Form No. 3423-135 Rev B

Power Harness Kit

Groundsmaster® 7200 or 7210 Series Traction Unit

Model No. 138-2996

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	–	Access the machine.
3	No parts required	–	Remove the battery cables.
4	Power harness Fuse (10 A) Maxifuse (60 A) Solenoid	1 1 1 1	Prepare the harness.
5	No parts required	–	Route and connect the power harness.
6	No parts required	–	Connect the power harness to the machine wire harness.
7	No parts required	–	Connect the sunshade harness to the power harness.
8	No parts required	–	Connect the power harness to the optional Polar Trac Cab components.
9	Cable tie	6	Secure the power harness
10	No parts required	–	Install the battery cables.
11	No parts required	–	Install the rear panel, lower the seat, and close the hood.

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3423-135 B

1

Preparing the Machine

No Parts Required

Procedure

⚠ CAUTION

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

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

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

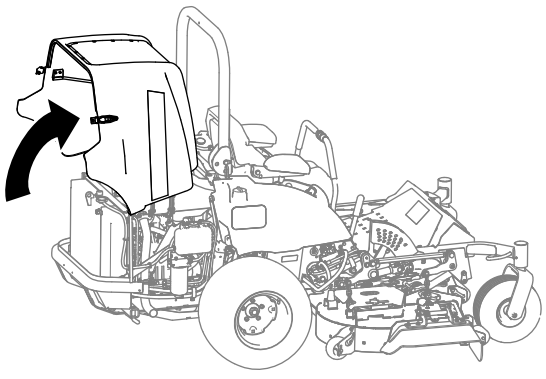
2

Accessing the Machine

No Parts Required

Opening the Hood

Unlatch and open the hood (Figure 1).

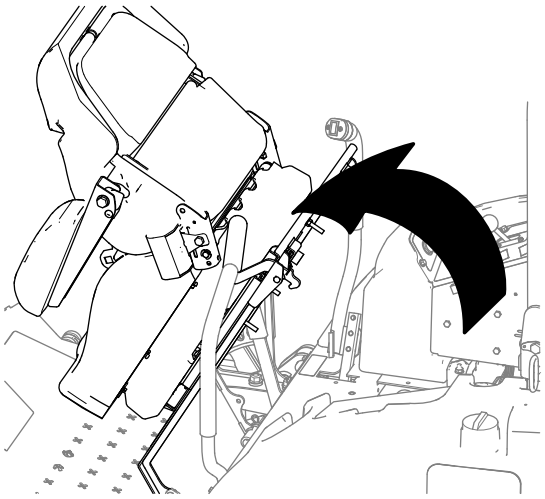


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Figure 1

Raising the Operator's Seat

Unlatch the operator's seat and tilt it forward (Figure 2).

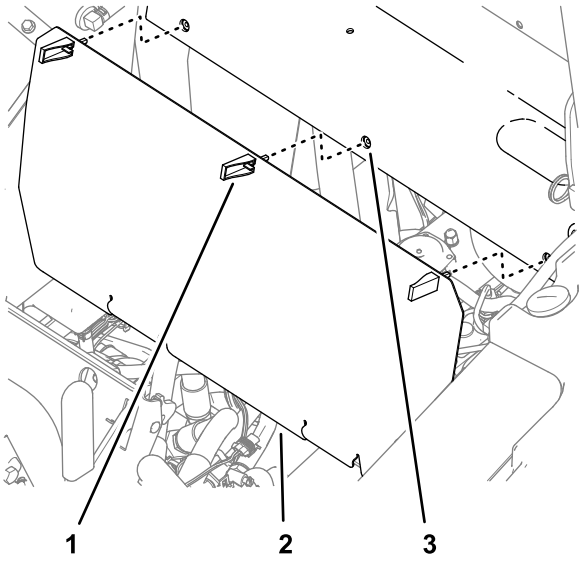


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Figure 2

Removing the Rear Panel

1. Open the latches of the rear panel (Figure 3).



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Figure 3

1. Latch
2. Rear panel
3. Cross channel

2. Remove the rear panel from the machine (Figure 3).

3

Disconnecting the Battery Cables

No Parts Required

Procedure

⚠ WARNING

Battery terminals or metal tools could short against metal components, causing sparks.

