Form No. 3423-121 Rev A

Power Harness Kit

Groundsmaster® 4500-D, 4700-D or Reelmaster® 7000-D Traction Unit

Model No. 138-2995

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	–	Disconnect the battery.
3	No parts required	–	Open the hood.
4	Power harness Cable tie	1 6	Route the power harness.
5	No parts required	–	Connect the battery.
6	No parts required	–	Close the battery compartment door and the hood.

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

Disconnecting the Battery

No Parts Required

Accessing the Battery

Release the latch and open the door to the battery compartment (Figure 1).

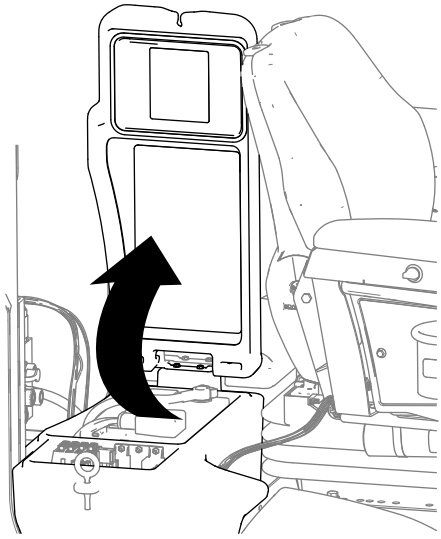
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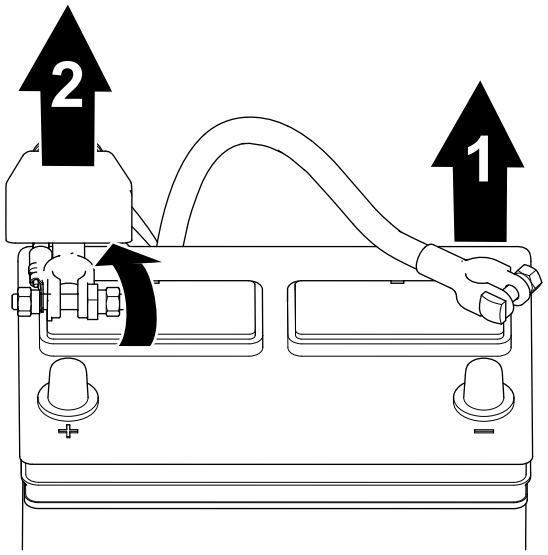
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3423-121 A



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Figure 1



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Figure 2

1. Negative battery cable
2. Positive battery cable

Removing the Battery Cables

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

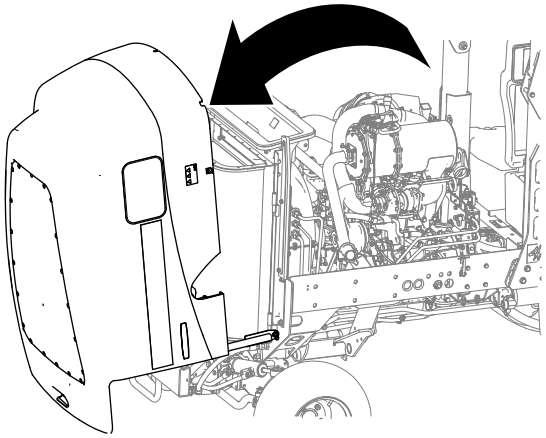
3

Opening the Hood

No Parts Required

Procedure

Unlatch and open the hood (Figure 3).



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Figure 3

4

Routing and Connecting the Power Harness

Parts needed for this procedure:

1	Power harness
6	Cable tie

Routing the Ring Terminals to the Battery and Electrical Compartment

Important: **Route the power harness away from exhaust components and moving parts.**

1. Route the 2 ring terminals of the power harness under the area where the battery compartment is located (Figure 4 or Figure 5).

