# **Conversion Kit**

# Groundsmaster® 7200 Series Mower with Polar Trac® Kit

Model No. 131-5525

**Installation Instructions** 

# Installation

## **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.

# **Preparing the Machine**

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

# **Selecting the Parts**

Use the table below to determine which parts to use with your cab/machine combination.

				T - 0.		7	
	1	JoDale Perry Cab		Toro Cab			
		Machine Serial	Machine Serial No. 314999999	Machine Serial	Machine Serial No. 314999999	Kubota	Yanmar
	QTY	and Higher	and Lower	and Higher	and Lower	Engine	Engine
Decal	1	131-3367	131-3367	131-3367	131-3367		
Under-seat shield	1	127-6456	127-6456	127-6456	127-6456		
Bulb seal	2	130–6113	112–9581	130–6113	112–9581		
Foam seal (left side)	1	130-6110	130-6110	130-6110	130-6110		
Foam seal (right side)	1	130-6111	130-6111	130-6111	130-6111		
Tee fitting (1-1/4 x 5/8 x 1-1/4 inch)	1			119-0142	119-0142		
Tee fitting (1-1/4 x 3/8 x 1-1/4 inch)	1	93-5052	93-5052				
Straight fitting (3/8 NPT x 5/8 barb)	3			117–9410	117–9410		
Straight fitting (PTC-6 x NPTF-M4)	4	108–0342	108–0342				
Male coupler (1/4 inch NPT)	2	108-9899	108-9899				
Female coupler (1/4 inch NPT)	2	108-9898	108-9898				
Male coupler (3/8 inch NPT)	1			125-9680	125-9680		
Female coupler (3/8 inch NPT)	1			125-9679	125-9679		
Hose clamp (1/2 to 1-1/4 inches)	4			2412-129	2412-129		
Hose clamp (3/4 to 1-1/2 inches)	2	2412–34	2412–34	2412–34	2412–34		
Hose clamp (1/4 to 7/16 inch)	4	2412–36	2412–36				
Dust plug (5/8 inch)	1			105-7962	105-7962		
Dust cap (5/8 inch)	1			105–7963	105–7963		
Dust plug (3/8 inch)	1	106–7882	106–7882				
Dust cap (3/8 inch)	1	105-7963	105-7963				
Hose (3/8 ID x 34 inches)	0						*
Hose (3/8 ID x 52 inches)	0					*	
Hose (3/8 ID x 22-1/2 inches)	0					*	
Hose (5/8 x 34 inches)	1			131-6090 <sup>1</sup>	131-6090 <sup>1</sup>		
Hose (5/8 x 52 inches)	1			131-60672	131-60672		
Hose (5/8 x 22-1/2 inches)	1			131–6068 <sup>2</sup>	131–60682		
Hose bracket	1	130–5818	112-1498	130–5818	112-1498 <sup>3</sup>		
R-clamp	2	2412–39		2412–39			
R-clamp	1	2412-73		2412-73			
Grommet (3-1/2 x 1/8 inch)	1	130-6086		130-6086			
Grommet (1-1/4 x 1/8 inch	3		240-3		240-3		
Grommet (1-1/8 x 1/8 inch)	1		240-7		240-7		
Dual-temperature switch	1	112–6347	112–6347	112–6347	112–6347		
Wire harness	1	110–1667	110–1667	119-4386	119-4386		
Fusible link	1	108–9455	108–9455				
Self tapping (5/16 x 5/8 inch)	2	32144–14	32144–14	32144–14	32144–14		
Carriage bolt (1/4 x 3/4 inch)	3	1–807512		1–807512			
Flange nut (1/4 inch)	3	104–7201		104–7201			
Skid plate	1					013–1210	
Bolt (3/8 x 1-3/4 inches)	2					3234–19	
Bolt (3/8 x 1 inch)	2					323–6	
Flange nut (3/8 inch)	4					104–8301	
Adapter fitting	1						133–4731

<sup>\*</sup>Source locally, ¹Kubota engine only, ²Yanmar engine only, ³Modification required

# **Appling the Decal**

1. Clean the cover plate to ensure proper adhesion when you apply the decal (Figure 1).

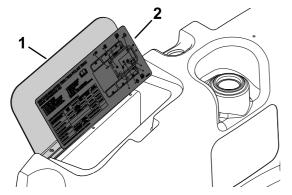


Figure 1

- 1. Cover plate
- 2. Decal
- 2. Remove the backing and apply the decal to the cover plate (Figure 1).

