Form No. 3357-675 Rev A

12V Power Plug Adapter Kit

For Workman e2050/e2060/e2065 Utility Vehicles

Model No. 07289—Serial No. 270000001 and Up

Installation Instructions

Installation

Loose Parts

Use the chart below to verify that all parts have been shipped.

Step	Description	Qty.	Use
1	No parts required	–	Prepare the machine.
2	Converter mount Converter Flange bolt (1/4 x 3/4 inch) Lock nut (1/4 inch)	1 1 4 4	Assemble the converter.
3	Electric mount plate Bolt (5/16 x 3/4 inch) Lock nut (5/16 inch) Fuse assembly	1 1 1 1	Install the fuse assembly and electric mount plate.
4	Power plug assembly	1	Install the power plug assembly.
5	Bolt (5/16 x 3/4 inch) Lock nut (5/16 inch) Wiring harness Wire ties	2 2 1 4	Mount the converter.

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Register at www.Toro.com.

Original Instructions (EN)
Printed in the USA.

Step 1

Preparing the Machine

No Parts Required

Procedure

Batteries can give you a powerful electrical shock.

- **Use tools with plastic handles or wrap the handles of metal tools with electrical tape.**
- **Be careful not to contact both a positive terminal and a negative terminal at the same time.**

1. Position the vehicle on a level surface, engage the parking brake and rotate the On/Off key to the Off position.
2. Raise the bed to access the vehicle batteries. Remove a short battery cable linking any two batteries in the battery bank to remove power from the system (Figure 1).

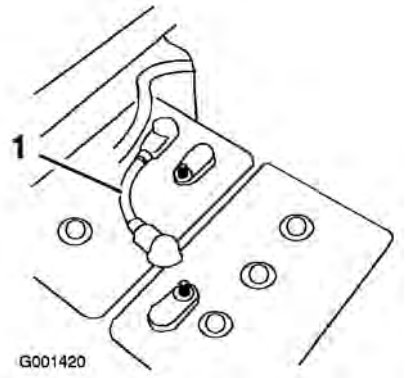

Figure 1

1. Short battery cable

3. Remove front hood to gain access to front end of the machine. Retain all fasteners.

Step 2

Assembling the Converter

Parts needed for this step:

1	Converter mount
1	Converter
4	Flange bolt (1/4 x 3/4 inch)
4	Lock nut (1/4 inch)

Procedure

1. Assemble the 12V converter to the converter mount plate (Figure 2).

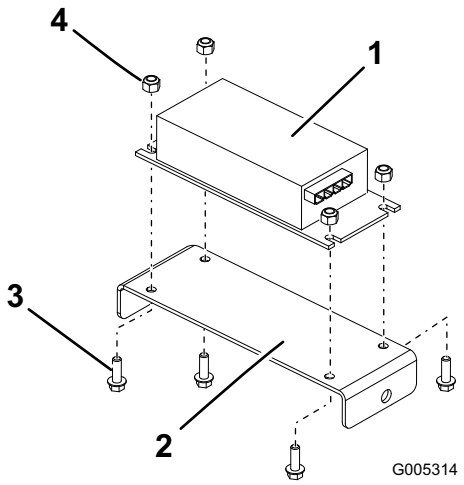

Figure 2

1. Converter
2. Mount plate
3. Bolt
4. Tension wheel

2. Secure the converter to the mount plate using four bolts (1/4 x 3/4 inch) and four locknuts (1/4 inch) as shown in Figure 2.

Step

3

Installing the Fuse Assembly and Electric Mount Plate

Parts needed for this step:

1	Electric mount plate
1	Bolt (5/16 x 3/4 inch)
1	Lock nut (5/16 inch)
1	Fuse assembly

Procedure

1. Remove the nut and bolt securing the horn to the steering column under the dash. Let the horn hang and replace the fasteners just removed.
2. Remove the nuts securing the solenoid plate to the frame under the dash (Figure 3).

