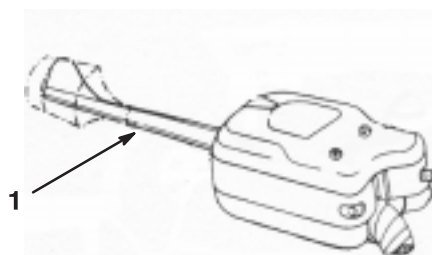


Figure 11

1. Switch handle

Aiming the Headlights

1. Loosen the mounting nuts and position each headlight so that it points straight ahead. Tighten the mounting nut just enough to hold the headlight in position.
2. Place a flat piece of sheet metal over the face of the headlight.
3. Mount a magnetic protractor onto the plate. While holding the assembly in place, carefully tilt the headlight downward 3° , then tighten the nut.
4. Repeat the procedure on the other headlight.

