



CE Light Kit

Groundsmaster® 4000 Series Traction Unit with Yanmar Engine

Model No. 30660

Installation Instructions

⚠ WARNING

CALIFORNIA Proposition 65 Warning

This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

Installation

Loose Parts

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

Procedure	Description	Qty.	Use
1	No parts required	—	Disconnect the battery
2	Flasher mount Screw, 1/4 x 5/8 inch Flange nut, 1/4 inch Flasher module Machine screw, #10 x 5/8 inch Flat washer, 216 x .500 Lock nut, #10	1 2 2 1 1 2 1	Install the flasher module
3	Switch, turn signal Switch, hazard Wire harness, platform	1 1 1	Install the turn signal and hazard switches
4	Horn Bolt (5/16 x 3/4 inch) Flange nut (5/16 inch) Horn switch Horn button, rubber	1 1 1 1 1	Install the horn



Procedure	Description	Qty.	Use
5	Headlamp bracket, R.H. (for models 30605 and 30609)	1	Install the headlights
	Headlamp bracket, L.H. (for models 30605 and 30609)	1	
	Rubber grommet (for models 30605 and 30609)	2	
	Headlamp bracket (for model 30602, 30603, 30606 and 30607)	2	
	Headlamp bracket, R.H. (for model 30604 and 30608)	1	
	Headlamp bracket, L.H. (for model 30604 and 30608)	1	
	Screw, 1/2 x 1 inch	2	
	Locknut, 1/2 inch	2	
	Headlamp R.H.	1	
	Headlamp L.H.	1	
	Wire harness, headlight	1	
	Harness clip	2	
6	Switch, light	1	Install the light switch
7	L.H. light mount	1	Install the rear lamps
	R.H. light mount	1	
	Rear lamp assembly	2	
	Jumper wire harness	2	
	Harness clip	2	
8	Fuse, 10 amp	3	Install the fuses

Media and Additional Parts

Description	Qty.	Use
Installation instructions	1	Read instructions before installing and operating the kit
Parts catalog	1	Use to reference part numbers

1

Disconnecting the Battery

No Parts Required

Procedure

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

⚠ CAUTION

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

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

2. Disconnect the negative battery cable from the battery post.

2

Installing the Flasher Module

Parts needed for this procedure:

1	Flasher mount
2	Screw, 1/4 x 5/8 inch
2	Flange nut, 1/4 inch
1	Flasher module
1	Machine screw, #10 x 5/8 inch
2	Flat washer, 216 x .500
1	Lock nut, #10

Procedure

1. Remove the steering tower cover from the steering tower (Figure 1).

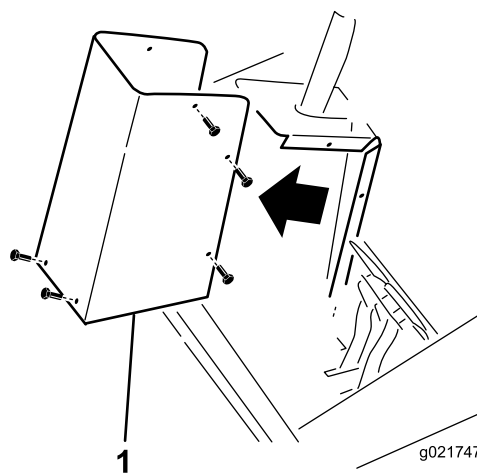


Figure 1

1. Steering tower cover

2. Secure the flasher mount to the steering tower with (2) screws (1/4 x 5/8 inch) and flange nuts (1/4 inch) (Figure 2).