- **When removing or installing the battery, do not allow the battery terminals to touch any metal parts of the machine.**
- **Do not allow metal tools to short between the battery terminals and metal parts of the machine.**
- **Always keep the battery strap in place to protect and secure the battery.**

⚠ WARNING

Electrical sparks can cause the battery gasses to explode, resulting in personal injury.

Incorrect battery cable routing could damage the machine and cables, causing sparks.

- **Always disconnect the negative (black) battery cable before disconnecting the positive (red) cable.**
- **Always connect the positive (red) battery cable before connecting the negative (black) cable.**

1. Remove the negative battery cable from the battery post (Figure 4).

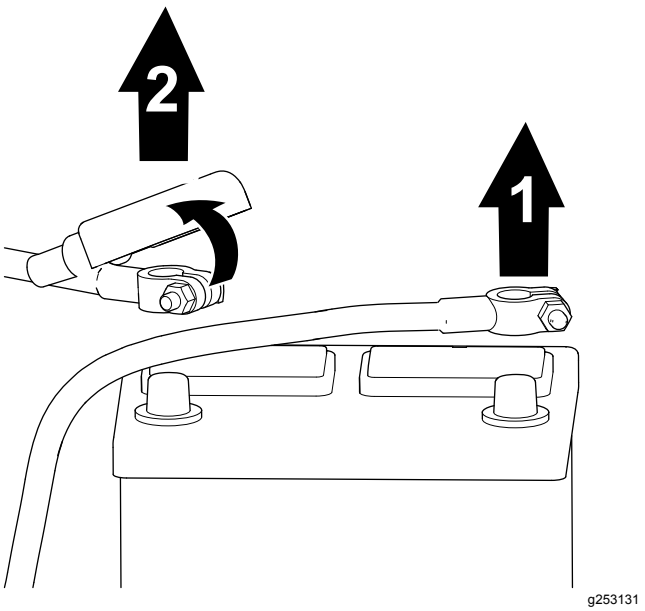


Figure 4

1. Negative battery cable
2. Positive battery cable

2. Lift the insulator and remove the positive battery cable from the battery post (Figure 4).

4

Preparing the Power Harness

Parts needed for this procedure:

1	Power harness
1	Fuse (10 A)
1	Maxifuse (60 A)
1	Solenoid

Procedure

1. Insert the maxifuse (60 A) into the large 2-slot fuse holder of the power harness (Figure 5).

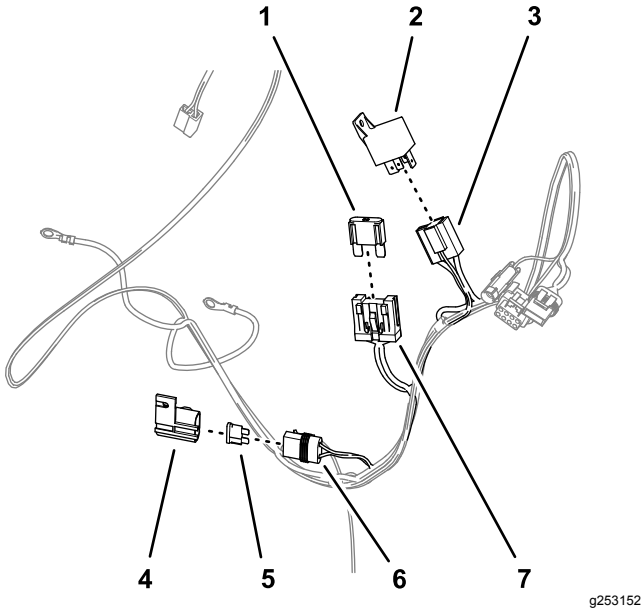


Figure 5

1. Maxifuse (60 A)
2. Solenoid
3. 4-slot connector (power harness)
4. Cover (small fuse holder)
5. Fuse (10 A)
6. Small fuse holder (power harness)
7. 2-slot fuse holder (power harness)

2. Remove the cover from the small fuse holder (Figure 5).
3. Insert the fuse (10 A) into the small fuse holder and install the cover (Figure 5).
4. Insert the solenoid into the 4-slot connector (Figure 5).

