



Electric Deck Lift Kit

Z Master® 4000 Series Riding Mower

Model No. 144-0390

Installation Instructions

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	–	Remove the left side pod and fuel-tank cap.
3	No parts required	–	Remove the existing left motion-control lever.
4	No parts required	–	Remove the deck-lift spring.
5	Left motion-control lever	1	Install the new left motion-control lever.
6	Outer actuator bracket Inner actuator bracket Locknut (1/2 inch) Pivot pin Carriage bolt (5/16 x 2-3/4 inches) Carriage bolt (5/16 x 3/4 inch) Locknut (5/16 inch) Hex-head bolt (1/2 x 1-1/4 inches)	1 1 2 1 2 2 4 1	Install the actuator brackets and rear-lift hardware.
7	Deck lift wire harness Push-mount fastener Relay Taptite screw	1 1 2 1	Route the wire harness and install the relays.
8	No parts required	–	Install the left side pod and fuel-tank cap.
9	No parts required	–	Connect the wire harness.
10	Actuator Pin clip Flange-head bolt (1/2 x 2-1/4 inches) Locknut (1/2 inch)	1 1 1 1	Install the actuator.
11	No parts required	–	Remove the transport lock.
12	No parts required	–	Check the mower deck height of cut and rake.



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

1

Preparing the Machine

No Parts Required

Procedure

1. Park the machine on a level surface.
2. Disengage the blade-control switch.
3. Move the motion-control levers outward to the NEUTRAL-LOCK position.
4. Engage the parking brake.
5. Shut off the engine and remove the key.
6. Disconnect the negative battery cable.
7. Push the deck-lift pedal fully forward to lock the mower deck in the TRANSPORT position (Figure 1).

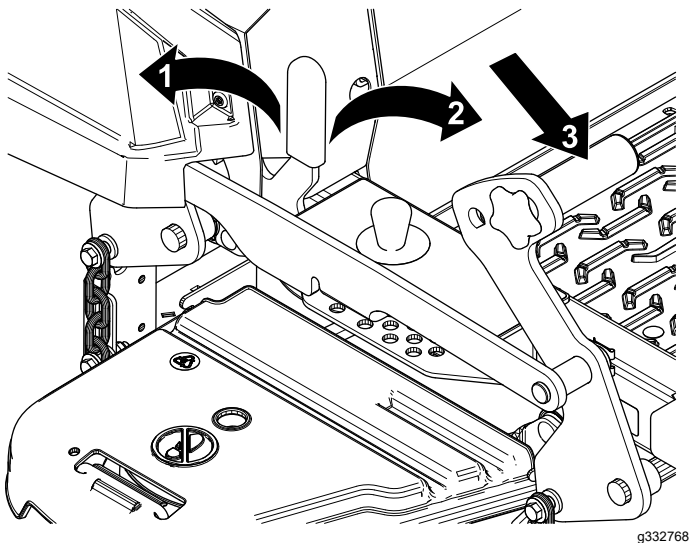


Figure 1

1. LOCK position—the mower deck locks into the transport position.
2. UNLOCK position—the mower deck does not lock into the transport position.
3. Push on the deck-lift pedal using your foot to raise the mower deck.

8. Support the mower deck using 4x4 blocks of wood.
9. Remove the height-of-cut pin from the height-of-cut bracket (Figure 2).

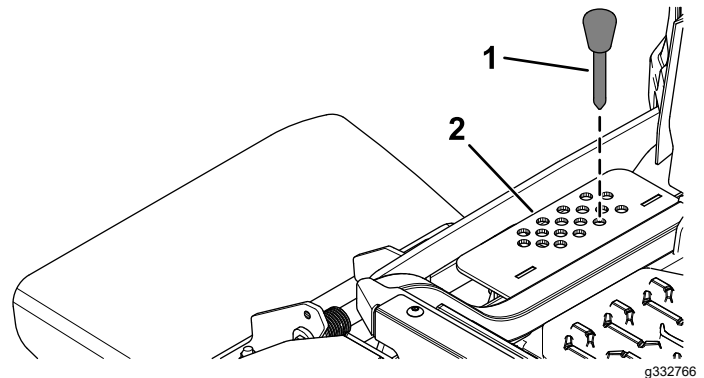


Figure 2

1. Height-of-cut pin
2. Height-of-cut bracket

2

Removing the Left Side Pod and Fuel-Tank Cap

No Parts Required

Procedure

1. Remove the fuel-tank cap from the left side pod ([Figure 3](#)).

Retain the fuel-tank cap for later installation.

