



EU Light Kit

Groundsmaster® 5900 Series Rotary Mower with Cab

Model No. 31695

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. Brakes

Installation

Loose Parts

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

Procedure	Description	Qty.	Use
1	No parts required	–	Prepare the machine.
2	No parts required	–	Disconnect the battery.
3	Wire harness Switch Auxiliary-brake decal	1 1 1	Install the wire harness.
4	Right light bracket Left light bracket Grommet	1 1 2	Install the headlights (for machines with ROPS only).
5	Right light bracket Left light bracket Right headlight assembly Left headlight assembly Bolt (1/2 x 1 inch) Nut (1/2 inch) Bolt (1/4 x 3/4 inch) Nut (1/4 inch) Grommet	1 1 1 1 2 2 2 2 2	Install the headlights (for machines with a cab only).



Procedure	Description	Qty.	Use
6	Plate light	1	Install the light plate and license bracket.
	License bracket	1	
	Sign mount	1	
	Screw Screw (#10 x 3/4 inch)	2	
	Speed nut	2	
	Carriage bolt (1/4 x 5/8 inch)	2	
	Nut (1/4 inch)	2	
	Decal (20)		
7	Pivot bracket	2	Install the rear lights.
	Light mount	2	
	Right tube mount	1	
	Left tube mount	1	
	Left light housing	1	
	Right light housing	1	
	Inner mount	2	
	Carriage bolt (5/16 x 3/4 inch)	4	
	Carriage bolt (1/4 x 5/8 inch)	4	
	Nut (1/4 inch)	10	
	Nut (5/16 inch)	4	
	Bolt (1/4 x 3/4 inch)	6	
	Hex-socket button head screw (1/4 x 3/4 inch)	8	
	Bolt (1/2 x 1-1/2 inch)	4	
8	No parts required	—	Verify that the machine is in CE mode.

1

Preparing the Machine

No Parts Required

Procedure

1. Park the machine on a level surface.
2. Engage the parking brake.
3. Shut off the engine and remove the key.

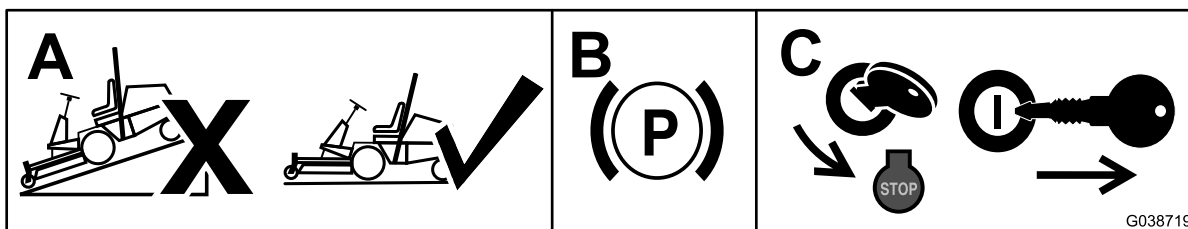


Figure 1

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2

Disconnecting the Battery

No Parts Required

Procedure

Turn the battery-disconnect switch to the OFF position.