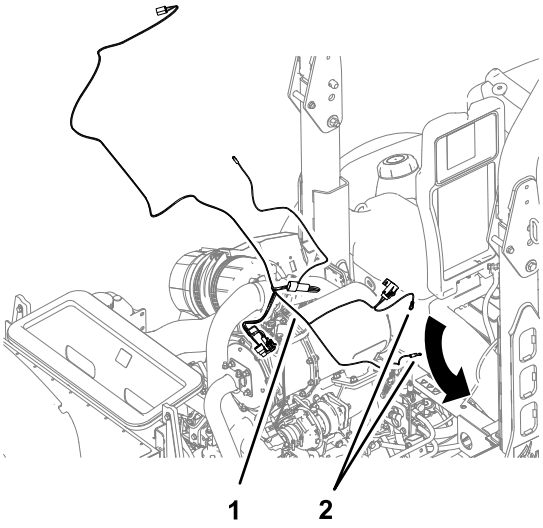


Figure 4

Machines without a Cab

1. Power harness
2. Ring terminals

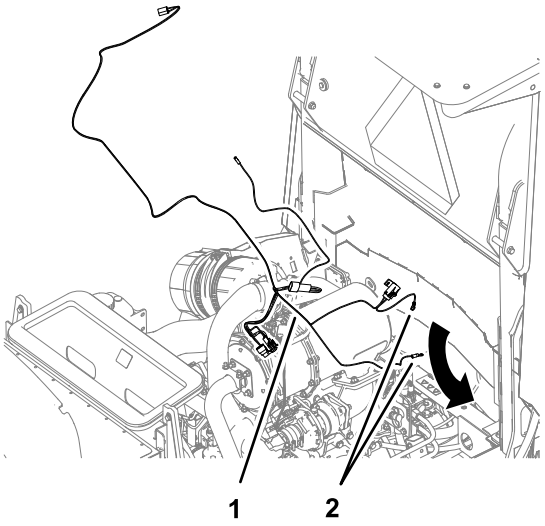


Figure 5

Machines with a Cab

1. Power harness
2. Ring terminals

2. Route the ring terminal of the power harness labeled B+ through the opening at the back, outboard corner battery compartment (Figure 6).

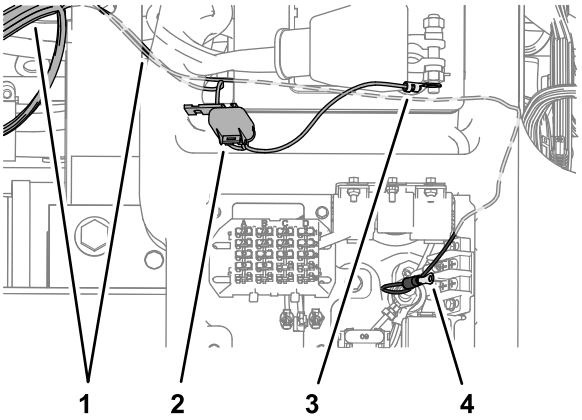


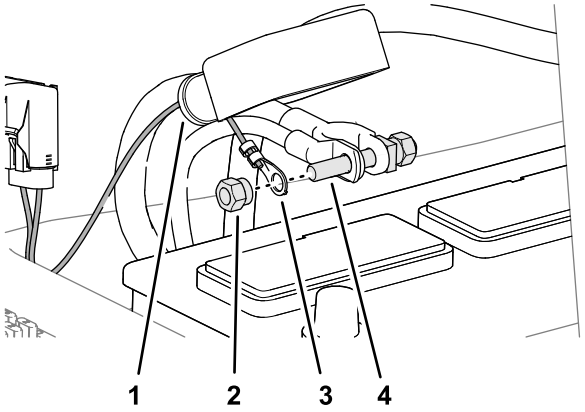
Figure 6

1. Power harness
2. Fuse (10 A) and fuse holder
3. Ring terminal (B+)
4. Ring terminal—power harness (GROUND BLOCK)

3. Route the ring terminal of the power harness labeled GROUND BLOCK under the battery compartment and through the opening near the forward inboard corner of the electrical compartment (Figure 6).

