Installation Instructions

## **Safety**

#### **A 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.

## Rollover Protection System (ROPS) Safety

- Do not remove the ROPS from the machine.
- Ensure that the seat belt is attached and that you can release it quickly in an emergency.
- Check carefully for overhead obstructions and do not contact them.
- Keep the ROPS in safe operating condition by thoroughly inspecting it periodically for damage and keeping all the mounting fasteners tight.
- Replace a damaged ROPS. Do not repair or alter it.
- The ROPS is an integral safety device.
- Always wear your seat belt.

### **Safety and Instructional Decals**



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



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1. Warning—read the *Operator's Manual*; wear the seatbelt, and 2. Warning—do not repair or revise the ROPS. avoid tipping the machine.

## 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 seat assembly.
3	No parts required	_	Remove the handholds.
4	No parts required	_	Remove the side panels.
5	No parts required	_	Remove the rubber covers.
6	No parts required	_	Drill the holes for the ROPS brackets.
7	No parts required	_	Cut the rubber covers.
8	Cable tie Plastic rivets	2 4	Install the rubber covers.
9	No parts required	_	Trim the side panels.
10	Left ROPS bracket Right ROPS bracket Flange-head bolt (1/2 x 3 inches) Flat washer (1/2 inch) Locknut (1/2 inch)	1 1 6 10 6	Install the ROPS brackets.
11	Roll bar Flange-head bolt (1/2 x 3-1/2 inches) Locknut (1/2 inch)	1 4 4	Install the roll bar.
12	No parts required	_	Install the side panels.
13	No parts required	_	Install the handholds.
14	Seat belt Seat latch Hex-head bolt (7/16 x 1 inch) Flat washer (7/16 inch) Locknut (7/16 inch)	2 2 4 8 4	Install the seat belts.
15	No parts required	_	Install the seat assembly.

Procedure	Description	Qty.	Use
	Left windshield support	1	
	Right windshield support	1	
	Front support	1	
	Rear canopy support	1	
	Left, front mount bracket	1	
	Right, front mount bracket	1	
	Left, rear mount bracket	1	
	Right, rear mount bracket	1	
	Left, rear corner gusset	1	
	Right, rear corner gusset	1	
16	Left, front corner gusset	1	Install the ROPS extension.
	Right, front corner gusset	1	
	Front crosslink	1	
	Crosslink tube	2	
	Flange nut (5/16 inch)	28	
	Nut (1/4 inch)	2	
	Hex-head flange bolt (1/4 x 1-1/2 inches)	2	
	Carriage bolt (5/16 x 1-3/4 inches)	16	
	Hex-flange bolt (5/16 x 1 inch)	2	
	Carriage bolt (5/16 x 2-3/4 inches)	6	
	Carriage bolt (5/16 x 1 inch)	4	
	Sunshade	1	
	Clip	2	
	Sealing washer	4	
17	Hex-flange bolt (1/4 x 1 inch)	4	Install the canopy.
	Friction washer	2	
	Plastic washer	4	
	Flange bushing	2	



## **Preparing the Machine**

#### No Parts Required

#### **Procedure**

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

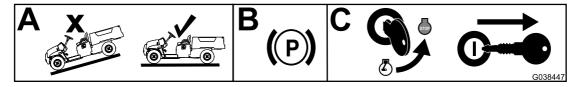


Figure 1

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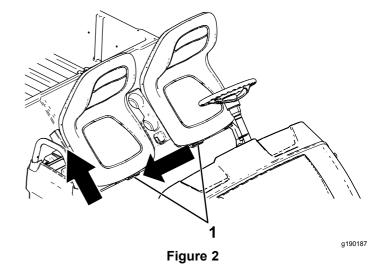
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# Removing the Seat Assembly

No Parts Required

#### **Procedure**

- Push the seat assembly forward to the raised position.
- Slide the seat assembly to the side out of the pins, and lift the seat assembly upward (Figure 2).



1. Pins

## **Removing the Handholds**

No Parts Required

#### **Procedure**

Remove the 3 flange bolts (5/16 x 3/4 inch) and 3 flange nuts (5/16 inch) from the right and left handhold, and remove them (Figure 3 and Figure 4).

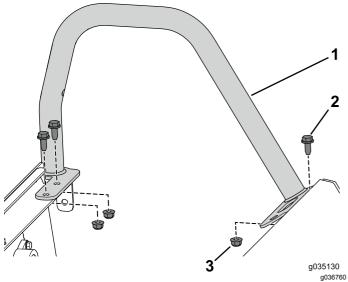


Figure 3
Left Handhold Shown

- 1. Left handhold
- 2. Flange bolt (5/16 x 3/4 inch)
- 3. Flange nut (5/16 inch)

Figure 4
Right Handhold Shown

1. Right handhold 3. Flange nut (5/16 inch)

2. Flange bolt (5/16 x 3/4 inch)

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## **Removing the Side Panels**

#### No Parts Required

#### For Electric Machines

1. Remove the charger and the charger cable from the charger bracket (Figure 5).

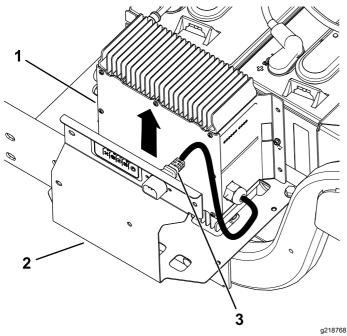


Figure 5
Left Side Shown

- 1. Charger
- 3. Charger cable
- 2. Charger bracket
- 2. Use a T30 socket wrench to remove the 4 torx-head screws (M6.0 x 22 mm) securing the charger bracket to the left side panel (Figure 6).