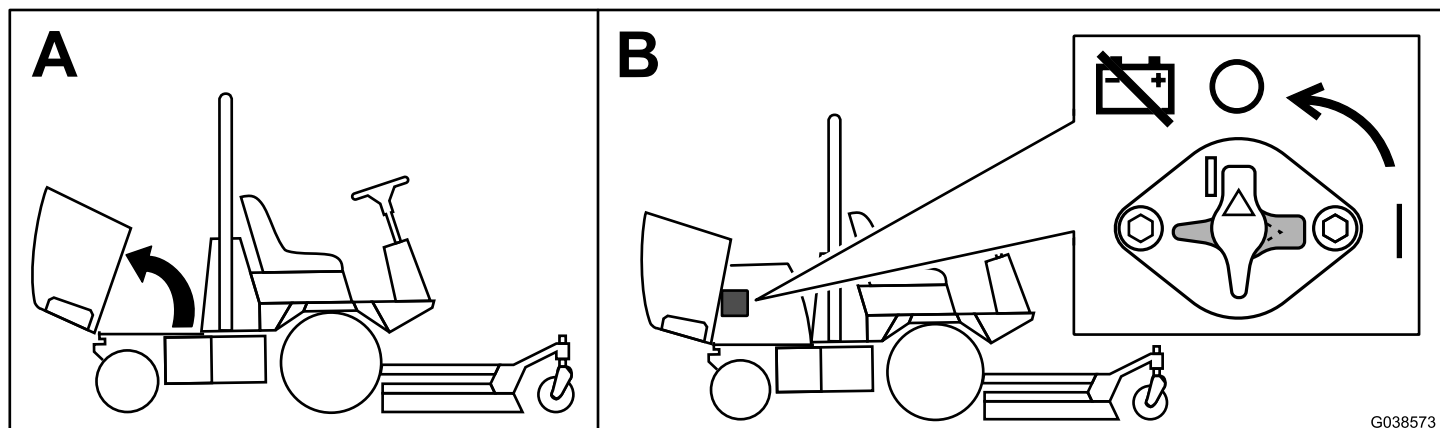


Figure 2

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3

Installing the Wire Harness

Parts needed for this procedure:

1	Wire harness
1	Switch
1	Auxiliary-brake decal

Procedure

1. Remove the 6 bolts from the console and remove the panel ([Figure 3](#)).

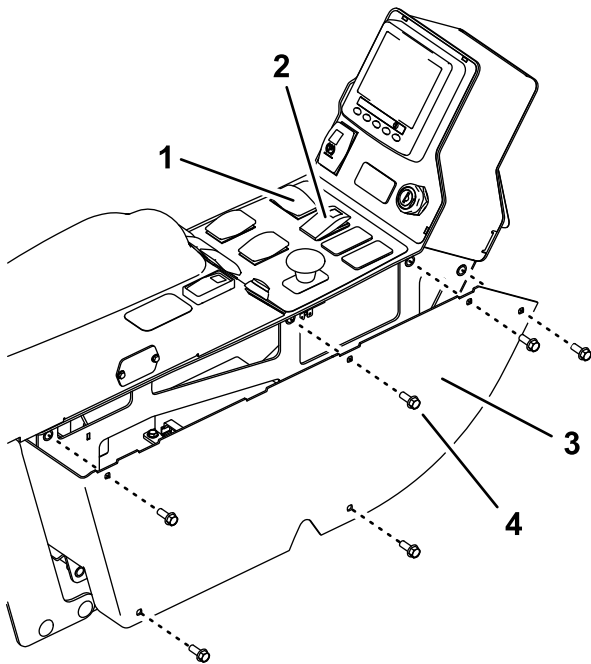


Figure 3

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1. Turn-signal switch
2. Hazard switch
3. Panel
4. Bolt (6)

2. Disconnect the connectors from the hazard switch and turn-signal switch ([Figure 3](#)).
3. Remove the knockout from the control panel and install the switch ([Figure 4](#)).

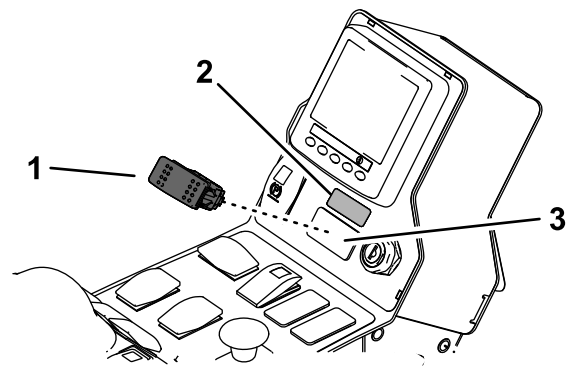


Figure 4

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1. Switch
2. Auxiliary-brake decal
3. Knockout

4. Adhere the auxiliary-brake decal above the switch ([Figure 4](#)).
5. Connect the new wire harness to the hazard switch, turn-signal switch, and auxiliary-brake switch ([Figure 5](#)).