# Installing the Heat Shields, Bulb Seals, and Foam Seal

# **Installing the Heat Shield**

- 1. Release the seat latch and tilt the seat forward.
- 2. Disconnect the seat-switch on the bottom of the seat deck from the wire harness (Figure 2).

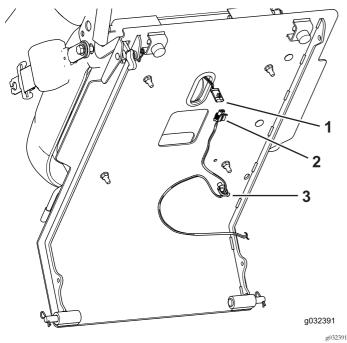
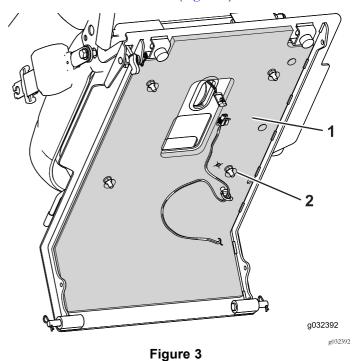


Figure 2

- Seat connector
- 3. Wire clip
- 2. Wire harness

- 3. Remove the wire clip from the bottom of the seat deck (Figure 2).
- 4. Clean the bottom of the seat deck to ensure proper adhesion of the heat shield.
- 5. Remove the backing and apply the heat shield to the bottom of the seat deck (Figure 3).



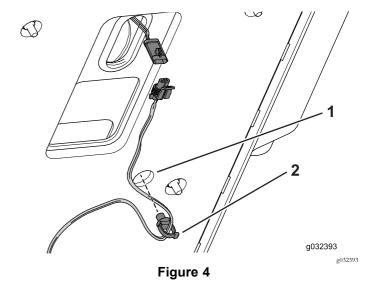
1. Heat shield

g186760

2. Cutout

**Note:** Use the cutouts for the bolts to align the heat shield to the plate.

6. Install the wire clip to the bottom of the seat plate (Figure 4).



1. Hole for wire clip

2. Wire clip

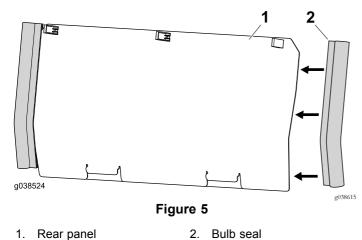
7. Connect the seat switch to the wire harness (Figure 4).

## Installing the Bulb Seals

#### Machine with Serial No. 315000001 and Higher

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

Install the bulb seals to the rear panel (Figure 5).



Installing the Bulb Seals

#### Machine with Serial No. 315000000 and Lower

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

Install the bulb seals to the rear panel (Figure 6).

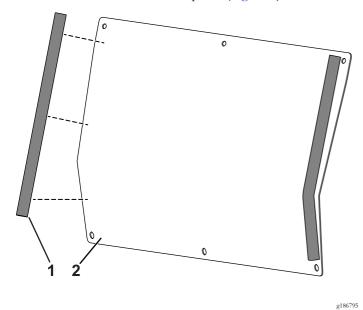


Figure 6

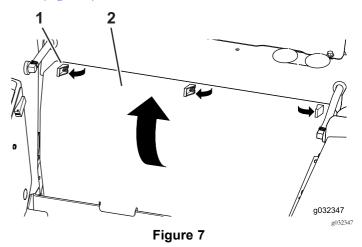
1. Bulb seal

2. Rear panel

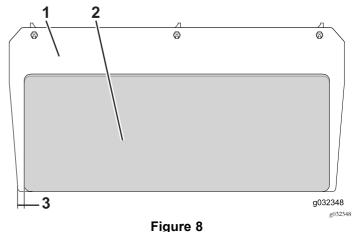
## Installing the Rear-Panel Shield

#### Machine with Serial No. 315000001 and Higher

- 1. Move the seat forward to allow you to have access to the rear panel.
- 2. Toggle the 3 swell latches and remove the rear panel (Figure 7).



- 1. Swell latch
- 2. Back panel
- 3. Clean back of the plate to ensure proper adhesion when you apply the heat shield.
- 4. Remove the backing and apply the rear-panel shield to the engine side of the rear panel (Figure 8).



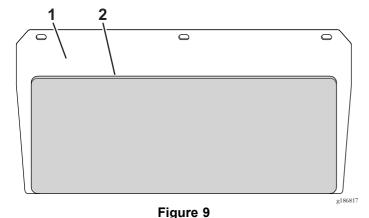
- 1 19
- Rear panel
- 3. 29 mm (1-1/8 inches)
- Rear-panel shield

**Note:** Center the rear-panel shield along the width of the plate leaving 29 mm (1-1/8 inches) from each edge (Figure 8).