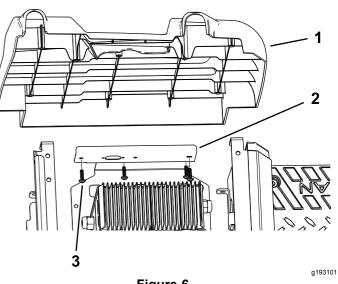


Figure 6
Left Side Shown (Top View)

- 1. Left side panel
- 3. Torx-head screw (M6.0 x 22 mm)
- 2. Charger bracket
- 3. Use a T30 socket wrench to remove the 4 torx-head screws (M6.0 x 22 mm) from the left side panel and remove it (Figure 7).

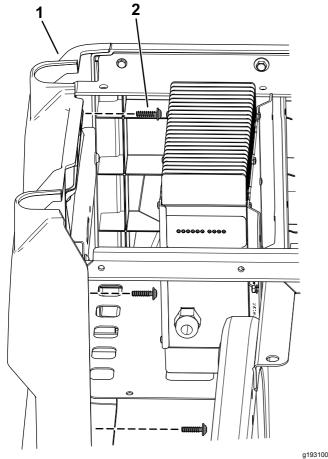


Figure 7
Left Side Shown

- 1. Left side panel
- 2. Torx-head screw (M6.0 x 22 mm)
- 4. Repeat step 3 on the right side.
- 5. Disconnect the batteries; refer to your machine *Operator's Manual*.

**Note:** Correctly follow the procedure for disconnecting the batteries. Disconnect the main-negative battery cable (black), then disconnect the main positive-battery cable (red).

#### For Gasoline Machines

1. Disconnect the vent tube and fuel line from the fuel tank (Figure 8).

#### **A** DANGER

In certain conditions, fuel is extremely flammable and highly explosive. A fire or explosion from fuel can burn you and others and can damage property.

- Drain fuel from the fuel tank when the engine is cold. Do this outdoors and in an open area. Wipe up any fuel that spills.
- Never smoke when handling fuel, and stay away from an open flame or where fuel fumes may be ignited by a spark.
- 2. Remove the 2 screws securing the hold-down to the left side panel, and remove the hold-down (Figure 8).
- 3. Remove flange bolt securing the fuel tank to the fuel-tank tray and remove the fuel tank (Figure 8).

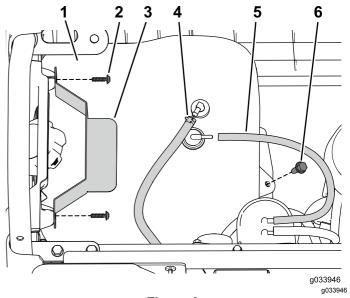
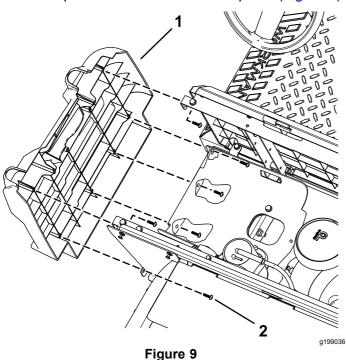


Figure 8
Left Side Shown (Top View)

- 1. Fuel tank
- 2. Screw
- 3. Hold-down
- 4. Fuel line
- 5. Vent hose
- 6. Flange bolt

4. Use a T30 socket wrench to remove the 6 torx-head screws (M6.0 x 22 mm) from the left side panel and remove the side panel (Figure 9).



Left Side Shown (Top View)

- 1. Side panel
- 2. Torx-head screw (M6.0 x 22 mm)
- 5. Disconnect the negative (–) battery cable from the battery and then the positive (+) battery cable as shown in Figure 10.

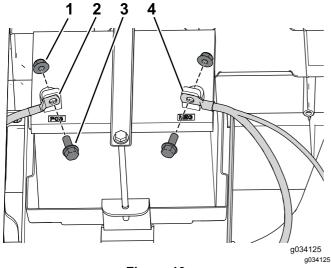


Figure 10
Right Side Shown (Top View)

1. Nut

- 3. Bolt
- 2. Positive (+) battery cable
- 4. Negative (-) battery cable
- 6. Remove the 2 flange-head bolts (5/16 x 3/4 inch) that secure the battery tray to the frame

and use a T30 socket wrench to remove the 4 torx-head screws (M6.0 x 22 mm) that secure the right side panel, and remove the right side panel (Figure 11).

