Installation Instructions

Safety

Cooling System Safety

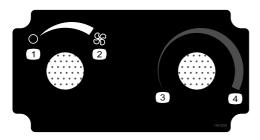
- Swallowing engine coolant can cause poisoning; keep out of reach from children and pets.
- Discharge of hot, pressurized coolant or touching a hot radiator and surrounding parts can cause severe burns.
 - Always allow the engine to cool at least 15 minutes before removing the radiator cap.

- Use a rag when opening the radiator cap, and open the cap slowly to allow steam to escape.
- Do not operate the machine without the covers in place.
- Keep your fingers, hands and clothing clear of rotating fan and drive belt.
- Shut off the engine and remove the key before performing maintenance.

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. Fan-off
- 2. Fan-on full
- 3. Heat-low
- 4. Heat-high

Original Instructions (EN)

Printed in the USA

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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.
	Heater control panel	1	
	Rotary switch	1	
	Rotary linear switch	1	
	Switch nut (7/16 inch)	2	
2	Knob	2	Install the heater control panel.
	Button-head bolt (5/8 inch)	4	
	Locknut (#10-24)	4	
	Control cable	1	
	Wire harness	1	
3	No parts required	_	Cut the holes for the vents.
	Heater box assembly	1	
	Heater mount bracket	1	
	Carriage bolt (1/4 x 3/4 inch)	6	
	Locknut (1/4 inch)	6	
	Coolant hose (5/8 x 13 inches)	1	
4	Coolant hose (5/8 x 26 inches)	1 1	Assemble the heater box assembly.
, ,	Vent hose (2 x 18 inches)	8	,
	Y-adapter	2	
	Band clamp	2	
	Cable tie	16	
	Vent	6	
	Hex bolt (5/16 x 3/4 inch)	2	
5	Carriage bolt (1/4 x 3/4 inch)	2	Install the heater box assembly.
J	Locknut (1/4 inch)	2	motern the fleater box assembly.
	Cable tie	6	
	Band clamp	2	Route the hoses.
6	Water valve	1	
	Hose	3	
7	Pan-head bolt (#10-24 x 3/8 inch)	1	Install the wire harness.
8	No parts required	_	Connect the battery.
9	No parts required	_	Burp the cooling system.



Preparing the Machine

No Parts Required

Procedure

- 1. Park the machine on a level surface.
- 2. Shift the transmission lever to the P (PARK) position.
- 3. Shut off the engine and remove the key.
- Wait for the engine to cool completely.

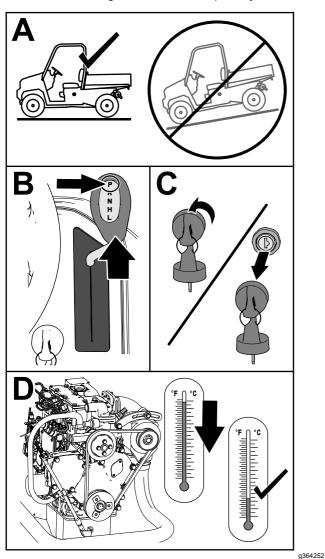


Figure 1

5. Disconnect the negative (-) battery cable from the battery post.

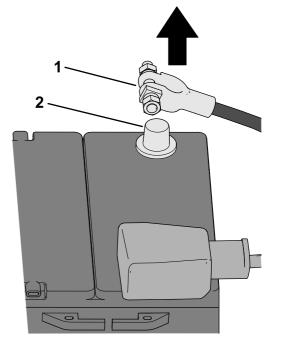


Figure 2

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- 1. Negative (-) battery cable
- 2. Battery post
- 6. Raise the hood; refer to the machine *Operator's Manual*.
- 7. Drain approximately 2 L (1/2 US gallon) of engine coolant (or until coolant stops flowing out of the rubber hoses) from the cooling system; refer to the *Operator's Manual*.

Note: Retain coolant for reuse after installation of the kit.