## Installing the Rear-Panel Shield

#### Machine with Serial No. 315000000 and Lower

- 1. Move the seat forward to allow you to have access to the rear panel.
- Remove the 6 bolts that secure the rear panel to the machine.
- 3. Clean back of the plate to ensure proper adhesion when you apply the heat shield.
- 4. Remove the backing and apply the rear-panel shield, centered, to the engine side of the rear panel (Figure 9).

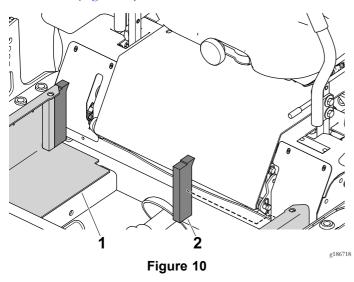


1. Rear panel

2. Rear-panel shield

## **Installing the Foam Seals**

- Clean frame surface to ensure proper adhesion when you apply the foam seal.
- 2. Remove the backing and apply the foam seal to the frame (Figure 10).



3. Perform the previous steps on the other side of the machine.

# **Installing the Heater Hoses**

## **Assembling the Supply Hose Fittings**

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

**Note:** Perform the following steps to each coupler.

- 1. Apply sealant to the straight fitting; skipping the first thread.
- 2. Thread the straight fitting to the coupler (Figure 11).

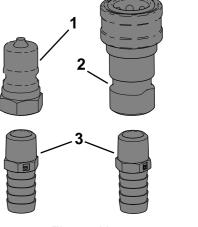


Figure 11

Male coupler

Female coupler

3. Straight fitting

3. Tighten the straight fitting into the male couple 2 to 3 turns from finger-tight.

# **Assembling the Return Hose**JoDale Perry Cab Only

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

**Note:** Source a heater hose with a 3/8 inner diameter from a local supplier. Cut the hose length to 86 cm (34 inches) for a machine equipped with the Yanmar engine and 137 cm (52 inches) for a machine equipped with the Kubota engine.

1. Slide the hose clamp over the hose (Figure 12).

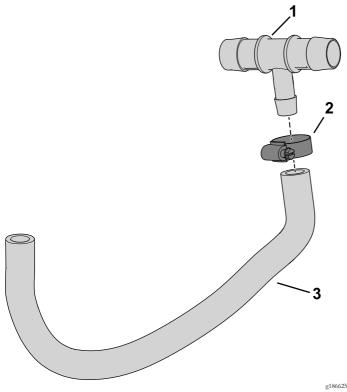


Figure 12

3. Return hose

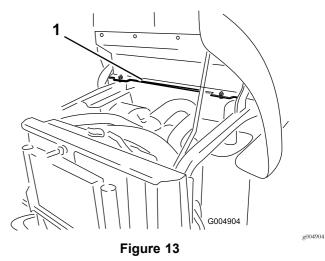
- 1. Tee fitting
  - --- ----
- 2. Hose clamp
- 2. Insert the barbed end of the tee fitting into the hose and secure it with the hose clamp as shown in Figure 12.

# Installing the Hose Bracket and Heater Hoses

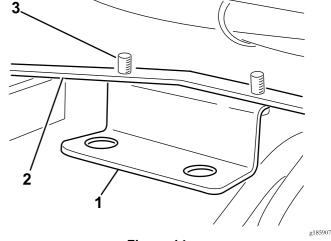
#### Machine with Serial No. 315000000 and Lower

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

1. Locate the 2 mounting holes in the left side of the rear frame mount (Figure 13).



- 1. Rear frame mount
- 2. Use the 2 self-tapping screw (5/16 x 1/2 inch) to secure the hose bracket to the frame mount (Figure 14).



- Figure 14
- 1. Hose bracket
- 3. Self-tapping screw (1/4 x 1/2 inch)
- 2. Frame mount
- 3. Place the dust plug around the barbed end on the female-coupler assembly and insert it into the left hole on the hose bracket (Figure 15).

**Note:** The bracket will need to be modified when installing fittings that are compatible with the Toro cab.

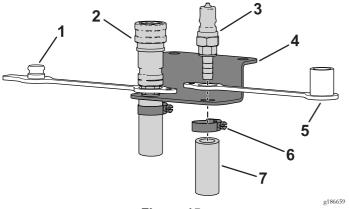


Figure 15

- Dust plug
- Dust cap
- Female-coupler assembly (supply hose)
- Hose clamp
- Male-coupler assembly (return hose)
- Heater hose
- Hose mount
- Place the dust cap around the barbed end on the male-coupler assembly and insert it into the right hole on the hose bracket (Figure 15).
- Slide a hose clamp over each hose (Figure 15).
- Insert the supply hose into the barb end of the female-coupler assembly and use the hose clamp to secure it to the hose mount (Figure 15).
- Insert the return hose into the barb end of the male-coupler assembly and use the hose clamp to secure it to the hose mount (Figure 15).