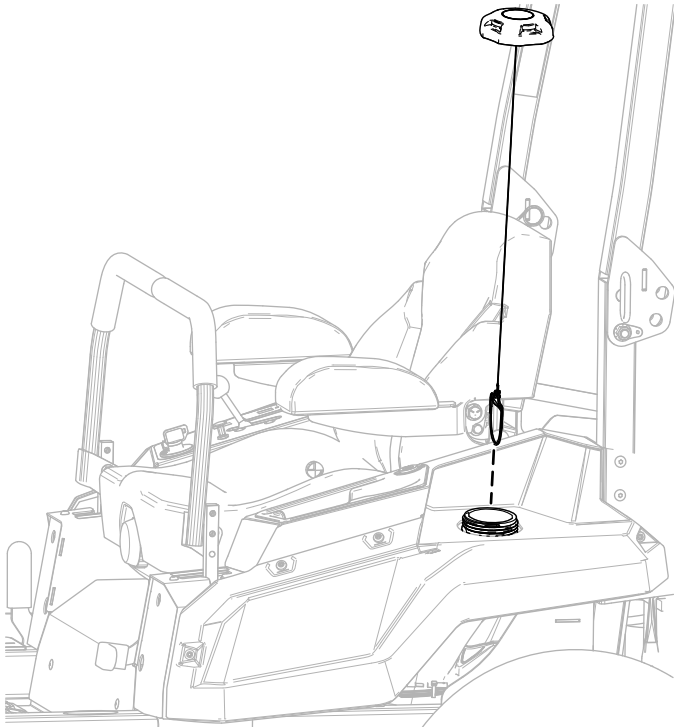
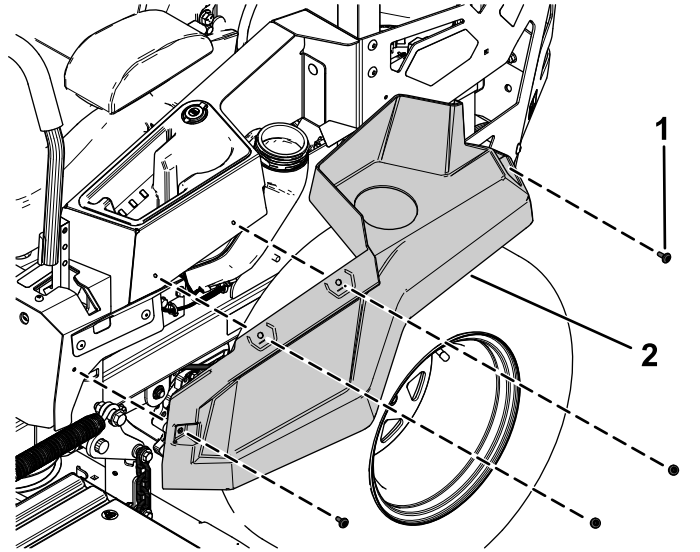


Figure 3

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2. Remove the 4 shoulder screws securing the left side pod and remove the left side pod ([Figure 4](#)).

Retain the left side pod and 4 shoulder screws for later installation.



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Figure 4

1. Shoulder screw
2. Left side pod

3. Install the fuel-tank cap ([Figure 3](#)).

3

Removing the Existing Left Motion-Control Lever

No Parts Required

Procedure

Remove the 2 flange-head bolts (3/8 x 1 inch) securing the existing left motion-control lever and remove the left motion-control lever (Figure 5).

Retain the 2 flange-head bolts (3/8 x 1 inch) for later installation.

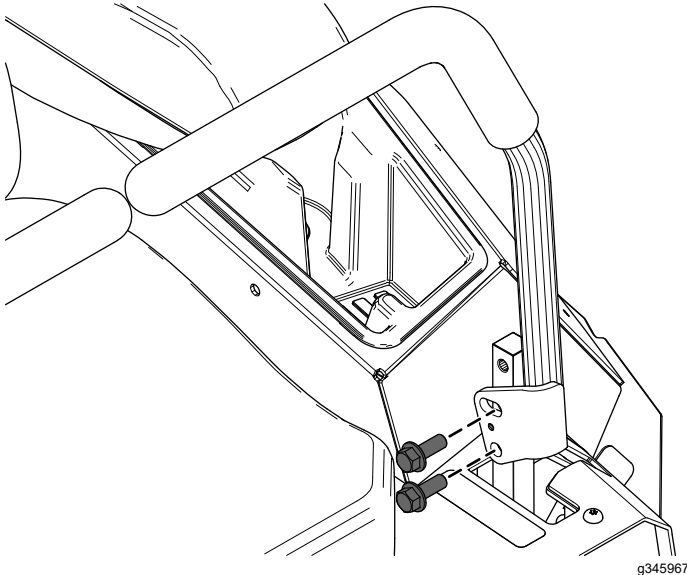


Figure 5

4

Removing the Deck-Lift Spring

No Parts Required

Procedure

1. Remove the spring bolt securing the front of the deck-lift spring (Figure 6).
2. Remove the shoulder bolt and locknut (1/2 inch) securing the rear of the deck-lift spring (Figure 6).
3. Remove the deck-lift spring (Figure 6).