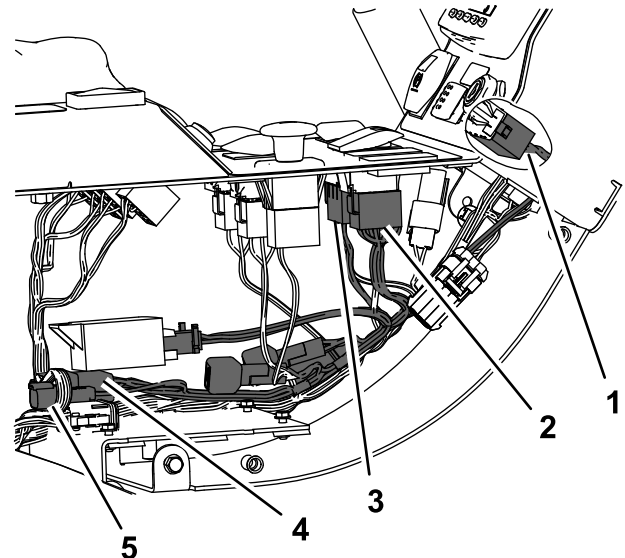


Figure 5

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1. Connect to the auxiliary-brake switch.
2. Connect to the turn-signal switch.
3. Connect to the hazard switch.
4. Connect to the main wire harness.
5. Connect to the EU Light Power connector on the main wire harness.

6. Connect the wire harness to the machine main wire harness inside the console ([Figure 5](#)).
7. Install the panel ([Figure 3](#)).

4

Installing the Headlights (for Machines with ROPS only)

Parts needed for this procedure:

1	Right light bracket
1	Left light bracket
2	Grommet

Procedure

1. Unplug the wire harness from each existing headlight.

2. Remove the headlights and retain lights and hardware.
3. Remove the brackets from the headlights and discard the brackets (Figure 6).
4. Using the fasteners that you removed, install the left and right light brackets to the existing holes in the front of the operator's platform (Figure 6).
5. Using existing fasteners from the headlight assembly, install the headlights to the left and right light brackets (Figure 6).
6. Install the grommets to the light mounts (Figure 6).
7. Route the wire harness through the bottom of the light brackets and out the grommets.
8. Connect the harness to each headlight.