5

Routing and Connecting the Power Harness

No Parts Required

Procedure

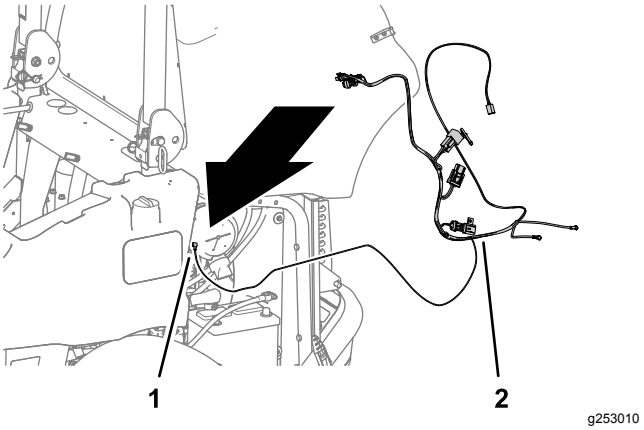


Figure 6

1. Tab-terminal connector
2. Power harness

1. At the left side of the machine, route the power harness branch with the tab-terminal connector toward the front of the engine and the lower roll-bar tube (Figure 7).

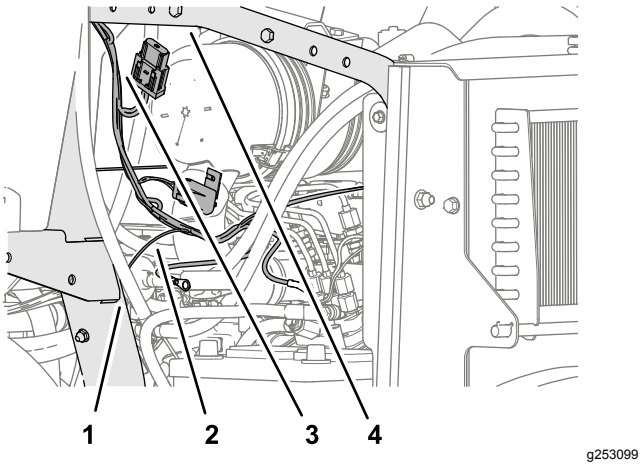


Figure 7

1. Lower roll-bar tube
2. Tab-terminal connector branch (power harness)
3. 2-pin connector, single-pin connector, and 8-socket connector branch (power harness)
4. Radiator support tube

2. Route the power harness branch with the tab-terminal connector along the cross channel and toward the access panel for the control panel cover (Figure 8).

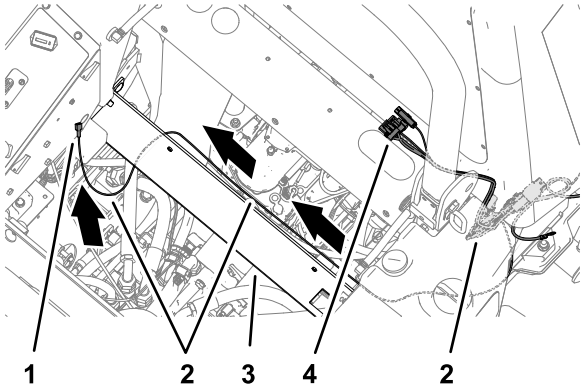


Figure 8

1. Tab-terminal connector
2. Power harness
3. Cross channel
4. 2-pin connector, single-pin connector, and 8-socket connector

3. Route the power harness branch with the 2-pin connector, single-pin connector, and 8-socket connector along the lower roll-bar tube and upward toward the support tube (Figure 7).
4. Route the 2 ring terminals toward the clamps of the battery cables (Figure 9).