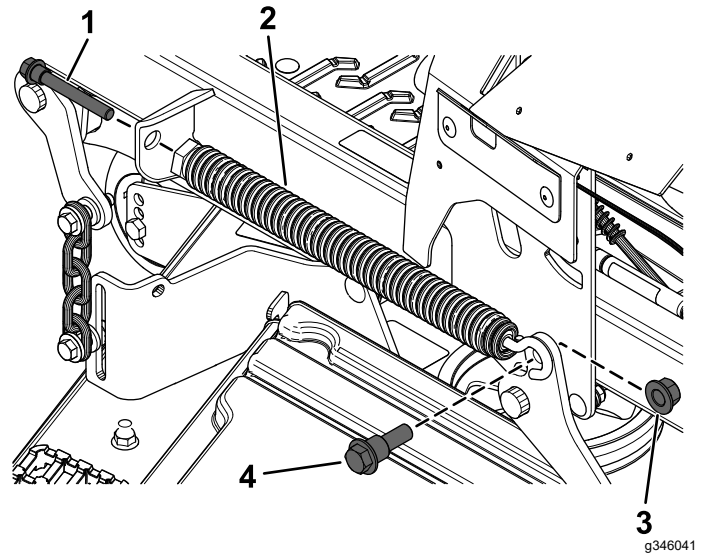


Figure 6

- | | |
|---------------------|-----------------------|
| 1. Spring bolt | 3. Locknut (1/2 inch) |
| 2. Deck-lift spring | 4. Shoulder bolt |

5

Installing the New Left Motion-Control Lever

Parts needed for this procedure:

1	Left motion-control lever
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Procedure

1. Secure the new left motion-control lever using the previously removed 2 flange-head bolts (3/8 x 1 inch) as shown in [Figure 7](#).

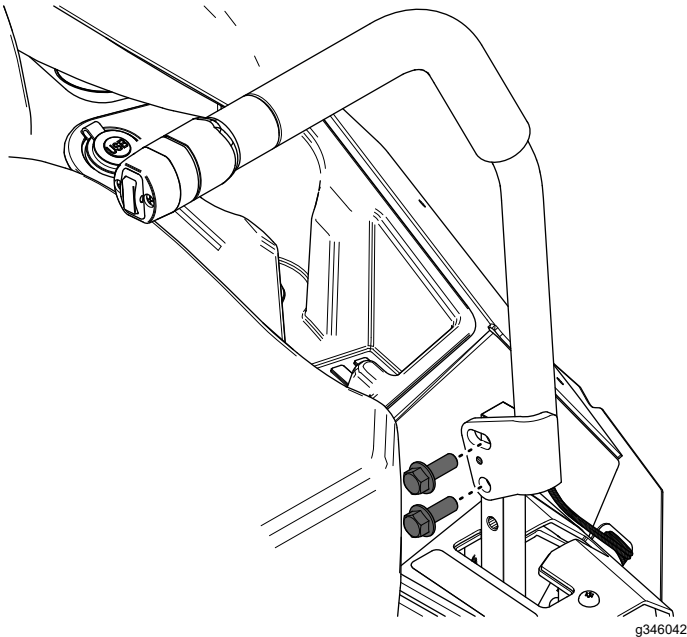


Figure 7

2. Route the wire harness on the motion-control lever through the hole in the left cover plate ([Figure 8](#)).
3. Secure the wire harness to the notch in the left motion-control plate ([Figure 8](#)).

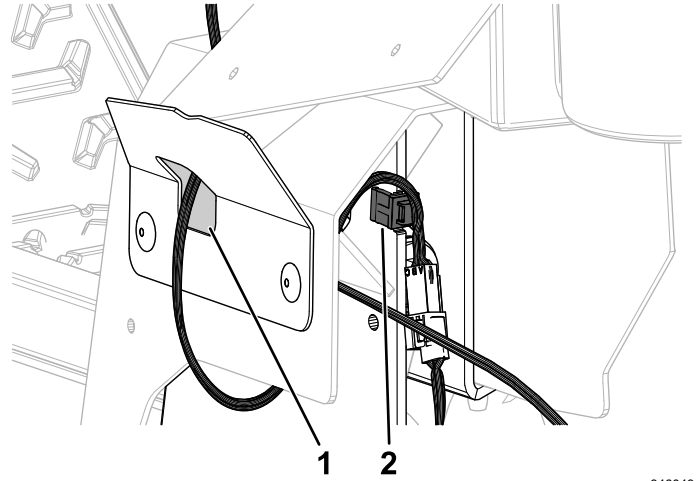


Figure 8

1. Route the harness through the opening in the left cover plate here.
2. Secure the wire harness to the notch here.

6

Installing the Actuator Brackets and Rear-Lift Hardware

Parts needed for this procedure:

1	Outer actuator bracket
1	Inner actuator bracket
2	Locknut (1/2 inch)
1	Pivot pin
2	Carriage bolt (5/16 x 2-3/4 inches)
2	Carriage bolt (5/16 x 3/4 inch)
4	Locknut (5/16 inch)
1	Hex-head bolt (1/2 x 1-1/4 inches)

