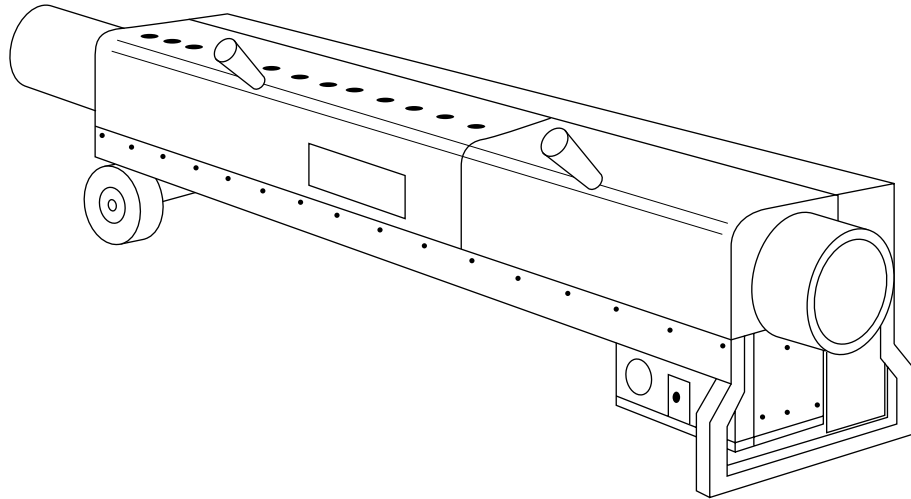


# INSTRUCTION MANUAL



## **847 and 848 PVC HEATERS for 1/2" to 6" Dia. PVC Conduit**



**Read and understand** this material before operating or servicing this equipment. Failure to understand how to safely operate this tool could result in an accident causing serious injury or death.

## Table of Contents

Description and Purpose .....	2
Important Safety Instructions .....	3-5
Identification .....	6
Specifications .....	6
Operation .....	7
Troubleshooting .....	8
Wiring Diagram .....	9
Exploded View .....	10
Parts List .....	11

## Description

Greenlee 847 and 848 PVC Heaters are intended to heat plastic conduit for bending.

Optional accessories include Greenlee Model 857 PVC Roller Support for supporting long pieces of conduit, and PVC Plugs to help prevent the PVC from collapsing. See a Greenlee catalog for more information.

## Purpose

This instruction manual is intended to familiarize operators and maintenance personnel with the safe operation and maintenance procedures for the Greenlee 847 and 848 PVC Heaters. This manual should be kept available to all operating and maintenance personnel.

## **IMPORTANT SAFETY INSTRUCTIONS**



### **SAFETY ALERT SYMBOL**

The symbol above is used to call your attention to instructions concerning your personal safety. Watch for this symbol. It points out important safety precautions. It means **“ATTENTION! Become alert! Your personal safety is involved!”** Read the message that follows and be alert to the possibility of personal injury or death.

### **⚠ DANGER**

Immediate hazards which, if not avoided, **WILL** result in severe personal injury or death.

### **⚠ WARNING**

Hazards or unsafe practices which, if not avoided, **COULD** result in severe personal injury or death.

### **⚠ CAUTION**

Hazards or unsafe practices which, if not avoided, **COULD** result in minor personal injury or property damage.

Safety is a critical factor in the design of Greenlee equipment. The best program starts with a safety-conscious operator. The information highlighted in this bulletin describes operating practices for the benefit of the workers who will use our equipment in their daily jobs. Comments from users are appreciated.




### **⚠ WARNING**

A person who has not read and does not understand all operating instructions is not qualified to operate this tool. Failure to read and understand safety instructions could result in injury or death.


## **SAVE THESE INSTRUCTIONS**

Additional copies of this manual are available upon request at no charge.


## IMPORTANT SAFETY INSTRUCTIONS

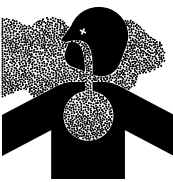
	<b>⚠ DANGER</b>
	<p>Do not use this heater in a hazardous environment. Hazards include flammable liquids, gases, or other materials. Using this heater in a hazardous environment can result in a fire or explosion.</p> <p>Failure to observe this warning will result in severe injury or death.</p>

<b>⚠ CAUTION</b>
<ul style="list-style-type: none"><li>• Inspect tool before operating. Replace any worn, damaged or missing components with Greenlee replacement parts.</li><li>• Use this heater for manufacturer's intended purpose only. Do not use as a space heater. Use other than that which is described in this manual can result in injury or property damage.</li></ul>

