



LED Light Kit

Greensmaster® Flex™ 1800/2100 Series and eFlex® 1800/2100 Series Mower

Model No. 04293

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.

Important: If you are installing the LED Light Kit on Greensmaster Models 04040, 04041, 04044, and 04045, ensure that you have installed the LED Light and Wireless Hour Meter Harness Kit for 2012 and After (Model 04295) before you install the LED light kit.

Note: Determine the left, right, front, and back sides of the machine from the normal operating position.

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	–	Remove the control-panel cover.
3	Left light-bar strap Flange-head bolt (5/16 x 1-1/4 inches) Flange locknuts (5/16 inch) Flange-head bolt (5/16 x 1 inch) Washer (5/16 inch) Right light-bar strap Cable tie	1 4 6 2 2 1 3	Assemble the light bar to the machine.
4	No parts required	–	Assemble the LED lights to the light bar.
5	Cable tie	3	Install the wire harness to the machine.
6	2-position rocker switch	1	Install the light switch (machine models 04042, 04043, 04046, and 04047).
7	No parts required	–	Finish the light kit installation.



1

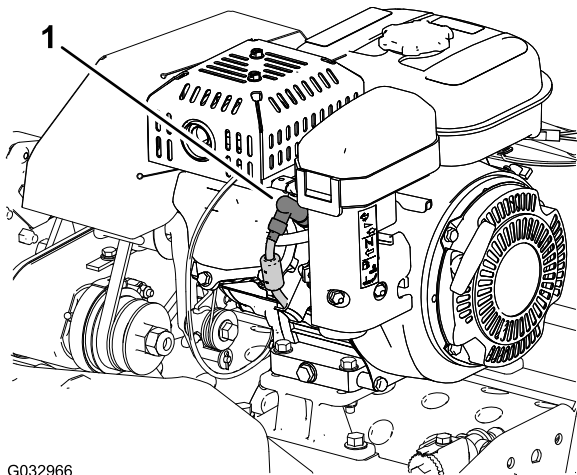
Preparing the Machine

No Parts Required

Disconnecting the Spark-Plug Wire

Flex 1800 and 2100 Series Machines

1. Ensure the traction and reel drive engagement lever is in the REEL-DRIVE OFF position; refer to the *Operator's Manual*.
2. Move the machine to a level surface and set the traction and reel drive engagement lever to the TRACTION-DRIVE NEUTRAL position; refer to the *Operator's Manual*.
3. Set the throttle control to the SLOW position and rotate the On-Off switch to the OFF position; refer to the *Operator's Manual*.
4. Remove the spark-plug wire from the terminal of the spark plug (Figure 1).



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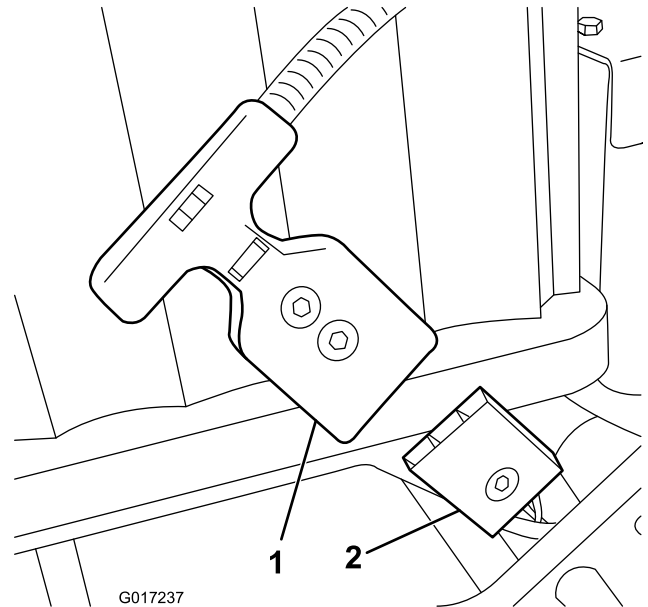
Figure 1