Procedure

1. Secure the pivot pin to the rear deck-lift arm using 1 locknut (1/2 inch) as shown in [Figure 9](#).

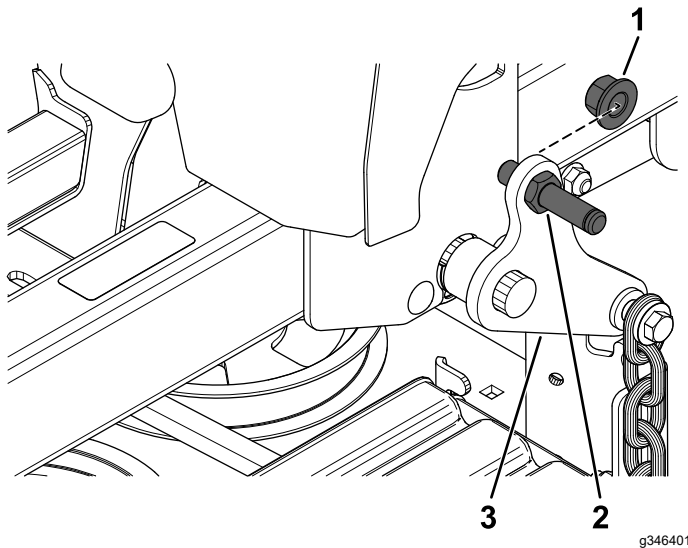


Figure 9

1. Locknut (1/2 inch)
2. Pivot pin
3. Rear deck-lift arm

2. Loosely secure the outer actuator bracket to the left frame tube using 1 hex-head bolt (1/2 x 1-1/4 inches) and 1 locknut (1/2 inch) as shown in [Figure 10](#).

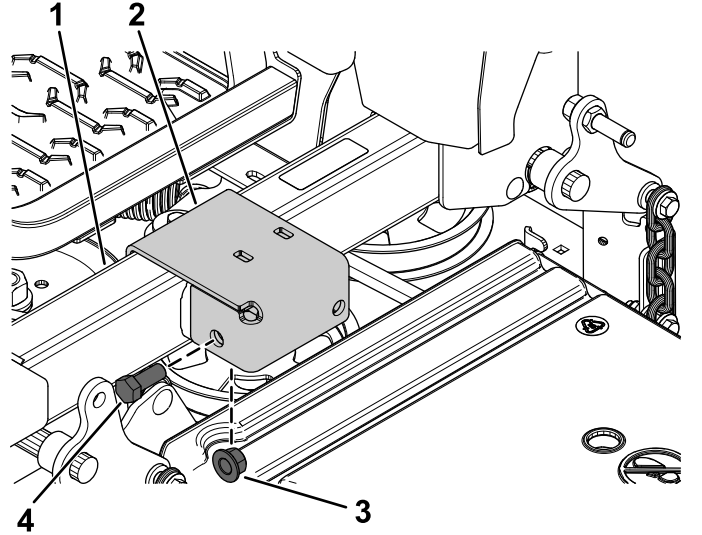


Figure 10

1. Left frame tube
2. Outer actuator bracket
3. Locknut (1/2 inch)
4. Hex-head bolt (1/2 x 1-1/4 inches)

3. Loosely secure the inner actuator bracket to the outer actuator bracket using 2 carriage bolts (5/16 x 3/4 inch) and 2 locknuts (5/16 inch) as shown in [Figure 11](#).

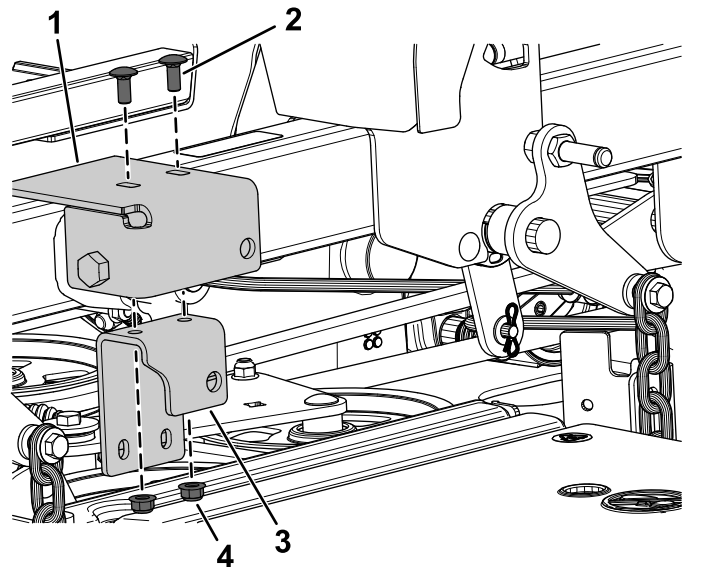


Figure 11

1. Outer actuator bracket
2. Carriage bolt (5/16 x 3/4 inch)
3. Inner actuator bracket
4. Locknut (5/16 inch)

4. Loosely secure the inner actuator bracket to the outer actuator bracket using the 2 carriage bolts (5/16 x 2-3/4 inches) and 2 locknuts (5/16 inch) as shown in [Figure 12](#).