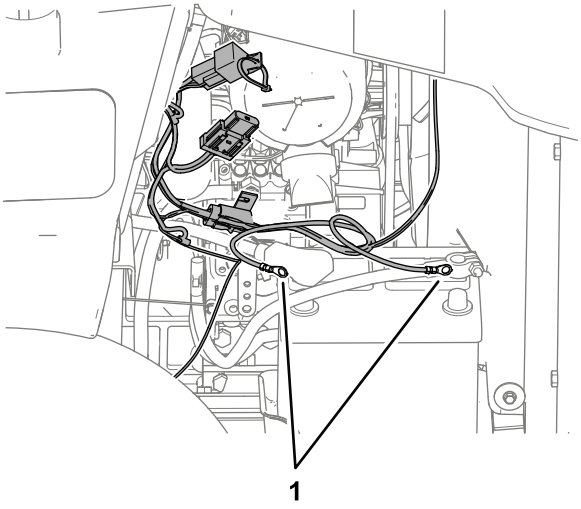


Figure 9

1. Ring terminals (power harness)

5. Route the power harness branch with a black wire, blue wire, and 2-socket connector to the pump of the washer-fluid tank (Figure 10 or Figure 11).

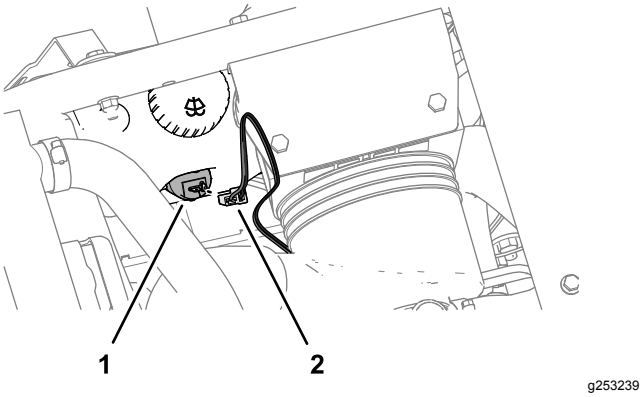


Figure 10
Model 30495

1. Pump (washer-fluid tank)
2. 2-socket connector (power harness branch—black wire and blue wire)

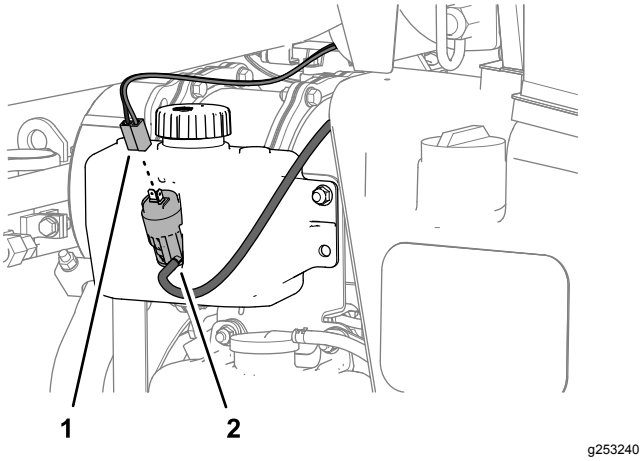


Figure 11
Model 30695

1. 2-socket connector (power harness branch—black wire and blue wire)
2. Pump (washer-fluid tank)

6

Connecting the Power Harness to the Machine

No Parts Required

Removing the Control Panel Cover

1. Unlatch the control panel cover (Figure 12).

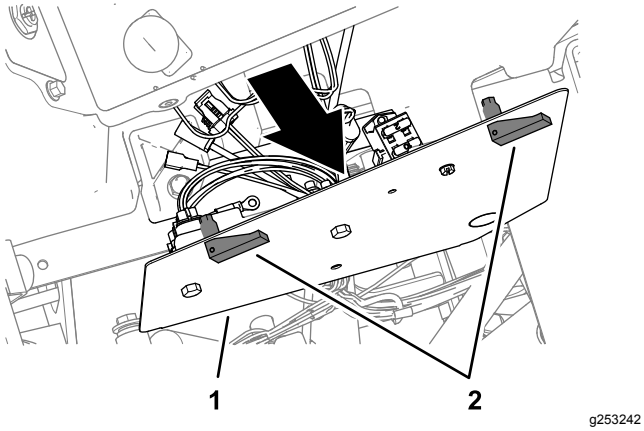


Figure 12

1. Control panel cover
2. Latches

2. Carefully move the panel inboard enough to provide access to the machine wire harness (Figure 12).

Connecting the Power Harness Wire

Connect the power harness branch with the tab-terminal connector (green wire) into the insulated single-socket connector of the machine wire harness (pink wire—from the fuse block) as shown in Figure 13.