	<b>⚠ WARNING</b>
	<p>Electric Shock Hazard. Do not expose heater to rain or moisture. Failure to observe this warning can cause severe injury or death.</p>

<b>IMPORTANT</b>
<p>If using an extension cord, use one with the following characteristics:</p> <ul style="list-style-type: none"><li>• 14 AWG minimum</li><li>• 45 meters (150') maximum</li></ul> <p>Using a lighter gauge or longer cord will cause a loss of heating power.</p>


	<b>⚠ WARNING</b>
	<p>Heater temperature will exceed 538° C (1000° F).</p> <ul style="list-style-type: none"><li>• Wear insulated gloves when using this heater and when bending PVC.</li><li>• Do not leave heater unattended.</li><li>• Unplug when not in use.</li></ul> <p>Failure to observe these warnings can result in severe burns.</p>

	<b>⚠ WARNING</b>
	<p>Use in a well-ventilated area. Hot PVC will give off fumes. Failure to observe this warning or precaution can result in serious injury or death.</p>

## SAVE THESE INSTRUCTIONS

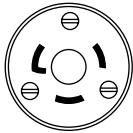
Additional copies of this manual are available upon request at no charge.

## **IMPORTANT SAFETY INSTRUCTIONS**

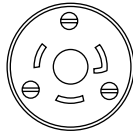
	<b>⚠ WARNING</b>
	<ul style="list-style-type: none"><li>• Do not modify the plug provided with the tool.</li><li>• Connect this tool to a grounded receptacle.</li></ul> <p>Failure to observe these warnings can result in severe injury or death.</p>

This tool must be grounded. In the event of a malfunction or breakdown, an electrical ground provides a path of least resistance for the electric current. This path of least resistance is intended to reduce the risk of electric shock.

This tool's electric cord has a grounding conductor and a grounding plug as shown. Do not modify the plug. Connect the plug to a corresponding receptacle that is properly installed and grounded in accordance with all national and local codes and ordinances. Do not use an adapter.



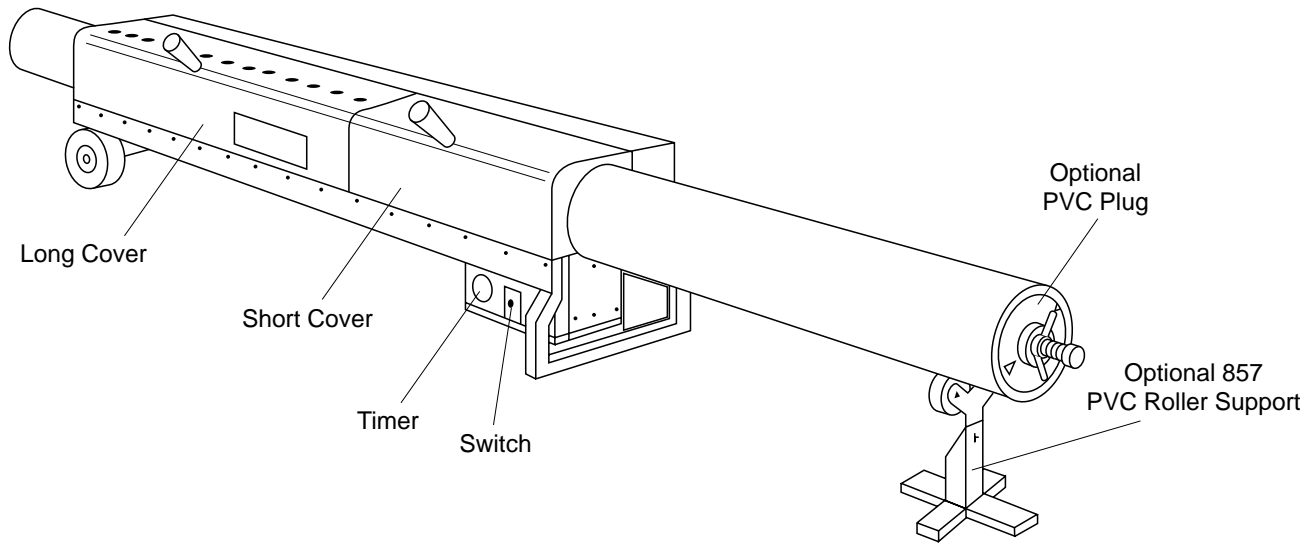
PLUG



RECEPTACLE

30-Amp/250 Volt  
Locking Plug and Receptacle

**Identification**



**Specifications**

Power .....	230 Volts, 30 Amps, 50/60 Hz
Capacity:	
Conduit Diameter .....	1/2" - 6" PVC Conduit
Conduit Length .....	178 cm (70")
Dimensions .....	38 cm x 38 cm x 178 cm (15" x 15" x 70")
Mass/Weight:	
847 .....	33.5 kg (74 lbs.)
848 .....	35.4 kg (78 lbs.)