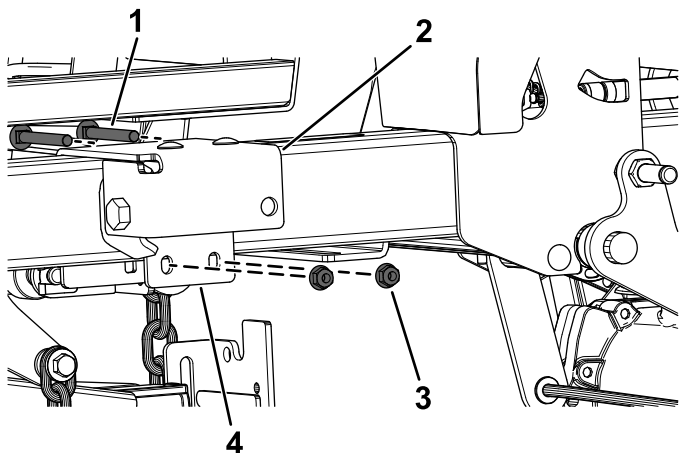


Figure 12

1. Carriage bolt (5/16 x 2-3/4 inches)
2. Outer actuator bracket
3. Locknut (5/16 inch)
4. Inner actuator bracket

5. Tighten the flange-head bolt (1/2 x 1-1/4 inches) and locknut (1/2 inch).
6. Tighten the 4 locknuts (5/16 inch).

7

Routing the Wire Harness and Installing the Relays

Parts needed for this procedure:

1	Deck lift wire harness
1	Push-mount fastener
2	Relay
1	Taptite screw

Procedure

1. Install the front push-mount fastener into the parking-brake lever bracket ([Figure 13](#)).

Note: The rear push-mount fastener is already installed.

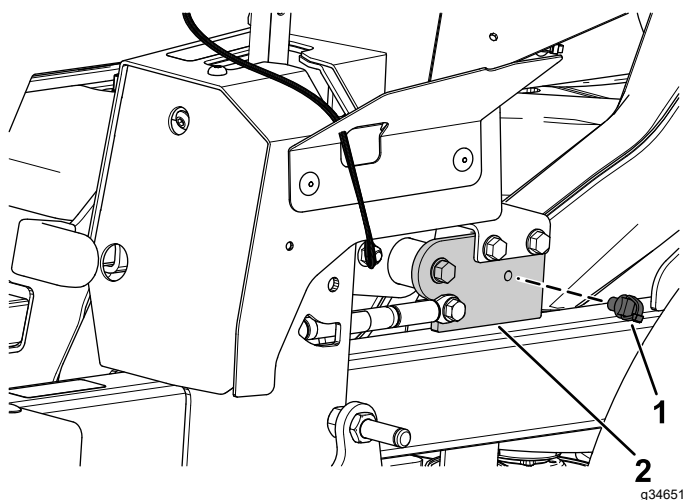


Figure 13

1. Push-mount fastener
2. Parking-brake lever bracket

2. Route the wire harness (Figure 14) along the left side of the frame, through the push-mount fastener you installed in step 1.

