



Light Kit

Groundsmaster® 7200 Series Mowers

Model No. 31508—Serial No. 400000000 and Up

Installation Instructions

Determine the left and right sides of the machine from the normal operating position.

⚠ 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	–	Prepare the machine.
2	No parts required	–	Drill the holes for 2015 and earlier machines.
3	Hazard warning switch	1	Install the hazard warning switch.
4	Left rear light Right rear light U-bolt Flange nut (3/8 inch) Light plate Center rear light Bolt (#10 x 7/8 inches) Bolt (1/4 x 3/4 inch) Flange nut (#10)	1 1 4 8 1 1 2 2 4	Install the rear lights.
5	Headlight-mount assembly Flange nut (3/8 inch) Bolt (3/8 x 1 inch)	1 2 2	Install the headlight-mount assembly.
6	Locknut (1/4 inch) Right headlight assembly Left headlight assembly Bolt (1/4 x 3/4 inch) Optional headlight extension	8 1 1 8 2	Install the front lights.
7	Flange bolt (3/8 x 1-1/2 inches) Flange nut (3/8 inch)	1 1	Secure the caster fork latch.



Procedure	Description	Qty.	Use
8	Lever	1	Install the control lever.
9	Horn	1	Install the front light brackets, headlights, and horn.
	Carriage bolt (5/16 x 5/8 inch)	1	
	Flange nut (5/16 inch)	1	
10	Wiring harness	1	Install the wire harness.
	20A fuse	1	
	Relay	1	
	Flasher module	1	
11	20 kmp decal	3	Install the decals.
	Serial plate	1	
12	No parts required	–	Finish the installation.

1

Preparing the Machine

No Parts Required

Procedure

1. Move the machine to level ground and engage the parking brake.
2. Lower the cutting deck to the ground.
3. Shut off the engine and remove the key.
4. Unlatch and raise the engine cover, and secure it in the raised position with the prop rod.
5. Disconnect the negative (-) battery cable from the battery.

2

Drilling the Holes for 2015 and Earlier Machines

No Parts Required

Procedure

1. Drill the hole as shown in [Figure 1](#).

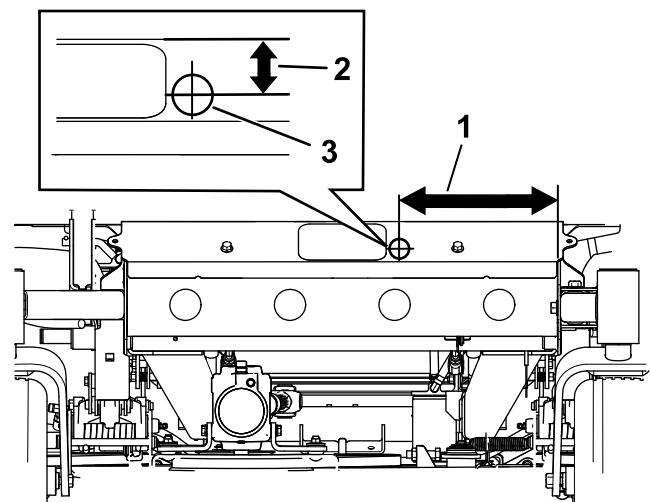


Figure 1
Front of the machine

1. 29.2 cm (11-1/2 inches)
2. 8.9 cm (3-1/2 inches)
3. Hole (3.2 cm or 1-1/4 inch)

2. Drill the holes as shown in [Figure 2](#).

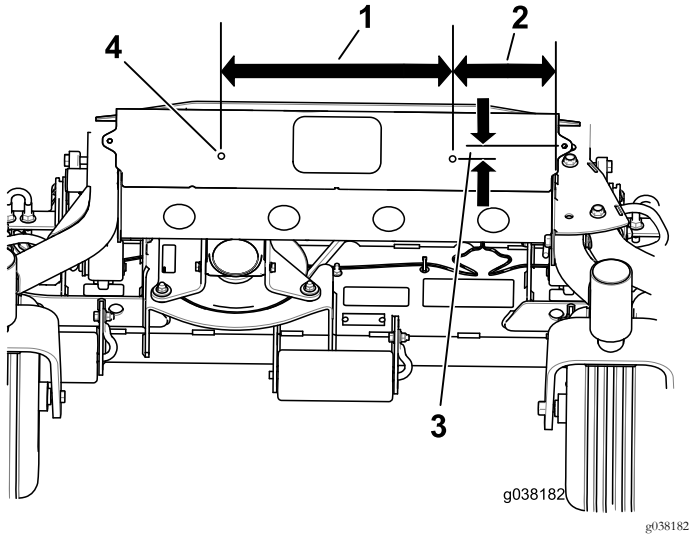


Figure 2
Front of the machine

- | | |
|----------------------------|------------------------|
| 1. 40.6 cm (16 inches) | 3. 25 mm (1 inch) |
| 2. 18.6 cm (7-5/16 inches) | 4. 13/32 inch diameter |