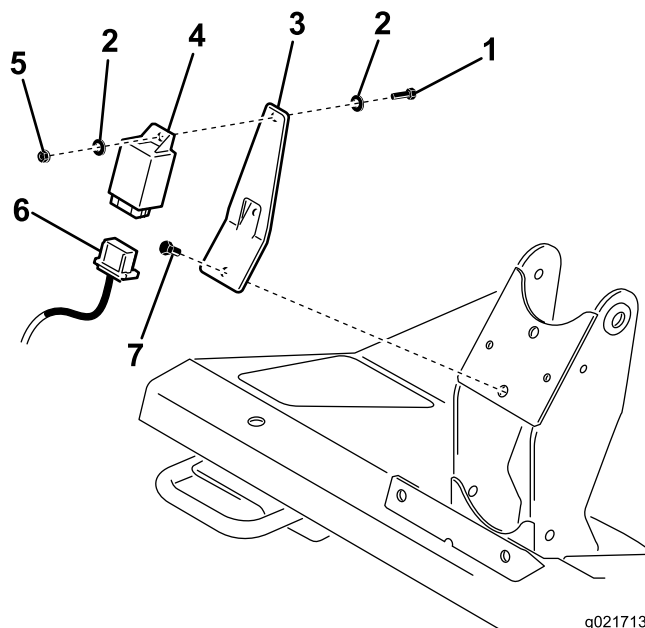


Figure 2

1. Screw, #10 x 5/8 inch
2. Flat washer, (.216 x .500)
3. Flasher bracket
4. Flasher module
5. Flange nut, 1/4 inch
6. Wire harness
7. Screw, 1/4 x 5/8 inch

3. Secure the flasher module to the mount with a machine screw (#10 x 5/8 inch), (2) flat washers (.216 x .500) and a lock nut (#10) (Figure 2).

3

Installing the Turn Signal and Hazard Switches

Parts needed for this procedure:

1	Switch, turn signal
1	Switch, hazard
1	Wire harness, platform

Procedure

1. From the under side the steering tower dash panel, press the plugs out of the holes shown in Figure 3.

Note: On models 30602, 30603, 30606 and 30607 the turn signal and hazard switches are already installed on the machine. Skip to Step 4.

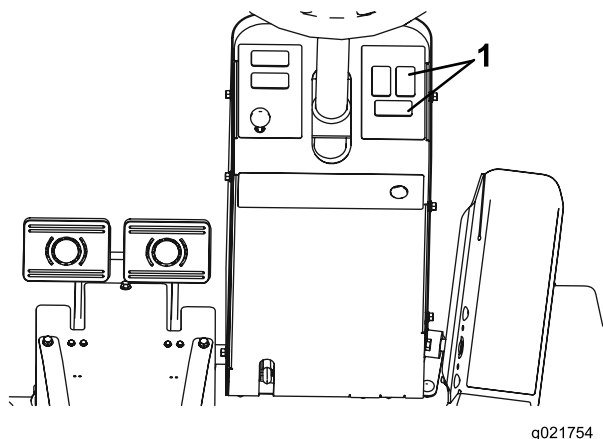


Figure 3

1. Remove these hole plugs

2. Install the turn signal switch into the lower hole in of the steering tower dash panel (Figure 4). The turn signal switch is a On-Off-On switch.

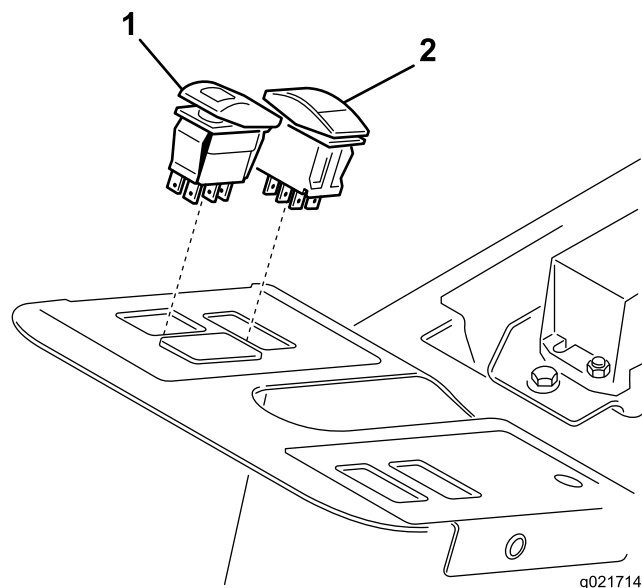


Figure 4

1. Hazard switch
2. Turn signal switch

3. Install the hazard switch into the upper right hole in the steering tower dash panel (Figure 4). The hazard switch is a On-None-On switch and has a hazard symbol on it.