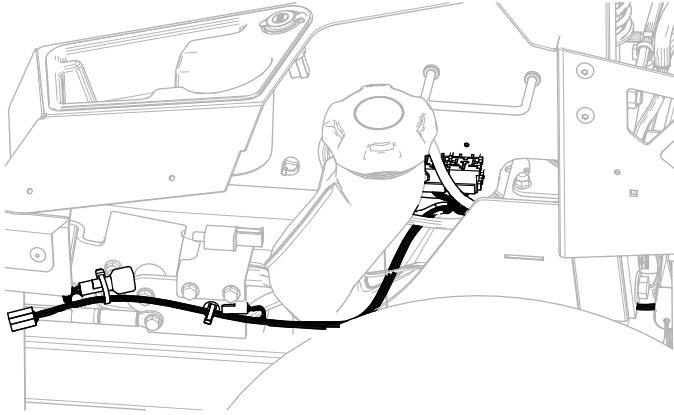


Figure 14

4. Secure the wire harness near the relays using the tapite screw (Figure 16).

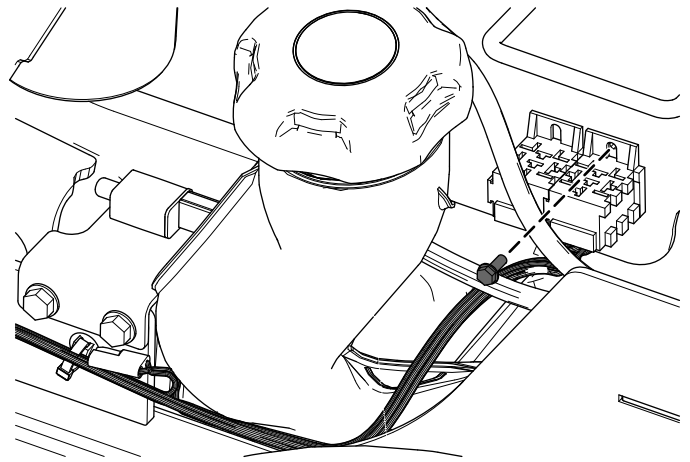


Figure 16

3. Install the second push-mount fastener into the rear fuel-tank bracket (Figure 15).

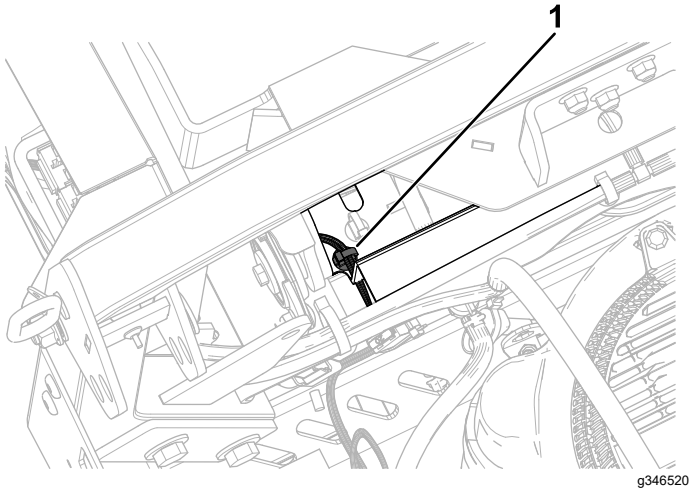


Figure 15

1. Push-mount fastener

5. Install the 2 relays (Figure 17).

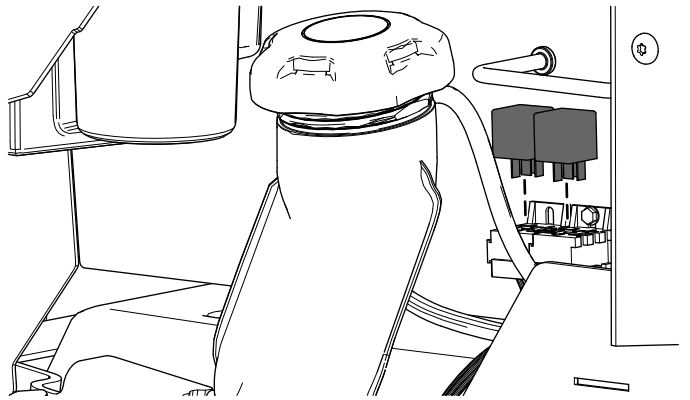


Figure 17

8

Install the Left Side Pod and Fuel-Tank Cap

No Parts Required

Procedure

1. Remove the fuel-tank cap (Figure 3).
2. Secure the left side pod using the previously removed 4 shoulder screws (Figure 4).
3. Install the fuel-tank cap (Figure 3).

9

Connecting the Wire Harness

No Parts Required

Procedure

1. Connect the kit wire harness to the machine wire harness connector labeled CONN-DECK LIFT.
2. Connect the kit wire harness connector to the new left motion-control lever connector (Figure 18).

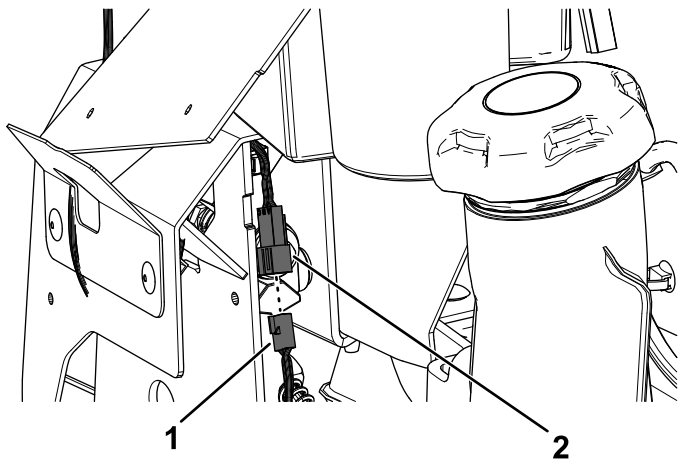


Figure 18

1. Kit wire harness connector
2. New left motion-control lever connector

3. Connect the kit wire harness to the actuator.

4. Pull the boot cover off the positive battery terminal.
5. Remove the nut from the positive battery terminal and install the kit wire harness positive terminal ring onto the bolt (Figure 19).
6. Secure the positive terminal ring using the previously removed nut (Figure 19).
7. Install the boot cover over the positive battery terminal.
8. Remove the nut from the negative battery terminal and install the kit wire harness negative terminal ring onto the bolt (Figure 19).
9. Secure the negative terminal ring using the previously removed nut (Figure 19).