1. Spark-plug wire

Disconnecting the Battery

eFlex 1800 and 2100 Series Machines

1. Ensure the traction and reel drive engagement lever is in the REEL-DRIVE OFF position.
2. Move the machine to a level surface and set the traction and reel drive engagement lever to the TRACTION-DRIVE NEUTRAL position.
3. Rotate the key switch to the OFF position.
4. Wait 10 to 15 minutes for the motor capacitors to discharge.
5. Disconnect the T-handle connector of the battery adapter wire harness from the P04 connector of the battery-wire harness (Figure 2).



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Figure 2

1. P04 T-handle connector (battery adapter-wire harness)
2. P04 connector (battery-wire harness)

2

Removing the Control-Panel Cover

No Parts Required

Procedure

1. Remove the 4 flange-head screws (1/4 x 1/2 inch) that secure the control-panel cover to the support bracket of the handle bar (Figure 3).

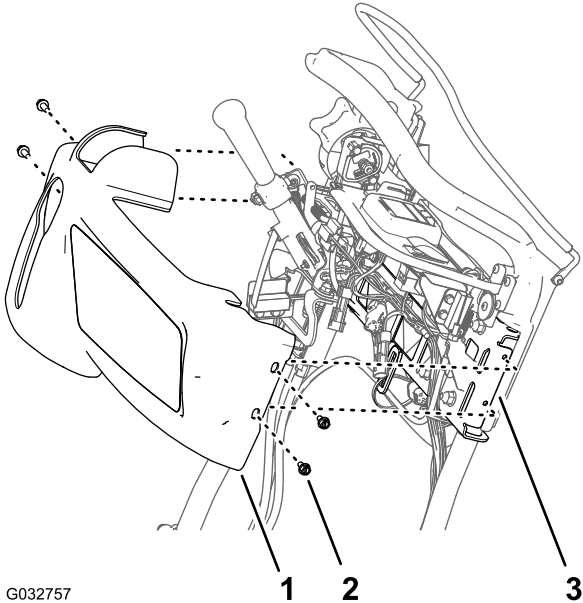


Figure 3

- | | |
|---------------------------------------|---------------------------------|
| 1. Control-panel cover | 3. Support bracket (handle bar) |
| 2. Flange-head screw (1/4 x 1/2 inch) | |

2. Move the control panel cover up and forward from the control panel, and remove the cover from the machine (Figure 3).

Note: Retain the flange-head screws and control-panel cover for assembly in [Installing the Control-Panel Cover](#) (page 9).

3

Assembling the Light Bar to the Machine

Parts needed for this procedure:

1	Left light-bar strap
4	Flange-head bolt (5/16 x 1-1/4 inches)
6	Flange locknuts (5/16 inch)
2	Flange-head bolt (5/16 x 1 inch)
2	Washer (5/16 inch)
1	Right light-bar strap
3	Cable tie

Installing the Light Bar Straps to the Machine

1. Align the 2 holes in the left light-bar strap with the 2 holes 9.5 mm (3/8 inch) in the left side plate (Figure 4).

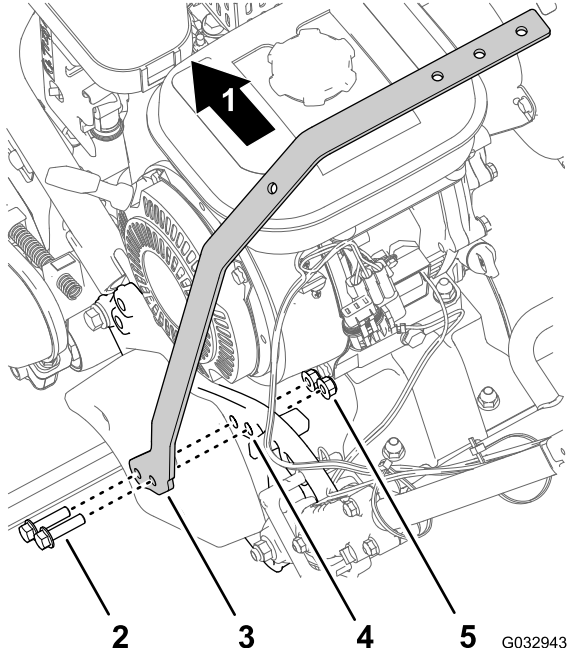


Figure 4

Engine model shown; the electrical models are similar.