Installing the Heater Control Panel

Parts needed for this procedure:

1	Heater control panel
1	Rotary switch
1	Rotary linear switch
2	Switch nut (7/16 inch)
2	Knob
4	Button-head bolt (5/8 inch)
4	Locknut (#10-24)
1	Control cable
1	Wire harness

Procedure

1. On the dashboard, remove the 4 switch plugs and cut out the material between the switch cutouts (Figure 3).

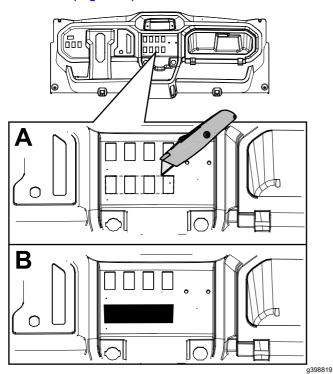
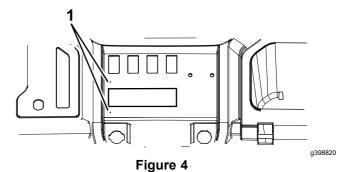


Figure 3

2. Locate the 2 drill pilot dimples (Figure 4) and drill 2 pilot holes (3/16 inch) directly over the pilot dimples.



1. Drill pilot dimples

A WARNING

Using a drill without wearing eye protection may allow debris to enter the eye, causing personal injury.

When drilling, always wear eye protection.

- 3. Using the heater control panel as a template, drill the other 2 holes located on the right side.
- 4. Install the 2 switches onto the control panel with 2 switch nuts (7/16 inch) as shown in A of Figure 5.
- 5. Install a knob over each switch (B of Figure 5).

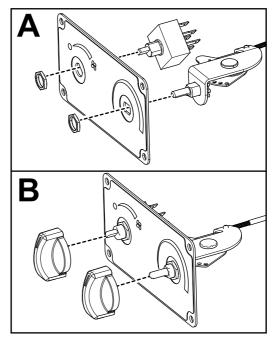


Figure 5

6. Move the control knobs to the middle position as shown in Figure 6.

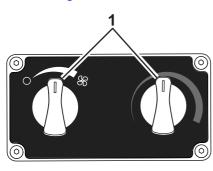


Figure 6

- 1. Move the knobs to the middle position.
- Ensure that the heater switch is in the middle position and connect one end of the control cable to the back of the heater switch (Figure 7).

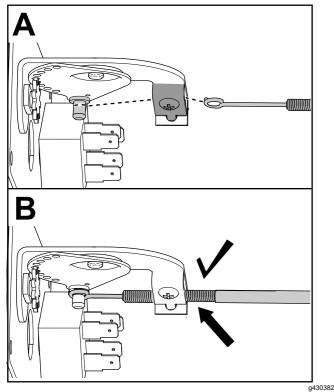
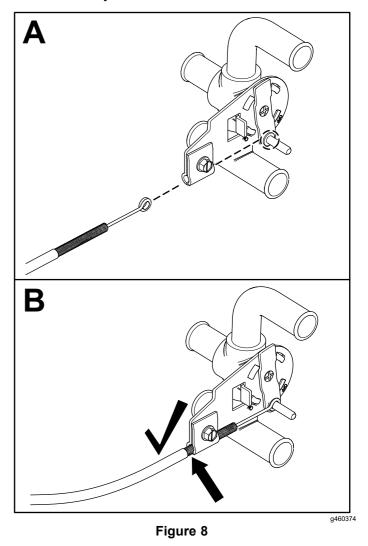


Figure 7

- 8. Ensure that the water valve is in the middle position and connect it onto the other end of the control cable (Figure 8).
- Ensure that the heater switch can sweep from low heat to high heat and that the water valve fully opens and closes. Adjust the cable if necessary.



10. Plug the 5-terminal connector on the kit wire harness into the back of the airflow switch (Figure 9).

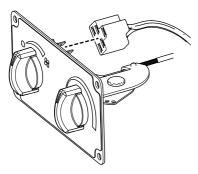


Figure 9

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11. Route the control cable, water valve, and wire harness through the dashboard and secure the control panel assembly onto the dashboard with 4 button-head bolts (5/8 inch) and 4 locknuts (#10-24); refer to Figure 10. Torque the bolts to 3 N·m (30 in-lb).

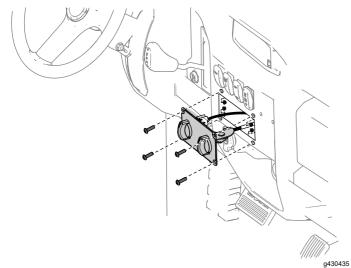


Figure 10



Cutting the Holes for the Vents

No Parts Required

Procedure

1. Locate the 4 drill pilot dimples on the top of the dashboard (Figure 11) and drill 4 holes (76 mm or 3 inches) directly over the pilot dimples.

Note: Use a 76 mm (3 inch) hole saw to drill the vent holes.