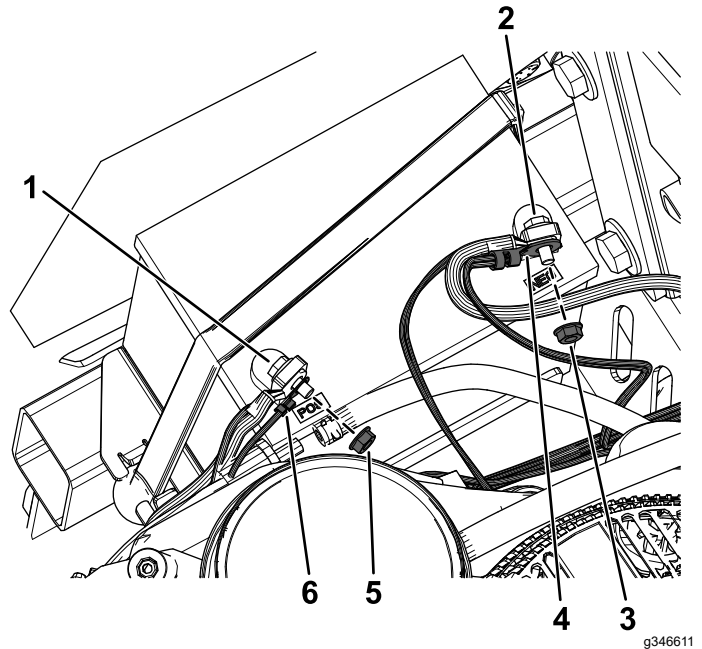


Figure 19

1. Positive terminal bolt
2. Negative terminal bolt
3. Negative terminal nut
4. Kit wire harness negative terminal ring
5. Positive terminal nut
6. Kit wire harness positive terminal ring

10

Installing the Actuator

Parts needed for this procedure:

1	Actuator
1	Pin clip
1	Flange-head bolt (1/2 x 2-1/4 inches)
1	Locknut (1/2 inch)

Procedure

1. Secure the actuator to the rear deck-lift arm using the pin clip (Figure 20).

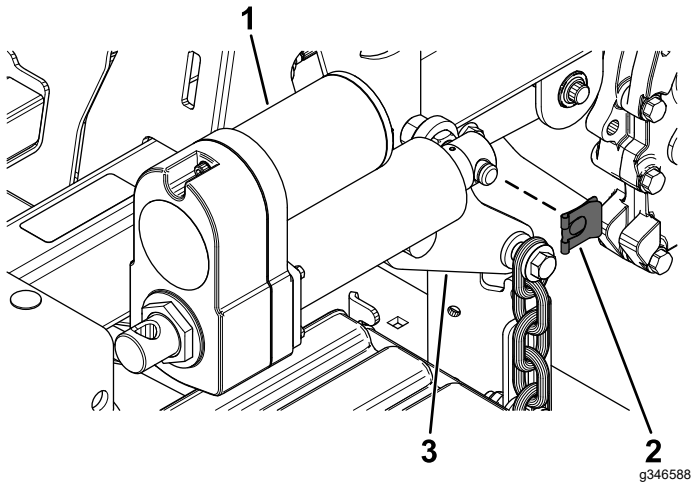


Figure 20

1. Actuator
2. Pin clip
3. Rear deck-lift arm

2. Rotate the actuator upward and align the actuator with the hole in the outer actuator bracket.

If the holes **do not** align, turn the machine on, and carefully press the deck-lift switch on the motion-control lever up or down until the holes align.

3. Secure the actuator to the outer actuator bracket using 1 flange-head bolt (1/2 x 2-1/4 inches) and 1 locknut (1/2 inch) as shown in Figure 21.

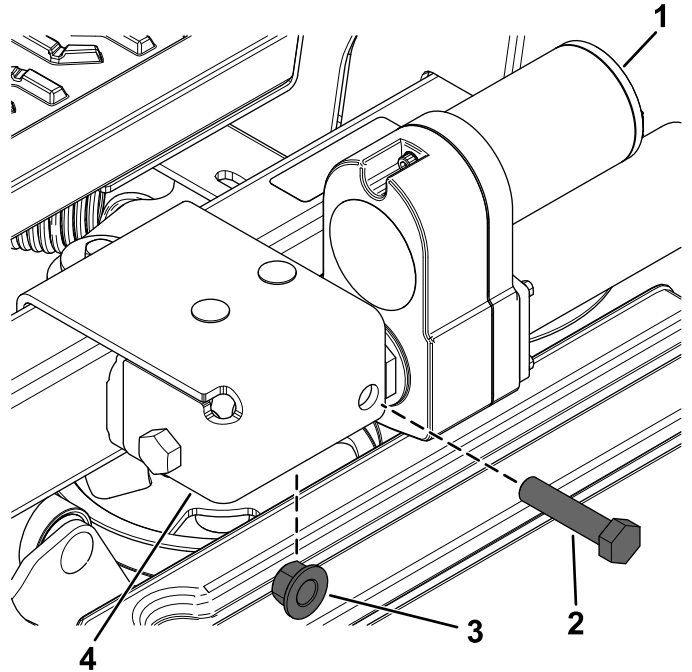


Figure 21

1. Actuator
2. Flange-head bolt (1/2 x 2-1/4 inches)
3. Locknut (1/2 inch)
4. Outer actuator bracket

11

Removing the Transport Lock

No Parts Required

Procedure

1. Push the deck-lift switch upward until you hear a ratcheting sound or clicking sound from the actuator.
2. Turn off the machine.
3. Remove the bolt, washer, and transport lock (Figure 22).