Assembling the Ring Terminals to the Battery Cable and Ground Block

1. Remove the battery-clamp nut from the battery clamp bolt of the positive battery cable (Figure 14).

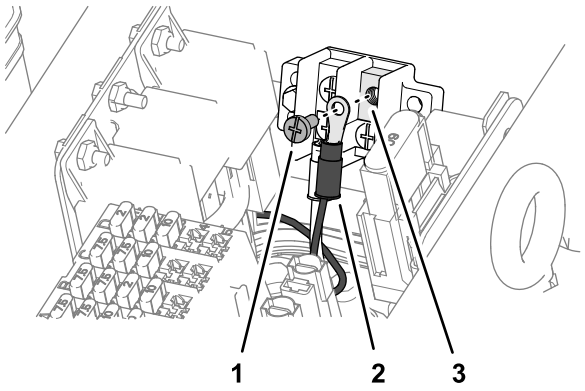


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Figure 7

1. Insulator
2. Battery-clamp nut
3. Ring terminal (B+)
4. Battery clamp bolt (positive battery cable)

2. Assemble the ring terminal labeled B+ onto the battery clamp bolt with the clamp nut, and tighten the nut by hand (Figure 7).
3. Remove the screw from the ground block (Figure 8).



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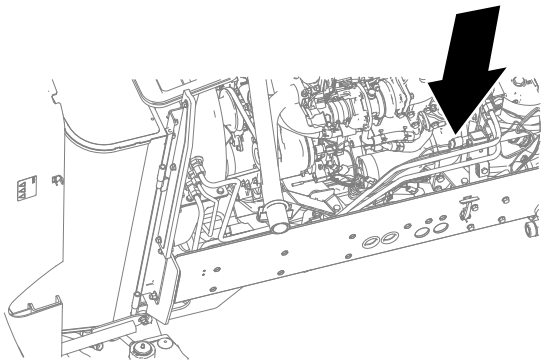
Figure 8

1. Screw
2. Ring terminal—power harness (GROUND BLOCK)
3. Ground block

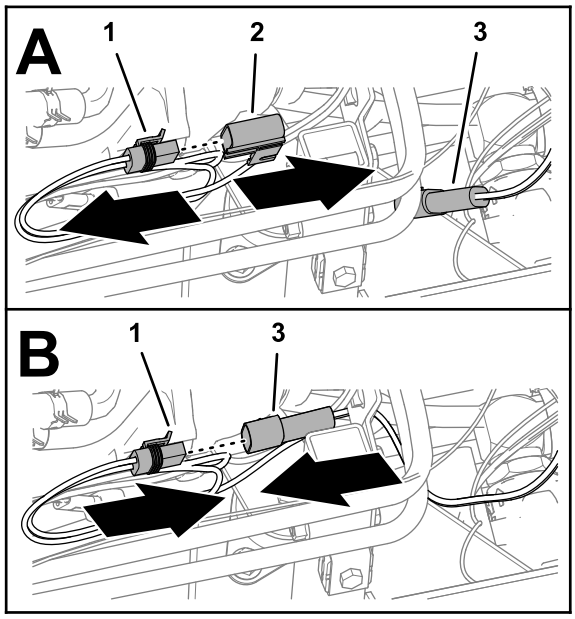
4. Assemble the ring terminal labeled GROUND BLOCK to the ground block with the screw and tighten the it by hand (Figure 8).

Connecting the Power Harness to the Machine Harness

1. Remove the cap from the from the 2-pin connector of the machine wire harness labeled CAB HARNESS (Figure 9).



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Figure 9

1. 2-pin connector—machine wire harness (CAB HARNESS)
2. Cap
3. 2-socket connector—power harness (MAIN HARNESS)

2. Plug the 2-pin connector of the machine wire harness into the 2-socket connector of the power harness labeled MAIN HARNESS (Figure 9).
3. Secure the power harness to the frame of the machine with a cable tie (Figure 10).

