



# EU Light Kit

Groundsmaster® 4300-D or Reelmaster® 5010-H Traction Unit

Model No. 31579

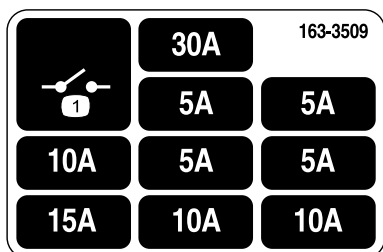
## Installation Instructions

# Safety

## Safety and Instructional Decals



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



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1. Relay



# Installation

## Loose Parts

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

Procedure	Description	Qty.	Use
<b>1</b>	No parts required	–	Prepare the machine for installation.
<b>2</b>	Right headlight mount Left headlight mount Right tail light mount Left tail light mount Right headlight assembly Left headlight assembly Tail light assembly Tail light extension bracket Flange nut (3/8 inch) Hex-head bolt (3/8 x 1 inch) Hex-head bolt (5/16 x 1 inch) Hex-head bolt (5/16 x 3/4 inch) Hex-head bolt (3/8 x 3/4 inch) Flange nut (5/16 inch)	1 1 1 1 1 1 2 2 10 1 4 4 8 4	Install the lights.
<b>3</b>	Horn Horn bracket Hex-head bolt (3/8 x 1 inch) Flange nut (3/8 inch)	1 1 1 1	Install the horn.
<b>4</b>	Light mount Light plate Flange nut (3/8 inch) Locknut (#10) Flange bolt (3/8 inch) Screw (#10)	1 1 2 2 2 2	Install the rear light plate.
<b>5</b>	Column mount bracket Flasher module On-Off-On rocker switch Beacon switch Paddle switch Horn switch Horn button Hex socket button-head screw Speed nut Steering-column bracket Carriage bolt (3/8 x 1inch) Flange nut (3/8 inch)	1 1 1 1 1 1 1 1 2 1 2 2	Install the column-bracket assembly onto the steering column.

Procedure	Description	Qty.	Use
6	Wire harness	1	Install the wire harness.
	Adapter harness (long)	1	
	Tie clip	1	
	Adapter harness (short)	2	
	Fuse block mount	1	
	Flange nut (5/16 inch)	2	
	Flange bolt (M6)	2	
	Flange bolt (5/16 x 1 inch)	2	
	Fuse decal	1	
7	Sign	3	Install the logo decals, signs, and serial plate.
	Serial plate	1	
	Speed plate	1	
	U-bolt	1	
	Flange nut (3/8 inch)	2	

# 1

## Preparing the Machine

No Parts Required

### Procedure

1. Park the machine on a level surface.
2. Lower the cutting units.
3. Engage the parking brake.
4. Shut off the engine and remove the key.
5. Disconnect the battery; refer to your machine *Operator's Manual*.

### **⚠ WARNING**

**Incorrect battery cable routing could damage the machine and cables, causing sparks. Electrical sparks can cause the battery gasses to explode, resulting in injury.**

**Always disconnect the negative (black) battery cable before disconnecting the positive (red) cable.**

# 2

## Installing the Lights

Parts needed for this procedure:

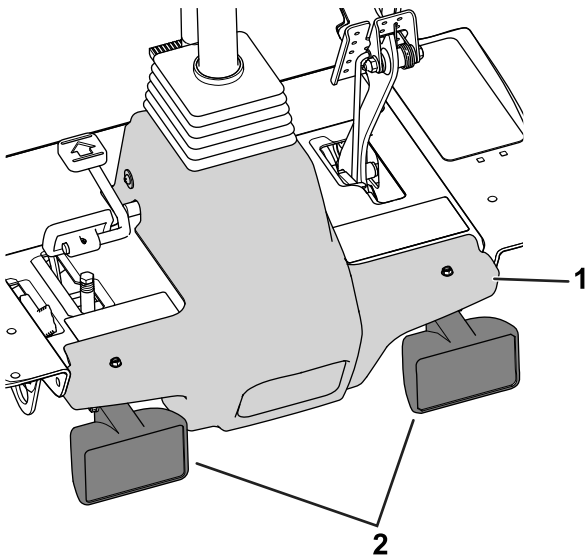
1	Right headlight mount
1	Left headlight mount
1	Right tail light mount
1	Left tail light mount
1	Right headlight assembly
1	Left headlight assembly
2	Tail light assembly
2	Tail light extension bracket
10	Flange nut (3/8 inch)
1	Hex-head bolt (3/8 x 1 inch)
4	Hex-head bolt (5/16 x 1 inch)
4	Hex-head bolt (5/16 x 3/4 inch)
8	Hex-head bolt (3/8 x 3/4 inch)
4	Flange nut (5/16 inch)

### Installing the Headlights

**Note:** The left and right lights and mounts are different. Ensure that each light and mount is installed on the appropriate side.

1. Unplug the shroud headlight connectors and remove the fasteners that secure the platform shroud to the machine frame ([Figure 1](#)).

Retain the fasteners to secure the shroud to the machine.