**Note:** The battery comes off with the right side panel as shown in Figure 11.

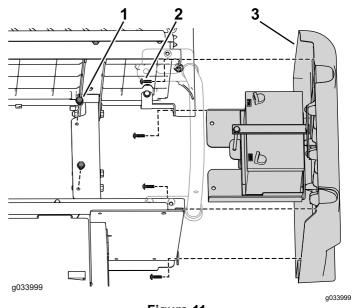


Figure 11
Right Side Shown (Top View)

- 1. Flange-head bolt (5/16 x 3. Right side panel 3/4 inch)
- Torx-head screw (M6.0 x 22 mm)

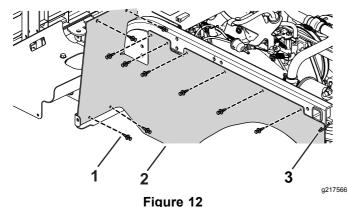


## Removing the Rubber Covers

No Parts Required

#### **Procedure**

Remove the 10 plastic rivets and the cable tie from each rubber cover and remove the rubber covers (Figure 12).



Left Side Shown

- 1. Plastic rivet (10)
- 3. Cable tie
- 2. Rubber cover



## **Drilling the Holes for the ROPS Brackets**

No Parts Required

#### **Procedure**

1. Align a ROPS bracket with the 2 holes behind the seat base and the hole toward the front of the frame rail as shown in Figure 13.

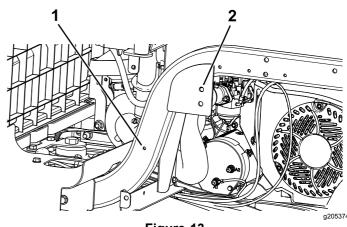


Figure 13 Left Side Shown

- 1. Hole toward the front of the frame rail
- 2. 2 holes behind the seat base
- 2. Using a clamp, secure the ROPS bracket in place.
- 3. Mark the hole locations on the ROPS bracket (Figure 13).
- 4. Using a ROPS bracket as a guide, drill 3 holes (13.5 mm or 17/32 inch) into the frame (Figure 14).

#### **A** CAUTION

Use caution when drilling the holes into the right side of the frame on an electric machine.

If you drill too far, you could damage the batteries or other components.

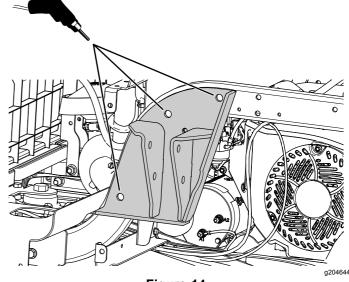


Figure 14 Left Side Shown

5. Repeat this procedure on the other side.



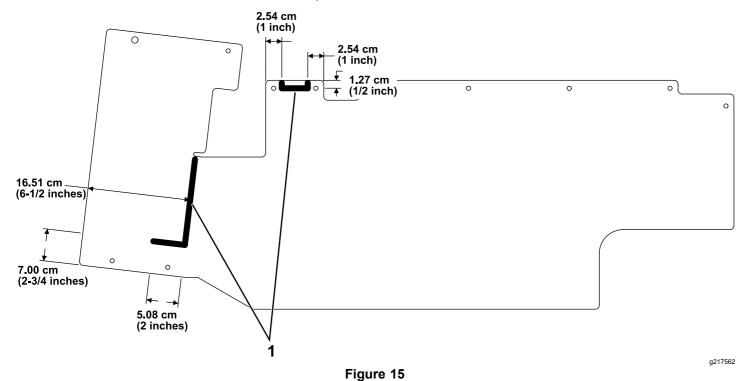
## **Cutting the Rubber Covers**

#### No Parts Required

#### **Procedure**

Cut the rubber covers using the measurements shown in Figure 15.

**Note:** The cuts in the rubber cover allow for space to install the ROPS brackets.



1. Location of cut



## Installing the Rubber Covers

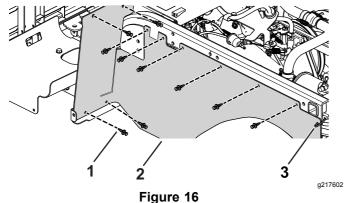
#### Parts needed for this procedure:

2	Cable tie
4	Plastic rivets

#### **Procedure**

Install each rubber cover using the previously removed 10 plastic rivets and a cable tie (Figure 16).