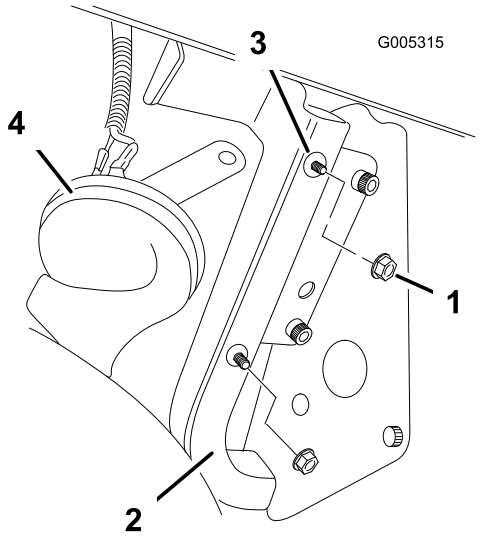

Figure 3

1. Flange nut
2. Frame
3. Bolts
4. Horn

3. Lift the solenoid plate away from the frame and install the electrical mount plate between the solenoid plate and frame (Figure 4).

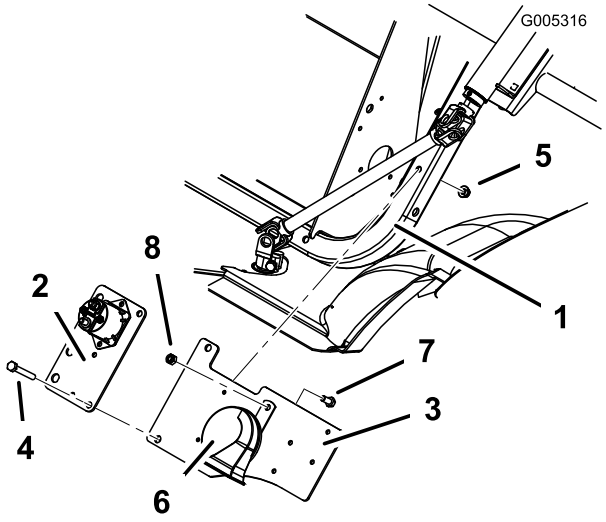

Figure 4

1. Frame
2. Solenoid plate
3. Electrical plate
4. Bolt
5. Flange nut
6. Horn (harness not shown)
7. Bolt (5/16 x 3/4 inch)
8. Locknut (5/16 inch)

4. Use the fasteners to secure the solenoid plate and electrical mount plate to the frame (Figure 4).
5. Install the horn to the electrical mount plate as shown in Figure 4 using a bolt (5/16 x 3/4 inch) and locknut (5/16 inch).
6. Install the fuse assembly to the solenoid plate (Figure 5).

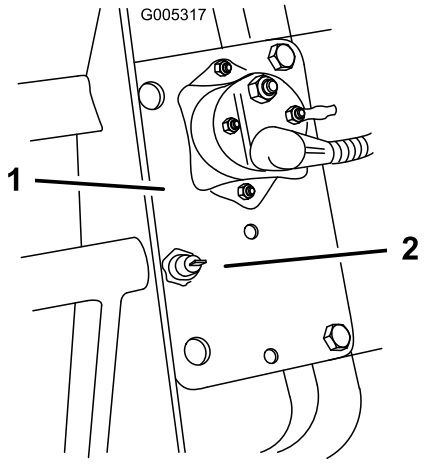

Figure 5

1. Solenoid plate
2. Fuse assembly

Step

4

Installing the Power Plug Assembly

Parts needed for this step:

1	Power plug assembly

Procedure

1. On the dashboard, from the operator's position, measure 2-7/8 inches to the right of the center of the key hole and 1-1/4 inch form the bottom edge of the switch cluster (Figure 6). Mark the dash at that point.