3. Drill the holes for the horn as shown in [Figure 3](#).

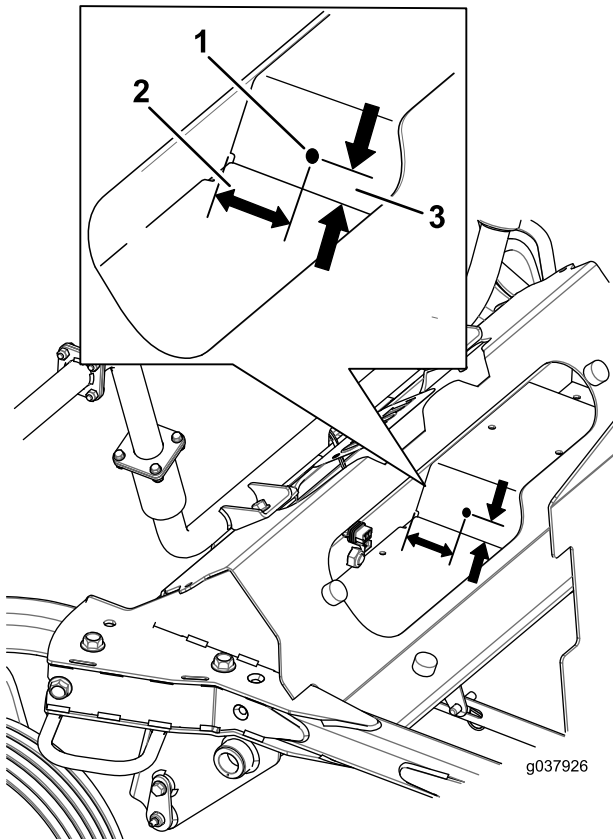


Figure 3

- | | |
|--------------------------|-------------------|
| 1. 13/32 inch diameter | 3. 25 mm (1 inch) |
| 2. 6.4 cm (2-1/2 inches) | |

4. Drill the holes as shown in [Figure 4](#).

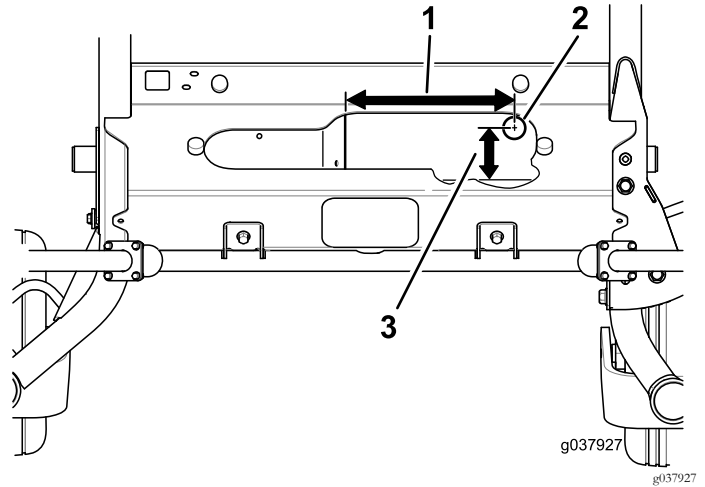


Figure 4
Front view of the foot rest

- | | |
|--------------------------|---------------------------|
| 1. 26 cm (10-1/4 inches) | 3. 11.4 cm (4-1/2 inches) |
| 2. 3.2 cm (1-1/4 inch) | |

3

Installing the Hazard Warning Switch

Parts needed for this procedure:

- | | |
|---|-----------------------|
| 1 | Hazard warning switch |
|---|-----------------------|

Procedure

1. Unlatch the side cover of the control panel ([Figure 5](#)) and set it aside.

4

Installing the Rear Lights

Parts needed for this procedure:

1	Left rear light
1	Right rear light
4	U-bolt
8	Flange nut (3/8 inch)
1	Light plate
1	Center rear light
2	Bolt (#10 x 7/8 inches)
2	Bolt (1/4 x 3/4 inch)
4	Flange nut (#10)