If the previously removed rivets are damaged or missing, replace them with the rivets provided in this kit



Left Side Shown

- 1. Plastic rivet (10)
- 3. Cable tie
- 2. Rubber cover

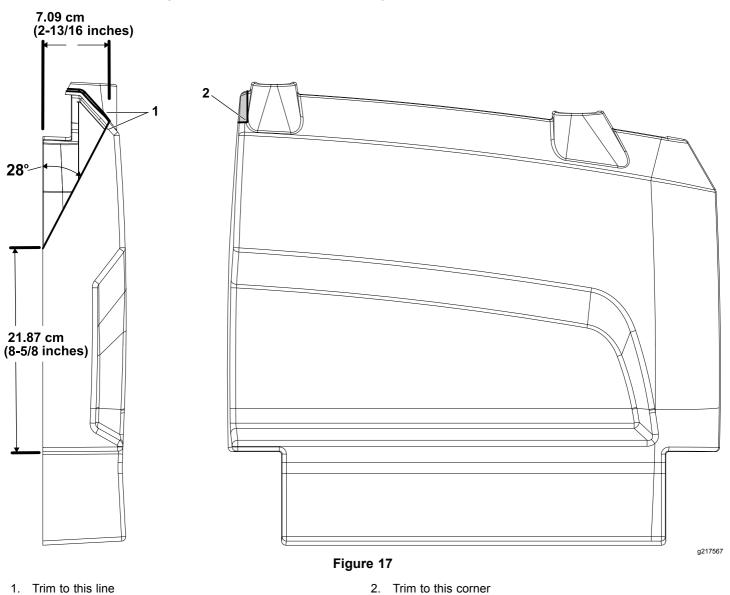


## **Trimming the Side Panels**

#### No Parts Required

#### **Procedure**

Trim the side panels using the measurements shown in Figure 17.



## Installing the ROPS Brackets

#### Parts needed for this procedure:

1	Left ROPS bracket
1	Right ROPS bracket
6	Flange-head bolt (1/2 x 3 inches)
10	Flat washer (1/2 inch)
6	Locknut (1/2 inch)

#### **Procedure**

 Install a ROPS bracket using 3 flange-head bolts (1/2 x 3 inches), 5 flat washers (1/2 inch), and 3 locknuts (1/2 inch) as shown in Figure 18.

**Note:** Ensure that you install the 2 flat washers (1/2 inch) on the outside as shown in Figure 18.

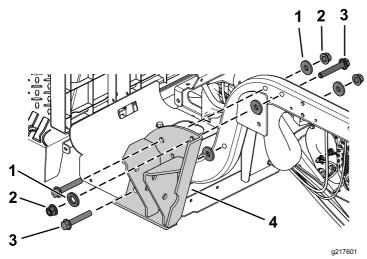


Figure 18 Left Side Shown

- 1. Flat washer (1/2 inch)
- 3. Flange-head bolt (1/2 x 3 inches)
- 2. Locknut (1/2 inch)
- 4. ROPS bracket
- 2. Torque the 3 flange-head bolts (1/2 x 3 inches) to 94 to 108 N·m (70 to 80 ft-lb).
- 3. Repeat this procedure on the other side.

# 11

### **Installing the Roll Bar**

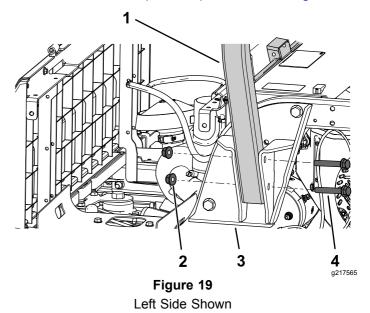
#### Parts needed for this procedure:

1	Roll bar
4	Flange-head bolt (1/2 x 3-1/2 inches)
4	Locknut (1/2 inch)

#### **Procedure**

**Note:** Have an assistant help you to raise the roll bar into position.

 Secure 1 side of the roll bar to a ROPS bracket using 2 flange-head bolts (1/2 x 3-1/2 inches) and 2 locknuts (1/2 inch) as shown in Figure 19.



- 1. Roll bar
- 2. Locknut (1/2 inch)
- 3. ROPS bracket
- 4. Flange-head bolt (1/2 x 3-1/2 inches)
- 2. Torque the 2 flange-head bolts (1/2 x 3-1/2 inches) to 94 to 108 N·m (70 to 80 ft-lb).
- 3. Repeat this procedure on the other side.

### **Installing the Side Panels**

No Parts Required

#### For Electric Machines

- Install the left side panel using the previously removed 4 torx-head screws (M6.0 x 22 mm) as shown in Figure 7.
- 2. Secure the charge bracket to the left side panel using the previously removed 4 torx-head screws (M6.0 x 22 mm) as shown in Figure 6.
- 3. Secure the charger and the charger cable to the charger bracket (Figure 5).
- 4. Repeat step 1 on the right side.
- Connect the battery; refer to your machine Operator's Manual.

**Note:** Correctly follow the procedure for connecting the batteries. Connect the main positive-battery cable (red), then connect the main negative-battery cable (black).

#### For Gasoline Machines

- 1. Install each side panel using the previously removed torx-head screws (M6.0 x 22 mm) as shown in Figure 9 and Figure 11.
- 2. Secure the battery base on the right side using the previously removed 2 flange-head bolts (5/16 x 3/4 inch) as shown in Figure 11.
- 3. Connect the positive (+) battery cable to the battery using the bolt and nut (Figure 10).
- 4. Connect the negative (–) battery cable to the battery using the bolt and nut (Figure 10).
- 5. Secure the fuel tank to the fuel-tank tray using the previously removed flange bolt (Figure 8).
- 6. Secure the hold-down to the left side panel using the previously removed 2 screws (Figure 8).
- 7. Connect the vent tube and fuel line to the fuel tank (Figure 8).