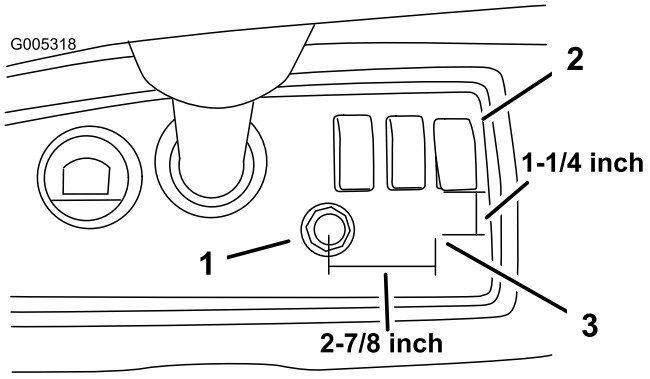

Figure 6

1. Keyhole
2. Switch cluster
3. Mark here, drill at center point

2. Drill a 7/8 inch diameter hole at the mark in the dash (Figure 6).
3. Locate the power plug assembly in loose parts. Unscrew the assembly as shown in Figure 7.

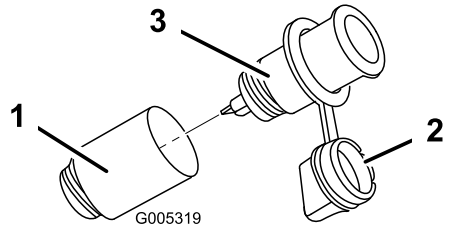

Figure 7

1. Power plug outer casing
2. Plastic plug
3. Power plug interior

4. Install the power plug interior and plastic cap through the dash in the hole previously drilled (Figure 8).

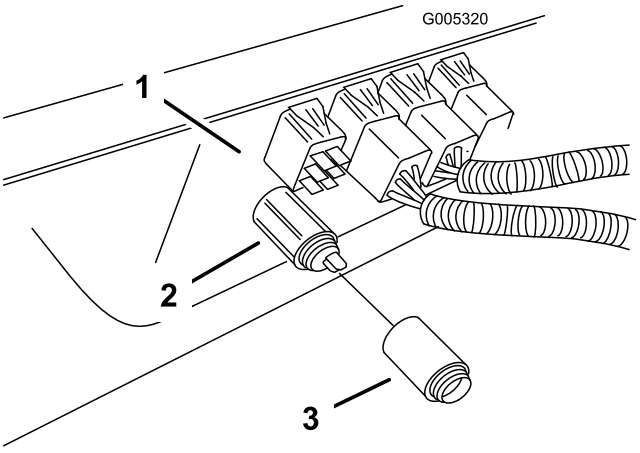

Figure 8

1. Dash underside
2. Power plug interior
3. Power plug outer casing

5. Behind the dash, secure the power plug by installing the power plug outer casing over the power plug interior install in the dash previously (Figure 8).

Step

5

Mounting the Converter and Installing Wiring Harness

Parts needed for this step:

2	Bolt (5/16 x 3/4 inch)
2	Lock nut (5/16 inch)
1	Wiring harness
4	Wire ties

Procedure

1. Remove the *Operator's Manual* tube from the dash. Remove the fasteners securing the R-clamps and tube to the dash (Figure 9). Retain all parts.

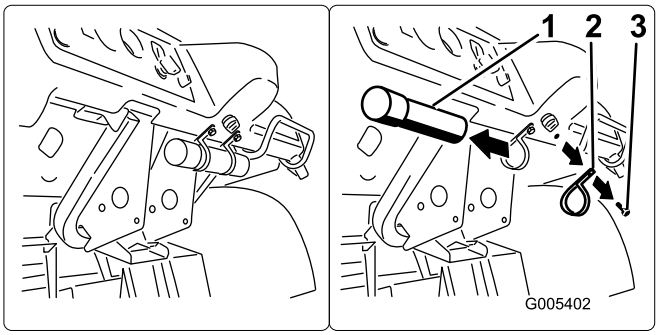

Figure 9

1. *Operator's Manual* tube
2. R-clamp
3. Bolt

2. For machines for with serial numbers 26999999999 and lower: For all others continue to step 3.
   A. Measure the pedal box as shown in (Figure 10).
   B. Mark a spot and drill a 0.328 inch diameter hole (Figure 10).
   C. Drill another hole for the other side of the pedal box at same location (Figure 10).