4. Plug the connector body from the enclosed platform wire harness into the wire harness under the steering cover opening.

Note: On models 30602, 30603, 30606 and 30607, unplug the existing wire harness connectors from the turn signal and hazard switches.

5. Plug the connectors from the platform wire harness into the connectors from the flasher module, turn signal and hazard switches (Figure 2).

6. Secure the wire harness.

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

4

Installing the Horn

Parts needed for this procedure:

1	Horn
1	Bolt (5/16 x 3/4 inch)
1	Flange nut (5/16 inch)
1	Horn switch
1	Horn button, rubber

Procedure

1. Install the horn bracket to the tab, under the platform, with a bolt (5/16 x 3/4 inch) and lock nut (3/8 inch) (Figure 5). Rotate the horn so it faces toward the back of the machine.

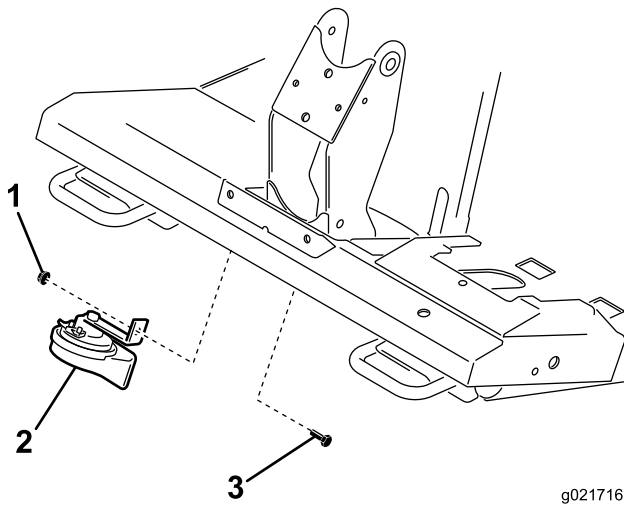


Figure 5

1. Flange nut
2. Horn
3. Bolt

2. Insert the horn switch through the hole in the steering column tower (Figure 6).

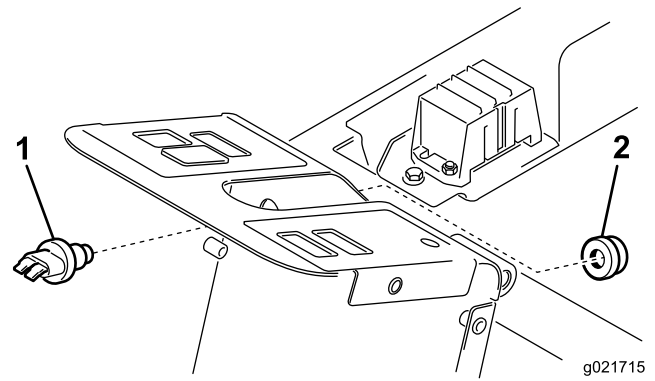


Figure 6

1. Horn switch
2. Horn button

3. Secure the horn switch to the tower by threading on the rubber horn button (Figure 6).
4. Locate the wire harness connectors inside the steering column tower. Plug the wire harness connectors labeled "horn" into the horn and switch.
5. Secure the wire harness.

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

5

Installing the Headlights

Parts needed for this procedure:

1	Headlamp bracket, R.H. (for models 30605 and 30609)
1	Headlamp bracket, L.H. (for models 30605 and 30609)
2	Rubber grommet (for models 30605 and 30609)
2	Headlamp bracket (for model 30602, 30603, 30606 and 30607)
1	Headlamp bracket, R.H. (for model 30604 and 30608)
1	Headlamp bracket, L.H. (for model 30604 and 30608)
2	Screw, 1/2 x 1 inch
2	Locknut, 1/2 inch
1	Headlamp R.H.
1	Headlamp L.H.
1	Wire harness, headlight
2	Harness clip