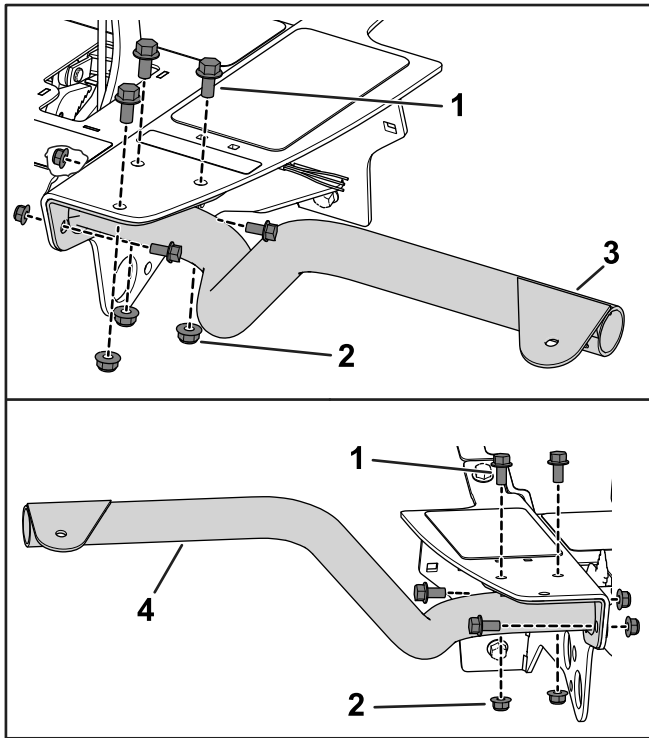


**Figure 1**

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1. Platform shroud                      2. Shroud headlights

2. Remove the shroud from the frame.
3. Use 5 hex-head bolts (3/8 x 3/4 inch) and 5 flange nuts (3/8 inch) to secure the left headlight mount to the left floor bracket (Figure 2).



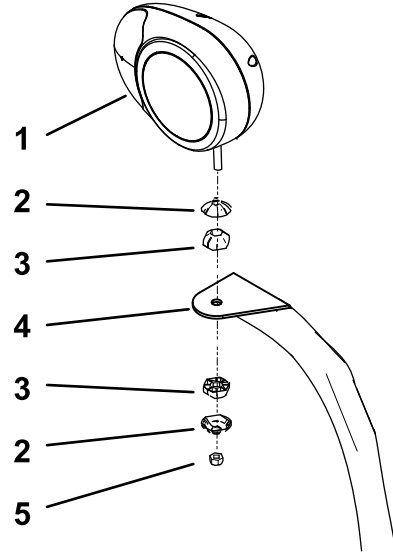
**Figure 2**

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1. Hex-head bolt (3/8 x 3/4 inch)      3. Left headlight mount  
 2. Flange nut (3/8 inch)                  4. Right headlight mount

4. Use 4 hex-head bolts (3/8 x 3/4 inch) and 4 flange nuts (3/8 inch) to secure the right headlight mount to the right floor bracket (Figure 2).
5. Fasten the left and right headlights to the headlight mounts (Figure 3) with the fasteners supplied with the lights.

**Note:** Ensure that the turn-signal lens on the headlight is positioned toward the outside of the traction unit.



**Figure 3**

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Right headlight assembly shown

1. Right headlight bracket              4. Headlight arm  
 2. Articulated-joint shell              5. Locknut (10 mm)  
 3. Articulated joint

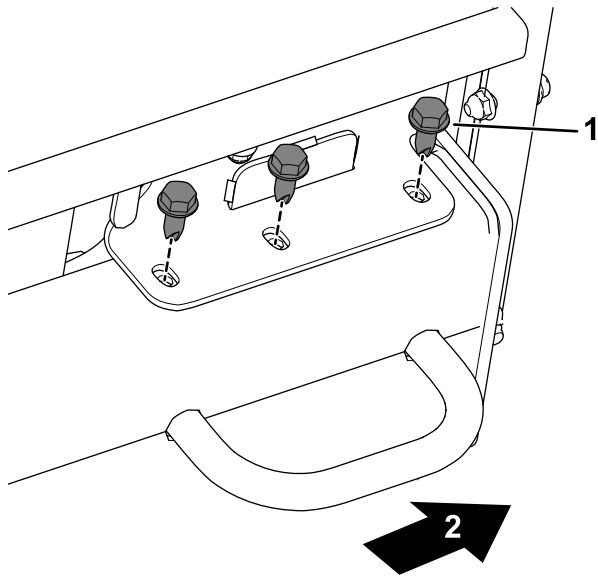
6. Tighten the locknut to firmly hold the headlight assembly to the headlight bracket.

**Note:** Do not overtighten the locknut.

## Installing the Tail Lights

**Note:** The left and right tail light mounts are different. Ensure that each mount is installed on the appropriate side.

1. Raise the hood; refer to your machine *Operator's Manual*.
2. Install the light mounts; refer to the following steps based on your machine:
  - **For Model 03674 (Reelmaster 5010-H), 03675 (Reelmaster 5410), and 03676 (Reelmaster 5510) machines:**
    - A. Remove the bolts from the frame rail on each side of the machine (Figure 4).