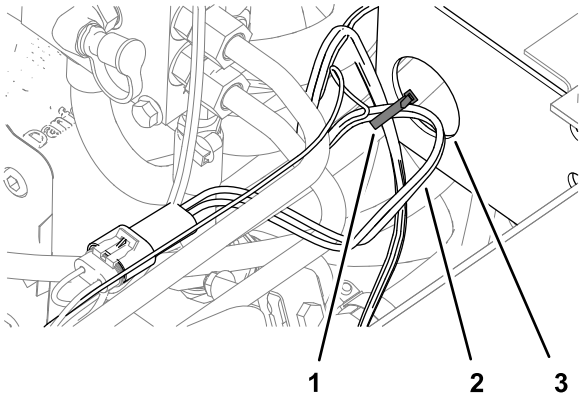


Figure 10

1. Cable tie
2. Power harness
3. Frame of the machine

Connecting the Power Harness to the Optional Sunshade or 2-Post ROPS Extension Harnesses

Connect the 2-socket connector of the power harness labeled CAB HARNESS into the 2-pin connector of the sunshade wire harness (Figure 11).

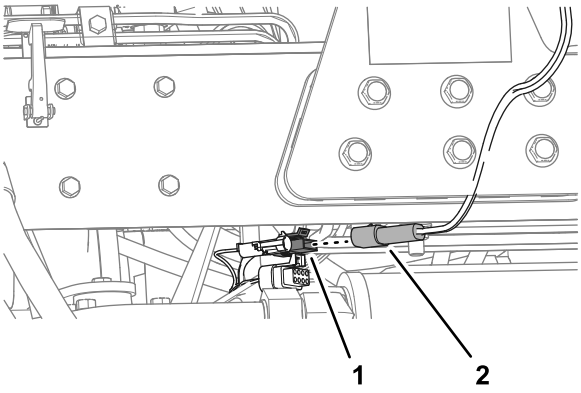


Figure 11

1. 2-socket connector—power harness (CAB HARNESS)
2. 2-pin connector (sunshade wire harness)

Bundling the Air Conditioner Wire and the Water Pump Wires

Machines with the Optional Sunshade Kit or 2-Post ROPS Extension Kit

1. Bundle the wire and bullet terminal labeled A/C CLUTCH and the wires and 2-socket connector labeled WATER PUMP (Figure 12).

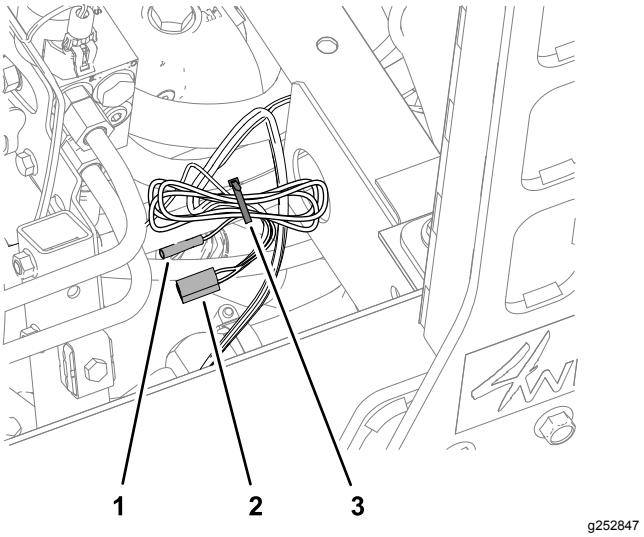


Figure 12

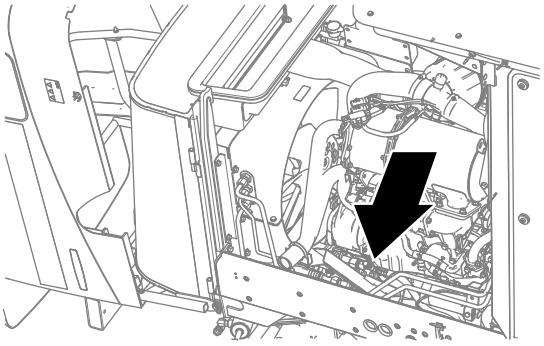
1. Wire and bullet terminal (A/C CLUTCH)
2. Wires and 2-socket connector (WATER PUMP)
3. Cable tie