For Groundsmaster 4000, Model 30605 and 30609

1. Remove the (2) bolts, washers and nuts from the front of the operator's platform (Figure 7).

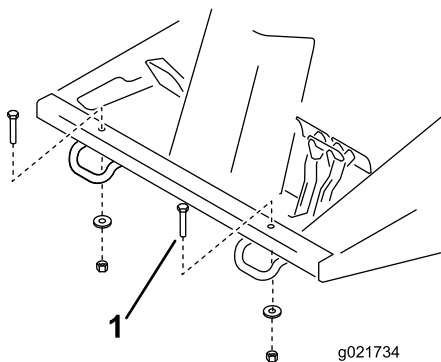


Figure 7

1. Bolt, washer and nut (2)

2. Install a rubber grommet into the hole in each headlight bracket (Figure 8).
3. Fasten the R.H and L.H. headlight brackets to the front of the operator's platform with the bolts, washers and nuts previously removed. Position the brackets as shown in Figure 8.

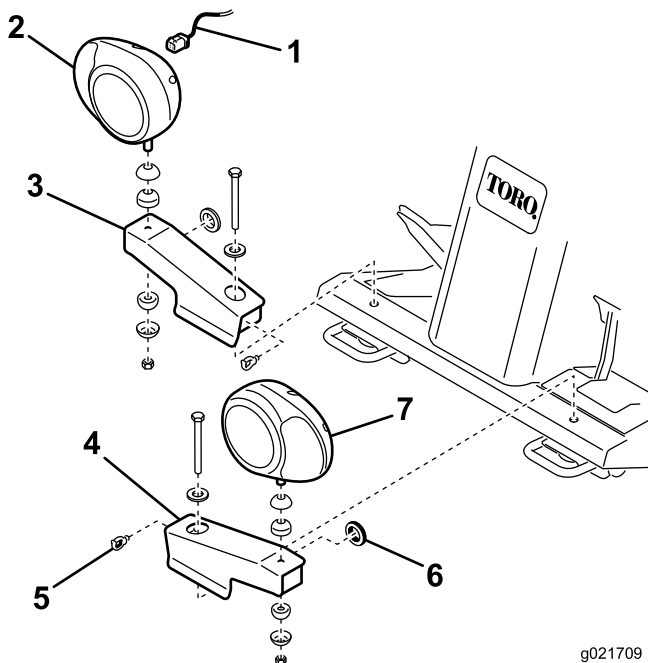


Figure 8

- | | |
|-----------------------------|-----------------------------|
| 1. Wire harness | 5. Harness clip |
| 2. Headlight assembly, R.H. | 6. Rubber grommet |
| 3. Headlight bracket, R.H. | 7. Headlight assembly, L.H. |
| 4. Headlight bracket, L.H. | |

4. Fasten the R.H and L.H. headlight assemblies to the headlight brackets (Figure 8) with the fasteners supplied with the lights. Make sure the turn signal lens on the headlight is positioned toward the outside of the machine.
5. Plug the connector body from the enclosed headlight wire harness into the harness connector of the steering tower wire harness under the steering cover opening.

6. Route the headlight wire harness underneath the front edge of the operator's platform.
7. Insert each harness connector through the end of the appropriate harness bracket, out the hole (grommet) and connect it to the headlight (Figure 8).
8. Secure the headlight wiring harness to the headlight brackets and operator's platform with the harness clips and cable ties.
9. Install the steering tower cover.

For Groundsmaster 4010 and 4110, Models 30602, 30603 30606 and 30607

1. Fasten the headlight brackets to the existing brackets on the front of the cab with screws (1/2 x 1 inch) and locknuts (1/2 inch). Position the brackets as shown in Figure 9.