# **Assembling the Heater Hoses**

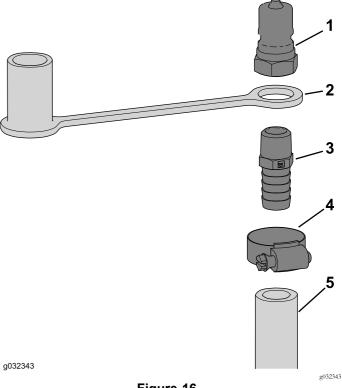
## **Assembling the Supply Hose**

#### **Toro Cab Only**

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

**Note:** Use the hose  $(5/8 \times 34 \text{ inches})$  for a machine equipped with the Yanmar engine and use the hose  $(5/8 \times 22.5 \text{ inches})$ for a machine equipped with the Kubota engine.

Apply sealant to the straight fitting; skipping the first thread.



- Figure 16
- Male coupler
- 4. Hose clamp
- Dust cap
- Supply hose
- 3. Straight fitting
  - Slide the dust cap over the threaded end of the straight fitting as shown in Figure 16.
- Thread the straight fitting to the male coupler (Figure
- Tighten the straight fitting into the male couple 2 to 3 turns from finger-tight.
- Slide a hose clamp over the hose (Figure 16).
- Insert the barbed end of the assembly into the hose and secure it with the hose clamp as shown in Figure 16.

## **Assembling the Return Hose**

#### **Toro Cab Only**

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

**Note:** Use the hose  $(5/8 \times 34 \text{ inches})$  for a machine equipped with the Yanmar engine and use the hose  $(5/8 \times 54 \text{ inches})$  for a machine equipped with the Kubota engine.

 Apply sealant to the male threads on the straight fitting; skipping the first thread.

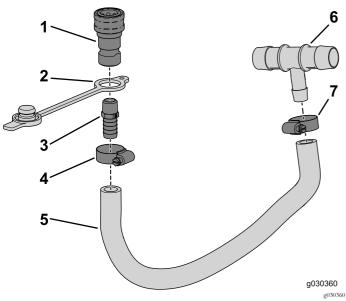


Figure 17

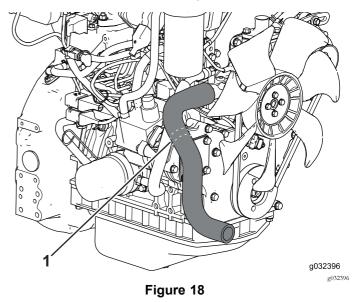
- 1. Female coupler
- 2. Female dust plug
- 3. Straight fitting
- 4. Hose clamp
- 5. Return hose
- 6. Tee fitting
- 7. Hose clamp
- 2. Slide the dust plug over the threaded end of the straight fitting as shown in Figure 17.
- 3. Thread the straight fitting to the female coupler (Figure 17).
- 4. Tighten the straight fitting into the female couple 2 to 3 turns from finger-tight.
- 5. Slide 2 of the hose clamps over the hose.
- 6. Insert the barbed end of the straight fitting into the hose and secure it with the hose clamp as shown in Figure 17.
- 7. Insert the barbed end of the tee fitting into the hose and secure it with the hose clamp as shown in Figure 17.

### **Connecting to the Radiator Hose**

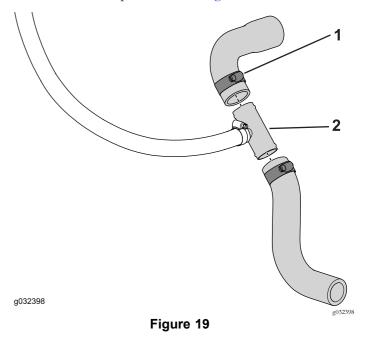
#### **Yanmar Engine Only**

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

1. Locate the radiator hose (Figure 18).



- 1. Cut lines
- 2. Use a cutting tool to cut the radiator hose at the cut lines (Figure 18).
- 3. Slide the cut ends over the tee fitting and secure it using the hose clamp as shown in Figure 19.