# 13

### **Installing the Handholds**

No Parts Required

#### **Procedure**

Install the 2 handholds using the previously removed 3 flange bolts (5/16 x 3/4 inch) and 3 flange nuts (5/16 inch) on each side (Figure 3 and Figure 4).



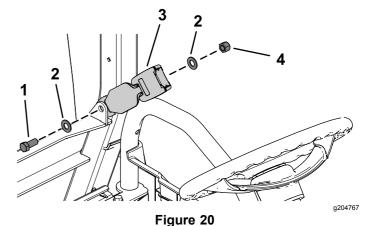
### **Installing the Seat Belts**

#### Parts needed for this procedure:

2	Seat belt
2	Seat latch
4	Hex-head bolt (7/16 x 1 inch)
8	Flat washer (7/16 inch)
4	Locknut (7/16 inch)

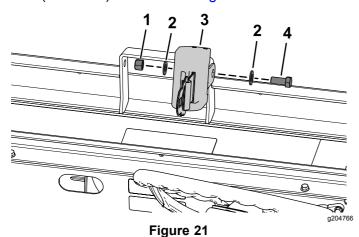
#### **Procedure**

1. Install a seat latch using a hex-head bolt (7/16 x 1 inch), 2 flat washers (7/16 inch), and a locknut (7/16 inch) as shown in Figure 20.



- 1. Hex-head bolt (7/16 x 1 inch)
- 3. Seat latch
- 2. Flat washer (7/16 inch)
- 4. Locknut (7/16 inch)
- 2. Torque the hex-head bolt (7/16 x 1 inch) to 68 to 81 N·m (50 to 60 ft-lb).

- 3. Repeat steps 1 and 2 to install the other seat latch.
- 4. Install a seat belt using a hex-head bolt (7/16 x 1 inch), 2 flat washers (7/16 inch), and a locknut (7/16 inch) as shown in Figure 21.



- 1. Locknut (7/16 inch)
- 2. Flat washer (7/16 inch)
- 3. Seat belt
- 4. Hex-head bolt (7/16 x 1 inch)
- 5. Torque the hex-head bolt (7/16 x 1 inch) to 68 to 81 N·m (50 to 60 ft-lb).
- 6. Repeat steps 4 and 5 to install the other seat belt.

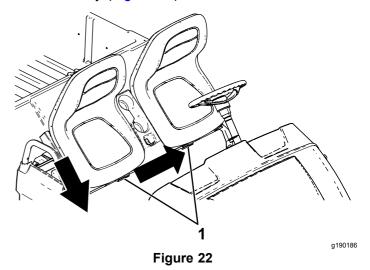
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# Installing the Seat Assembly

No Parts Required

#### **Procedure**

Slide the seat assembly onto the pins and lower the seat assembly (Figure 22).





## Installing the ROPS Extension

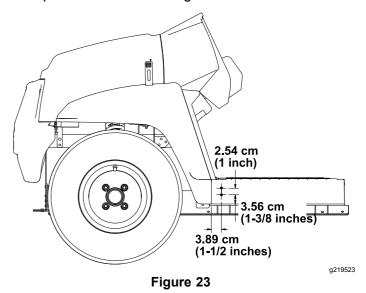
#### Parts needed for this procedure:

1 Right windshield support 1 Front support 1 Rear canopy support 1 Left, front mount bracket 1 Right, front mount bracket 1 Right, rear mount bracket 1 Right, rear mount bracket 1 Right, rear corner gusset 1 Right, rear corner gusset 1 Right, rear corner gusset 1 Right, front corner gusset 1 Front crosslink 2 Crosslink tube 28 Flange nut (5/16 inch) 2 Nut (1/4 inch) 2 Hex-head flange bolt (1/4 x 1-1/2 inches) 16 Carriage bolt (5/16 x 1 inch) 2 Hex-flange bolt (5/16 x 2-3/4 inches) 4 Carriage bolt (5/16 x 1 inch)		
1 Front support 1 Rear canopy support 1 Left, front mount bracket 1 Right, front mount bracket 1 Left, rear mount bracket 1 Right, rear mount bracket 1 Left, rear corner gusset 1 Right, rear corner gusset 1 Right, rear corner gusset 1 Right, front corner gusset 1 Right, front corner gusset 2 Crosslink 2 Crosslink tube 28 Flange nut (5/16 inch) 2 Nut (1/4 inch) 2 Hex-head flange bolt (1/4 x 1-1/2 inches) 16 Carriage bolt (5/16 x 1-3/4 inches) 2 Hex-flange bolt (5/16 x 2-3/4 inches)	1	Left windshield support
1 Rear canopy support  1 Left, front mount bracket  1 Right, front mount bracket  1 Left, rear mount bracket  1 Left, rear mount bracket  1 Left, rear corner gusset  1 Right, rear corner gusset  1 Left, front corner gusset  1 Right, front corner gusset  1 Right, front corner gusset  2 Crosslink  2 Crosslink tube  28 Flange nut (5/16 inch)  2 Nut (1/4 inch)  2 Hex-head flange bolt (1/4 x 1-1/2 inches)  16 Carriage bolt (5/16 x 1-3/4 inches)  2 Hex-flange bolt (5/16 x 2-3/4 inches)	1	Right windshield support
1 Left, front mount bracket 1 Right, front mount bracket 1 Left, rear mount bracket 1 Right, rear mount bracket 1 Left, rear corner gusset 1 Right, rear corner gusset 1 Left, front corner gusset 1 Right, front corner gusset 1 Front crosslink 2 Crosslink tube 28 Flange nut (5/16 inch) 2 Nut (1/4 inch) 2 Hex-head flange bolt (1/4 x 1-1/2 inches) 16 Carriage bolt (5/16 x 1-3/4 inches) 2 Hex-flange bolt (5/16 x 2-3/4 inches) 6 Carriage bolt (5/16 x 2-3/4 inches)	1	Front support
1 Right, front mount bracket  1 Left, rear mount bracket  1 Right, rear mount bracket  1 Left, rear corner gusset  1 Right, rear corner gusset  1 Left, front corner gusset  1 Right, front corner gusset  1 Front crosslink  2 Crosslink tube  28 Flange nut (5/16 inch)  2 Nut (1/4 inch)  2 Hex-head flange bolt (1/4 x 1-1/2 inches)  16 Carriage bolt (5/16 x 1-3/4 inches)  2 Hex-flange bolt (5/16 x 1 inch)  6 Carriage bolt (5/16 x 2-3/4 inches)	1	Rear canopy support
1 Left, rear mount bracket 1 Right, rear mount bracket 1 Left, rear corner gusset 1 Right, rear corner gusset 1 Left, front corner gusset 1 Right, front corner gusset 1 Front crosslink 2 Crosslink tube 28 Flange nut (5/16 inch) 2 Nut (1/4 inch) 2 Hex-head flange bolt (1/4 x 1-1/2 inches) 16 Carriage bolt (5/16 x 1-3/4 inches) 2 Hex-flange bolt (5/16 x 1 inch) 6 Carriage bolt (5/16 x 2-3/4 inches)	1	Left, front mount bracket
1 Right, rear mount bracket  1 Left, rear corner gusset  1 Right, rear corner gusset  1 Left, front corner gusset  1 Right, front corner gusset  1 Front crosslink  2 Crosslink tube  28 Flange nut (5/16 inch)  2 Nut (1/4 inch)  2 Hex-head flange bolt (1/4 x 1-1/2 inches)  16 Carriage bolt (5/16 x 1-3/4 inches)  2 Hex-flange bolt (5/16 x 2-3/4 inches)	1	Right, front mount bracket
1 Left, rear corner gusset 1 Right, rear corner gusset 1 Left, front corner gusset 1 Right, front corner gusset 1 Front crosslink 2 Crosslink tube 28 Flange nut (5/16 inch) 2 Nut (1/4 inch) 2 Hex-head flange bolt (1/4 x 1-1/2 inches) 16 Carriage bolt (5/16 x 1-3/4 inches) 2 Hex-flange bolt (5/16 x 2-3/4 inches) 6 Carriage bolt (5/16 x 2-3/4 inches)	1	Left, rear mount bracket
1 Right, rear corner gusset  1 Left, front corner gusset  1 Right, front corner gusset  1 Front crosslink  2 Crosslink tube  28 Flange nut (5/16 inch)  2 Nut (1/4 inch)  2 Hex-head flange bolt (1/4 x 1-1/2 inches)  16 Carriage bolt (5/16 x 1-3/4 inches)  2 Hex-flange bolt (5/16 x 2-3/4 inches)  Carriage bolt (5/16 x 2-3/4 inches)	1	Right, rear mount bracket
1 Left, front corner gusset 1 Right, front corner gusset 1 Front crosslink 2 Crosslink tube 28 Flange nut (5/16 inch) 2 Nut (1/4 inch) 2 Hex-head flange bolt (1/4 x 1-1/2 inches) 16 Carriage bolt (5/16 x 1-3/4 inches) 2 Hex-flange bolt (5/16 x 2-3/4 inches) 6 Carriage bolt (5/16 x 2-3/4 inches)	1	Left, rear corner gusset
1 Right, front corner gusset 1 Front crosslink 2 Crosslink tube 28 Flange nut (5/16 inch) 2 Nut (1/4 inch) 2 Hex-head flange bolt (1/4 x 1-1/2 inches) 16 Carriage bolt (5/16 x 1-3/4 inches) 2 Hex-flange bolt (5/16 x 1 inch) 6 Carriage bolt (5/16 x 2-3/4 inches)	1	Right, rear corner gusset
1 Front crosslink 2 Crosslink tube 28 Flange nut (5/16 inch) 2 Nut (1/4 inch) 2 Hex-head flange bolt (1/4 x 1-1/2 inches) 16 Carriage bolt (5/16 x 1-3/4 inches) 2 Hex-flange bolt (5/16 x 1 inch) 6 Carriage bolt (5/16 x 2-3/4 inches)	1	Left, front corner gusset
2 Crosslink tube 28 Flange nut (5/16 inch) 2 Nut (1/4 inch) 2 Hex-head flange bolt (1/4 x 1-1/2 inches) 16 Carriage bolt (5/16 x 1-3/4 inches) 2 Hex-flange bolt (5/16 x 1 inch) 6 Carriage bolt (5/16 x 2-3/4 inches)	1	Right, front corner gusset
28 Flange nut (5/16 inch)  2 Nut (1/4 inch)  2 Hex-head flange bolt (1/4 x 1-1/2 inches)  16 Carriage bolt (5/16 x 1-3/4 inches)  2 Hex-flange bolt (5/16 x 1 inch)  6 Carriage bolt (5/16 x 2-3/4 inches)	1	Front crosslink
2 Nut (1/4 inch) 2 Hex-head flange bolt (1/4 x 1-1/2 inches) 16 Carriage bolt (5/16 x 1-3/4 inches) 2 Hex-flange bolt (5/16 x 1 inch) 6 Carriage bolt (5/16 x 2-3/4 inches)	2	Crosslink tube
2 Hex-head flange bolt (1/4 x 1-1/2 inches)  16 Carriage bolt (5/16 x 1-3/4 inches)  2 Hex-flange bolt (5/16 x 1 inch)  6 Carriage bolt (5/16 x 2-3/4 inches)	28	Flange nut (5/16 inch)
16 Carriage bolt (5/16 x 1-3/4 inches)  2 Hex-flange bolt (5/16 x 1 inch)  6 Carriage bolt (5/16 x 2-3/4 inches)	2	Nut (1/4 inch)
2 Hex-flange bolt (5/16 x 1 inch) 6 Carriage bolt (5/16 x 2-3/4 inches)	2	Hex-head flange bolt (1/4 x 1-1/2 inches)
6 Carriage bolt (5/16 x 2-3/4 inches)	16	Carriage bolt (5/16 x 1-3/4 inches)
	2	Hex-flange bolt (5/16 x 1 inch)
4 Carriage bolt (5/16 x 1 inch)	6	Carriage bolt (5/16 x 2-3/4 inches)
	4	Carriage bolt (5/16 x 1 inch)