- | | |
|--|------------------------------|
| 1. Front of the machine | 4. Hole (left side plate) |
| 2. Flange-head bolt (3/8 x 1-1/4 inches) | 5. Flange locknut (3/8 inch) |
| 3. Left light-bar strap | |

2. Assemble the left light-bar strap to the left side plate (Figure 4) with the 2 flange-head bolts (3/8 x 1-1/4 inches) and 2 flange locknuts (3/8 inch).

- Align the 2 holes in the right light-bar strap with the 2 holes 9.5 mm (3/8 inch) holes in the right side plate (Figure 5).

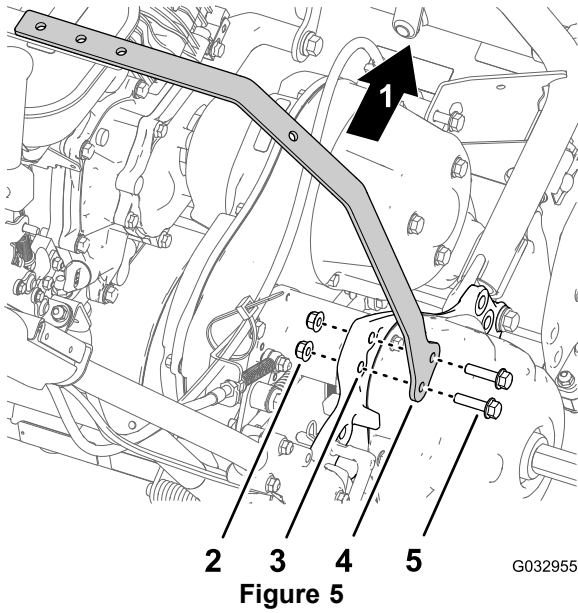


Figure 5

Engine model shown; the electrical models are similar.

- | | |
|------------------------------|--|
| 1. Front of the machine | 4. Right light-bar strap |
| 2. Flange locknut (3/8 inch) | 5. Flange-head bolt (3/8 x 1-1/4 inches) |
| 3. Hole (right side plate) | |

- Assemble the right light-bar strap to the right side plate (Figure 5) with the 2 flange-head bolts (3/8 x 1-1/4 inches) and 2 flange locknuts (3/8 inch).
- Torque the flange-head bolts and flange nuts to 37 to 45 N·m (27 to 33 ft-lb).

Assembling the Light-Bar Straps

- Align the holes in the light-bar straps as follows:
 - Flex and eFlex 1800 series machines**—align the 2 holes furthest from the straight ends of the left light-bar strap and the right light-bar strap (A of Figure 6).
 - Flex and eFlex 2100 series machines**—align the 2 holes closest to the straight ends of the left light-bar strap and the right light-bar strap (B of Figure 6).