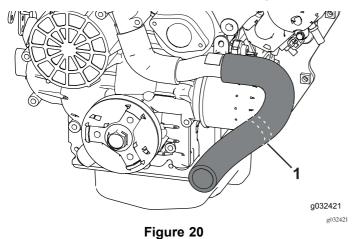
1. Hose clamp

2. Tee fitting

# **Connecting to the Radiator Hose** Kubota Engine Only

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

1. Locate and remove the radiator hose (Figure 20).



- 1. Cut lines
- 2. Use a cutting tool to cut the radiator hose at the cut lines (Figure 20).
- 3. Slide the cut ends over the tee fitting and secure it using the hose clamp as shown in Figure 21.

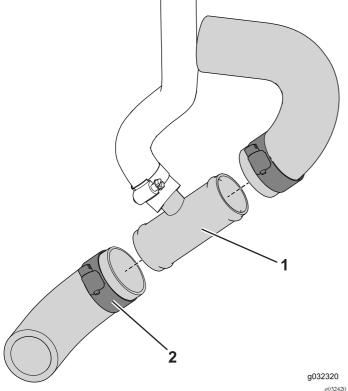


Figure 21

1. Tee fitting

2. Hose clamp

# **Installing the Hose Bracket**

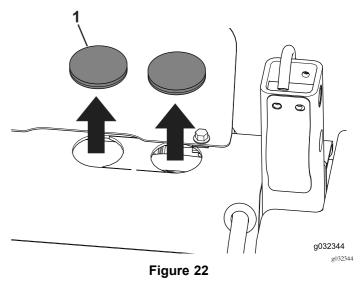
### **Installing the Grommet**

Machine with Serial No. 315000001 and Higher

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

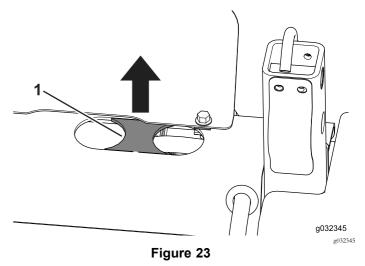
**Note:** Only perform step 1 and step 2 if required.

1. Remove the caps covering the holes in the support tube (Figure 17).



1. Cap

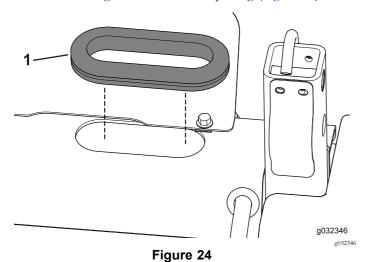
2. Remove the punch out located between the 2 holes if it is present (Figure 23).



1. Punch out

**Note:** If necessary, use a metal-cutting tool to remove the material between the 2 holes in the support tube.

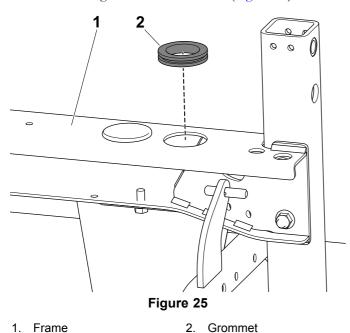
3. Install the grommet into the opening (Figure 24).



1. Grommet

**Note:** You may need to remove the center section of the grommet to form an opening.

4. Install the grommet to the frame (Figure 25).



**Installing the Grommets** 

#### Machine with Serial No. 315000000 and Lower

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

Install the 3 grommets to the frame (Figure 26).

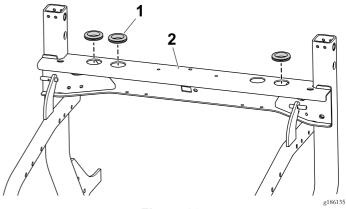


Figure 26

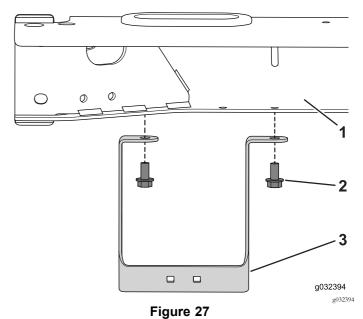
Grommet

2. Frame

# **Installing the Hose Bracket and Heater Hoses**

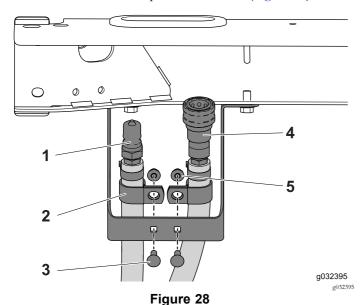
#### Machine with Serial No. 315000001 and Higher

1. Use the 2 bolts  $(5/16 \times 5/8 \text{ inch})$  to install the hose bracket to the frame (Figure 27).



- 1. Frame
- 3. Hose bracket
- 2. Bolts (5/16 x 5/8 inch)
- 2. Torque the bolts to 20 to 25 N·m (15 to 19 ft-lb).