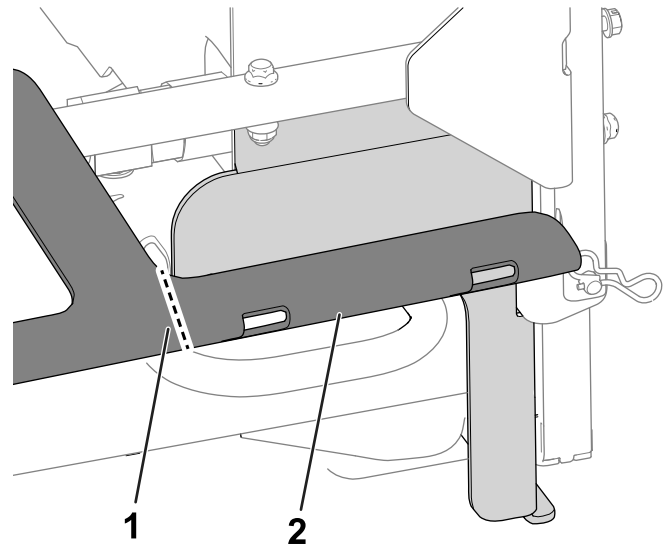


**Figure 4**

Left side of the machine shown

1. Bolt                                      2. Rear of the machine

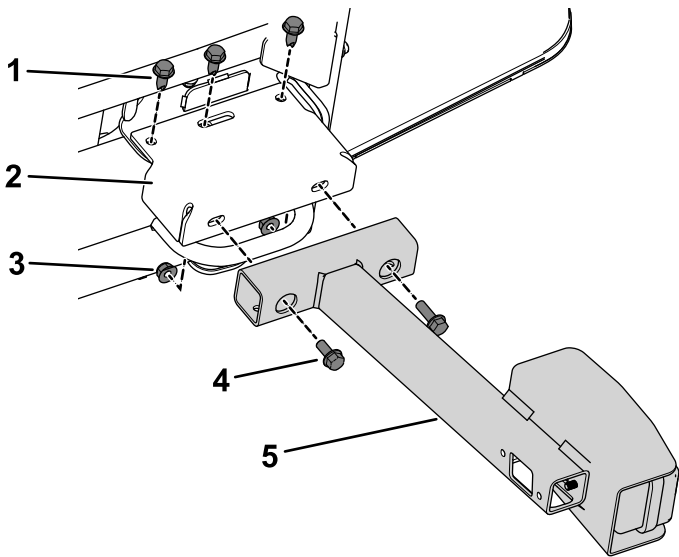
**Note:** Older machines may have a chassis leg that extends in front of the radiator-frame fasteners. Remove the chassis leg, then file and paint over the new chassis end ([Figure 6](#)).



**Figure 6**

1. Cut location—chassis                      2. Chassis leg

B. Use the previously removed bolts to secure the tail light extension brackets to the frame rail ([Figure 5](#)).

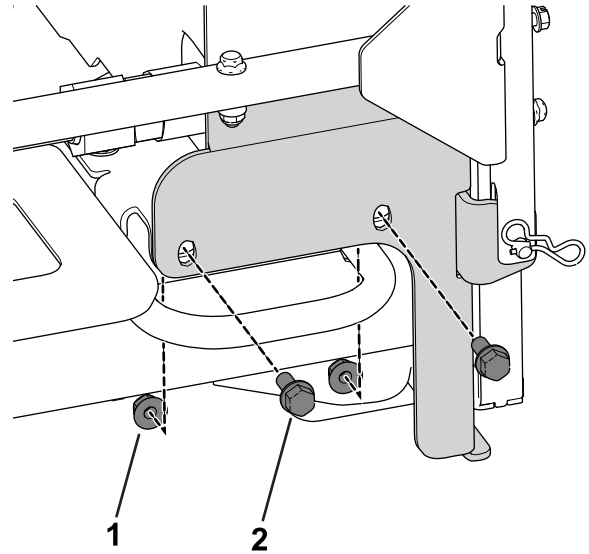


**Figure 5**

Left side of the machine shown

1. Bolt                                      4. Bolt (5/16 x 3/4 inch)  
 2. Tail light extension bracket      5. Tail light mount  
 3. Nut (5/16 inch)

A. Remove the existing fasteners from both sides of the radiator frame near the machine frame rail ([Figure 7](#)).



**Figure 7**

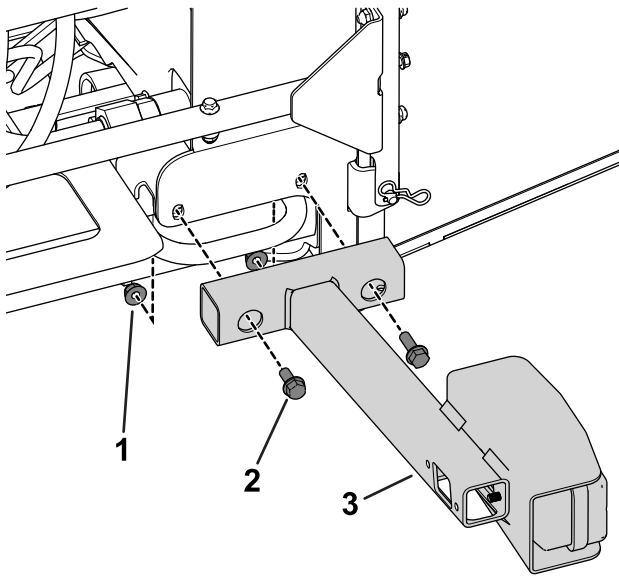
Left side of the machine shown

1. Bolt                                      2. Nut

C. Use 4 bolts (5/16 x 3/4 inch) and 4 nuts (5/16 inch) to secure the tail light mounts to the extension brackets ([Figure 5](#)).

B. Use 4 bolts (5/16 x 3/4 inch) and 4 nuts (5/16 inch) to secure the tail light mounts to the radiator frame ([Figure 8](#)).

• **For all other machines:**



**Figure 8**

Left side of the machine shown

1. Nut (5/16 inch)
2. Bolt (5/16 x 3/4 inch)
3. Tail light mount

3. Mount the tail lights to the light mounts with the bolts and nuts included with each light.

# 3

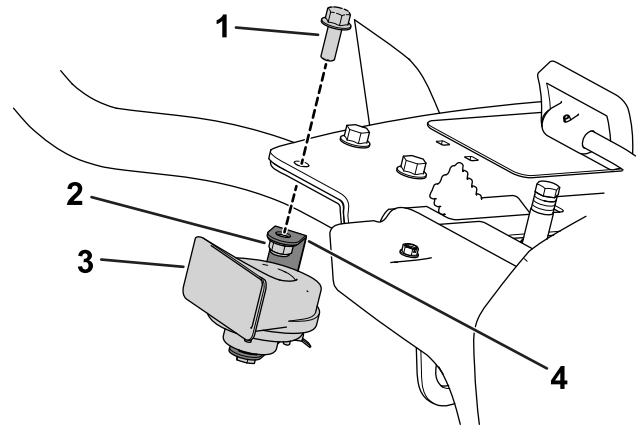
## Installing the Horn

Parts needed for this procedure:

1	Horn
1	Horn bracket
1	Hex-head bolt (3/8 x 1 inch)
1	Flange nut (3/8 inch)

### Procedure

1. Use the existing hardware on the horn to attach the horn to the horn bracket.
2. Use a hex-head bolt (3/8 x 1 inch) and a flange nut (3/8 inch) to secure the horn and horn bracket to the right floor bracket (Figure 9).