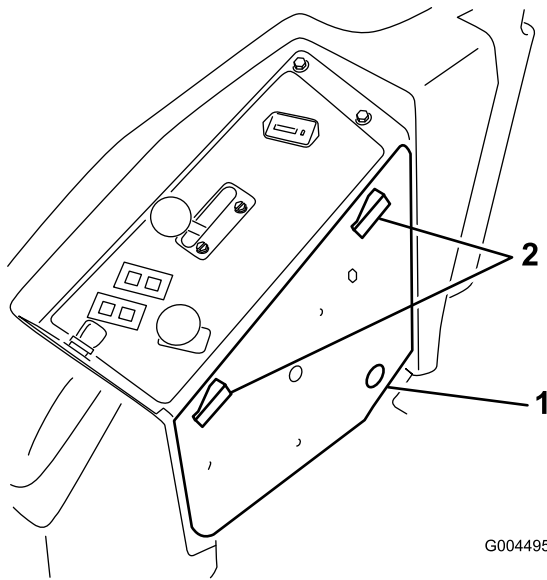


Figure 5

1. Control panel side cover
2. Latches

2. Locate and remove the knockout plug located towards the front of the control panel under the decal (Figure 6).

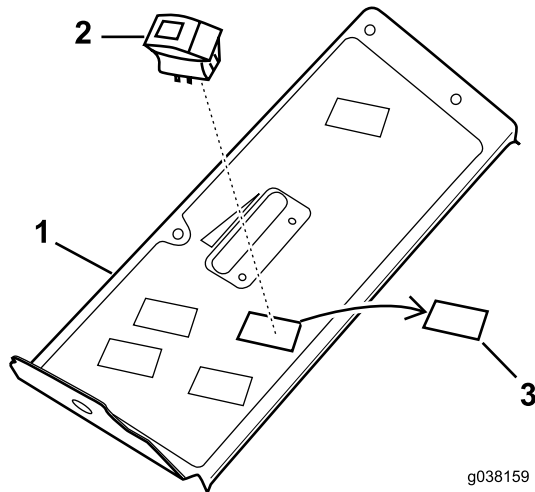


Figure 6

1. Control panel top
2. Light switch
3. Knockout plug

Note: Position the lens on the hazard switch away from the operator.

3. Insert the light switch as shown in Figure 6.

Procedure

1. Install the left and right rear lights with 4 U-bolts and 4 flange nuts (3/8 inch) (Figure 7). Ensure that you do not cover the decal.

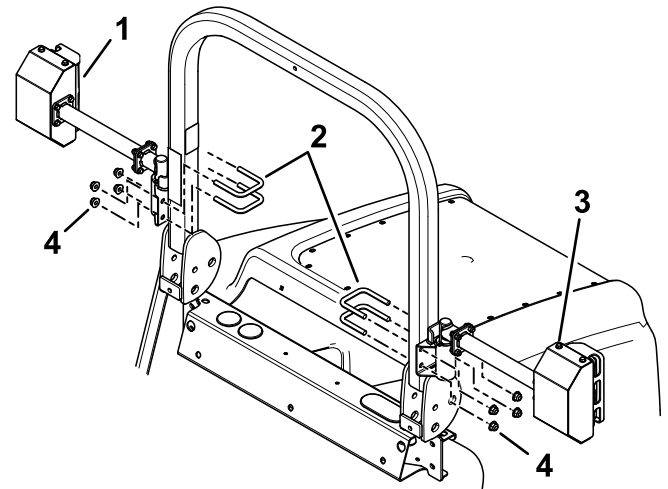


Figure 7

1. Right-rear light
2. U-bolt
3. Left-rear light
4. Flange nuts (3/8 inch)

2. Install the light plate and center rear light (Figure 8).

Note: You may need an extra person to hold the light plate as you secure it to the machine.

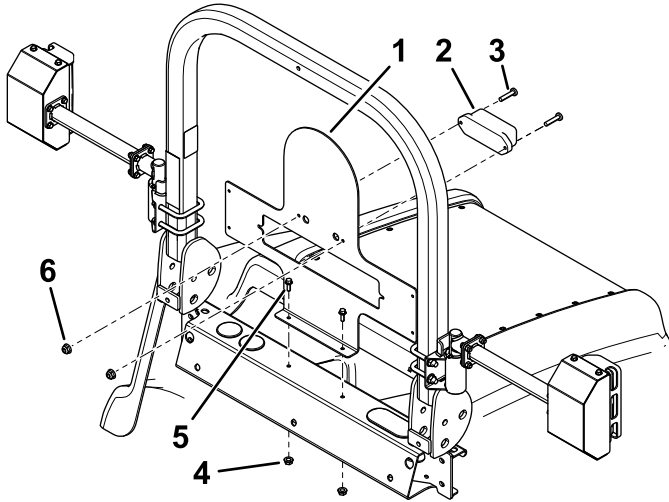


Figure 8

- | | |
|----------------------------|--------------------------|
| 1. Light plate | 4. Flange nut (1/4 inch) |
| 2. Center rear light | 5. Bolt (1/4 x 3/4 inch) |
| 3. Bolt (#10 x 7/8 inches) | 6. Flange nut (#10) |

5

Installing the Headlight-Mount Assembly

Parts needed for this procedure:

1	Headlight-mount assembly
2	Flange nut (3/8 inch)
2	Bolt (3/8 x 1 inch)

Procedure

Install the headlight-mount assembly to the front of the machine with 2 bolts (3/8 x 1 inch) and 2 flange nuts (3/8 inch); refer to Figure 9.