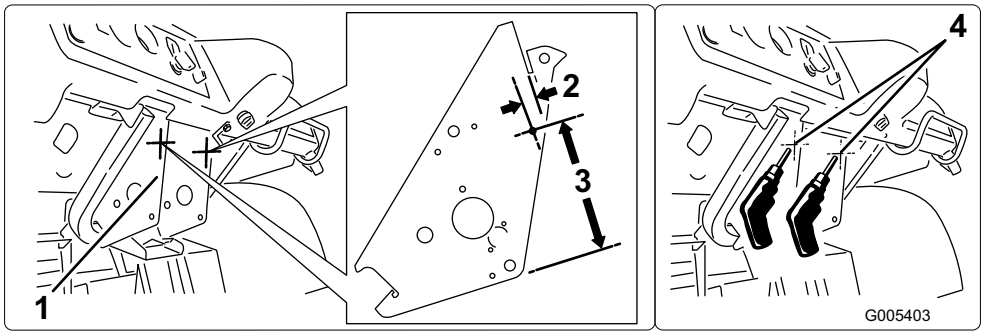

Figure 10

1. Pedal box assembly
2. 0.63 inch
3. 6.53 inch
4. Drill 0.328 inch diameter hole

3. Install the 12V converter assembly as shown in Figure 11 over bolts and outside of the pedal box assembly. Tighten bolts to secure the converter.

Note: Orientate the flat connector so that is facing the driver seat.