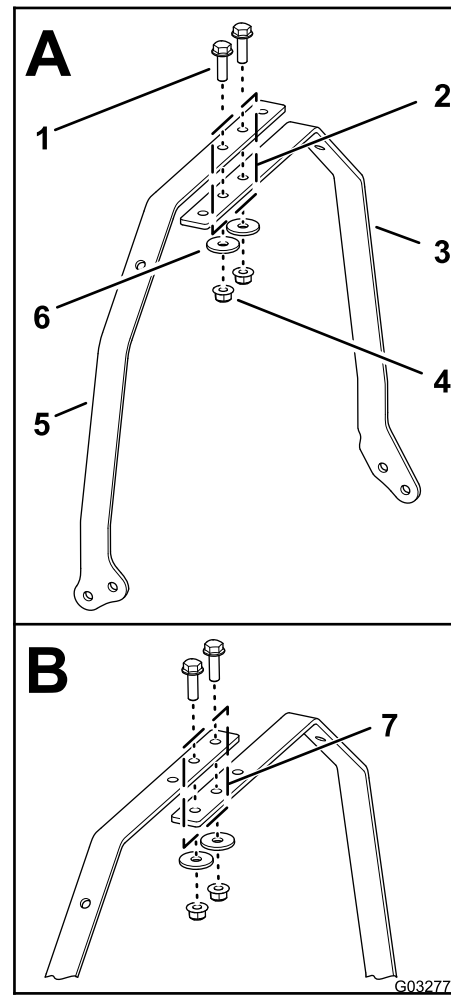


Figure 6

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|---|---|
| 1. Flange-head bolt (5/16 x 1 inch) | 5. Right light-bar strap |
| 2. Hole alignment (Flex and eFlex 1800 series machines) | 6. Washer (5/16 inch) |
| 3. Left light-bar strap | 7. Hole alignment (Flex and eFlex 2100 series machines) |
| 4. Flange locknut (5/16 inch) | |

- Assemble the light-bar straps with the 2 flange-head bolts (5/16 x 1 inch), 2 washers (5/16 inch), and 2 flange locknut (5/16 inch).
- Torque the nuts and bolts to 1,978 to 2,542 N·cm (175 to 225 in-lb).

4

Assembling the LED Lights to the Light Bar

No Parts Required

Assembling the Wire Harness to the LED Light Fixtures

1. Connect the 2-pin of the LED light into the 2-socket connector of the LED light harness (Figure 7).

Note: Ensure that the connectors are fully seated and the latch of the connectors snap together securely.

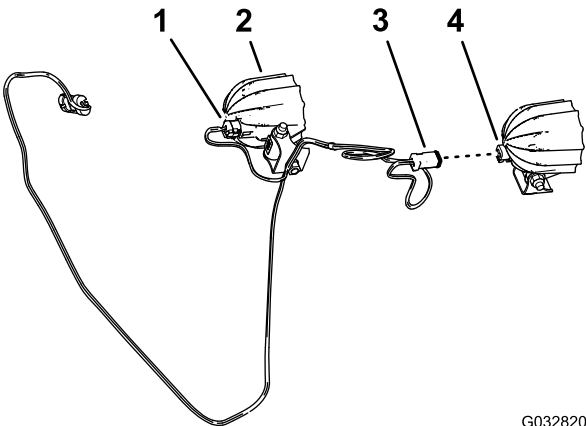


Figure 7

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- | | |
|---|-----------------------------------|
| 1. 2-socket connector (LED light harness) | 3. 2-socket connector (LED light) |
| 2. LED light | 4. 2-pin connector (LED light) |
-
2. Repeat step 1 for the other LED light and the other 2-socket connector of the harness (Figure 7).
 3. If assembled, remove the long carriage bolt and nut that secure the mount bracket to the frame of the LED light (Figure 8).