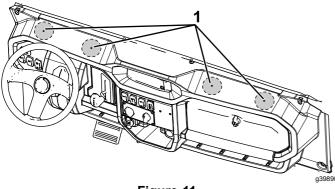


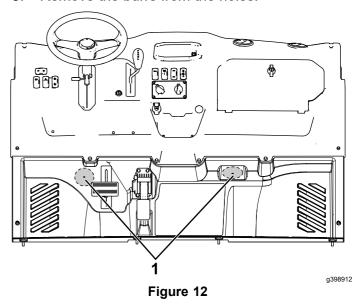
Figure 11

1. Drill pilot dimples

2. Locate the 2 drill pilot dimples on the floorboard (Figure 12) and drill 2 holes (76 mm or 3 inches) directly over the pilot dimples.

Note: It is recommended to use a 76 mm (3 inch) hole saw to drill the vent holes.

3. Remove the burrs from the holes.



1. Drill pilot dimples



Assembly the Heater Box Assembly

Parts needed for this procedure:

1	Heater box assembly
1	Heater mount bracket
6	Carriage bolt (1/4 x 3/4 inch)
6	Locknut (1/4 inch)
1	Coolant hose (5/8 x 13 inches)
1	Coolant hose (5/8 x 26 inches)
8	Vent hose (2 x 18 inches)
2	Y-adapter
2	Band clamp
16	Cable tie
6	Vent

Procedure

Important: Do not interfere with the shifter linkage or steering column when installing the hoses.

1. Connect 6 vent hoses to the adjustable vents using 6 large cable ties (Figure 13).

Note: Ensure that the vents are orientated to blow air toward the operator on the operator's side of the machine and toward the passenger on the passenger's side.

- 2. Route the hoses and install the 4 adjustable vents into the 4 top holes (Figure 13).
- 3. Route the hoses and install the 2 adjustable vents into the lower 2 holes (Figure 13).
- 4. Connect the 2 outer vent hoses to the 2 lower hoses using the 2 Y-adapters and 4 cable ties (Figure 13 and Figure 14).

Connect 2 additional vent hoses to the assembled outer vent hoses and secure them using 2 cable ties (Figure 13 and Figure 14).

5. Connect the 4 vent hoses to the heater box using 4 cable ties (Figure 13 and Figure 14).

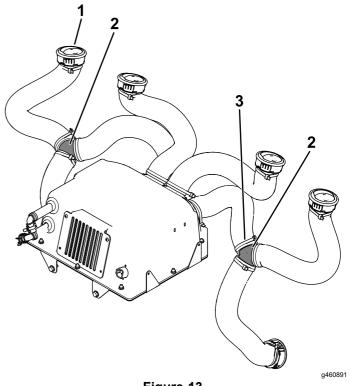


Figure 13

- 1. Vent
- 2. Y-adapters

3. Cable tie

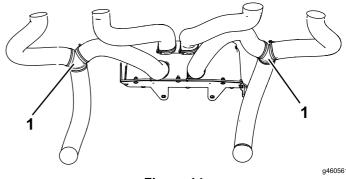
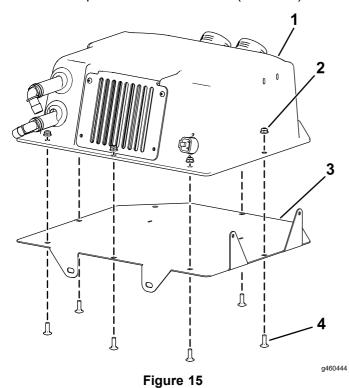


Figure 14

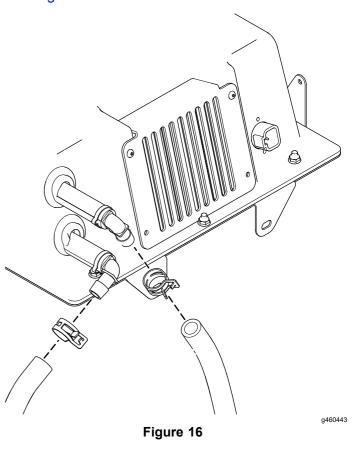
1. Outer hose assemblies

6. Attach the heater box assembly to the heater mount bracket with 6 carriage bolts (1/4 x 3/4 inch) and 6 locknuts (1/4 inch); refer to Figure 15. Torque the bolts to 11 N·m (100 in-lb).