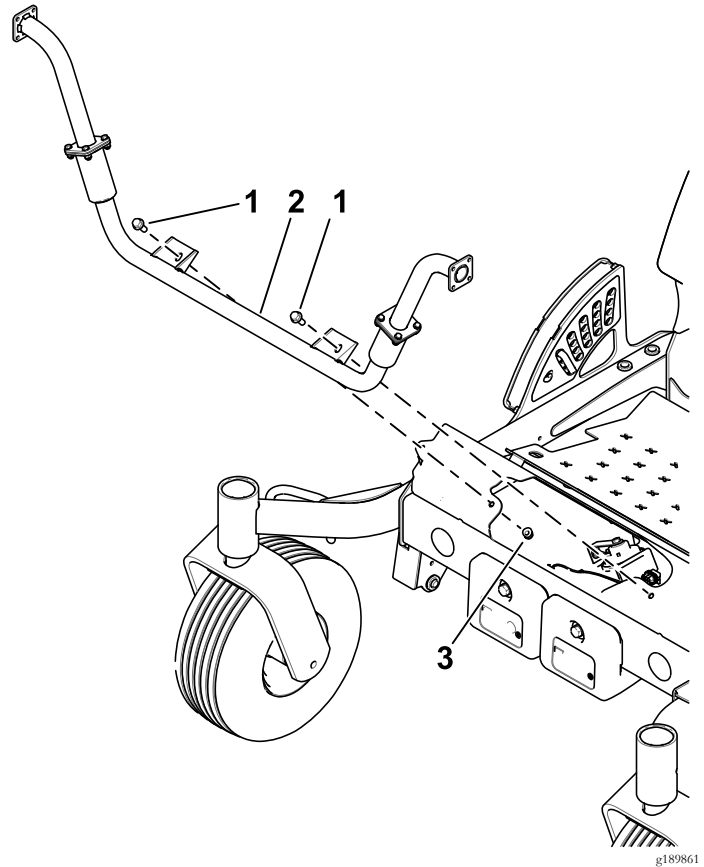


Figure 9

- | | |
|-----------------------------|--------------------------|
| 1. Bolt (3/8 x 1 inch) | 3. Flange nut (3/8 inch) |
| 2. Headlight-mount assembly | |

6

Installing the Front Lights

Parts needed for this procedure:

8	Locknut (1/4 inch)
1	Right headlight assembly
1	Leftt headlight assembly
8	Bolt (1/4 x 3/4 inch)
2	Optional headlight extension

Procedure

1. Remove the shields from the headlights ([Figure 11](#)).
Note: The optional headlight extensions are for the 183 cm (72 inch) and 254 cm (100 inch) mower decks only ([Figure 10](#)).
2. If needed, install the headlight extension with 4 bolts (1/4 x 3/4 inch) and 4 locknuts (1/4 inch); refer to [Figure 10](#).
3. Install the headlight to the extension or the headlight mount assembly with 4 bolts (1/4 x 3/4 inch) and 4 locknuts (1/4 inch); refer to [Figure 10](#).

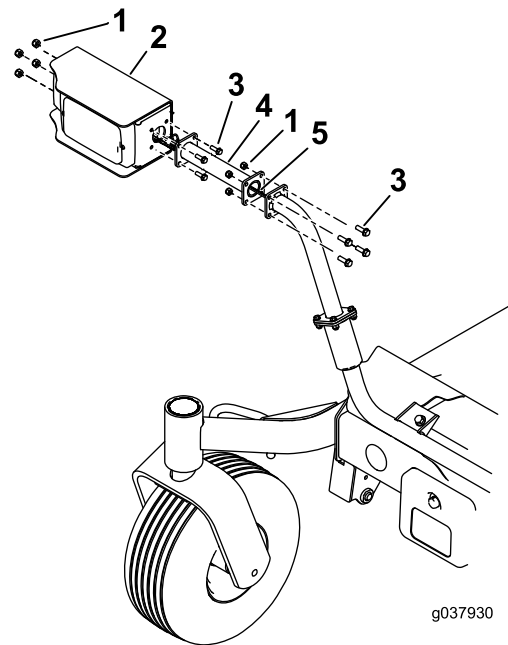


Figure 10
Right side shown

1. Locknut (1/4 inch)
2. Headlight assembly
3. Bolt (1/4 x 3/4 inch)
4. Optional headlight extension for 183 cm (72 inch) and 254 cm (100 inch) mower decks only.
5. Light harness

4. Install the front light electrical connectors ([Figure 11](#)).

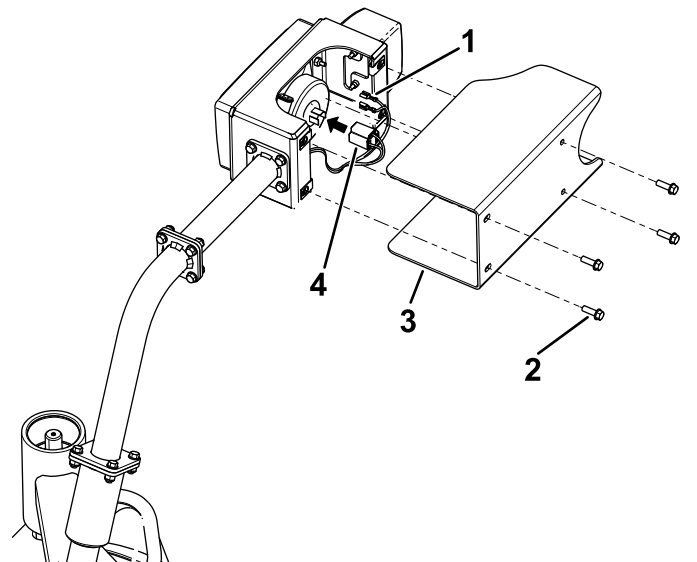


Figure 11
Right side shown

1. Terminal receptacle
2. Bolt (1/4 x 3/4 inch)
3. Headlight shield
4. Connector

5. Install the shields to the headlights ([Figure 11](#)).

7

Securing the Caster-Fork Latch

Parts needed for this procedure:

1	Flange bolt (3/8 x 1-1/2 inches)
1	Flange nut (3/8 inch)

Procedure

Important: This procedure is only for 254 cm (100 inch) mower decks.