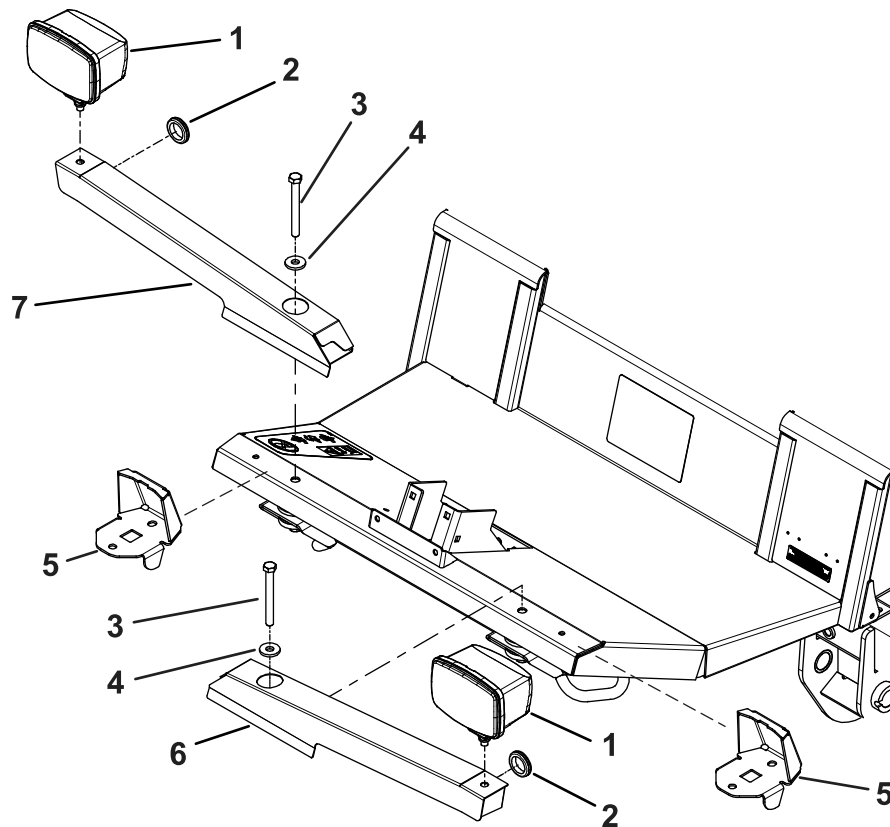


Figure 6

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1. Existing headlight
2. Grommet
3. Previously removed bolt
4. Previously removed washer
5. Remove and discard the existing bracket.
6. Left light bracket
7. Right light bracket

5

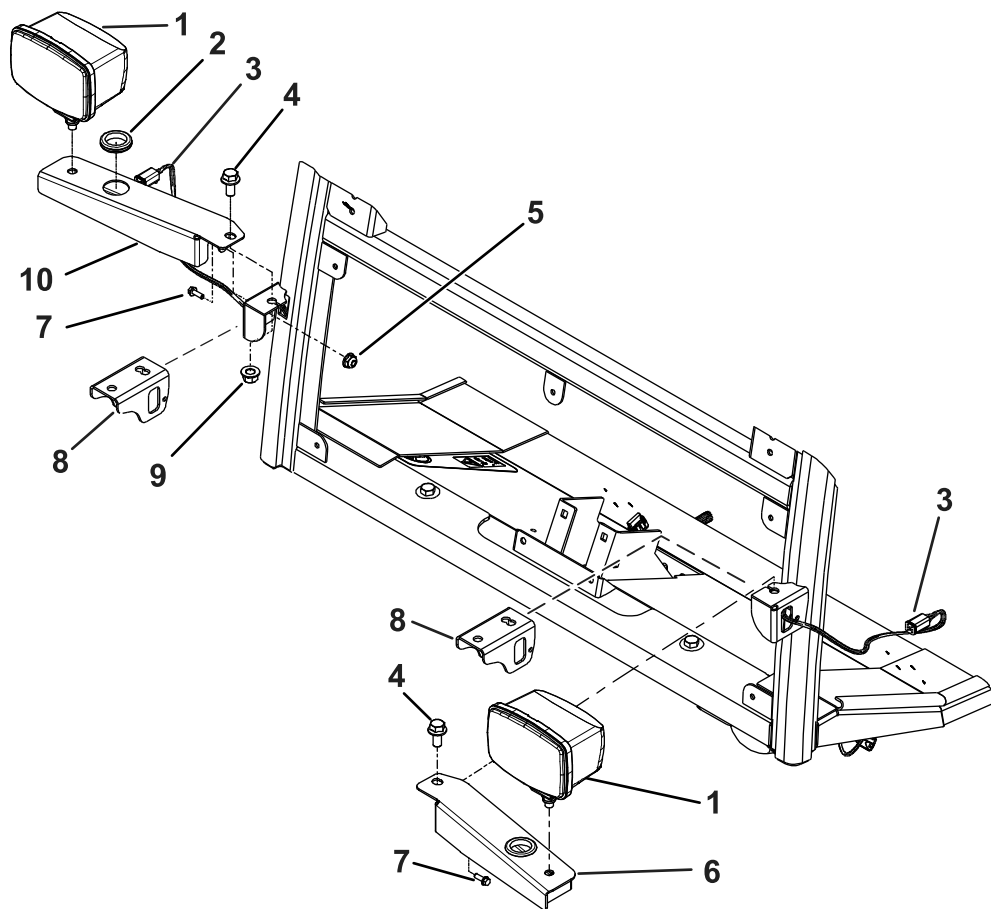
Installing the Headlights (for Machines with a Cab Only)

Parts needed for this procedure:

1	Right light bracket
1	Left light bracket
1	Right headlight assembly
1	Left headlight assembly
2	Bolt (1/2 x 1 inch)
2	Nut (1/2 inch)
2	Bolt (1/4 x 3/4 inch)
2	Nut (1/4 inch)
2	Grommet