**Figure 9**

1. Hex-head bolt (3/8 x 1 inch)
2. Flange nut (3/8 inch)
3. Horn
4. Horn bracket

# 4

## Installing the Rear Light Plate

Parts needed for this procedure:

1	Light mount
1	Light plate
2	Flange nut (3/8 inch)
2	Locknut (#10)
2	Flange bolt (3/8 inch)
2	Screw (#10)

### Procedure

1. Open the rear screen; refer to your machine *Operator's Manual*.
2. Align the light mount to the bottom of the machine frame.
3. Mark the location of the light mount holes on the frame, remove the light plate, and drill 2 holes (3/8 inch) into the frame.
4. Use 2 flange bolts (3/8 inch) and 2 flange nuts (3/8 inch) to secure the light mount to the machine frame.

# 5

## Installing the Column-Bracket Assembly onto the Steering Column

### Parts needed for this procedure:

1	Column mount bracket
1	Flasher module
1	On-Off-On rocker switch
1	Beacon switch
1	Paddle switch
1	Horn switch
1	Horn button
1	Hex socket button-head screw
2	Speed nut
1	Steering-column bracket
2	Carriage bolt (3/8 x 1 inch)
2	Flange nut (3/8 inch)

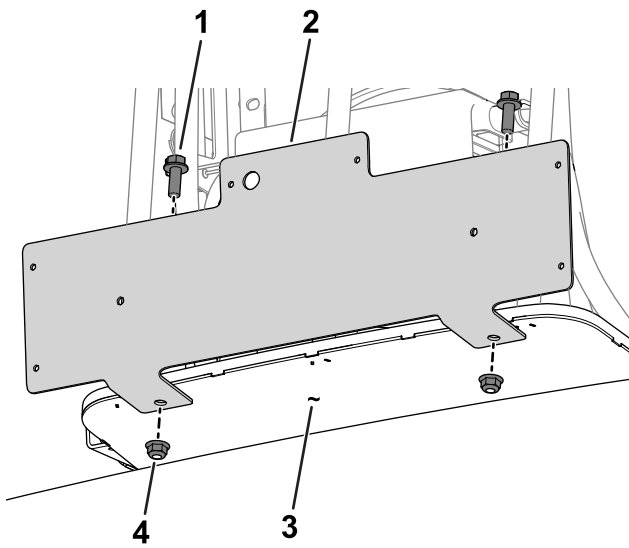


Figure 10

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1. Flange bolt (3/8 inch)
2. Light mount
3. Machine frame
4. Flange nut (3/8 inch)

5. Use 2 screws (#10) and 2 locknuts (#10) to secure the light plate to the light mount.

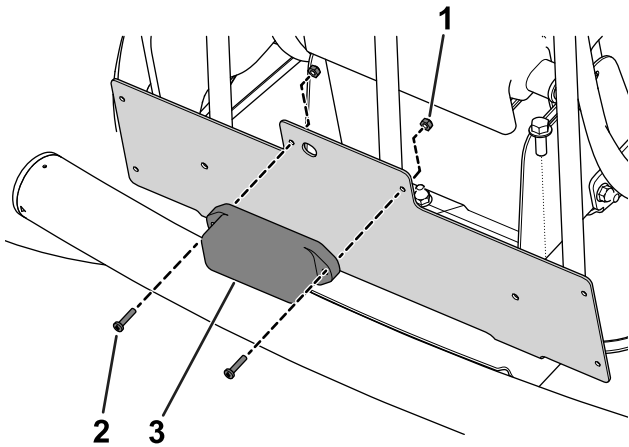


Figure 11

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1. Locknut (#10)
2. Screw (#10)
3. Light plate

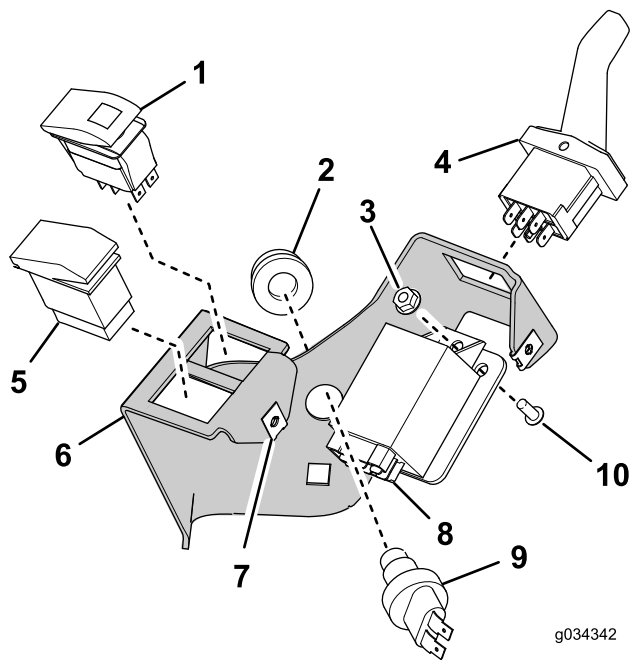
6. Close the rear screen.

### Procedure

1. Install the components as shown in [Figure 12](#).
2. Install the column-mount bracket onto the steering column with the mounting bracket, 2 carriage bolts, and 2 flange nuts ([Figure 13](#)).