- 1. Heater box assembly
- 2. Locknut (1/4 inch)
- 3. Heater mount bracket
- 4. Carriage bolt (1/4 x 3/4 inch)

7. Connect the 2 coolant hoses onto the front of the heater box with 2 band clamps as shown in Figure 16.





Installing the Heater Box Assembly

Parts needed for this procedure:

2	Hex bolt (5/16 x 3/4 inch)
2	Carriage bolt (1/4 x 3/4 inch)
2	Locknut (1/4 inch)

Procedure

Note: If the machine has the glass windshield and wiper kit installed, remove the washer bottle from the frame of the machine. Install it onto the side of the heater box assembly after the heater box is installed on the machine (see step 3).

1. Attach the front of the heater box assembly to the frame of the machine with 2 hex bolts (5/16 x 3/4 inch).

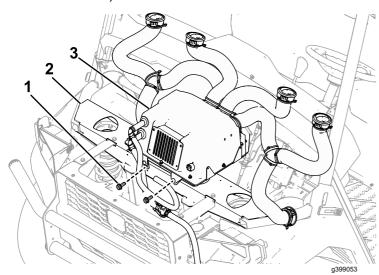


Figure 17

- 1. Hex bolt (5/16 x 3/4 inch)
- 3. Heater box assembly
- 2. Machine frame

2. Attach the back of the heater box assembly to the dash brackets on the machine with 2 carriage bolts (1/4 x 3/4 inch) and 2 locknuts (1/4 inch); refer to Figure 18.

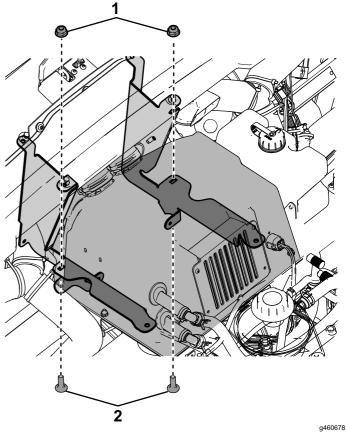


Figure 18

- 1. Locknuts (1/4 inch)
- 2. Carriage bolts (1/4 x 3/4 inch)
- If the machine has the glass windshield and wiper kit installed, install the washer bottle onto the side of the heater box assembly as shown in Figure 19.

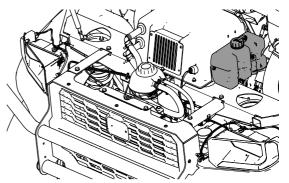


Figure 19



Routing the Hoses

Parts needed for this procedure:

6	Cable tie
2	Band clamp
1	Water valve
3	Hose

Procedure

1. Disconnect the existing coolant hose from the side of the coolant tank (Figure 20) and shorten the hose by 23 cm (9 inches).

Retain the band clamp for reuse.

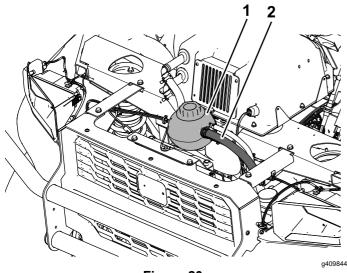


Figure 20

- 1. Coolant tank
- 2. Existing coolant hose

2. Connect the 2 coolant hoses that were previously installed to the heater box to their appropriate ports on the water valve with 2 band clamps (Figure 21).

Note: If a BOSS snowplow is installed on the machine, route the heater core lower hose (Figure 21) around the plow solenoid.

- 3. Connect the previously shortened thermostat bypass hose to the water valve with a band clamp (Figure 21 and Figure 22).
- Connect the remaining hose to the water valve with a band clamp, then connect the other end of the hose to the large port on the upper reservoir with a band clamp (Figure 21 and Figure 22).

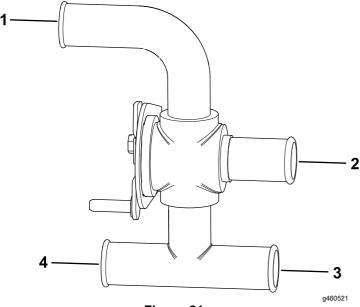


Figure 21

- 1. To the heater core lower hose
- 2. From the thermostat bypass hose
- To the upper reservoir large port
- To the heater core upper hose

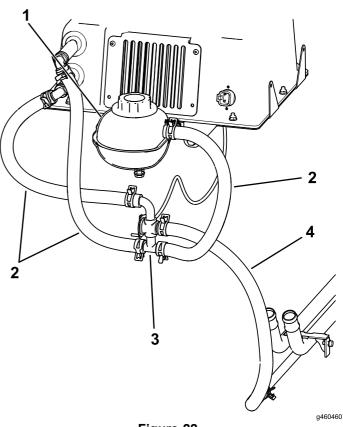


Figure 22

- 1. Coolant tank
- 2. Coolant hoses (3)
- 3. Water valve
- Existing coolant hose (previously removed from coolant tank and shortened)



Installing the Wire Harness

Parts needed for this procedure:

1 Pan-head bolt (#10-24 x 3/8 inch)

Procedure

- 1. Install the fuse cover (supplied with kit wire harness) onto the left side of the heater box with the pan-head bolt (#10-24 x 3/8 inch) as shown in Figure 23.
- 2. Route the kit wire harness as shown in Figure 23.