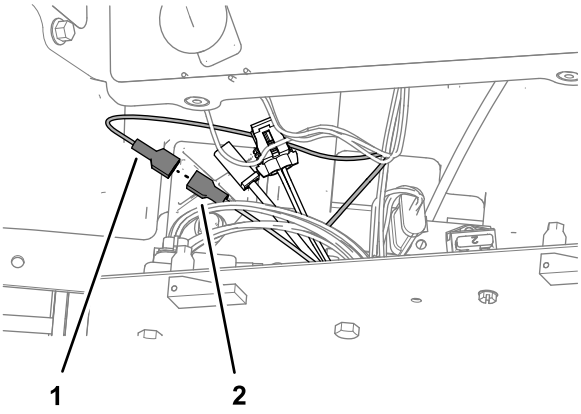


Figure 13

1. Tab-terminal connector (power harness)
2. Insulated single-socket connector (machine wire harness)

Installing the Control Panel Cover

1. Align latches of the control panel cover with the holes in the control panel (Figure 14).

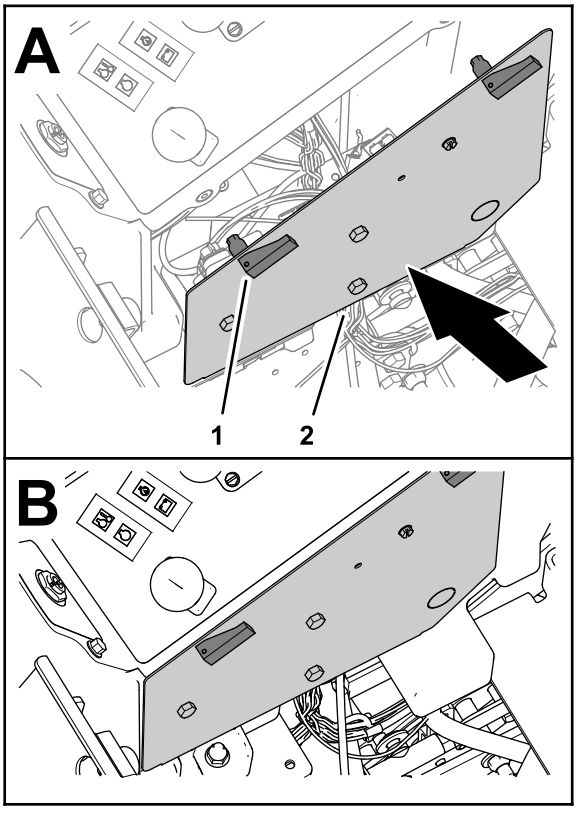


Figure 14

2. Secure the cover with the latches (Figure 14).

Assembling the Ring Terminals to the Battery Cables

1. At the positive and negative battery cables, remove the battery-clamp nuts from the short side of the battery clamp bolts (Figure 15).

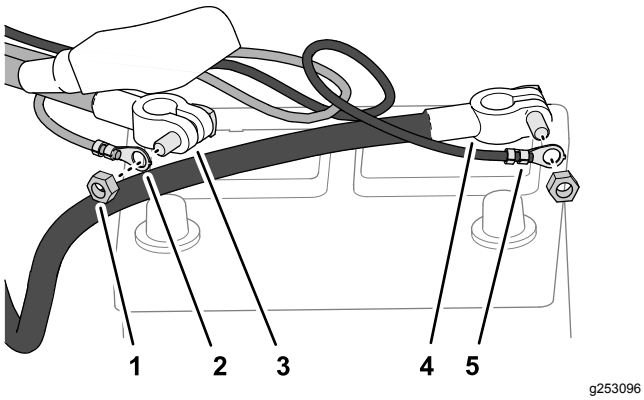


Figure 15

1. Battery-clamp nut
2. Ring terminal (red wire)
3. Battery clamp (positive battery cable)
4. Battery clamp (negative battery cable)
5. Ring terminal (black wire)

2. Assemble the ring terminal of the power harness with the black wire onto the battery clamp bolt for the negative battery cable with a battery-clamp nut (Figure 15).
3. Assemble the ring terminal of the power harness with the red wire onto the battery clamp bolt for the positive battery cable with a battery-clamp nut (Figure 15).