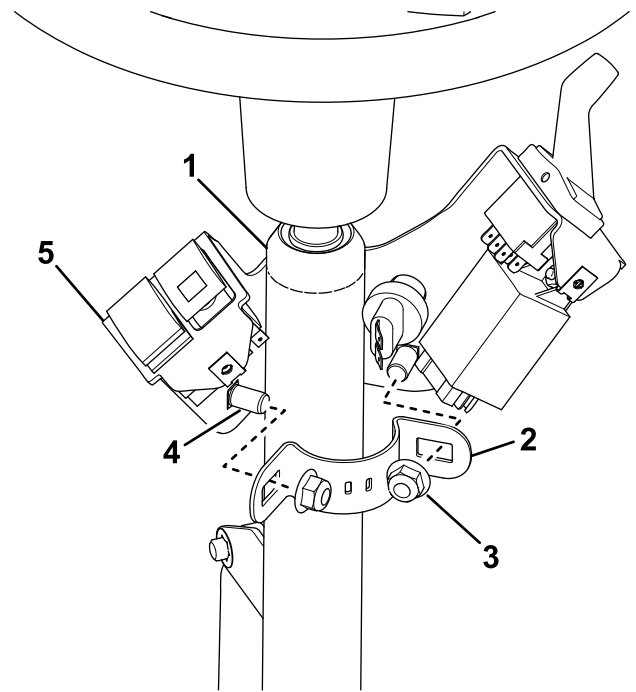
**Important:** Ensure that the top of the steering-column bracket is 21 mm (0.83 inch) below the top of the steering column.

**Important:** Torque the fasteners to 19 to 24 N·m (14 to 18 ft-lb). Do not overtighten the carriage bolts; otherwise, you may deform the steering-column bracket.



**Figure 12**

- |                            |                                  |
|----------------------------|----------------------------------|
| 1. On-Off-On rocker switch | 6. Steering-column bracket       |
| 2. Horn button             | 7. Speed nut (2)                 |
| 3. Locknut                 | 8. Flasher module                |
| 4. Paddle switch           | 9. Horn switch                   |
| 5. Beacon switch           | 10. Hex socket button-head screw |



**Figure 13**

- |                            |                                   |
|----------------------------|-----------------------------------|
| 1. Steering column         | 4. Carriage bolt—3/8 x 1 inch (2) |
| 2. Column mount bracket    | 5. Steering-column bracket        |
| 3. Flange nut—3/8 inch (2) |                                   |

# 6

## Installing the Wire Harness

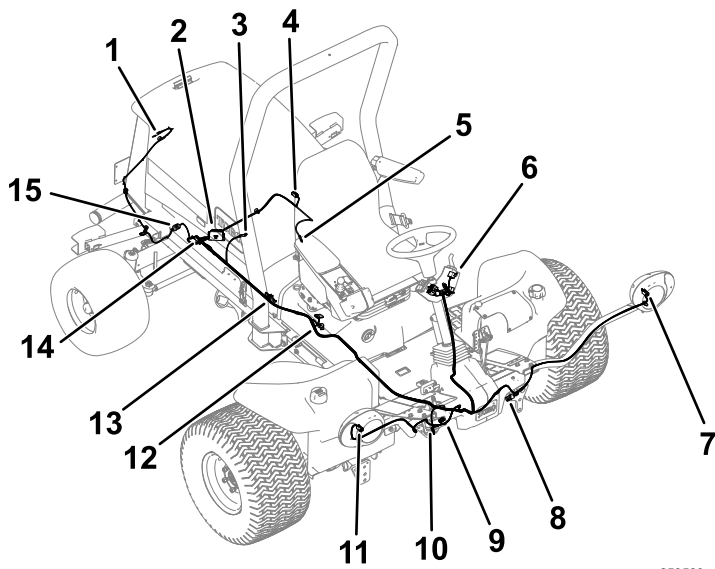
### Parts needed for this procedure:

1	Wire harness
1	Adapter harness (long)
1	Tie clip
2	Adapter harness (short)
1	Fuse block mount
2	Flange nut (5/16 inch)
2	Flange bolt (M6)
2	Flange bolt (5/16 x 1 inch)
1	Fuse decal

## Wire Harness Overview

Use the following instructions and illustrations to route and connect the wire harness. Refer to [Figure 14](#) for an overview of the wire harness.