## Operation

See the Exploded View. Remove the handles from the inside of the PVC heater and attach them to the covers.

When bending 2" or larger conduit, Greenlee recommends using 859-series PVC plugs. Install one plug in each end of the conduit and tighten the wing nut until the conduit is sealed. Remove the plugs after the PVC has cooled.

1. Place the heater on a firm, flat surface.
2. Plug the cord in. Turn the heater ON. The pilot light will illuminate. Preheat the unit by setting the timer for eight minutes.

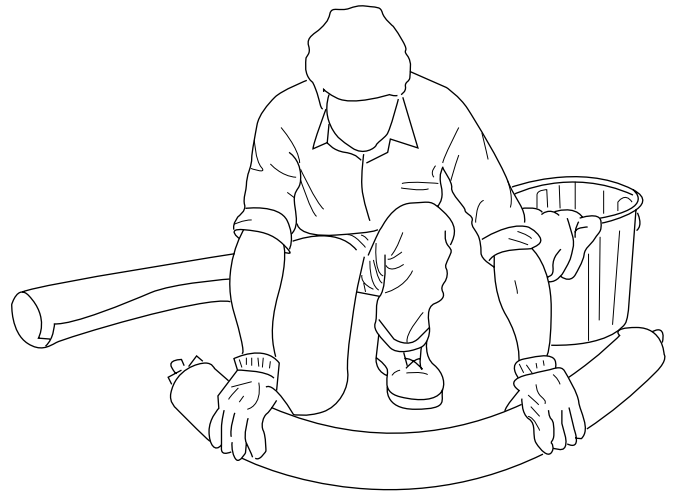
*Notes:*

- On the 848, the rollers will begin to rotate.
- The timer will not turn the heater OFF.

3. After preheating the PVC heater, refer to the chart on the rear of the heater for the approximate conduit heating time. Set the timer.
4. Place the conduit on the rollers and close the cover over the section of conduit to be bent. Leave the cover open over any section that is to remain straight. This will prevent heating and deforming the straight section.

*Note: If using model 847, rotate the conduit by hand.*

5. After the timer rings, check the PVC by lifting it at one end. When the PVC is flexible, open the covers and remove the conduit.
6. Place the PVC on a flat surface. Form the bend by hand. Allow the PVC to cool or set the bend by applying cool water with a sponge or rag.