2. Secure the bundle of wires to the machine with a cable tie (Figure 12).

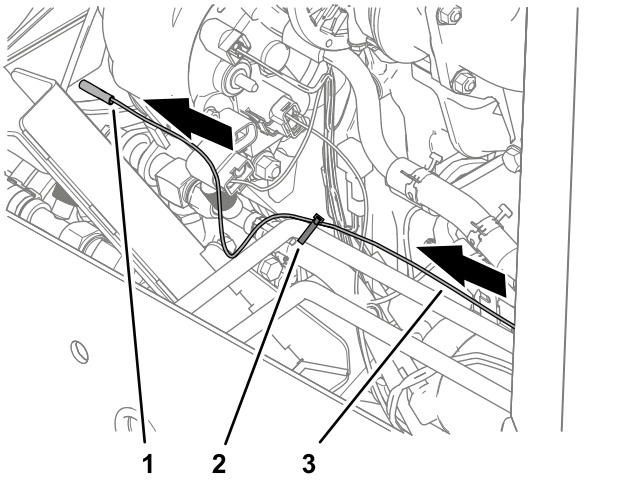
Routing the Air Conditioner Wire and the Water Pump Wires

Machines with the Optional Cab Kit

1. Route the wire and bullet terminal labeled A/C CLUTCH rearward along the right side of the engine (Figure 13).



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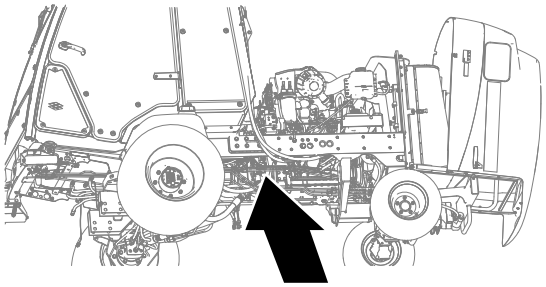


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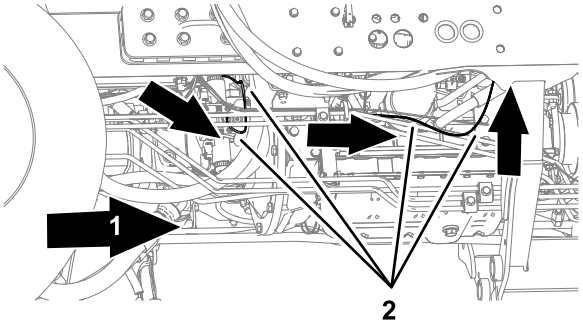
Figure 13

1. Bullet terminal
2. Cable tie
3. Wire (A/C CLUTCH)

2. Secure the wire to the tube with a cable tie (Figure 13).
3. Route the wires with the 2-socket connector labeled WATER PUMP across the front of the engine and rearward (Figure 14).