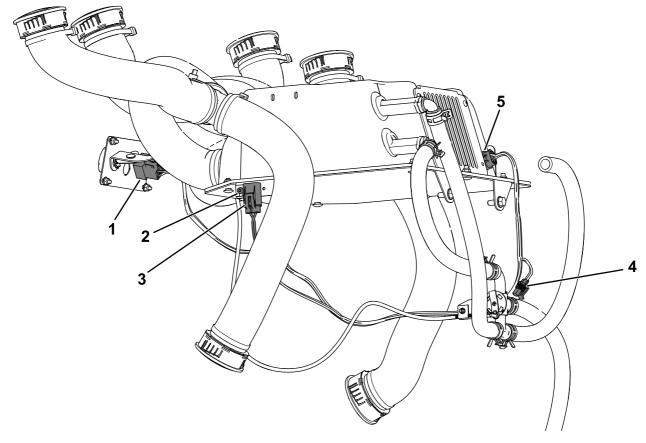


Figure 23

- 1. To airflow switch (previously installed)
- 2. Fuse cover—connected to the heater box with a pan-head bolt (#10-24 x 3/8 inch)
- 3. To fuse cover

4. To machine wire harness

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5. To heater box



Connecting the Battery

No Parts Required

Procedure

Connect the negative (-) battery cable to the battery post.

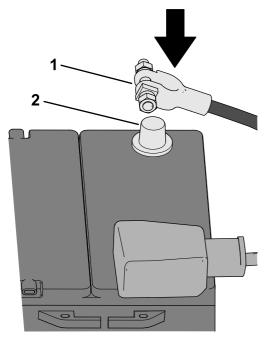


Figure 24

1. Negative (-) battery cable 2. Battery post

9

Burping the Cooling System

No Parts Required

Procedure

A WARNING

If the engine has been running, the pressurized, hot coolant can escape and cause burns.

- Do not open the radiator cap when the engine is running.
- Use a rag when opening the radiator cap, and open the cap slowly to allow steam to escape.

Coolant type: 50% ethylene-glycol with organic additive technology (OAT) 50% distiller water

- 1. Remove the cap from the cooling system reservoir.
- 2. Fill the cooling system reservoir until coolant reaches the lower line within the reservoir.
- 3. Rotate the temperature-control knob to full heat.
- 4. Start and run the engine until the cooling fan cycles.

When the machine is at operating temperature, the coolant level within the reservoir should be at the upper line.

- 5. Add coolant as necessary to replace air that has been purged from the cooling system.
- 6. Install the cooling system reservoir cap.

Operation

Operating the Fan

The fan has 4 speeds (OFF, LOW, MEDIUM, and HIGH). Rotate the fan-control knob to regulate the speed of the fan.

Rotate the temperature-control knob to regulate the air temperature in the cab.

Maintenance

Servicing the Heater Air Filter

Service Interval: Every 250 hours—Change the heater air filter (more frequently in dusty or dirty conditions).

Note: The heater air filter is designed to keep the cabin air clean.

1. Remove the filter access cover from the heater box assembly (Figure 25).

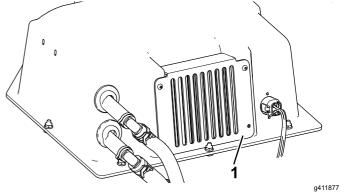


Figure 25

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- Filter access cover
- 2. Gently remove the filter from the heater box assembly.

Note: Do not attempt to clean the filter.

3. Inspect the new filter for damage by looking into the filter while shining a bright light on the outside of the filter.

Note: Holes in the filter appear as bright spots. Inspect the element for tears, an oily film, or damage to the rubber seal. If the filter is damaged, do not use it.

Note: Use care when handling the filter to avoid damaging or deforming it.

- 4. Carefully install the filter.
- 5. Install the filter access cover on the heater box assembly with the corresponding hardware.

Cleaning the Heater

Important: Do not get the heater box or heater components wet.