Procedure

1. Unplug the wire harness from each existing headlight.
2. Remove the headlights and retain the hardware.
3. Remove and discard the existing bracket.
4. Install the grommets to the light mounts.
5. Install each headlight bracket to the cab frame using 1 bolt (1/2 x 1 inch), 1 nut (1/2 inch), 1 bolt (1/4 x 3/4 inch), and 1 nut (1/4 inch) as shown in [Figure 7](#).
6. Remove the fasteners from the headlight assemblies and use them to install the headlights to the brackets.
7. Route the wire harness through the bottom of light brackets and out the grommets.
8. Connect the wire harness to each headlight ([Figure 7](#)).



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Figure 7

- | | |
|------------------------|---|
| 1. Headlight | 6. Left headlight mount |
| 2. Grommet | 7. Bolt (1/4 x 3/4 inch) |
| 3. Wire harness | 8. Remove and discard the existing bracket. |
| 4. Bolt (1/2 x 1 inch) | 9. Nut (1/2 inch) |
| 5. Nut (1/4 inch) | 10. Right headlight mount |

6

Installing the Light Plate and License Bracket

Parts needed for this procedure:

1	Plate light
1	License bracket
1	Sign mount
2	Screw Screw (#10 x 3/4 inch)
2	Speed nut
2	Carriage bolt (1/4 x 5/8 inch)
2	Nut (1/4 inch)
	Decal (20)

Procedure

1. Remove the cover under the rear bumper (Figure 8).

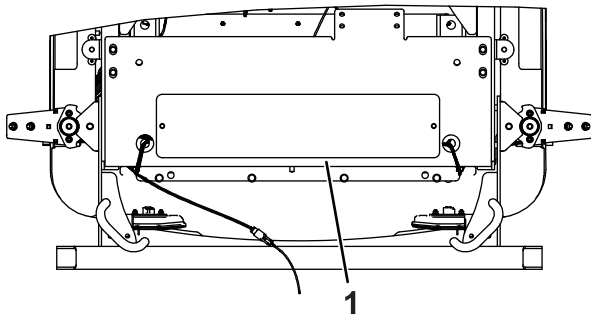


Figure 8
Bottom View

1. Cover under the rear bumper

2. Remove the existing warning sign and the mount tube from the rear bumper (Figure 9).

Note: Do not remove the bolts from the bumper.

3. Cut the cable tie holding the wire for the plate light.
4. Use the hardware to install the sign mount to the bumper (Figure 9).
5. Install the 2 speed nuts to the square in the license bracket.
6. Install the license bracket to the sign mount with 2 carriage bolts (1/4 x 5/8 inch) and 2 nuts (1/4 inch).

7. Route the wire to the plate light and connect it to the light.
8. Install the plate light to the license bracket using 2 screws (#10 x 3/4 inch) and the speed nuts in the license bracket.

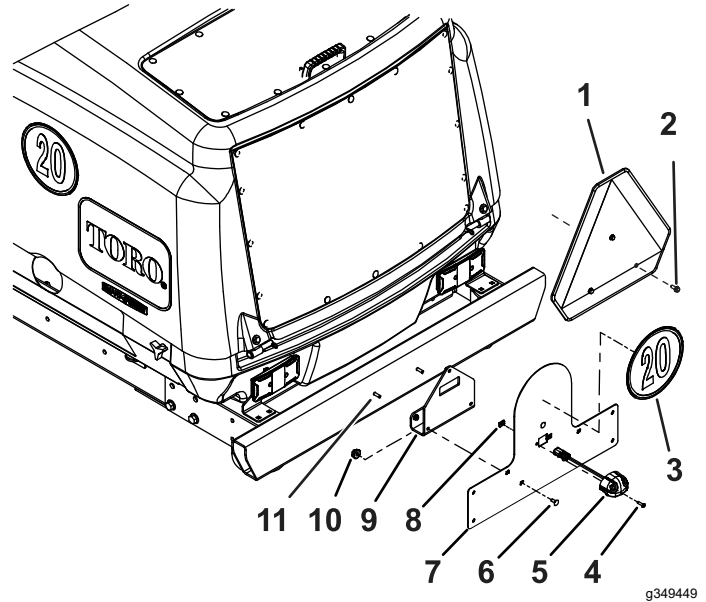


Figure 9

1. Warning sign
2. Existing bolt
3. Sign
4. Screw (#10 x 3/4 inch)
5. Plate light
6. Carriage bolt (1/4 x 5/8 inch)
7. License bracket
8. Speed nut
9. Sign mount
10. Nut (1/4 inch)
11. Existing bolts