Note: Do not assemble the battery cables to the machine. You will connect the battery in a later step.

7

Connecting the Power Harness to the Optional Sunshade Harness

No Parts Required

Procedure

Connect the 2-pin connector of the sunshade harness into the 2-socket connector of the power harness (Figure 16).

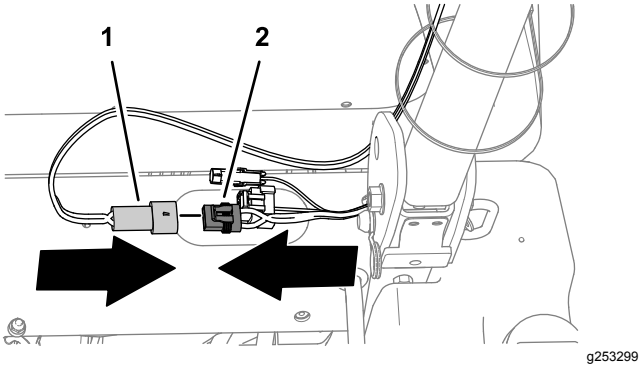


Figure 16

1. 2-pin connector (sunshade harness)
2. 2-socket connector (power harness)

8

Connecting the Power Harness to the Optional Polar Trac Cab Components

No Parts Required

Procedure

1. Connect the power harness to the pump for the washer-fluid tank and secure the power harness branch to the machine; refer to the *Operator's Manual* for the Polar Trac Cab.
2. Connect the power harness to the cab wire harness; refer to the *Operator's Manual* for the Polar Trac Cab.

9

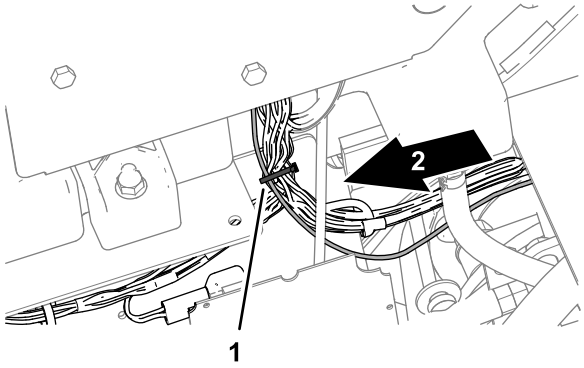
Securing the Power Harness

Parts needed for this procedure:

6	Cable tie

Securing the Harness

1. At the control panel cover, secure the power harness to the wire harness of the machine with a cable tie as shown in Figure 17.

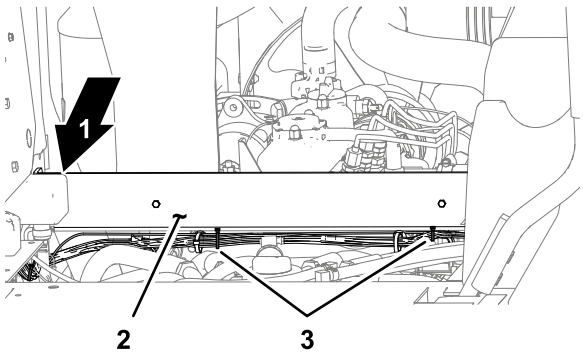


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Figure 17

1. Cable tie
2. Front of the machine

2. Below the cross channel, secure the power harness to the wire harness of the machine with 2 cable ties as shown in Figure 18.