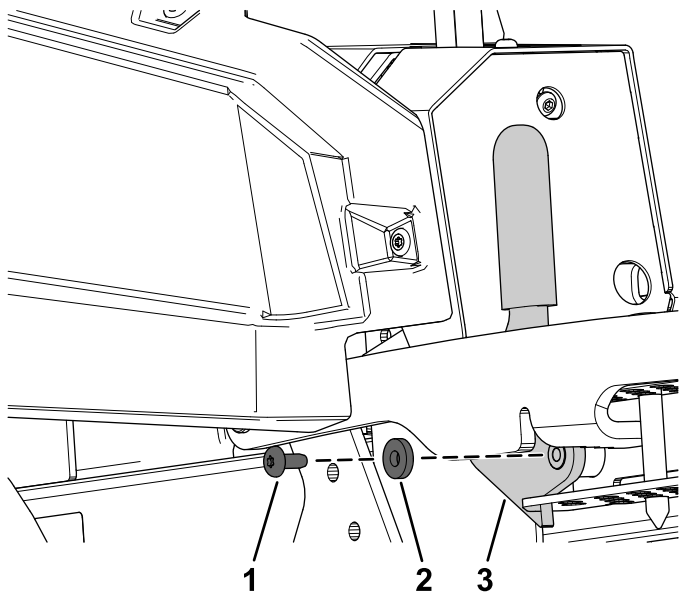


Figure 22

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- | | |
|-----------|-------------------|
| 1. Bolt | 3. Transport lock |
| 2. Washer | |

12

Checking the Mower Deck Height of Cut and Rake

No Parts Required

Procedure

Refer to the Adjusting the Side-to-Side Leveling and the Blade Slope procedure in the *Operator's Manual*.

Operation

Adjusting the Height of Cut For Machines with an Electric Deck Lift

1. Push up on the deck-lift switch (Figure 23).

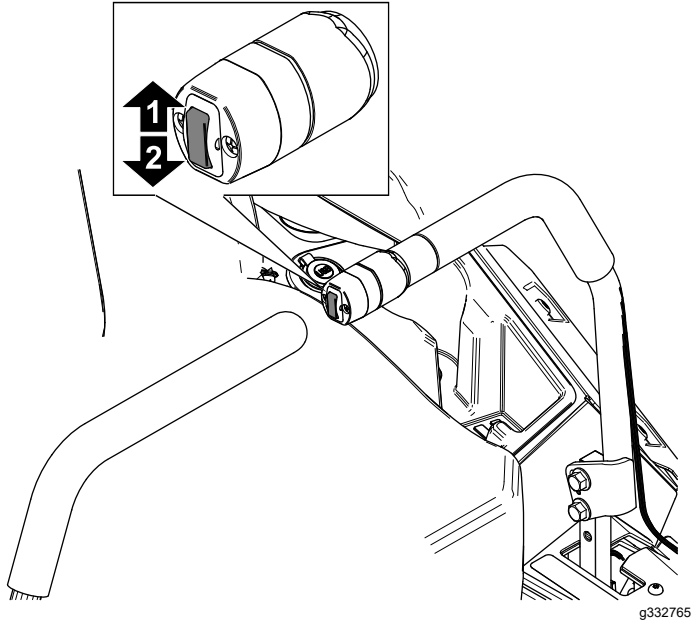


Figure 23

1. Push up to raise the deck.
2. Push down to lower the deck.

2. Select a hole in the height-of-cut bracket corresponding to the height of cut desired, and insert the pin (Figure 24).
3. Push down on the deck-lift switch until the height-of-cut linkage slightly contacts the height-of-cut pin (Figure 24).

Note: Too much contact between the height-of-cut linkage and height-of-cut pin can negatively affect the mower deck height of cut and leveling.

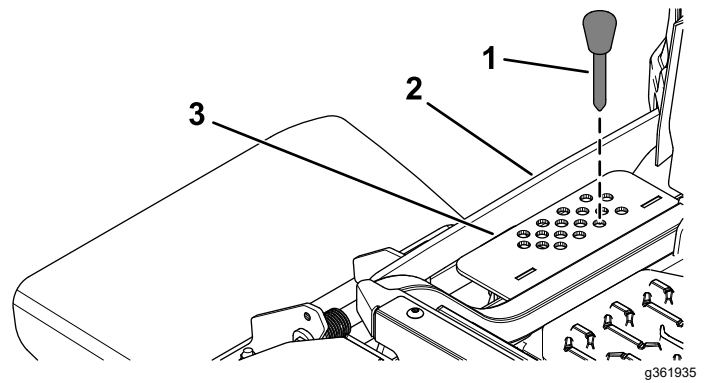


Figure 24

1. Height-of-cut pin
2. Height-of-cut linkage
3. Height-of-cut bracket