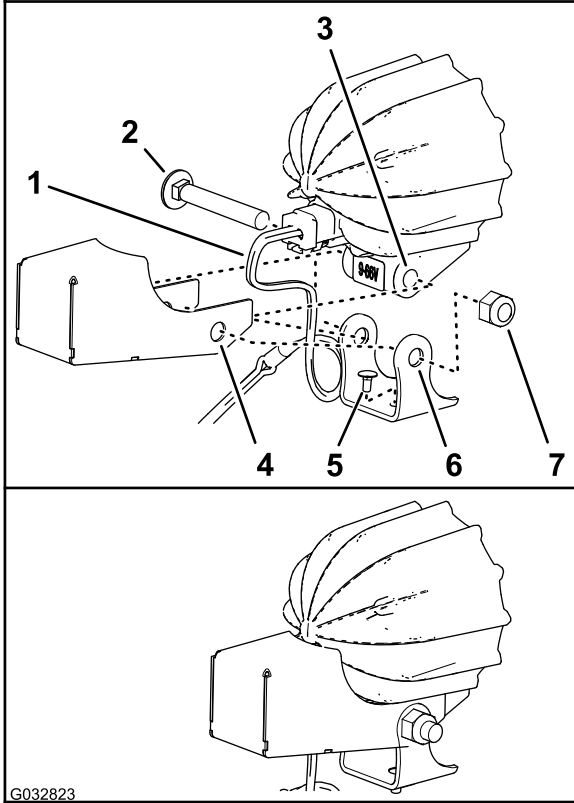


Figure 8

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- | | |
|-------------------------|------------------------------|
| 1. LED light harness | 5. Carriage bolt (short) |
| 2. Carriage bolt (long) | 6. Mount bracket (LED light) |
| 3. Frame (LED light) | 7. Nut |
| 4. Shield | |

4. Ensure that the short carriage bolt is assembled through the hole in the bottom of the mounting bracket as shown in Figure 8.
 5. Align the holes in the shield and mount bracket to the holes in the frame of the LED light as shown in Figure 8.
- Important:** Ensure the wire harness has a generous loop of wire inside the shield. When adjusting the alignment of the lights, the operator must not be able to pull the wire harness tight and strain the 2-socket connector.
6. Assemble the shield and mount bracket to the frame of the LED light with the carriage bolt and nut (Figure 8).
 7. Torque the nut to 429 to 519 N·cm (38 to 46 in-lb).
 8. Repeat steps 3 through 7 to the other LED light and shield.

Assembling the LED Light Fixtures to the Light-Bar Straps

1. Align the light fixtures with the lenses of the lights toward the front of the machine (Figure 9).

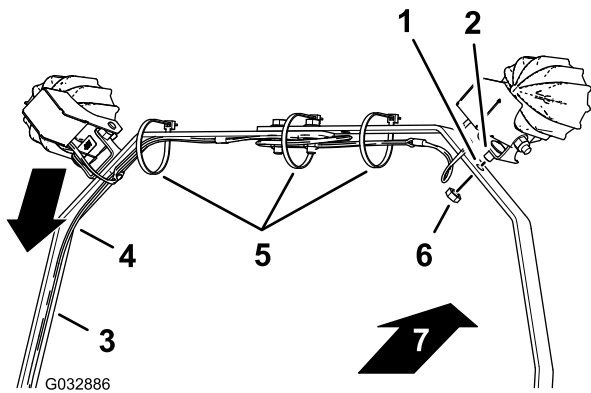


Figure 9

- | | |
|---------------------------|-------------------------|
| 1. Hole (light-bar strap) | 5. Cable ties |
| 2. Carriage bolt (short) | 6. Nut |
| 3. Left light-bar strap | 7. Front of the machine |
| 4. Harness | |

2. Align the harness along the left light-bar strap as shown in Figure 9.
3. Align the short carriage bolt that you assembled to the mount bracket for the LED light with the hole in the light-bar strap (Figure 9).
4. Assemble the LED light and short carriage bolt to the light-bar strap with a nut (Figure 9).
5. Repeat steps 3 and 4 for the other LED light.
6. Torque the nut to 1,878 to 2,542 N·cm (175 to 225 in-lb)
7. Secure the wire harness to the light-bar straps with cable ties as shown in Figure 9.

Note: Before tightening the cable ties, make sure the LED lights are aligned slightly downward from the expected final position. This can prevent damaging the harness connectors if the lights are rotated down by the operator.

Note: If you have excess length of wire harness between the LED lights, bundle the wire harness and secure it at the center cable tie.

5

Installing the Wire Harness to the Machine

Parts needed for this procedure:

3	Cable tie
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Routing the Wire Harness

1. Route the wiring harness for the LED light kit down the left light-bar strap and across to the left handle-bar tube (Figure 10).