9. Adhere a sign to the license bracket (Figure 9).

7

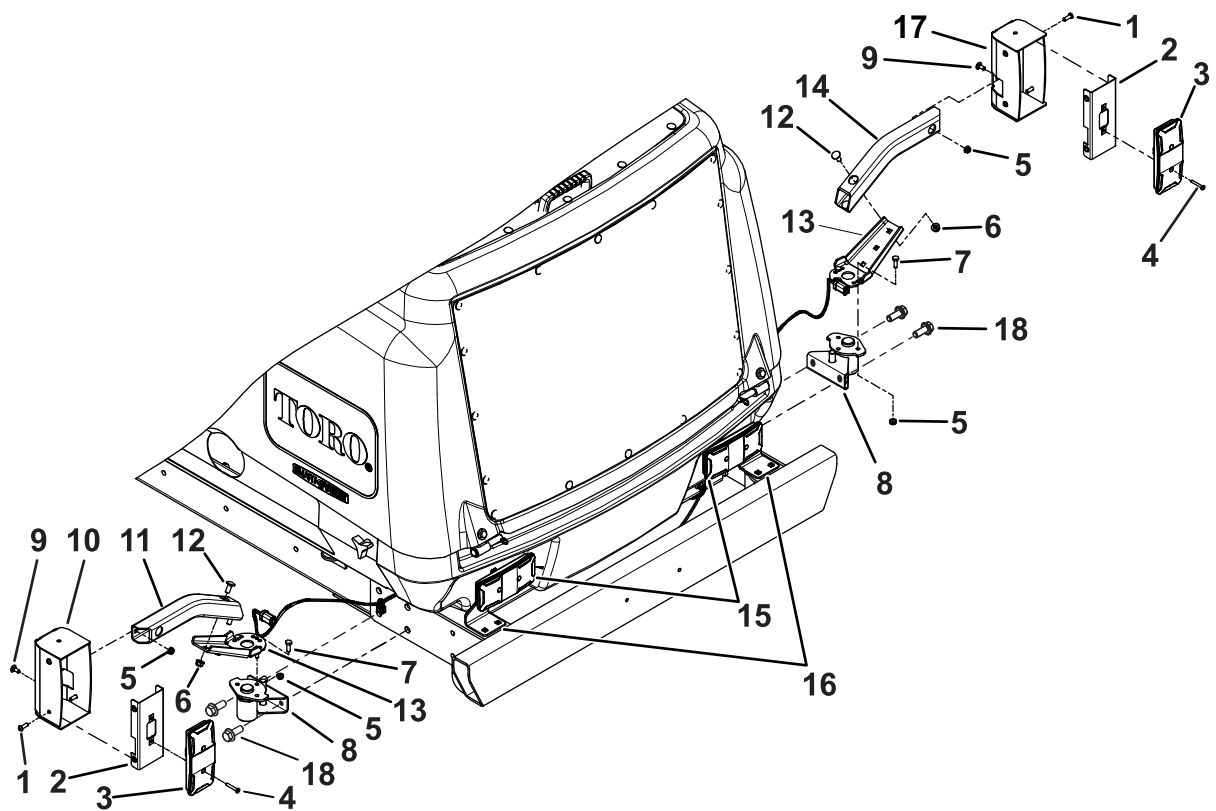
Installing the Rear Lights

Parts needed for this procedure:

2	Pivot bracket
2	Light mount
1	Right tube mount
1	Left tube mount
1	Left light housing
1	Right light housing
2	Inner mount
4	Carriage bolt (5/16 x 3/4 inch)
4	Carriage bolt (1/4 x 5/8 inch)
10	Nut (1/4 inch)
4	Nut (5/16 inch)
6	Bolt (1/4 x 3/4 inch)
8	Hex-socket button head screw (1/4 x 3/4 inch)
4	Bolt (1/2 x 1-1/2 inch)