Secure the caster-fork latch as shown in [Figure 12](#).

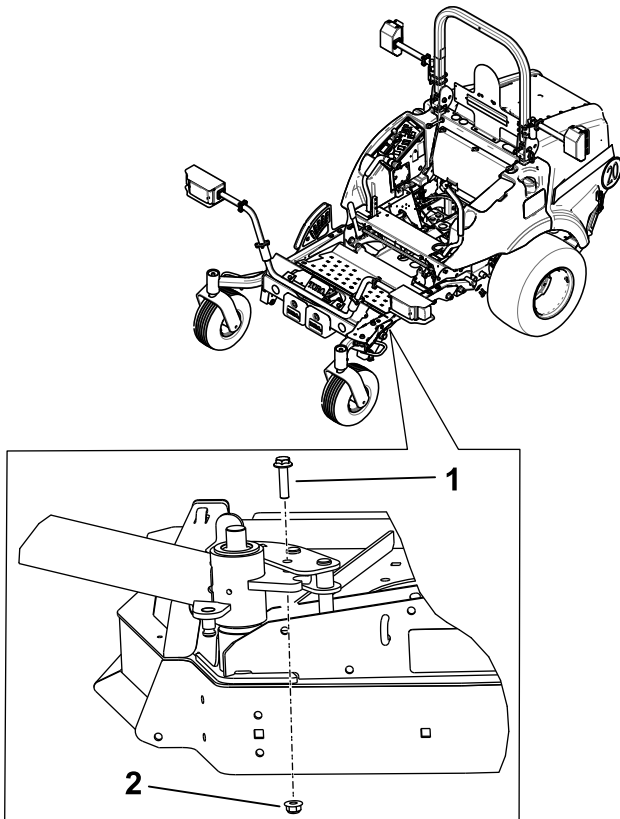


Figure 12

1. Flange bolt (3/8 x 1-1/2 inches)
2. Flange nut (3/8 inch)

8

Installing the Control Lever

Parts needed for this procedure:

1	Lever
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Procedure

1. Remove the existing left handle and retain the washers and bolts.
2. Install the new handle with the existing washers and bolts ([Figure 13](#)).

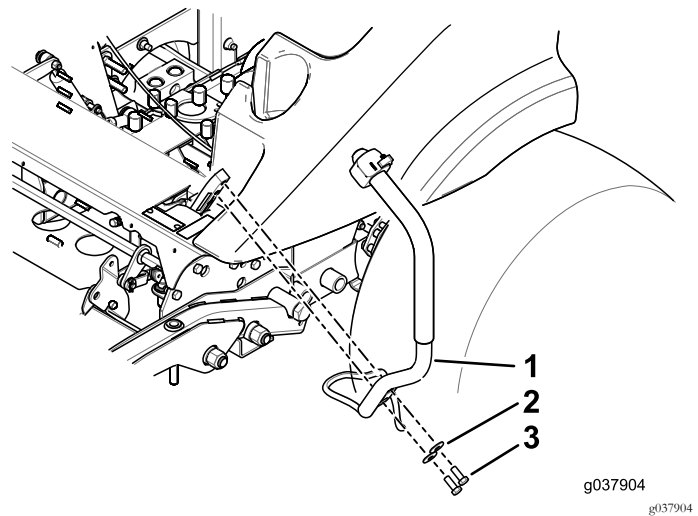


Figure 13

1. Lever
2. Washer (existing)
3. Bolt (existing)

9

Installing the Horn

Parts needed for this procedure:

1	Horn
1	Carriage bolt (5/16 x 5/8 inch)
1	Flange nut (5/16 inch)

Procedure

Install the horn as shown in [Figure 14](#).

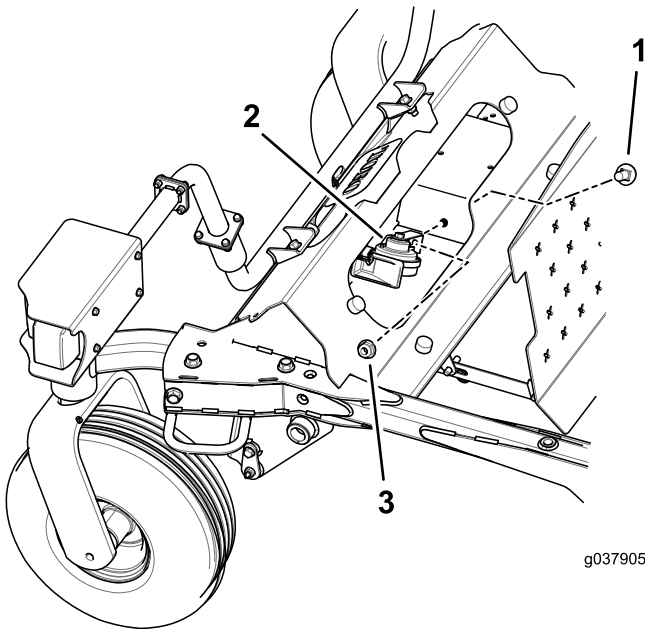


Figure 14

1. Carriage bolt (5/16 x 5/8 inch)
2. Horn
3. Flange nut (5/16 inch)

10

Installing the Wiring Harness

Parts needed for this procedure:

1	Wiring harness
1	20A fuse
1	Relay
1	Flasher module

Procedure

Note: Do not attach the black (negative) lead until the whole kit is installed.