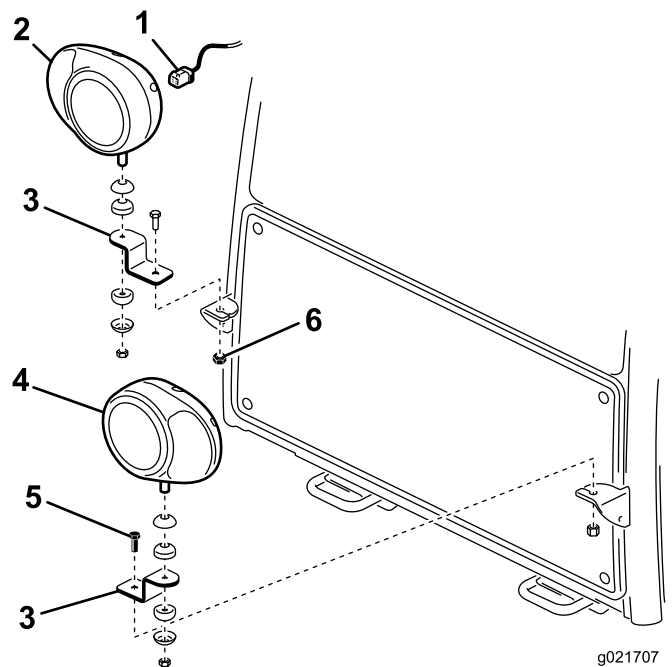


Figure 9

- | | |
|-----------------------------|-----------------------------|
| 1. Wire harness | 4. Headlight assembly, L.H. |
| 2. Headlight assembly, R.H. | 5. Screw, 1/2 x 1 inch |
| 3. Headlight bracket (2) | 6. Locknut, 1/2 inch |

2. Fasten the R.H. and L.H. headlight assemblies to the headlight brackets (Figure 9) with the fasteners supplied with the lights. Make sure the turn signal lens on the headlight is positioned toward the outside of the machine.
3. Plug the connector bodies from the enclosed headlight wire harness into the harness connectors of the steering tower wire harness.
4. Route the headlight wire harness underneath the front edge of the operator's platform and connect it to the headlights (Figure 9).

5. Secure the headlight wiring harness to the operator's platform with the harness clips and cable ties.
6. Install the steering tower cover.
7. The front and rear cab lights cannot be used for CE applications. Disable the front and rear cab lights as follows:
 - **Front**-Pop the lights out of the cab roof and disconnect the wires from the lights. Reinstall the lights into the cab.
 - **Rear**-Remove the screws securing the lenses to lights. Remove the bulbs from the lights and reinstall the lenses to the lights.

For Groundsmaster 4100, Models 30604 and 30608

1. Remove the (2) bolts, washers and nuts from the front of the operator's platform (Figure 10).

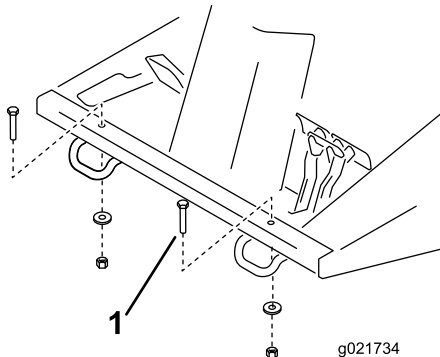


Figure 10

1. Bolt, washer and nut (2)

2. Fasten the R.H and L.H. headlight brackets to the front of the operator's platform with the bolts, washers and nuts previously removed. Position the brackets as shown in Figure 11.
3. Fasten the R.H and L.H. headlight assemblies to the headlight brackets (Figure 11) with the fasteners supplied with the lights. Make sure the turn signal lens on the headlight is positioned toward the outside of the machine.
4. Plug the connector body from the enclosed headlight wire harness into the harness connector of the steering tower wire harness under the steering cover opening.
5. Route the headlight wire harness underneath the front edge of the operator's platform and connect it to the headlights (Figure 11).