Procedure

- Unplug the wire harness from both tail lights.
- Remove the tail lights from the machine.
- Remove the brackets from the rear bumper and discard the brackets and hardware ([Figure 10](#)).
- Remove the bottom 2 bolts (1/2 x 1-1/4 inch), on each side, that secure the bumper to the machine frame.
- Install a pivot bracket to each side of the machine with 2 bolts (1/2 x 1-1/2 inch); refer to [Figure 10](#).
- Install a light mount to each pivot bracket with 6 bolts (1/4 x 3/4 inch) and 6 nuts (1/4 inch).
- Install the left and right tube mount to each light mount with 4 carriage bolts (5/16 x 3/4 inch) 4 nuts (5/16 inch).
- Install the left and right light housings to the left and right tube mounts ([Figure 10](#)).
- Secure the light housings to the tube mounts with 2 carriage bolts (1/4 x 5/8 inch) and 2 nuts (1/4 inch).
- Secure the existing lights with the yellow lens on top to each inner mount with the existing phillips-head screws.
- Route the harness connectors through each tube mount, housing, and plug the connectors into the lights.
- Slide the inner mounts into the housings and secure them with 8 hex-socket button head screws (1/4 x 3/4 inch).



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Figure 10

- | | |
|--|-------------------------------------|
| 1. Hex-socket button head screw | 10. Left housing |
| 2. Inner mount | 11. Left tube mount |
| 3. Existing light (yellow lens on top) | 12. Carriage bolt (5/16 x 3/4 inch) |
| 4. Existing phillips-head screw | 13. Light mount |
| 5. Nut (1/4 inch) | 14. Right mount tube |
| 6. Nut (5/16 inch) | 15. Remove the existing lights. |
| 7. Bolt (1/4 x 3/4 inch) | 16. Remove the existing brackets. |
| 8. Pivot bracket | 17. Right housing |
| 9. Carriage bolt (1/4 x 5/8 inch) | 18. Bolt (1/2 x 1-1/2 inch) |

8

Verifying that the Machine is in CE Mode

No Parts Required

Procedure

1. Start the machine.
2. From the InfoCenter main menu, navigate to the About screen (Figure 11).



Figure 11

3. Verify that the machine is in CE mode. If it is not in CE mode; contact your authorized Toro distributor.

Operation

Using the Light and Hazard Switches

- Turn the key switch on and press the light switch to the ON position to activate the head lamps.
- Press the hazard switch to the ON position to activate the front and rear flashing hazard lights.
- Turn the key switch on and press the left side of the turn signal switch to activate the left turn signal and the right side of the switch to activate the right turn signal. The center position is off.

Note: Check the operation of the lights. Make sure that the correct lights are flashing when operating the turn signal switch.

Aiming the Headlights

1. Loosen the mounting nuts to adjust the lights.
2. Adjust the lights per local standards.

Using the Auxiliary-Brake Switch

Press and hold the auxiliary-brake switch to decrease the engine speed (Figure 12); release the switch to stop the deceleration and remain at the current engine speed.

Note: You may use the switch intermittently to gradually slow the machine.

If you press the switch when the engine speed is below 1,200 rpm or if the engine decelerates to 1,200 rpm, the engine shuts off and the machine stops. To start the machine again, turn the key switch to the START position and release it immediately when the engine starts.