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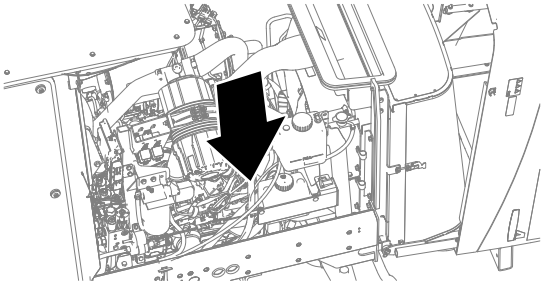


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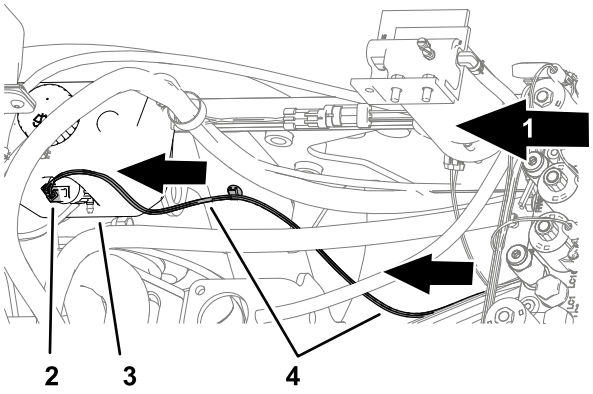
Figure 14

1. Back of the machine
2. Water pump wires (power harness)

4. Route the wires with the 2-socket connector to the washer-fluid tank (Figure 15).



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Figure 15

1. Back of the machine
2. 2-socket connector (WATER PUMP)
3. Washer-fluid tank
4. Power harness

5. Secure the water pump wires of the power harness to the hydraulic hoses and tubes at the locations shown in Figure 16 and Figure 17.

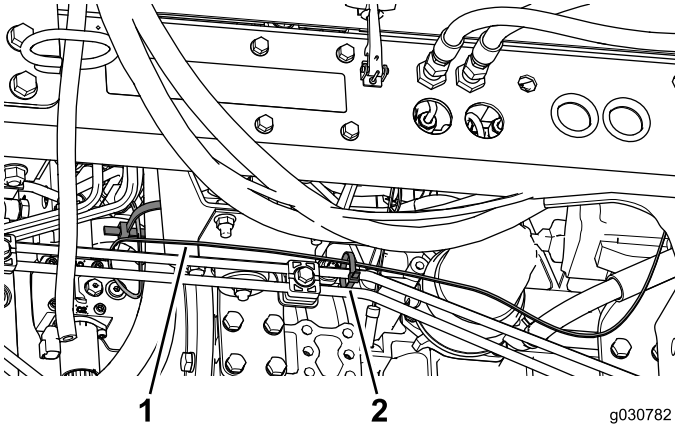


Figure 16

1. Power harness
2. Cable tie

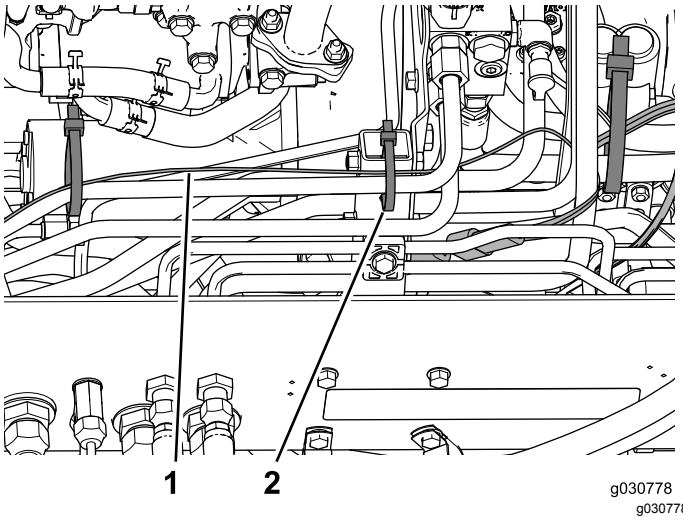


Figure 17

1. Power harness
2. Cable tie

6. Refer to the cab kit *Installation Instructions* for the connecting the air conditioner connector and water pump connector.