1. Thread the wiring harness branch with the flasher relay up into the side cover, where the main harness enters the panel ([Figure 14](#)).

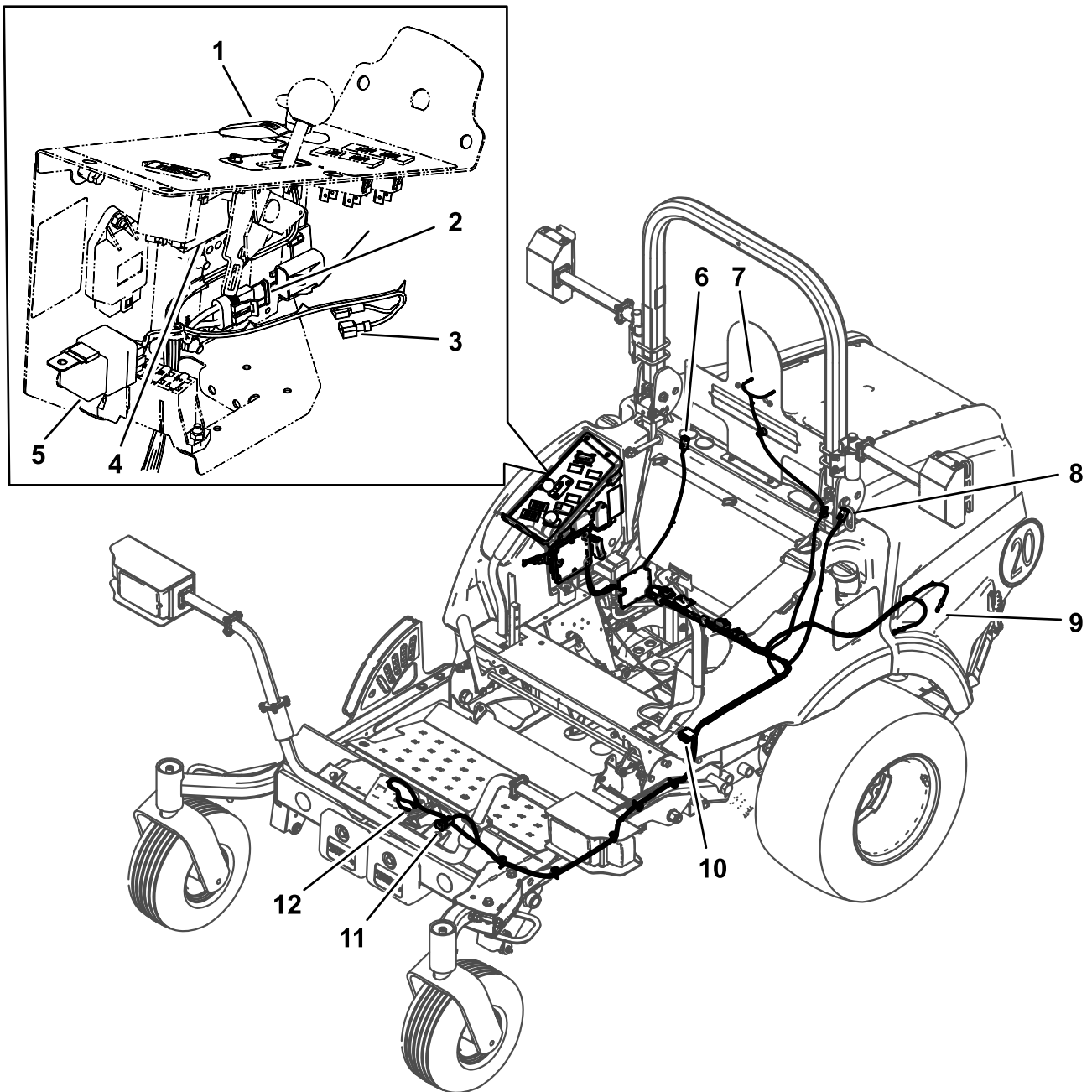


Figure 15

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- | | |
|---------------------|---|
| 1. Switch | 7. License plate lamp |
| 2. 10A fuse | 8. Left rear lamp |
| 3. Blade connectors | 9. Connect the red (positive) leads to the battery. |
| 4. Flasher module | 10. Control-lever connections |
| 5. Flasher relay | 11. Headlamp connector |
| 6. Right rear lamp | 12. Horn connector |

2. Use the blade connectors under the control panel as follows:

Note: Use only 1 of the blade connectors shown in [Figure 15](#).

- If the Auxiliary Power Unit (model 30382) is installed, connect the correct blade connector to the open blade on the auxiliary power module.
- If the Auxiliary Power Unit (model 30382) is **not** installed, connect the correct blade connector that fits to the existing pink wire.

3. Use [Figure 15](#) to route the wiring harness into the machine.
4. Use the magnetic holders shown in [Figure 16](#) to secure the wire harness.