3. Position an R-clamp over each hose (Figure 28).



- - -
- Male coupler (supply hose)
- 2. R-clamp
- Carriage bolt (1/4 x 3/4 inch)
- 4. Female coupler (return hose)
- 5. Flange nut (1/4 inch)
- 4. Use the 2 carriage bolts (1/4 x 3/4 inch) and flange nuts to install the R-clamp and hose assembly to the bracket mount (Figure 28).
- 5. Torque the bolt to 10 to 12 N·m (8 to 9 ft-lb).

# **Installing the Supply Hose**

# **Installing the Supply Hose**

#### **Yanmar Engine Only**

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

1. Locate and remove the engine-port plug (Figure 29).

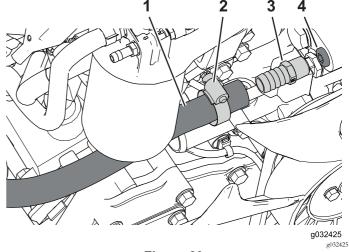


Figure 29

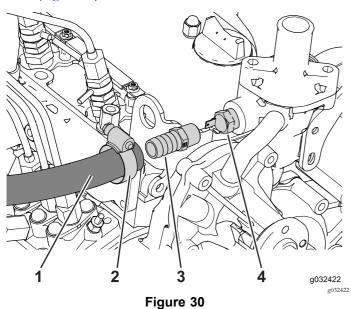
- 1. Supply hose
- 2. Hose clamp
- 3. Straight fitting
- 4. Engine-port plug
- 2. Apply sealant to the male threads on the straight fitting; skipping the first thread (Figure 29).
- 3. Finger-tighten the straight fitting into the port.
- 4. Tighten the straight fitting an additional 2 to 3 turns.
- 5. Slide the hose clamp over the hose end (Figure 29).
- 6. Insert the hose over the straight fitting and secure it with the hose clamp as shown in Figure 29.

## **Installing the Supply Hose**

#### **Kubota Engine Only**

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

1. Locate, disconnect, and remove the temperature switch (Figure 30).



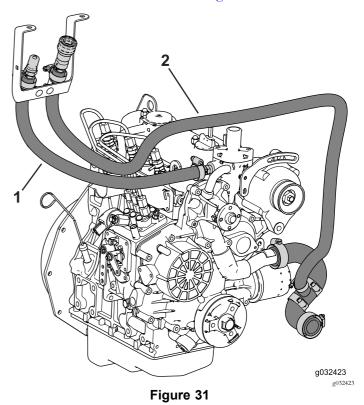
- 1. Supply hose
- 2. Hose clamp
- 3. Straight fitting
- 4. Temperature switch
- 2. Apply sealant to the male threads on the straight fitting; skipping the first thread.
- 3. Finger-tighten the straight fitting into the port.
- 4. Tighten the straight fitting an additional 2 to 3 turns.
- 5. Slide the hose clamp over the hose end (Figure 30).
- 6. Insert the hose over the straight fitting and secure it with the hose clamp as shown in Figure 30.

# **Routing the Heater Hoses**

## **Routing the Return Hose**

#### **Kubota Engine Only**

Route the return hose as shown in Figure 31.



1. Supply hose

2. Return hose

# Routing the Return Hose Yanmar Engine Only

Route the supply hose as shown in Figure 32.