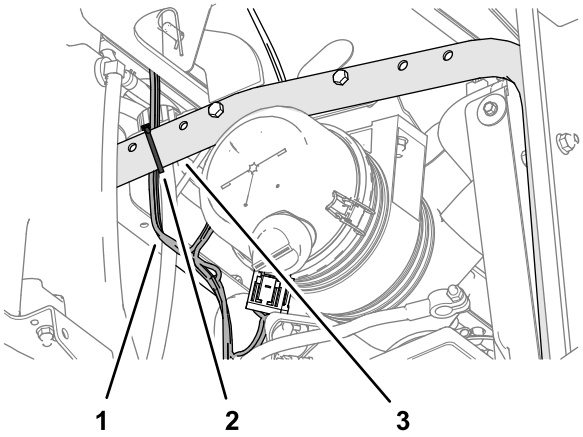


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Figure 18

1. Front of the machine
2. Cross channel
3. Cable ties

3. Above the engine, secure the power harness to the radiator support tube as shown in Figure 19.



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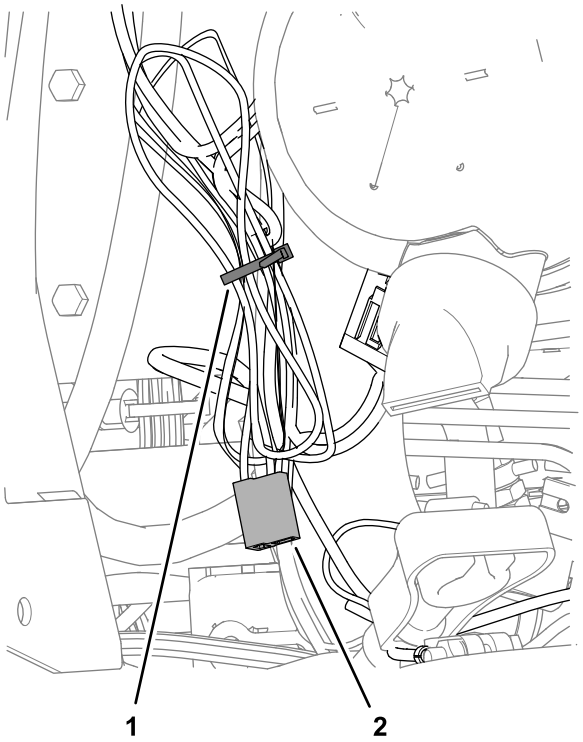
Figure 19

1. Power harness
2. Cable tie
3. Radiator support tube

Bundling the Washer Pump Wires

Machines without the Optional Polar Trac Cab

1. Bundle the unused power harness branch for the wash pump wires as shown in (Figure 20).



g253268

Figure 20

1. Cable tie
2. 2-socket connector (power harness branch—black wire and blue wire)

2. Secure the wires with a cable tie (Figure 20).

10

Connecting the Battery

No Parts Required

Procedure

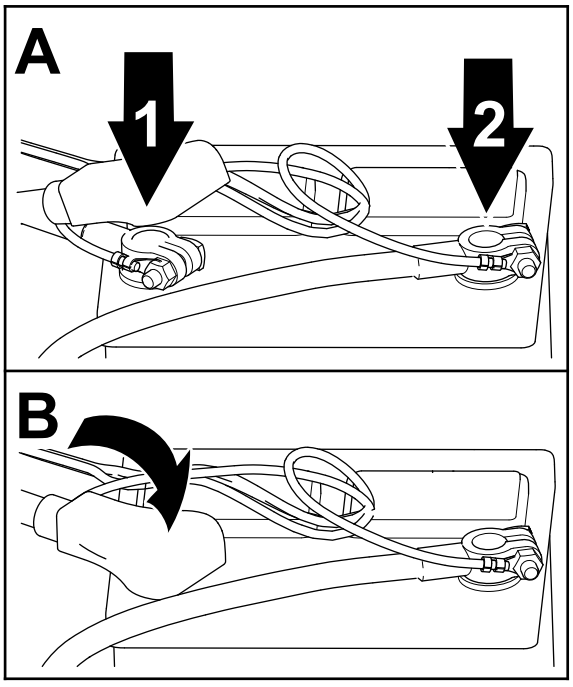
⚠ WARNING

Electrical sparks can cause the battery gasses to explode, resulting in personal injury.

Incorrect battery cable routing could damage the machine and cables, causing sparks.