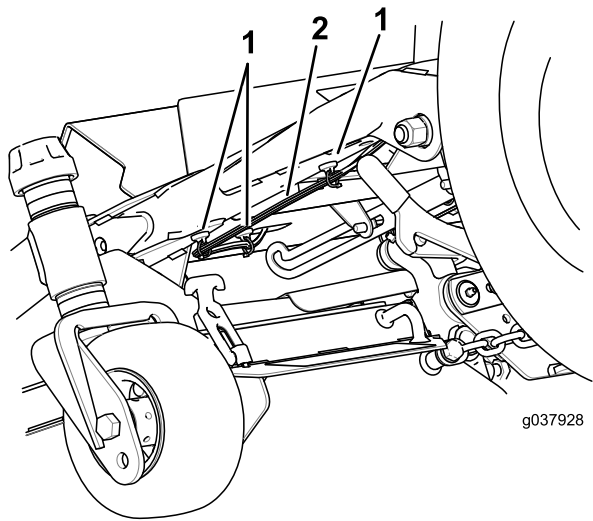


Figure 16

1. Magnetic harness holders
2. Wire harness

11

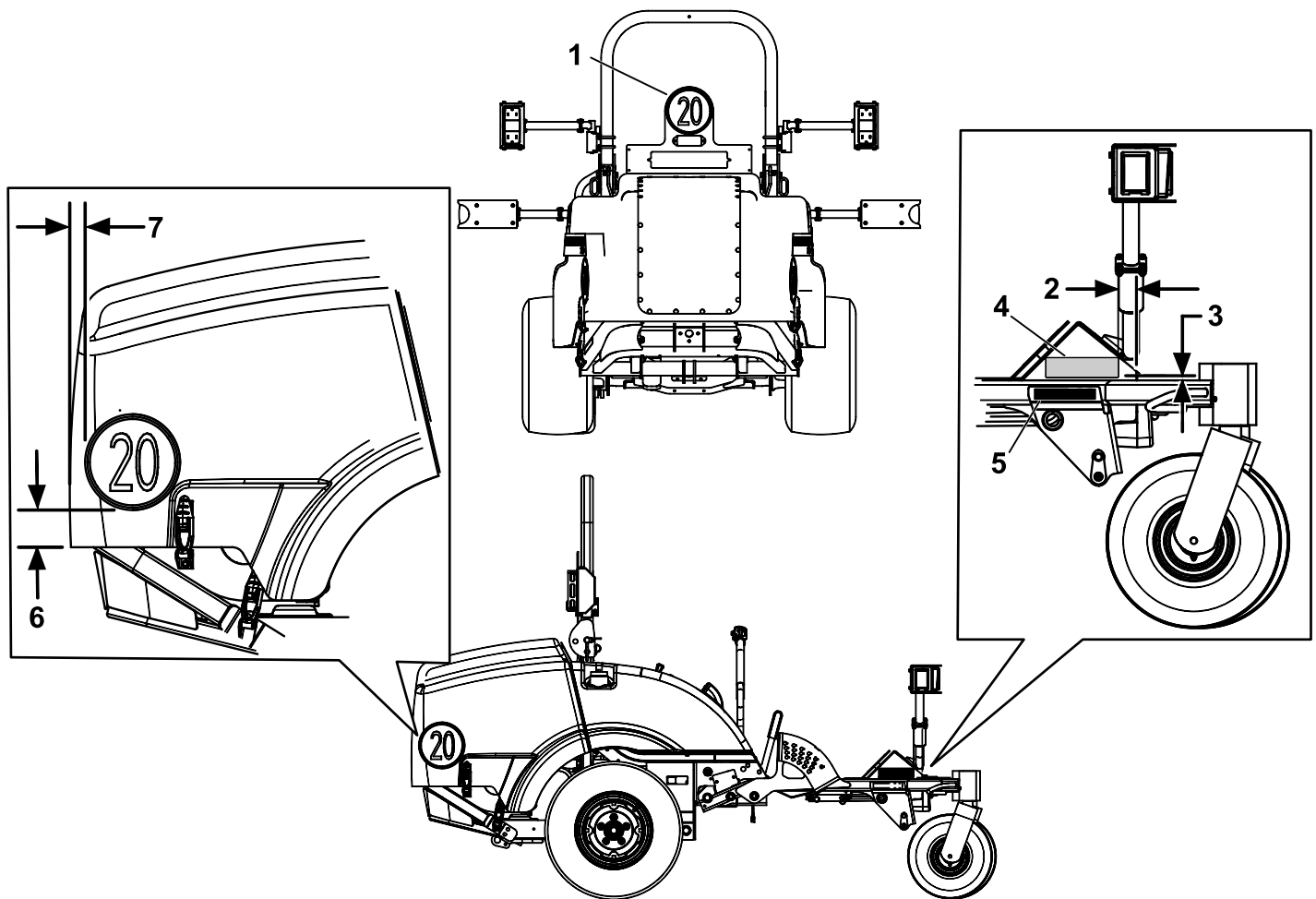
Installing the Decals

Parts needed for this procedure:

3	20 kmp decal
1	Serial plate

Procedure

1. Install the 20 kmp decals as shown in [Figure 17](#).
2. Install the serial plate as shown in [Figure 17](#).
3. Stamp the date into the side of the metal frame in the area shown in [Figure 17](#).