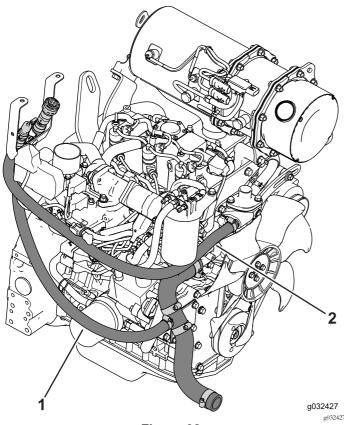


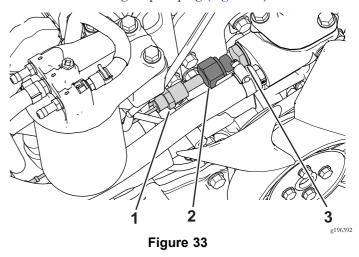
Figure 32

1. Return hose

2. Supply hose

# Installing the Temperature Switch (Yanmar Engine Only)

1. Locate the thermostat housing on the engine block and remove the engine-port plug (Figure 33).

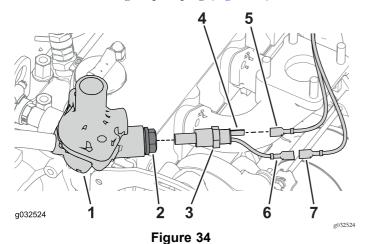


- 1. Temperature switch
- 3. Engine-port plug
- Adapter fitting
- 2. Apply sealant to the adapter fitting; skipping the first thread.
- 3. Finger-tighten the adapter fitting into the port.
- 4. Tighten the adapter fitting an additional 2 to 3 turns.
- 5. Apply sealant to the temperature switch; skipping the first thread.
- 6. Finger-tighten the temperature switch into the port.
- 7. Tighten the temperature switch an additional 2 to 3 turns.
- 8. Locate the yellow wire you disconnected in a previous step and connect it to the engine-hot connector.
- 9. Locate the orange wire that is cable tied to the yellow wire and connect it to the engine-warm connector.
- 10. Use cable ties to secure the wires.

**Note:** Do not secure the wire harness to hot or moving parts.

# Installing the Temperature Switch (Kubota Engine Only)

1. Locate the thermostat housing on the engine block and remove the engine-port plug (Figure 34).

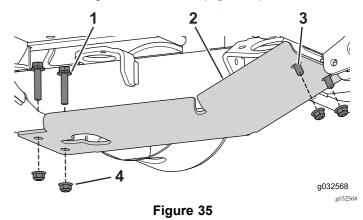


- 1. Thermostat housing
- 2. Engine-port plug
- 3. Temperature switch
- 4. Engine-hot connector
- 5. Yellow wire
- 6. Engine-warm connector
- 7. Orange wire
- 2. Apply sealant to the temperature switch; skipping the first thread.
- 3. Finger-tighten the temperature switch into the port.
- 4. Tighten the temperature switch an additional 2 to 3
- 5. Locate the yellow wire you disconnected in a previous step and connect it to the engine-hot connector (Figure 34).
- 6. Locate the orange wire that is cable tied to the yellow wire and connect it to the engine-warm connector (Figure 34).
- 7. Use cable ties to secure the wires.

**Note:** Do not secure the wire harness to hot or moving parts.

# Installing the Skid Plate (Kubota Engine Only)

Use the bolt  $(3/8 \times 1-1/4 \text{ inches})$ ,  $(3/8 \times 1 \text{ inch})$ , and nuts to secure the skid plate to the frame (Figure 35).



- 1. Bolt (3/8 x 1-1/4 inches)
- Skid plate
- 3. Bolt (3/8 x 1 inch)
- 4. Flange nut (3/8 inch)

# **Installing the Wire Harness**

# **Assembling the Wire Harness**

#### **Toro Cab Only**

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

Assemble the following components to the wire harness (Figure 36).

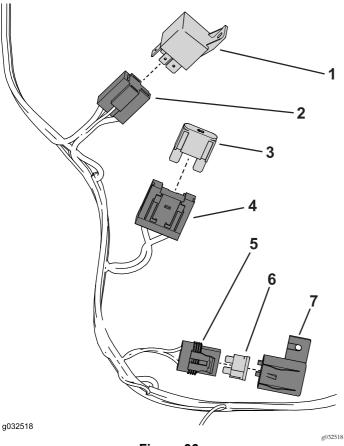


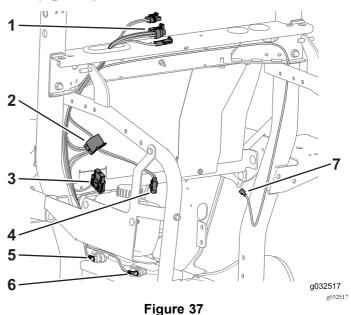
Figure 36

- 1. Relay
- Relay connector 2.
- Fuse (60 A) 3.
- Fuse holder
- 5. Fuse assembly
- Fuse (10 A)
- Fuse-assembly cap
- Install the relay to the relay connector (Figure 36).
- 3. Install the fuse (60 A) to the fuse holder (Figure 36).
- Install the fuse (10 A) to the fuse assembly and secure it with the fuse-assembly cap (Figure 36).

## **Routing the Wire Harness**

#### **Kubota Only**

1. Route the 3 cab connectors through the grommet (Figure 37).



- Cab connectors
- Relay assembly
- Fuse assembly (60 A)

Washer-bottle connector

- Positive connector (red)
- Negative connector (black)
- Auxiliary-power wire
- Route the auxiliary-power wire across the frame support, down along the ROPS tube, and toward the operator controls (Figure 37).
- Use the cable ties to secure the wire harness to the frame.