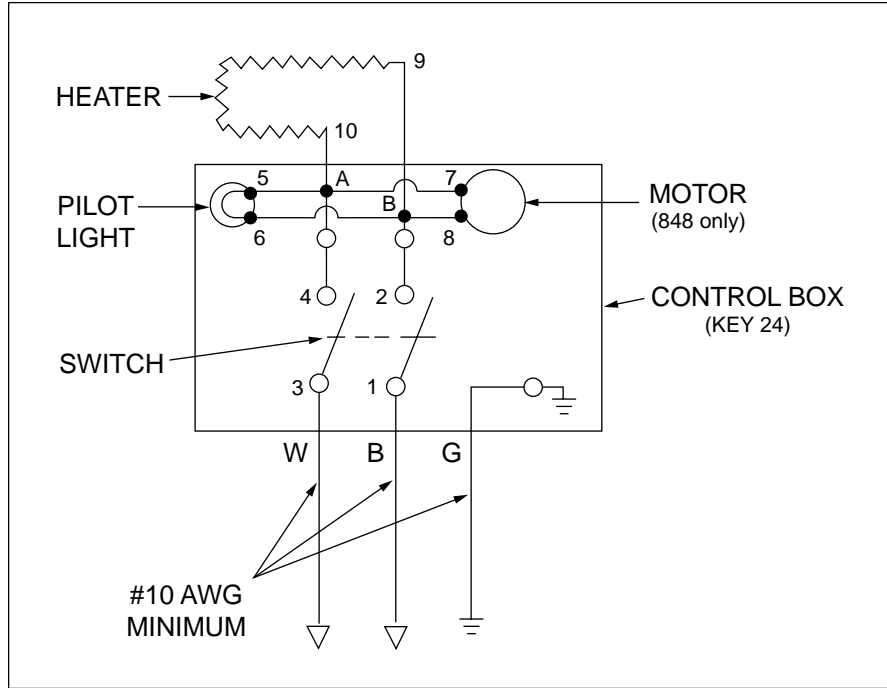


## Troubleshooting

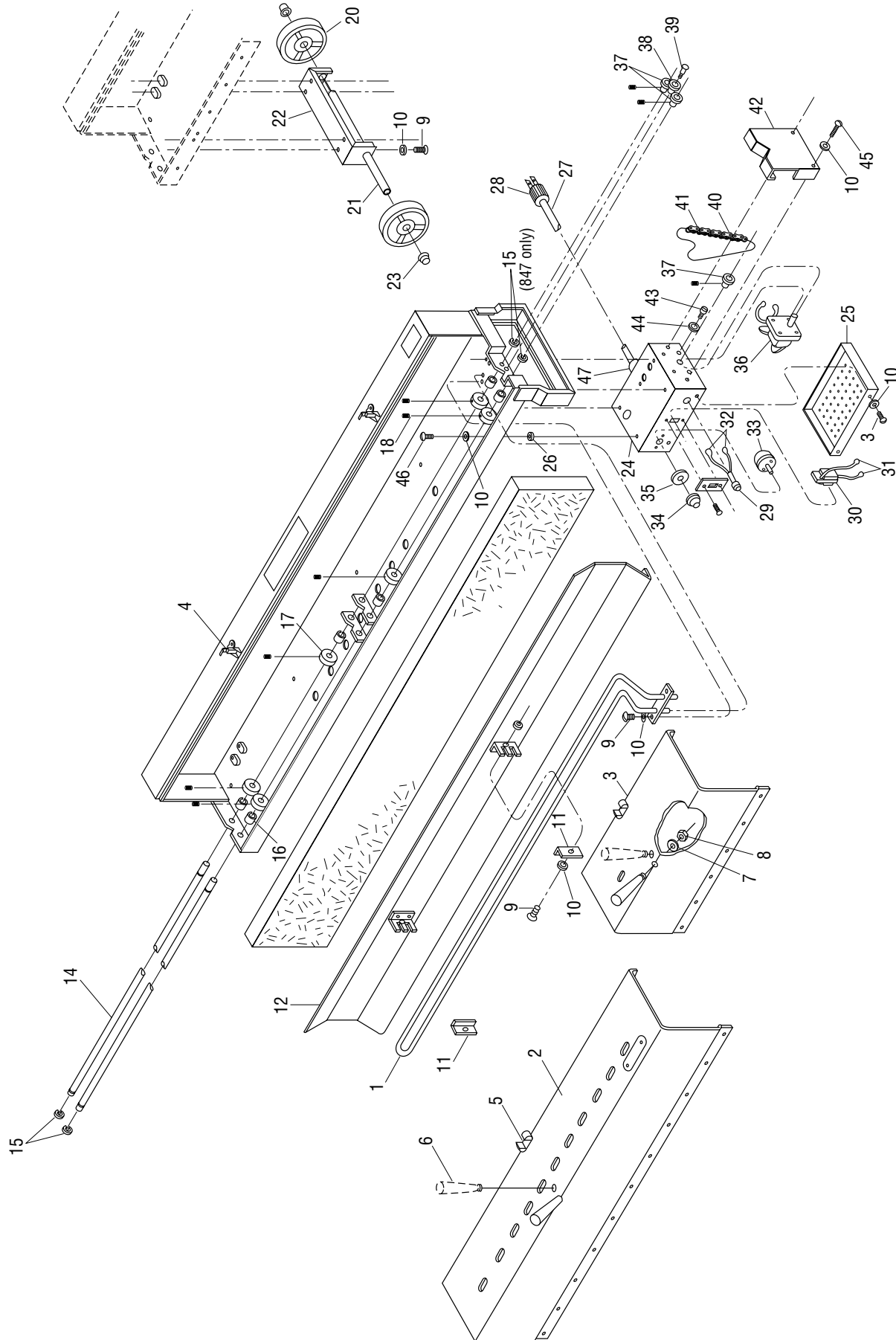
PROBLEM	PROBABLE CAUSE	PROBABLE REMEDY
Heater does not heat up.	No power at supply circuit.	Check power supply with a voltmeter. Verify that the circuit has the appropriate voltage and current rating. See the Specifications section of this manual.
	Switch is faulty.	Disconnect power. Turn the power switch to the ON position. Check continuity between: <ul style="list-style-type: none"> <li>• terminals 1 and 2</li> <li>• terminals 3 and 4</li> </ul> Replace the switch if either terminal pair does not have continuity.
	Heating element is faulty.	Disconnect power. Disconnect terminals A and B. Check continuity between terminals A and B. Replace the heating element if this terminal pair does not have continuity.
Pilot light does not light up.	Pilot light is faulty.	Disconnect power. Check continuity between terminals 5 and 6. Replace pilot light if this terminal pair does not have continuity.
Motor does not operate.	Motor is faulty.	Disconnect power. Check continuity between terminals 7 and 8. Replace motor if this terminal pair does not have continuity.
Rollers do not operate.	Drive chain binding or broken.	Replace drive chain.
	Drive sprocket is loose.	Tighten or replace drive sprocket set screws.