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Figure 17

1. 20 kpm decal
2. 3.8 cm (1-1/2 inches)
3. 6 mm (1/4 inch)
4. Serial number decal
5. For German customers, stamp the required information into the side of the frame in this area.
6. 7.6 cm (3 inches)
7. 12.7 cm (1-1/4 inches)

12

Finishing the Installation

No Parts Required

Procedure

1. Attach the negative battery cable and the black (negative) lead to the battery.
2. Latch the engine cover.
3. Test all the functions of the kit.

Operation

Operating the Switches

- The **hazard warning switch** operates the hazard warning lights and will work whether the ignition is switched to the ON or OFF position (Figure 18).

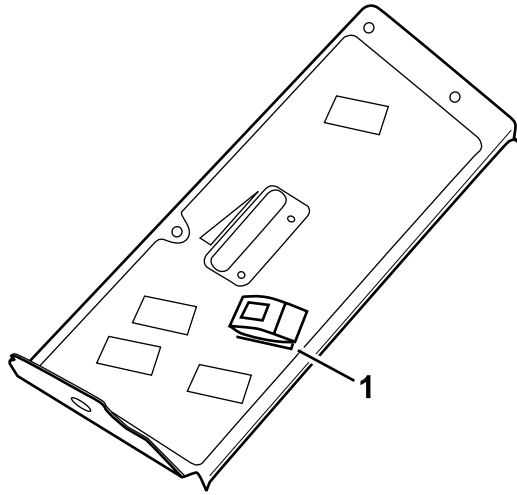


Figure 18

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1. Light switch

- Press the side of the rocker switch with the hazard warning symbol to operate the hazard warning lights.
- Press the other side of the rocker switch to turn off the hazard warning lights.
- The **direction-indicator switch** operates the right and left direction indicator lights when the ignition is switched to the ON position (Figure 19).

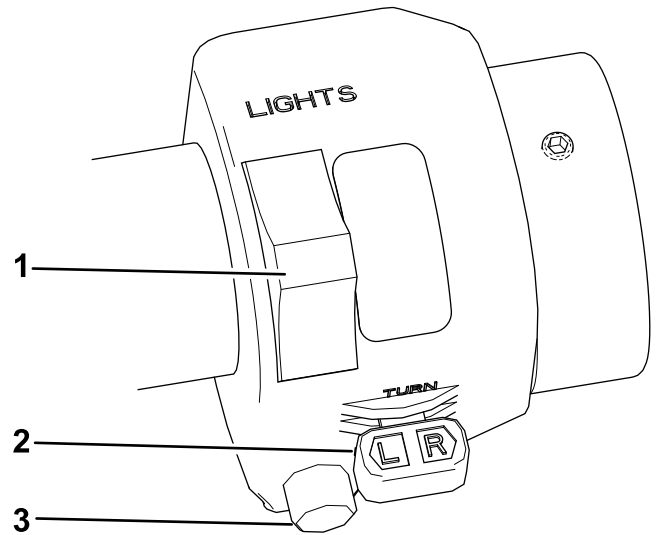


Figure 19

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1. Headlamp and dipped-beam switch
2. Direction-indicator switch
3. Horn button

- Press the left side of the indicator switch to turn on the left direction-indicator lights.
- Press the right side of the indicator switch to the central position to turn off the left direction-indicator lights.
- Press the right side of the indicator switch to turn on the right direction-indicator lights.
- Press the left side of the indicator switch to the central position to turn off the right direction-indicator lights.
- The headlamp and dipped beam switch operates the headlamps only when the ignition is switched to On (Figure 19).
 - Push the switch forward to turn on the headlamp.
 - Push the switch backward to turn on the dipped-beam headlamp.
- Push the horn button to operate the horn.

Maintenance

- Keep the lenses clean by wiping them with a damp cloth. **Do not use solvent-based cleaners.**
- Replace all light bulbs as needed. Use replacement bulbs that have the proper voltage and wattage rating; refer to the old bulb for details.

Notes:

Notes:

Notes:



The Toro Warranty

A Two-Year Limited Warranty

Conditions and Products Covered

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly warrant your Toro Commercial product ("Product") to be free from defects in materials or workmanship for two years or 1500 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
Toro Warranty Company
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*. Failure to perform required maintenance and adjustments can be grounds for disallowing a warranty claim.

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. A separate warranty may be provided by the manufacturer of these items.
- Product failures which result from failure to perform recommended maintenance and/or adjustments. Failure to properly maintain your Toro product per the Recommended Maintenance listed in the *Operator's Manual* can result in claims for warranty being denied.
- Product failures which result from operating the Product in an abusive, negligent, or reckless manner.
- Parts subject to consumption through use unless found to be 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, and check valves, etc.
- Failures caused by outside influence. Conditions considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved fuels, coolants, lubricants, additives, fertilizers, water, or chemicals, etc.
- 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, etc.

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. Battery replacement may be required during the normal product warranty period at owner's expense. Note: (Lithium-Ion battery only): A Lithium-Ion battery has a part only prorated warranty beginning year 3 through year 5 based on the time in service and kilowatt hours used. Refer to the *Operator's Manual* for additional information.

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.

Neither The Toro Company nor Toro Warranty Company is 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 engine 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 for details.

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 the Toro importer.