4. Locate the 12V power plug wire harness and locate the flat connector at one end of the harness.

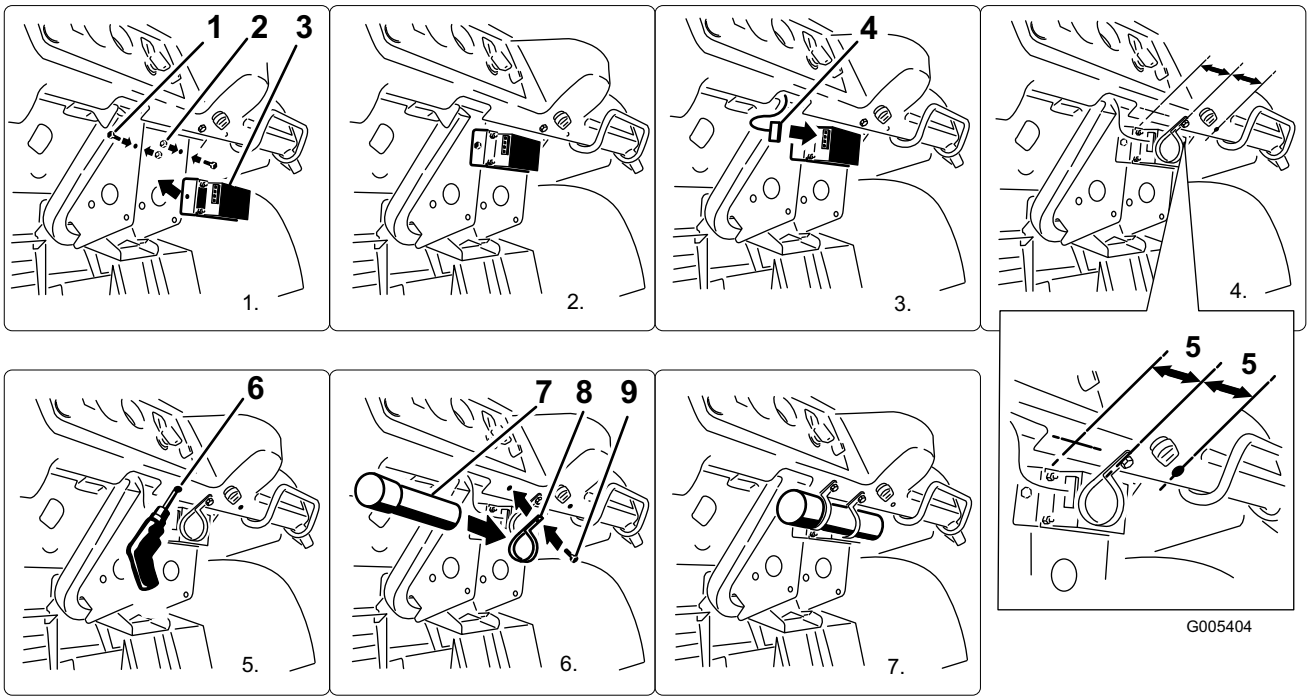

Figure 11

1. Bolt (3/8 x 1 inch)
2. Lock nut (3/8 inch)
3. 12V converter
4. Flat connector, 12V converter wiring harness
5. 5 inches
6. Drill 3/8 inch diameter hole (vehicles with heater kit)
7. *Operator's Manual* tube
8. R-clamp
9. Bolt

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5. Route the flat connector down through the pedal box to the 12V converter assembly mounted previously. Connect the flat connect to the 12V converter (Figure 11).
6. Install the *Operator's Manual* tube and R-clamps to the dash at the same location as removed previously for vehicles without a heater kit. If installing the 12V power plug kit to a vehicle with a heater kit installed or planned to be installed, relocate the *Operator's Manual* tube. Use the following procedure to relocate the *Operator's Manual* tube and R-clamps:
   A. Measure 5 inches left from the center line of the left side hole. Mark that location. Pilot drill a 3/8 inch whole through the dash. Enlarge the hole to a 3/8 inch diameter (Figure 11).
   B. Install the *Operator's Manual* tube and R-clamps to the dash at new location. Use the fasteners removed previously to secure the assembly (Figure 11).

7. At the front of the machine, connect the plug marked power plug to the power plug in the dash (Figure 12).

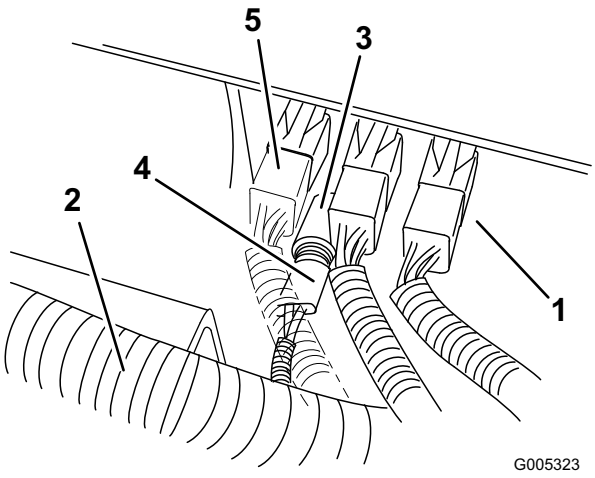

Figure 12

1. Underside of the dash
2. Main wiring harness
3. Power plug assembly
4. Plug, power plug
5. Plug, shown transparent for illustration purposes

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8. Connect the plug marked fuse to the fuse installed in the solenoid plate.
9. Locate the OPTIONS +48 VDC plug on the main vehicle harness, remove the cap.
10. Connect the plug marked +48 VOLTS IN on the 12V converter harness to the plug marked OPTIONS +48 VDC on main vehicle harness.
11. Transfer the cap removed previously to the open OPTIONS 48 VDC on the 12V converter harness.
12. Install the remaining length of the harness along the existing main harness. Use plastic ties to secure the 12V converter harness to main vehicle harness.
13. Install the hood. Secure it using the fasteners removed previously.
14. Reconnect the battery cable removed previously and lower the bed.

Count on it.