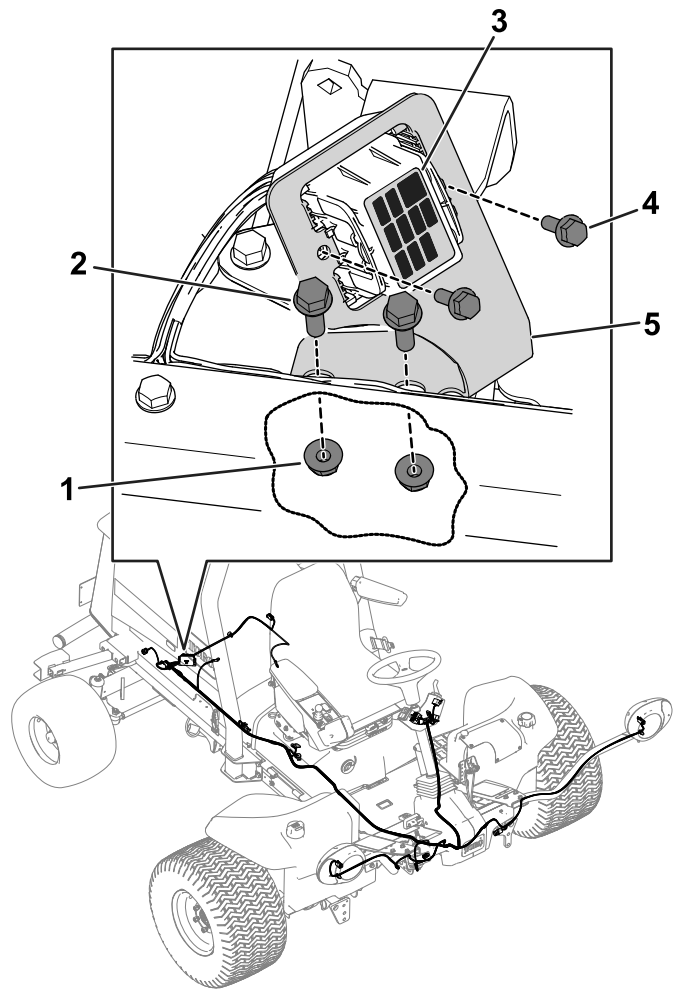




**Figure 14**  
Wire harness overview

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- |   |   |
|---|---|
| 1. Registration plate lights                    | 9. Shroud headlight—right side                            |
| 2. Fuse block                                   | 10. Horn  |
| 3. Starter                                      | 11. Kit headlight—right side                              |
| 4. Tail light—left side                         | 12. Neutral switch  |
| 5. Engine ground                                | 13. Beacon  |
| 6. Beacon, hazard, turn signal, and horn switch | 14. Tail light—right side                                 |
| 7. Kit headlight—left side                      | 15. Main wire harness and long adapter harness connection |
| 8. Shroud headlight—left side                   |   |



**Figure 15**

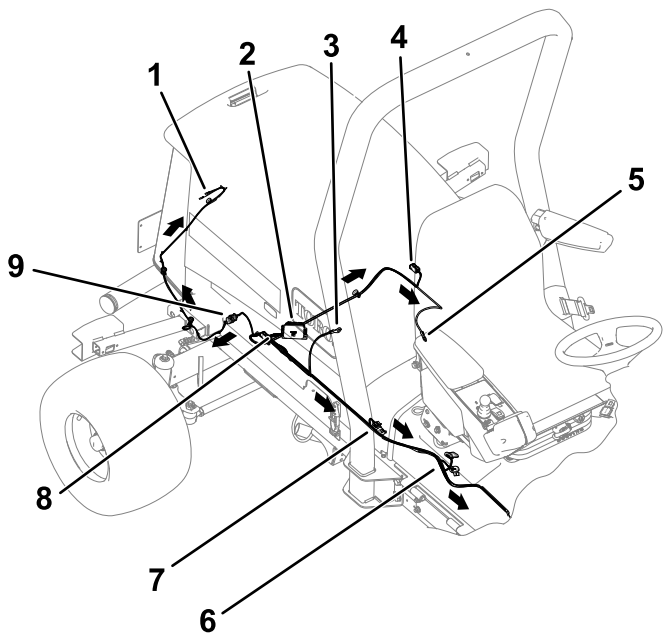
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- |                                |                       |
|--------------------------------|-----------------------|
| 1. Flange nut (5/16 inch)      | 4. Flange bolt (M6)   |
| 2. Flange bolt (5/16 x 1 inch) | 5. Fuse-block bracket |
| 3. Fuse decal                  |                       |

## Routing the Wire Harness to the Rear of the Machine

1. Raise the hood; refer to your machine *Operator's Manual*.
2. Use 2 flange bolts (5/16 x 1 inch) and 2 flange nuts (5/16 inch) to secure the fuse-block mount to the engine mount frame on the right side of the machine (Figure 15).

3. Use 2 flange bolts (M6) to secure the fuse block to the fuse-block bracket (Figure 15).
4. Install the fuse decal to the fuse-block cover (Figure 15).
5. Route the wire harness to the left side of the machine as shown in Figure 16.

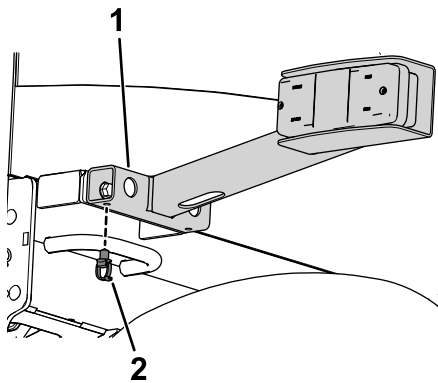


**Figure 16**

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- |                              |  |
|------------------------------|--|
| 1. Registration plate lights | 6. Neutral switch  |
| 2. Fuse block                | 7. Beacon  |
| 3. Starter                   | 8. Tail light—right side                                 |
| 4. Tail light—left side      | 9. Main wire harness and long adapter harness connection |
| 5. Engine ground             |  |

6. Connect the engine ground leg of the wire harness to the ground block (Figure 16).
7. Connect the wire harness to the right and left tail lights (Figure 16).
8. Insert a tie clip into the rear hole of the right tail light (Figure 17).



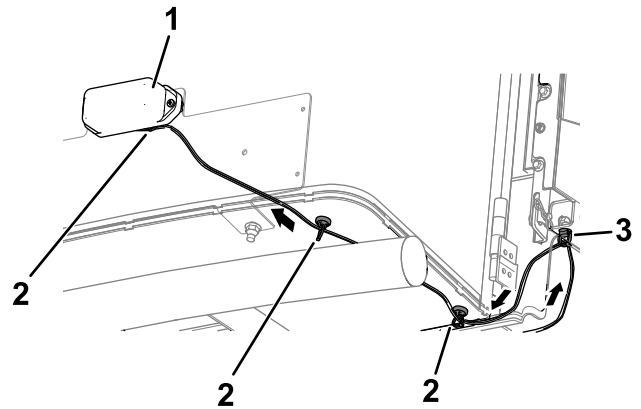
**Figure 17**

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- |                     |             |
|---------------------|-------------|
| 1. Right tail light | 2. Tie clip |
|---------------------|-------------|

9. Use the long adapter harness to connect the wire harness to the registration plate lights. (Figure 16 and Figure 18).

Refer to [Figure 18](#) for the appropriate magnet-tie-mount location on the machine. Place 1 magnet on the inside surface of the license plate mount. Route the adapter harness through the tie clip that you installed in the previous step.



**Figure 18**

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- |                             |             |
|-----------------------------|-------------|
| 1. Registration plate light | 3. Tie clip |
| 2. Magnet tie mount         |             |

10. Continue to route the wire harness along the right frame rail (Figure 16).
11. Connect the ring terminal to the starter (Figure 16).
12. Connect the wire harness to the beacon (Figure 16).
13. Connect the wire harness to the neutral switch (Figure 16).