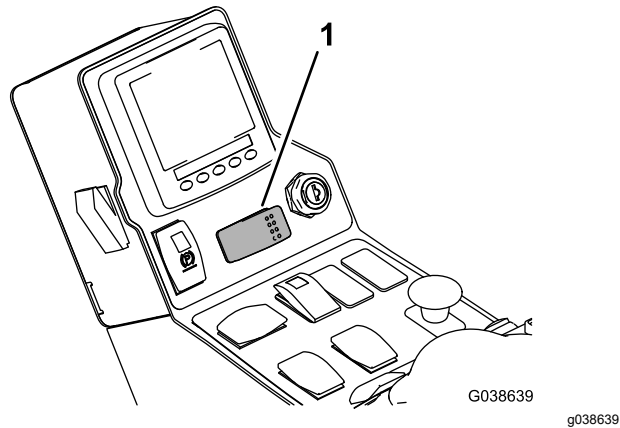


Figure 12

1. Auxiliary-brake switch
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Notes:

Notes:

EEA/UK Privacy Notice

Toro's Use of Your Personal Information

The Toro Company ("Toro") respects your privacy. When you purchase our products, we may collect certain personal information about you, either directly from you or through your local Toro company or dealer. Toro uses this information to fulfil contractual obligations - such as to register your warranty, process your warranty claim or to contact you in the event of a product recall - and for legitimate business purposes - such as to gauge customer satisfaction, improve our products or provide you with product information which may be of interest. Toro may share your information with our subsidiaries, affiliates, dealers or other business partners in connection these activities. We may also disclose personal information when required by law or in connection with the sale, purchase or merger of a business. We will never sell your personal information to any other company for marketing purposes.

Retention of your Personal Information

Toro will keep your personal information as long as it is relevant for the above purposes and in accordance with legal requirements. For more information about applicable retention periods please contact legal@toro.com.

Toro's Commitment to Security

Your personal information may be processed in the US or another country which may have less strict data protection laws than your country of residence. Whenever we transfer your information outside of your country of residence, we will take legally required steps to ensure that appropriate safeguards are in place to protect your information and to make sure it is treated securely.

Access and Correction

You may have the right to correct or review your personal data, or object to or restrict the processing of your data. To do so, please contact us by email at legal@toro.com. If you have concerns about the way in which Toro has handled your information, we encourage you to raise this directly with us. Please note that European residents have the right to complain to your Data Protection Authority.



The Toro Warranty

Two-Year or 1,500 Hours Limited Warranty

Conditions and Products Covered

The Toro Company warrants your Toro Commercial product ("Product") to be free from defects in materials or workmanship for 2 years or 1,500 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:

Toro Commercial Products Service Department
8111 Lyndale Avenue South
Bloomington, MN 55420-1196

952-888-8801 or 800-952-2740
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*. Repairs for product issues caused by failure to perform required maintenance and adjustments are not covered under this warranty.

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.
- Product failures which result from failure to perform recommended maintenance and/or adjustments.
- Product failures which result from operating the Product in an abusive, negligent, or reckless manner.
- Parts consumed through use that are not defective. Examples of parts which are consumed, or used up, during normal Product operation include, but are not limited to, brake pads and linings, clutch linings, blades, reels, rollers and bearings (sealed or greasable), bed knives, spark plugs, castor wheels and bearings, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, flow meters, and check valves.
- Failures caused by outside influence, including, but not limited to, weather, storage practices, contamination, use of unapproved fuels, coolants, lubricants, additives, fertilizers, water, or chemicals.
- Failure or performance issues due to the use of fuels (e.g. gasoline, diesel, or biodiesel) that do not conform to their respective industry standards.
- 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.

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 your Authorized Toro Service Center.

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.

Deep Cycle and Lithium-Ion Battery Warranty

Deep cycle and Lithium-Ion 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. Note: (Lithium-Ion battery only): Refer to the battery warranty for additional information.

Lifetime Crankshaft Warranty (ProStripe 02657 Model Only)

The ProStripe which is fitted with a genuine Toro Friction Disc and Crank-Safe Blade Brake Clutch (integrated Blade Brake Clutch (BBC) + Friction Disc assembly) as original equipment and used by the original purchaser in accordance with recommended operating and maintenance procedures, are covered by a Lifetime Warranty against engine crankshaft bending. Machines fitted with friction washers, Blade Brake Clutch (BBC) units and other such devices are not covered by the Lifetime Crankshaft Warranty.

Maintenance is at Owner's Expense

Engine tune-up, lubrication, cleaning and polishing, replacement of 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.

The Toro Company is not 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 Emissions 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 supplied with your product or contained in the engine manufacturer's documentation.