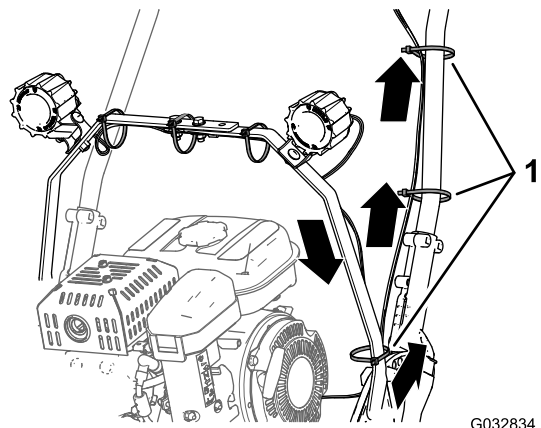


Figure 10

1. Cable ties
-
2. Route the wire harness up the left handle-bar tube to the control panel (Figure 10).
 3. Secure the wire harness to the left light-bar strap and handle-bar tube with 3 cable ties as shown in Figure 10.

Important: If the handle is not fully extended out, make sure there is sufficient slack in the wire harness—approximately 76 mm (3 inches) between the lowest cable tie on the handle and the light-bar strap.

Connecting the Wire Harness to the Wire Harness of the LED Light and Wireless Hour Meter Harness Kit

Flex 1800 and 2100 Series Machines

Note: The 2-position rocker switch with a 10-pin connector is installed in the LED light and wireless hour meter harness kit.

1. Align the 2 socket connector of the wire harness for the LED light and wireless hour meter harness kit with the 2 pin connector of the wiring harness of the LED light kit (Figure 11).

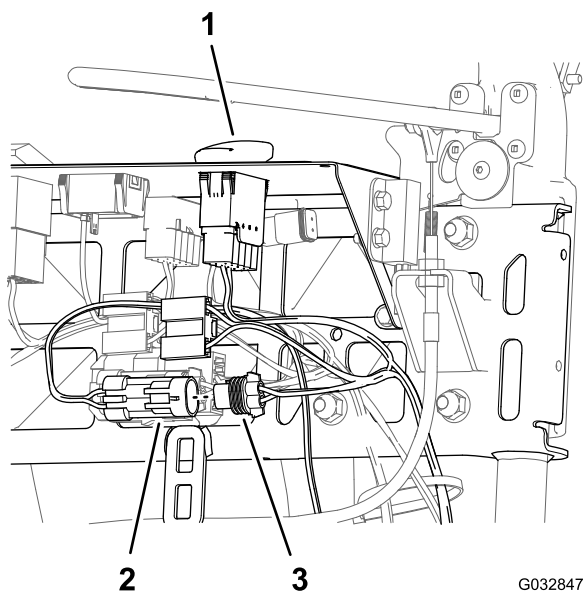


Figure 11

1. 2-position rocker switch— 10-pin connector (installed in the LED light and wireless hour meter harness kit)
2. 2-pin connector (wire harness—LED light kit)
3. 2-socket connector (wire harness—LED light and wireless hour meter harness kit)

2. Connect the 2 socket connector of the light-kit harness to the 2 pin connector of the LED light and wireless hour meter harness (Figure 11).

Note: Ensure that the connectors are fully seated and the latch of the connectors snap together securely.

Connecting the Wire Harness to the Wire Harness of the Machine

eFlex 1800 and 2100 Series Machines

1. Align the 2-socket connect of the wire harness for the machine with the 2-pin connector of the light-kit harness (Figure 12).