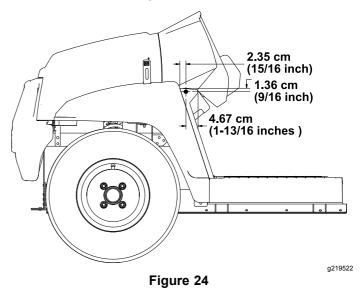
#### **Procedure**

**Note:** Do not tighten any fasteners except when instructed.

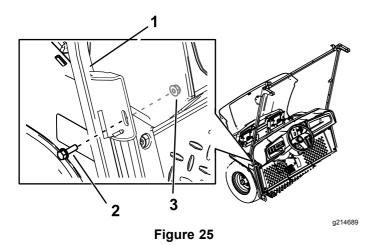
1. Using the dimensions shown in Figure 23, drill 2 holes (5/16 inch) into the outside of the floor plate on the left and right sides of the machine.



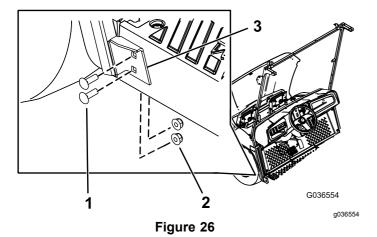
2. Using the dimensions shown in Figure 24, drill 1 hole (5/16 inch) into the outside of the footboard on the left and right sides of the machine.



3. Secure the middle bracket of the left and right windshield supports to the machine using 2 hex-flange bolts (5/16 x 1 inch) and 2 nuts (5/16 inch) in the holes you drilled (Figure 25).



- 1. Windshield support
- 3. Nut—inside dash frame (5/16 inch)
- 2. Hex-flange bolt (5/16 x 1 inch)
- Secure the lower bracket of the left and right windshield supports to the machine using 4 carriage bolts (5/16 x 1 inch) and 4 flange nuts (5/16 inch) in the holes you drilled in step 1 (Figure 26).



- 1. Carriage bolt (5/16 x 1 inch)
- Lower bracket of windshield support
- 2. Flange nut (5/16 inch)
- 5. Use 2 carriage bolts (5/16 x 2-3/4 inches) and 2 flange nuts (5/16 inch) to secure the rear canopy support and the rear screen to the roll bar (Figure 27).