## Routing the Wire Harness to the Front of the Machine

1. Route the front end of the wire harness under the operator platform to the front of the machine (Figure 19).

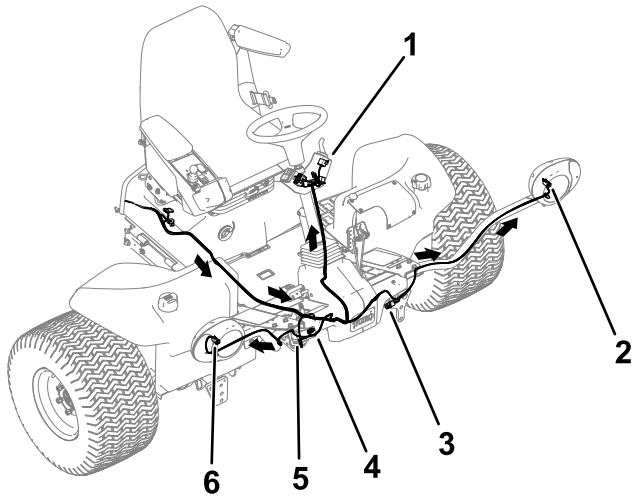


Figure 19

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- |   |                                |
|---|--------------------------------|
| 1. Beacon, hazard, turn signal, and horn switch | 4. Shroud headlight—right side |
| 2. Kit headlight—left side                      | 5. Horn                        |
| 3. Shroud headlight—left side                   | 6. Kit headlight—right side    |

2. Thread each harness connector through the appropriate headlight bracket and connect it to the headlight (Figure 19).

**Non-hybrid machines:** Use the short adapter harnesses to connect the wire harness to each headlight.

3. Plug the wire harness lead with the 2 connectors into the horn (Figure 19).
4. Position the platform shroud on top of the frame.
5. Plug the light-kit wire harness connectors into the shroud headlights (Figure 19).
6. Cut out a U-shaped notch on the shroud (Figure 20).

**Note:** The U-shaped notch allows you to route the wire harness up toward the switches on the steering column.

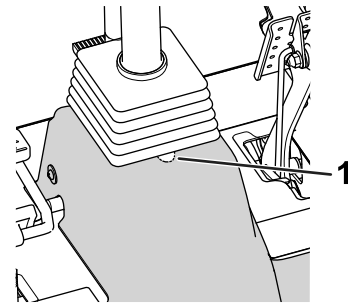


Figure 20

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1. U-shaped notch—shroud

7. Secure the shroud to the frame with the fasteners that you previously removed.
8. Route the wire harness to the column-bracket assembly on the steering column (Figure 19).
9. Plug the connectors into the flasher module, horn, turn signal, and hazard switches (Figure 21).

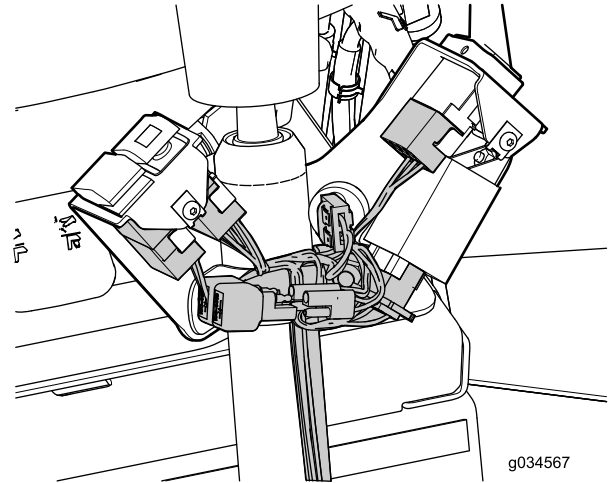
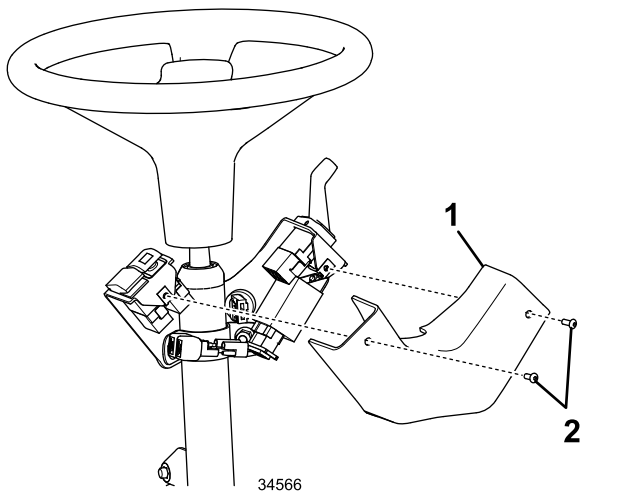


Figure 21

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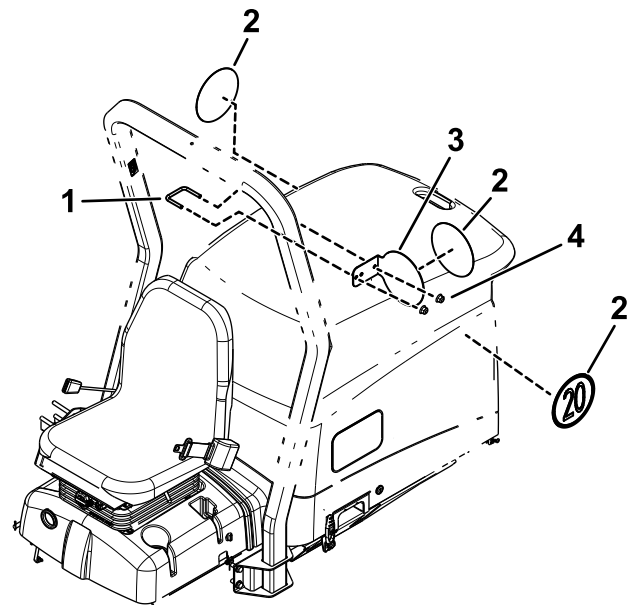
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10. Install the cover onto the column-bracket assembly with 2 hex socket button-head screws as shown in Figure 22