### Wiring Diagram



**Exploded View**



**PARTS AND SERVICE**

**Parts List**

1	503 0908.0	Heating element .....	1
2	503 0890.4	Cover Unit, Long .....	1
3	503 0891.2	Cover Unit, Short .....	1
4	905 3295.3	Catch .....	2
5	905 3305.4	Keeper .....	2
6	905 3300.3	Handle, Plastic, 3/8 – 16 x 1.37 x 4.375 .....	2
7	905 0506.9	Washer, Lock, .388 x .673 x .070 Steel .....	2
8	905 0639.1	Nut, Hex 3/8 – 16 Regular Full .....	2
9	905 0717.7	Screw, Machine #10 – 24 x .500 Round Head .....	12
10	905 0750.9	Washer, Lock, .200 x .373 x .023 Internal Tooth .....	16
11	503 0901.3	Clamp, heating element .....	2
12	503 0982.0	Reflector .....	1
14	503 0903.0	Shaft, .312 x 70.0 Roller .....	2
15	905 1773.3	Retaining Ring, .312 Truarc #5100-S-PP .....	4
16	905 3292.9	Bearing, Bronze, .314 x .377 x .375 .....	6
17	503 0902.1	Aluminum Roller .....	6
18	905 2400.4	Screw, Set, 1/4 – 20 x .250 Socket .....	6
20	905 3296.1	Wheel, 5.75 x 1.50 .....	2
21	503 0907.2	Axle .....	1
22	503 0898.0	Axle Bracket .....	1
23	905 2265.6	Retainer, push-on .....	2
24	503 0875.0	Control Box .....	1
25	503 0905.6	Cover, Control Box .....	1
26	503 0904.8	Spacer, .218 x .500 x .375 .....	4
27	503 0877.7	Power Cord Unit .....	1
28	918 6093.8	Plug .....	1
29	918 6091.1	Pilot Light .....	1
30	918 6090.3	Switch .....	1
31	503 0879.3	Wire Unit, Switch .....	2
32	503 0878.5	Wire Unit, Pilot Light .....	2
33	905 3288.0	Timer .....	1
34	905 3290.2	Knob .....	1
35	905 3289.9	Plate .....	1
36	503 0876.9 †	Motor Unit .....	1
37	905 3285.6 †	Drive Sprocket .....	3
38	503 0971.4 †	Idler Sprocket .....	1
39	905 3291.0 †	Shoulder Bolt, .310 x .500 x 1/4 – 20 .....	1
40	503 0909.9 †	Drive Chain (includes item 41) .....	1
41	905 3311.9 †	Master Link .....	1
42	503 0974.9	Guard Unit, Chain .....	1
43	905 0704.5 †	Screw, Machine, #10 – 32 x 3/8 Round Head .....	4
44	905 3468.9 †	Washer, Flat, #10 .....	4
45	905 1533.1	Screw, Machine, #10 – 24 x 1.500 Round Head .....	2
46	905 3293.7	Screw, Machine, #10 – 24 x 1.00 Slotted Round Head .....	4
47	918 5885.2	Grip, Cord .....	1

† Model 848 Only

Decals and Conversion Kit:

502 8005.8	Decal, Hot Warning .....	1
503 0973.0	Decal, Instruction .....	1
503 0392.9	Decal, Damp Warning .....	1
503 1089.5	Tag, Attach Handle .....	2
503 1092.5	Conversion Kit (Convert an 847 into an 848; includes all items marked with †)	

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