- **Always disconnect the negative (black) battery cable before disconnecting the positive (red) cable.**
- **Always connect the positive (red) battery cable before connecting the negative (black) cable.**

1. Assemble the negative battery cable onto the negative battery post (Figure 21).



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Figure 21

1. Positive battery cable
2. Negative battery cable

2. Tighten the battery-clamp nut to 20 to 25 N·m (175 to 225 in-lb).
3. Assemble the positive battery cable onto the positive battery post (Figure 21).
4. Tighten the battery-clamp nut to 20 to 25 N·m (175 to 225 in-lb).
5. Assemble the insulator over the positive battery post (Figure 21).

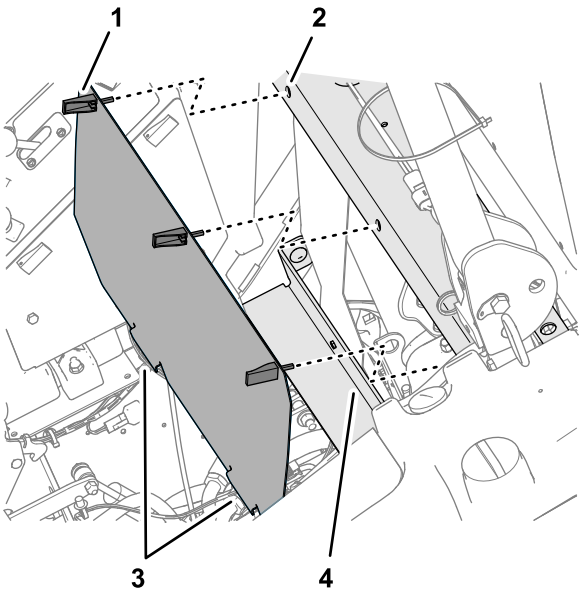
11

Installing the Rear Panel, Lowering the Seat, and Closing the Hood

No Parts Required

Installing the Rear Panel

1. Align the 2 tabs at the bottom of the rear panel with the flange of the seat support (Figure 22).



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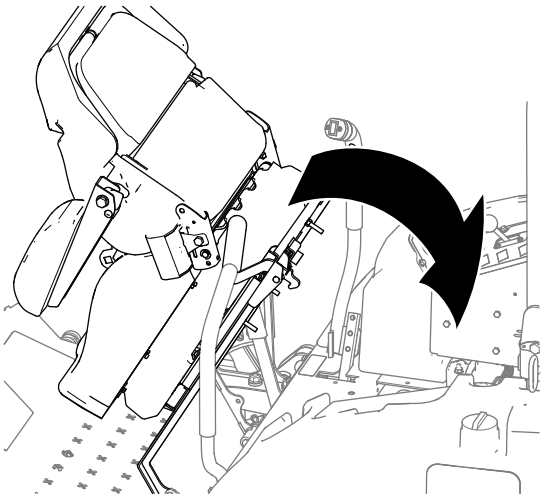
Figure 22

1. Latch
2. Hole (cross channel)
3. Tabs (rear panel)
4. Flange (seat support)

2. Align the latches of the rear panel with the holes in the cross channel (Figure 22).
3. Secure the panel to the channel with the 3 latches (Figure 22).

Lowering the Operator’s Seat

Release the seat prop rod and lower the seat until it latches securely (Figure 23).

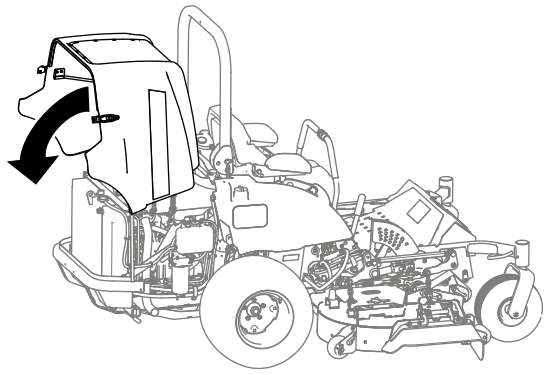


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Figure 23

Closing the Hood

Close the hood and secure it with the latches (Figure 24).



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Figure 24

Notes:



Count on it.