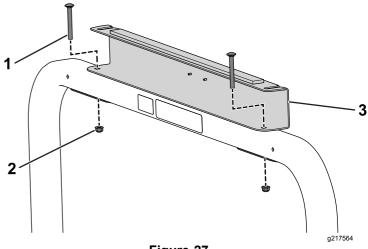
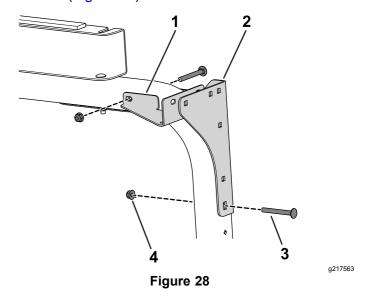


Figure 27

- 1. Carriage bolt (5/16 x 2-3/4 3. Rear screen inches)
- 2. Flange nut (5/16 inch)
- 4. Rear canopy support
- 6. Use 4 carriage bolts (5/16 x 2-3/4 inches) and 4 nuts (5/16 inch) to secure the rear mount brackets and the rear corner gussets to the roll bar (Figure 28).



- 1. Rear corner gusset
- 3. Carriage bolt (5/16 x 2-3/4 inches)
- 2. Rear mount bracket
- 4. Flange nut (5/16 inch)
- 7. Loosely install the crosslink tubes to the rear mount brackets and rear corner gussets using 4 carriage bolts (5/16 x 1-3/4 inches) and 4 flange nuts (5/16 inch) as shown in Figure 29.

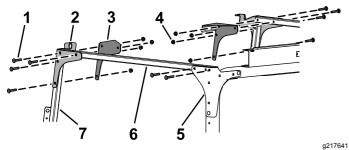
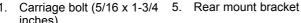


Figure 29



- inches)
- Front mount bracket 2. Corner gusset
- Crosslink tube Windshield support
- Flange nut (5/16 inch)
- Loosely install the front mount brackets and front 8. corner gussets to the crosslink tubes and the windshield supports using 8 carriage bolts (5/16 x 1-3/4 inches) and 8 flange nuts (5/16 inch) as shown in Figure 29.
- Loosely install the front crosslink to the front mount brackets and corner gussets using 4 carriage bolts (5/16 x 1-3/4 inches) and 4 flange nuts (5/16 inch) as shown in Figure 30.

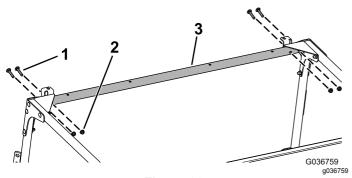
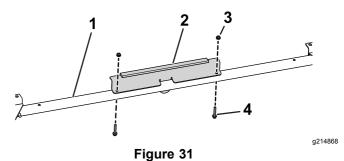


Figure 30

- Carriage bolt (5/16 x 1-3/4 3. Front crosslink
- Flange nut (5/16 inch)
- Use 2 hex-head flange bolts (1/4 x 1-1/2 inches) and 2 nuts (1/4 inch) to secure the front support to the front crosslink (Figure 31).



- Front crosslink
- Front support
- 3. Nut (1/4 inch)
- 4. Hex-head flange bolt (1/4 x 1-1/2 inches)
- Tighten all loose fasteners.

## **Installing the Canopy**

#### Parts needed for this procedure:

1	Sunshade
2	Clip
4	Sealing washer
4	Hex-flange bolt (1/4 x 1 inch)
2	Friction washer
4	Plastic washer
2	Flange bushing

#### **Procedure**

- Install the sunshade to the front plates using 2 clips, 2 sealing washers, and 2 hex-flange bolts (1/4 x 1 inch) as shown in Figure 32.
  - Important: Apply thread-locking compound to the hex-flange bolts before installing.

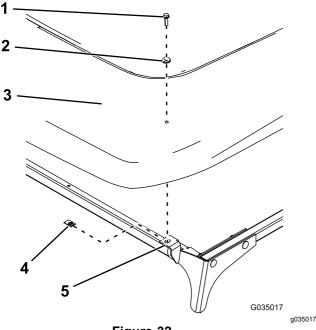


Figure 32

- 1. Hex-flange bolt (1/4 x 1 inch)
- 4. Clip
- 2. Sealing washer
- 5. Front plate
- 3. Sunshade
- Install the sunshade to the rear crosslink using 2 hex-flange bolts (1/4 x 1 inch), 2 sealing washers, 2 friction washers, 4 plastic washers, and 2 flange bushings (Figure 33).

Important: Apply thread-locking compound to the hex-flange bolts before installing.

*Important:* Ensure that the plastic washers are installed onto the top and bottom of the sunshade, as this prevents damaging the sunshade.

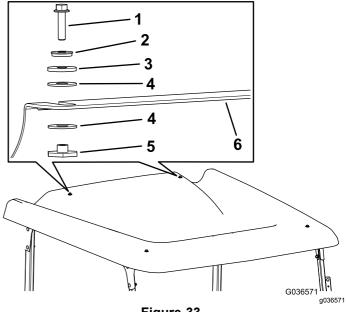


Figure 33

- Hex-flange bolt (1/4 x 1 inch)
- 4. Plastic washer
- Sealing washer
- 5. Flange bushing
- Friction washer
- 6. Rear crosslink

# TORO<sub>®</sub>

#### 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.

374-0253 Rev D