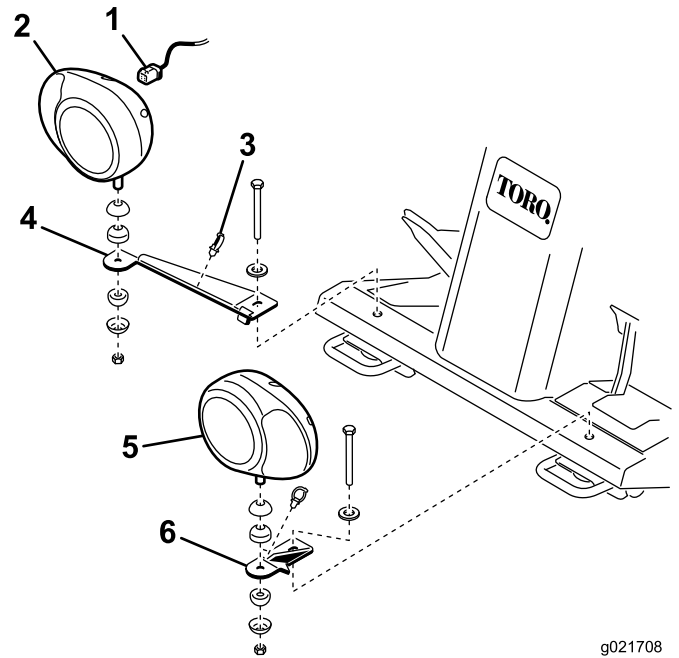


Figure 11

- | | |
|-----------------------------|-----------------------------|
| 1. Wire harness | 4. Headlight bracket, R.H. |
| 2. Headlight assembly, R.H. | 5. Headlight assembly, L.H. |
| 3. Harness clip | 6. Headlight bracket, L.H. |

6. Secure the headlight wiring harness to the headlight brackets and operator's platform with the harness clips and cable ties.
7. Install the steering tower cover.

6

Installing the Light Switch

Parts needed for this procedure:

1	Switch, light
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Procedure

Note: The light switch is already installed on models 30602, 30603, 30606 and 30607.

1. Remove the (2) screws that secure the plate to the right cover of the control arm (Figure 12).

7

Installing the Rear Lamps

Parts needed for this procedure:

1	L.H. light mount
1	R.H. light mount
2	Rear lamp assembly
2	Jumper wire harness
2	Harness clip

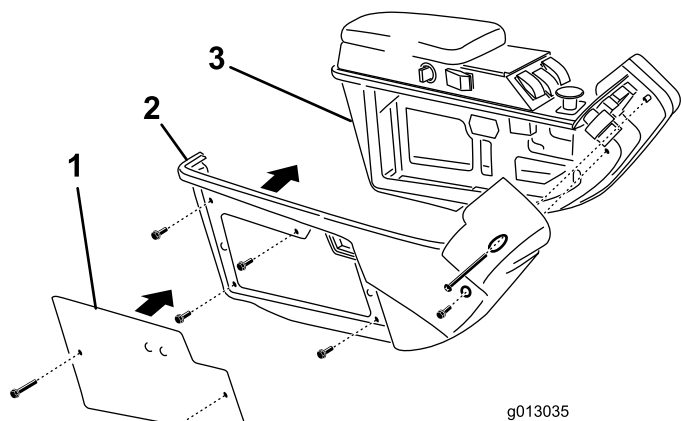


Figure 12

1. Plate
2. Right cover
3. Control arm

2. Remove the (6) screws that secure the right cover to the right side of the control arm (Figure 12).

Note:

3. From inside the control arm switch panel, press the plug out of the hole in the side of the control panel (Figure 13).

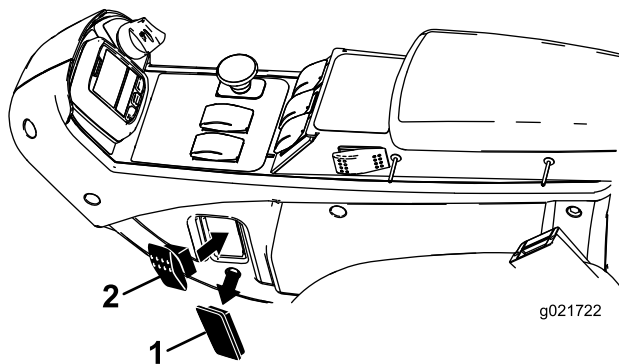


Figure 13

1. Plug
2. Switch

4. Press the switch into the control panel mounting hole (Figure 13).
5. Locate the wire harness under the control panel. Plug the wire harness connector labeled "lights" into the switch.
6. Install the cover and plate to the right side of the control arm.

Procedure

1. Remove the **top** bolt, washer and nut securing the rear bumper bracket to the left frame rail (Figure 14). Retain the bolt, washer and nut.