**Figure 22**

1. Cover
2. Hex socket button-head screws



**Figure 23**

1. U-bolt
2. Sign
3. Speed plate
4. Flange nut (3/8 inch)

# 7

## Installing the Signs and Serial Plate

### Parts needed for this procedure:

3	Sign
1	Serial plate
1	Speed plate
1	U-bolt
2	Flange nut (3/8 inch)

### Procedure

1. Adhere a sign on both sides of the machine (Figure 23).

2. Use a U-bolt and 2 flange nuts (3/8 inch) to secure the speed plate to the left side of the roll bar (Figure 23).
3. Adhere a sign to the speed plate (Figure 23).
4. Hold the serial plate on the right side of the machine, 6 mm (1/4 inch) above the bottom edge (Figure 24). Use the serial plate as a template and drill 4 holes (3 mm or 1/8 inch).

# 8

## Connecting the Battery

No Parts Required

### Procedure

Connect the battery; refer to your machine *Operator's Manual*.

#### **⚠ WARNING**

Incorrect battery cable routing could damage the sprayer and cables, causing sparks. Electrical sparks can cause the battery gasses to explode, resulting in injury.

Always connect the positive (red) battery cable before connecting the negative (black) cable.

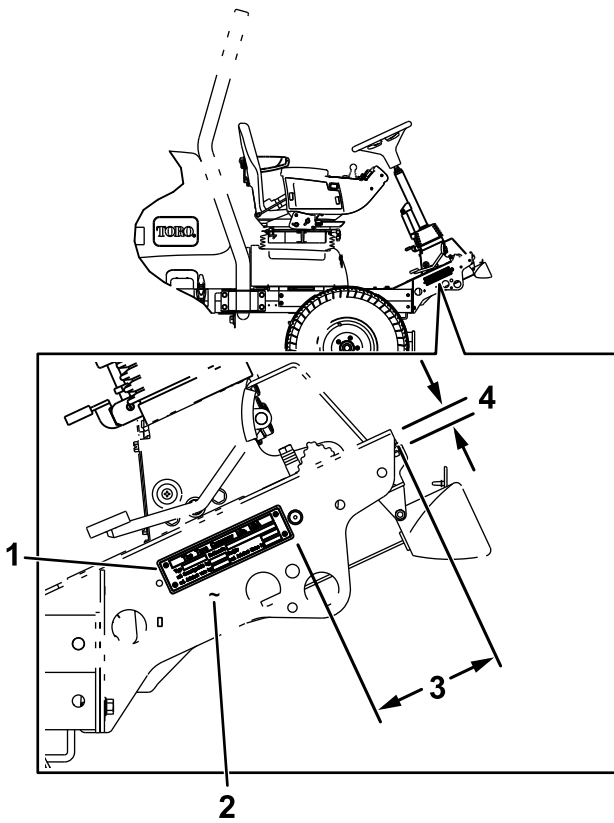


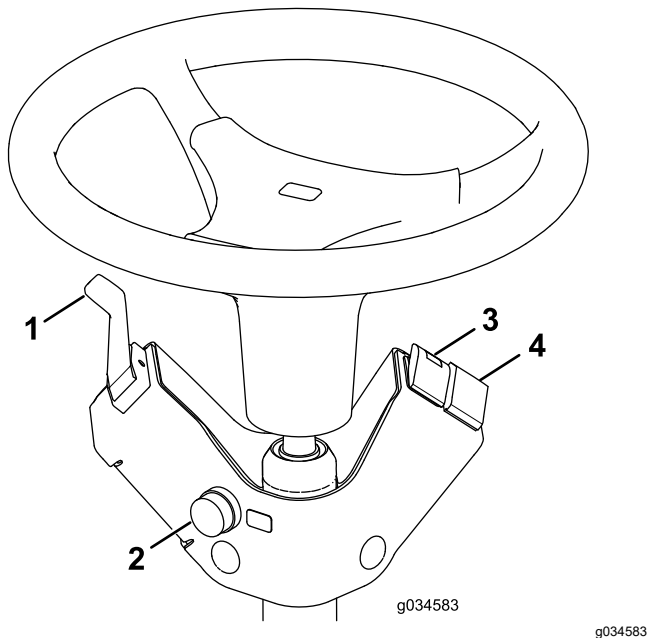
Figure 24

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1. Serial plate
  2. Stamp the serial number here.
  3. 14.9 cm (5-3/4 inches)
  4. 1.9 cm (3/4 inch)
- 
5. Secure the serial plate using 4 rivets.
  6. Stamp the serial number to the frame, near the serial plate (Figure 24).
- Note:** Use 7 mm (1/4 inch) or larger text.

# Operation

## Controls



**Figure 25**

- |                       |                             |
|-----------------------|-----------------------------|
| 1. Turn signal switch | 3. Hazard switch            |
| 2. Horn button        | 4. Beacon switch (optional) |

## Aiming the Headlights

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

---

## Hazard Switch

Press the hazard switch (Figure 25) to the ON position to activate the front and rear flashing hazard lights.

## Turn-Signal Switch

Press down on the left side of the turn-signal switch (Figure 25) to activate the left-turn signal. The center position is off.

Press down on the right side of the turn-signal switch (Figure 25) to activate the right-turn signal. The center position is off.

## Beacon Switch (Optional)

Press the beacon switch (Figure 25) to activate the beacon.

## Horn Button

Press the horn button (Figure 25) to activate the horn.

**Notes:**



**Count on it.**