5

Connecting the Battery

No Parts Required

Procedure

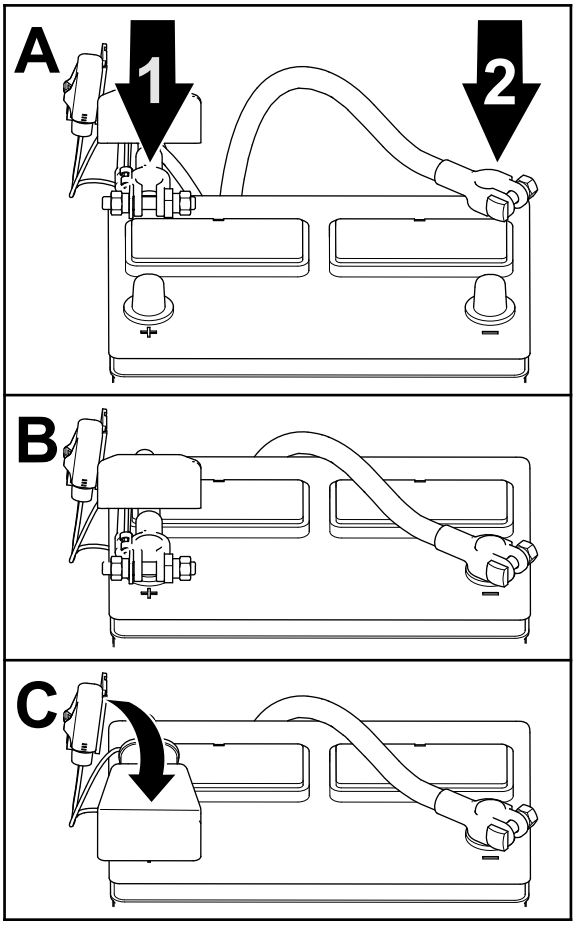
⚠ WARNING

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. Connect the positive cable to the battery and tighten the battery-clamp nut (Figure 18).



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Figure 18

1. Positive battery cable
2. Negative battery cable

2. Connect the negative cable to the battery and tighten the battery-clamp nut (Figure 18).
3. Assemble the insulator over the positive battery terminal (Figure 18).

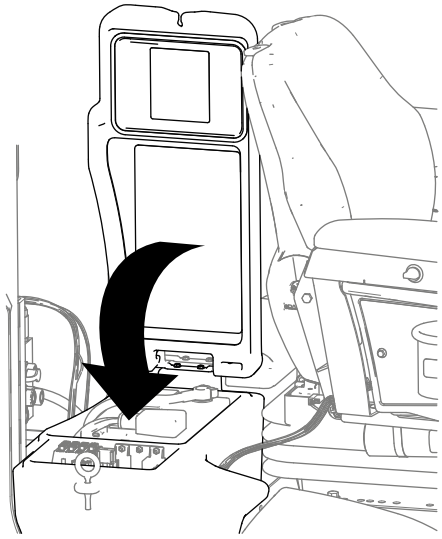
6

Closing the Battery Compartment Door and the Hood

No Parts Required

Procedure

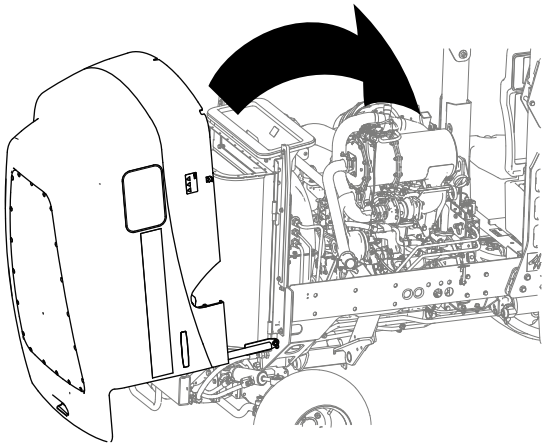
1. Close the latch the battery compartment door (Figure 19).



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Figure 19

2. Close and latch the hood (Figure 20).



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Figure 20