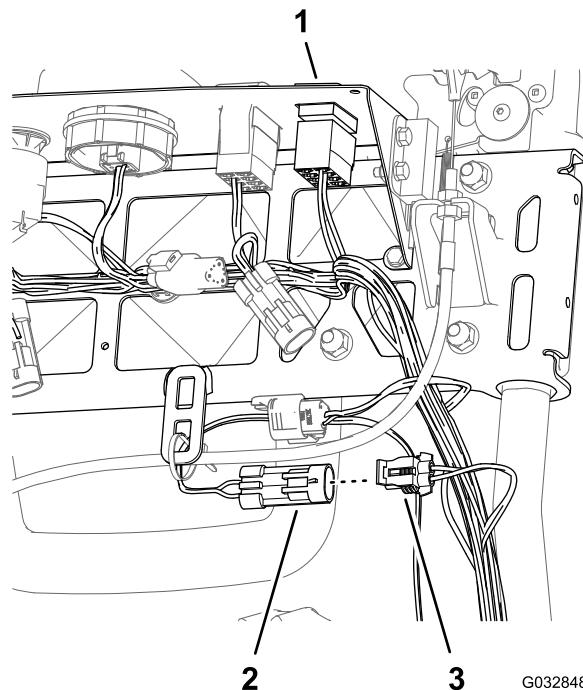


Figure 12

1. Plug
2. 2-pin connector (light-kit harness)
3. 2-socket connect (wire harness of the machine)

2. Connect the 2-socket connect of the wire harness for the machine with the 2-pin connector of the light-kit harness (Figure 12).

Note: Ensure that the connectors are fully seated and the latch of the connectors snap together securely.

6

Installing the Light Switch

eFlex 1800 and 2100 Series Machines

Parts needed for this procedure:

1	2-position rocker switch
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Procedure

1. Remove the plug from the opening at the left face of the control panel (Figure 13).

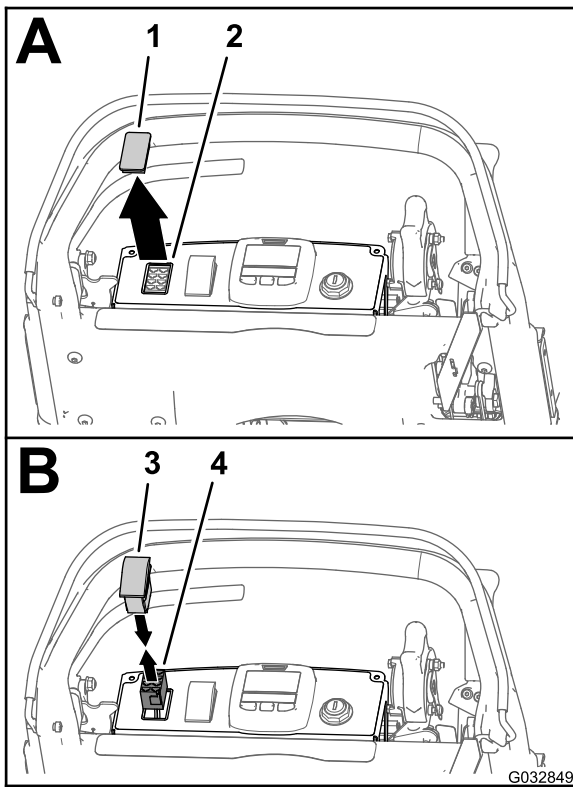


Figure 13

- | | |
|----------------------------|---|
| 1. Plug | 3. 2-position rocker switch |
| 2. Opening (control panel) | 4. 10-socket connector (wire harness—LED light and wireless hour meter harness kit) |