**Note:** Do not secure the wire harness to hot or moving parts.

## **Routing the Wire Harness**

#### **Yanmar Only**

1. Route the 3 cab connectors through the grommet (Figure 38).

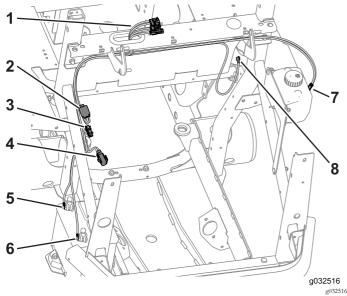


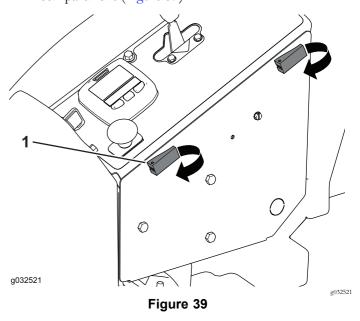
Figure 38

- 1. Cab connectors
- 2. Relay assembly
- 3. Fuse assembly (60 A)
- 4. Fuse holder
- 5. Positive connector (red)
- 6. Negative connector (black)
- Washer-bottle connector
- 8. Auxiliary-power wire
- 2. Route the auxiliary-power wire across the frame support, down along the ROPS tube, and toward the operator controls (Figure 38).
- 3. Route the washer wire across the frame support, down along the ROPS tube, and toward the washer bottle (Figure 38).
- 4. Use the cable ties to secure the wire harness to the frame.

**Note:** Do not secure the wire harness to hot or moving parts.

# Connecting the Auxiliary-Power Wire Toro Cab Only

1. Toggle the swell latches and open the operator-controls compartment (Figure 39).



- Swell latch
- 2. Route the auxiliary-power wire into the operator-controls compartment (Figure 40).

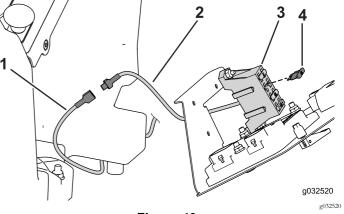


Figure 40

- 1. Auxiliary-power wire
- 2. Fuse-block wire
- 3. Fuse block
- 4. Fuse (10 A)
- 3. Connect the auxiliary-power wire to an unused fuse-block wire from the fuse block (Figure 40).

**Note:** Install an additional fuse block if require.

- 4. Install a fuse (10 A) into the fuse location connected to the auxiliary-power wire (Figure 40).
- 5. Use the cable ties to secure the wire.

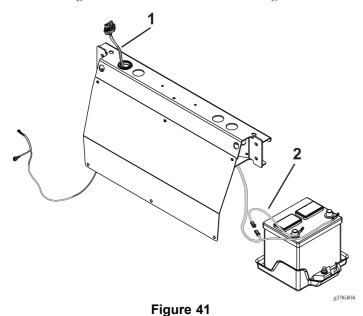
**Note:** Do not secure the wire harness to hot or moving parts.

## **Installing the Wire Harness**

#### **JoDale Perry Cab Only**

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

1. Arrange the wire harness as shown in Figure 41.



Wire harness

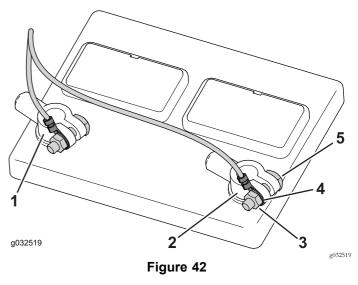
2. Fusible link

2. Connect the fusible link to the wire harness (Figure 41).

### **Connecting to the Battery**

**Note:** Refer to the table in Selecting the Parts (page 2) to determine the part that you use in this procedure.

1. Loosen and remove the negative-post clamp and then the positive-post clamp from the battery (Figure 42).



- 1. Positive-post clamp
- 4. Ring connector
- 2. Negative-post clamp
- 5. Bolt

- 3. Nut
- 2. Remove the nut and washer from each clamp
- 3. Install the negative-ring connector over the negative-post bolt and loosely install the nut (Figure 42).
- 4. Install the positive-ring connector over the positive-post bolt and loosely install the nut (Figure 42).
- 5. Install the positive-post clamp to the positive-battery post and then the negative-post clamp to the negative-battery post (Figure 42).
- 6. Use the cable ties to secure the wire harness to the frame.

**Note:** Do not secure the wire harness to hot or moving parts.

# **Notes:**

# **Notes:**