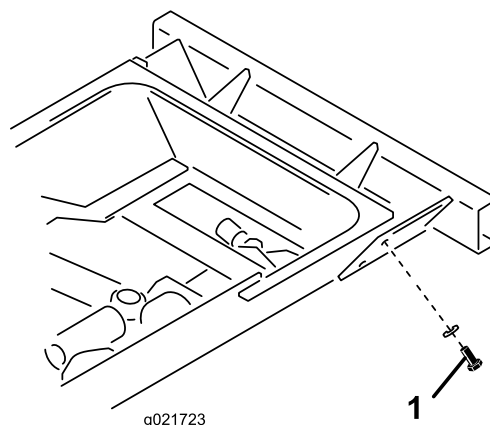


Figure 14

1. Rear bumper bracket bolt, washer and nut

2. Using the bolt, washer and nut previously removed, secure the L.H. lamp mount to the bracket and frame (Figure 15). Make sure the bottom hole in the lamp mount is positioned over the bottom bumper mounting bolt.

Note: The L.H. and R.H. lamp mounts are different. Make sure to use the correct mount.

8

Installing the Fuses

Parts needed for this procedure:

3	Fuse, 10 amp
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Procedure

Insert the 10 amp fuses into the fuse block slots shown in Figure 16 and Figure 17.

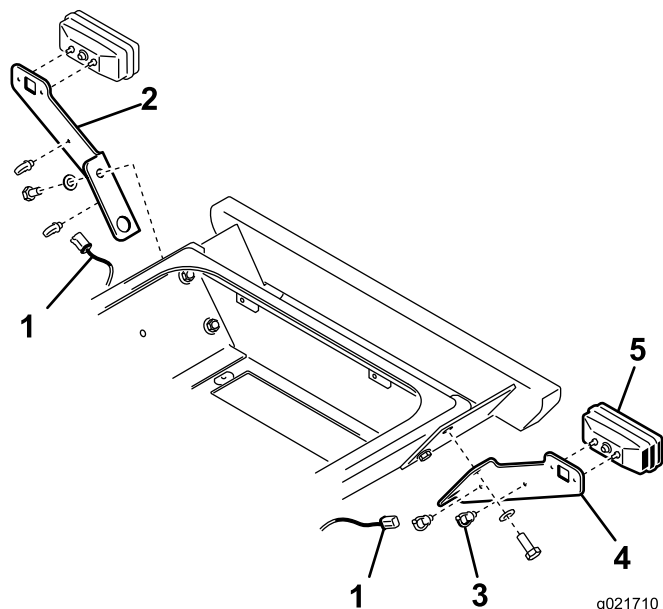


Figure 15

1. Jumper wire harness
2. R.H. lamp mount
3. Harness clip
4. L.H. lamp mount
5. Rear lamp (2)

3. Mount the rear lamp to lamp mount with bolts and nuts included with the lamp (Figure 15).

Note: Make sure the lamp is positioned so the plug is through the hole in the lamp mount and the amber end is toward the outside of the machine.

4. Repeat the procedure on the right side of the machine.
5. Plug the enclosed rear light wire harness jumpers into the harness connectors of the machines rear wire harness.
6. Route the right harness under the right side of the traction unit to the right rear lamp. Plug the harness connector into the lamps pig tail connector (Figure 15).
7. Route the left harness under the left side of the traction unit to the left rear lamp. Plug the harness connector into the lamps pig tail connector (Figure 15).
8. Secure the wiring harness and jumper wires the harness clips and cable ties.