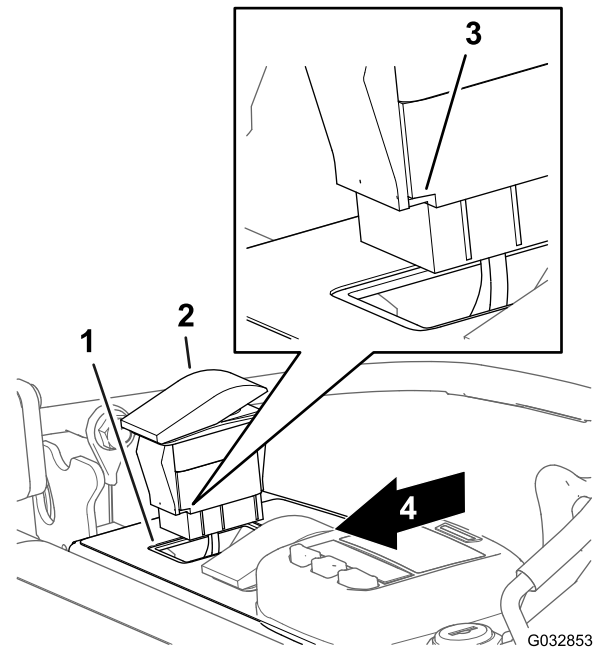


Figure 14

- | | |
|----------------------------|-------------------------------|
| 1. Opening (control panel) | 3. Notch (body—rocker switch) |
| 2. Rocker switch | 4. Back of the control panel |

2. Pull up the 8-socket connector of the wire harness for the machine through the opening in the control panel (Figure 13).
3. Connect the 8-pin connector of the 2-position rocker switch into the 8-socket connector of the wire harness for the machine (Figure 13).

Note: Ensure that the connectors are fully seated and the latch of the connectors snap together securely.

4. Align the switch so that the notch in the body of the switch is toward the back of the control panel (Figure 14).

7

Finishing the Light Kit Installation

No Parts Required

Installing the Control-Panel Cover

1. Align the keyhole slot in the control-panel cover over the traction and reel drive handle (Figure 15).

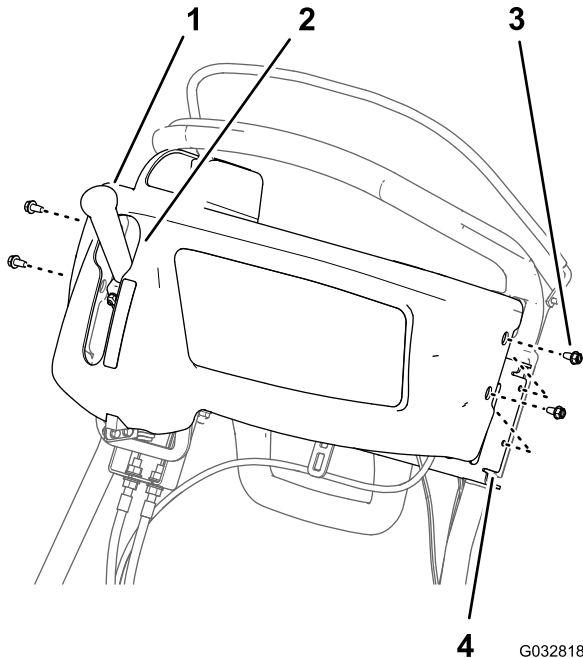


Figure 15

- | | |
|---------------------------------------|---------------------------------------|
| 1. Traction and reel drive handle | 3. Flange-head screw (1/4 x 1/2 inch) |
| 2. Keyhole slot (control-panel cover) | 4. Support bracket (handle bar) |

2. Align the holes in the control-panel cover to the holes in the support bracket of the handle bar (Figure 15).
3. Assemble the cover to the bracket (Figure 15) with the 4 flange-head screw (1/4 x 1/2 inch) that you removed in step 1 of (page).
4. Tighten the screws by hand.

Connecting the Spark-Plug Wire

Flex 1800 and 2100 Series Machines

Connect the spark-plug wire to the terminal of the spark plug; refer to Figure 1 of [Disconnecting the Spark-Plug Wire](#) (page 2).

Connecting the Battery

eFlex 1800 and 2100 Series Machines

Connect the T-handle connector of the battery adapter-wire harness to the P04 connector of the battery-wire harness; refer to Figure 2 of [Disconnecting the Battery](#) (page 2).

Notes:

Notes:



Count on it.