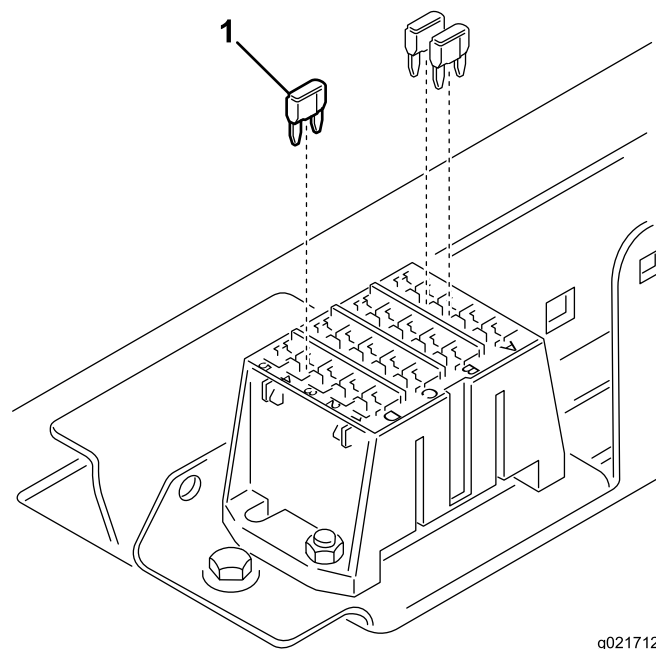


Figure 16

1. Fuses, 10 amp (3)

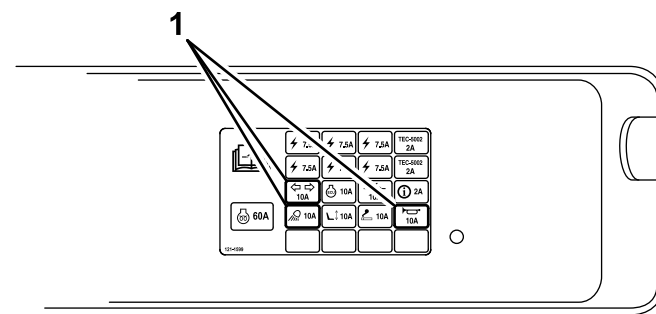


Figure 17

1. Fuse locations on decal

9

Connecting the Battery

No Parts Required

Procedure

Connect the negative battery cable to the battery post.

Operation

Controls

Light Switch

Press the light switch (Figure 18) to the On position to activate the head lamps.

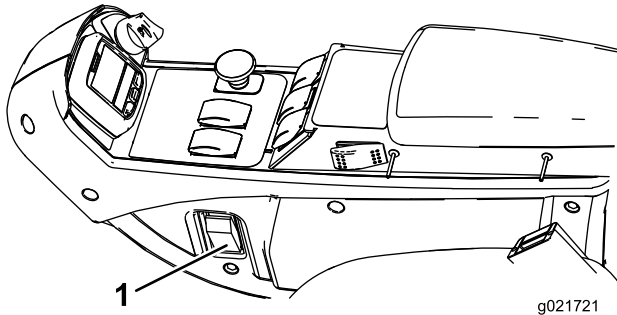


Figure 18

1. Light switch

Hazard Switch

Press the hazard switch (Figure 19) to the On position to activate the front and rear flashing hazard lights.

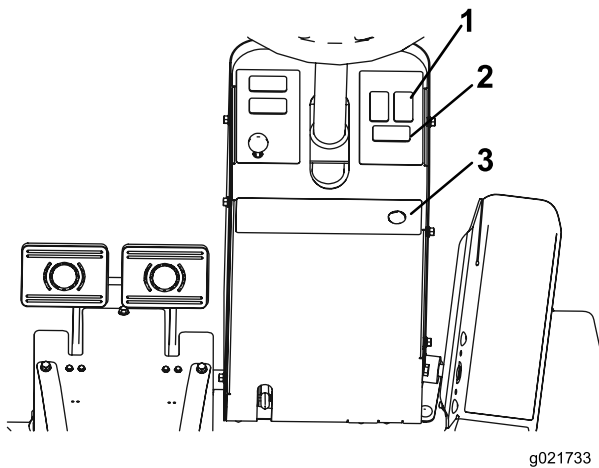


Figure 19

1. Hazard switch
2. Turn signal switch
3. Horn button

Turn Signal Switch

Press down on the left side of the turn signal switch (Figure 19) to activate the left turn signal. The center position is off.

Press down on the right side of the turn signal switch (Figure 19) to activate the right turn signal. The center position is off.

Horn

Press the horn button to activate the horn (Figure 19).

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.



Count on it.