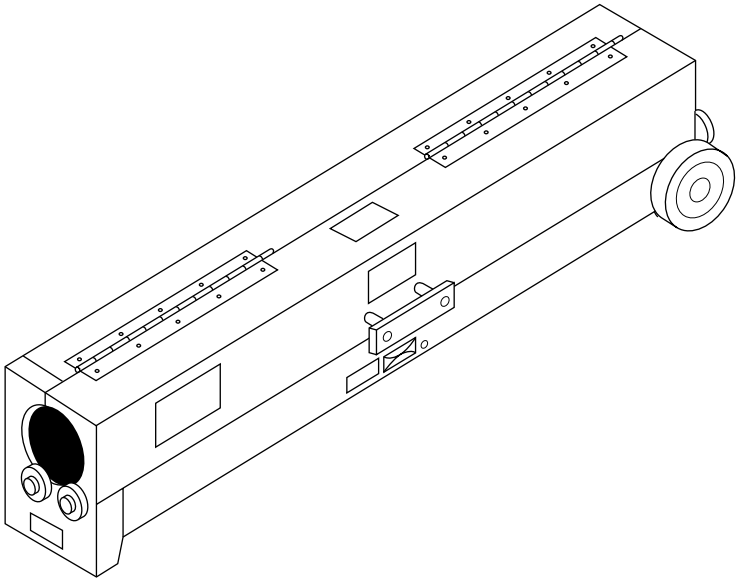
INSTRUCTION MANUAL

GREENLEE®



MODELS 851
PVC HEATER
for 1/2" - 4" 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.

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Description

The Greenlee 851 PVC Heater is 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 851 PVC Heater. 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.

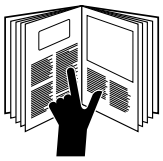
⚠WARNING

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



⚠DANGER

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.

Failure to observe this warning will result in severe injury or death.



⚠WARNING

Electric Shock Hazard. Do not expose heater to rain or moisture. Failure to observe this warning can cause severe injury or death.



⚠WARNING

Heater temperature will exceed 538° C (1000° F).

- Wear insulated gloves when using this heater and when bending PVC.
- Do not leave heater unattended.
- Unplug when not in use.

Failure to observe these warnings can result in severe burns.



⚠WARNING

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 injury.

⚠CAUTION

- Inspect tool before operating. Replace any worn, damaged or missing components with Greenlee replacement parts.
- 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.

IMPORTANT

If using an extension cord, use one with the following characteristics:

- 14 AWG minimum
- 45 meters (150') maximum

Using a lighter gauge or longer cord will cause a loss of heating power.

SAVE THESE INSTRUCTIONS

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

IMPORTANT SAFETY INSTRUCTIONS



⚠WARNING

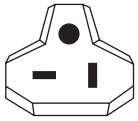
Electric shock hazard.

- Do not modify the plug provided with the tool.
- Connect this tool to a grounded receptacle on a 20-amp GFCI-protected circuit.

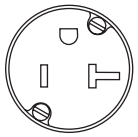
Failure to observe these warnings can result in severe injury or death.

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 20-amp GFCI protected receptacle that is properly installed and grounded in accordance with all national and local codes and ordinances. Do not use an adapter.



PLUG



RECEPTACLE

Specifications

Power ..... 120 Volts, 20 Amps, 60 Hz

Capacity:

- Conduit Diameter ..... 1/2" – 4" PVC Conduit
- Conduit Length ..... 137 cm (54")

Dimensions ..... 22 cm x 30 cm x 137 cm (8.5" x 12" x 54")

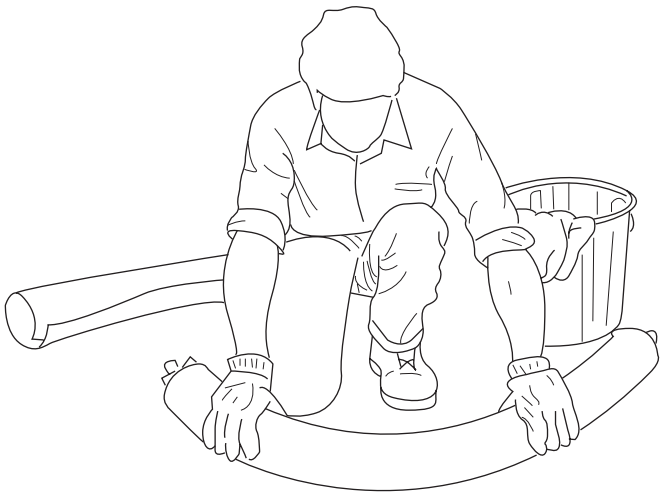
Mass/Weight ..... 24 kg (53 lbs.)

Operation

See the Exploded View. Remove the handle from the inside of the PVC heater and attach it to the cover.

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.

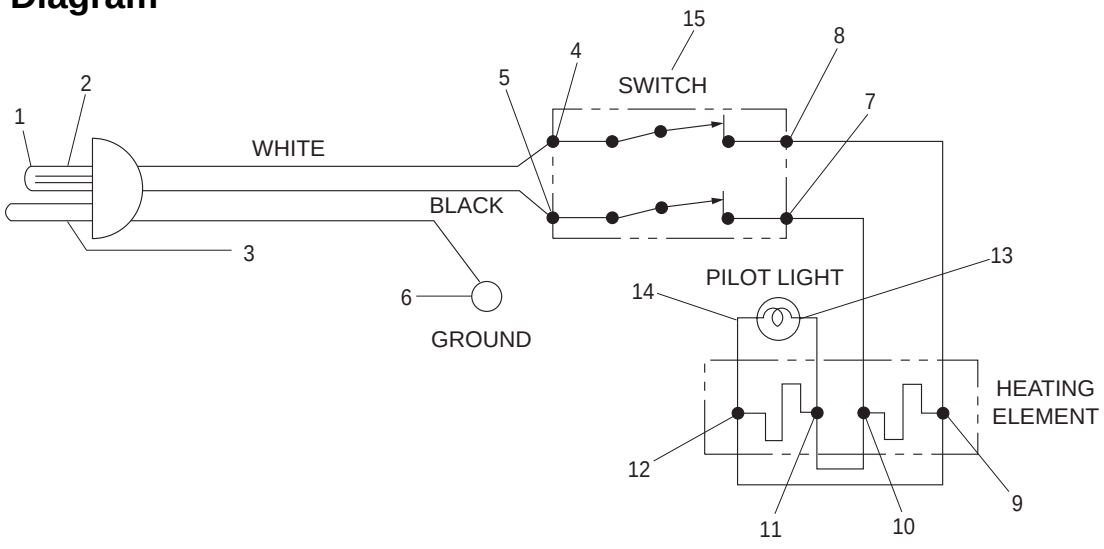
1. Place the heater on a firm, flat surface.
2. Plug the cord in. Turn the heater ON. The pilot light will illuminate.
3. Place the conduit on the rollers and close the cover. Rotate the conduit by hand.
4. Check the PVC by lifting it at one end. When the PVC is flexible, open the cover and remove the conduit.
5. 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.



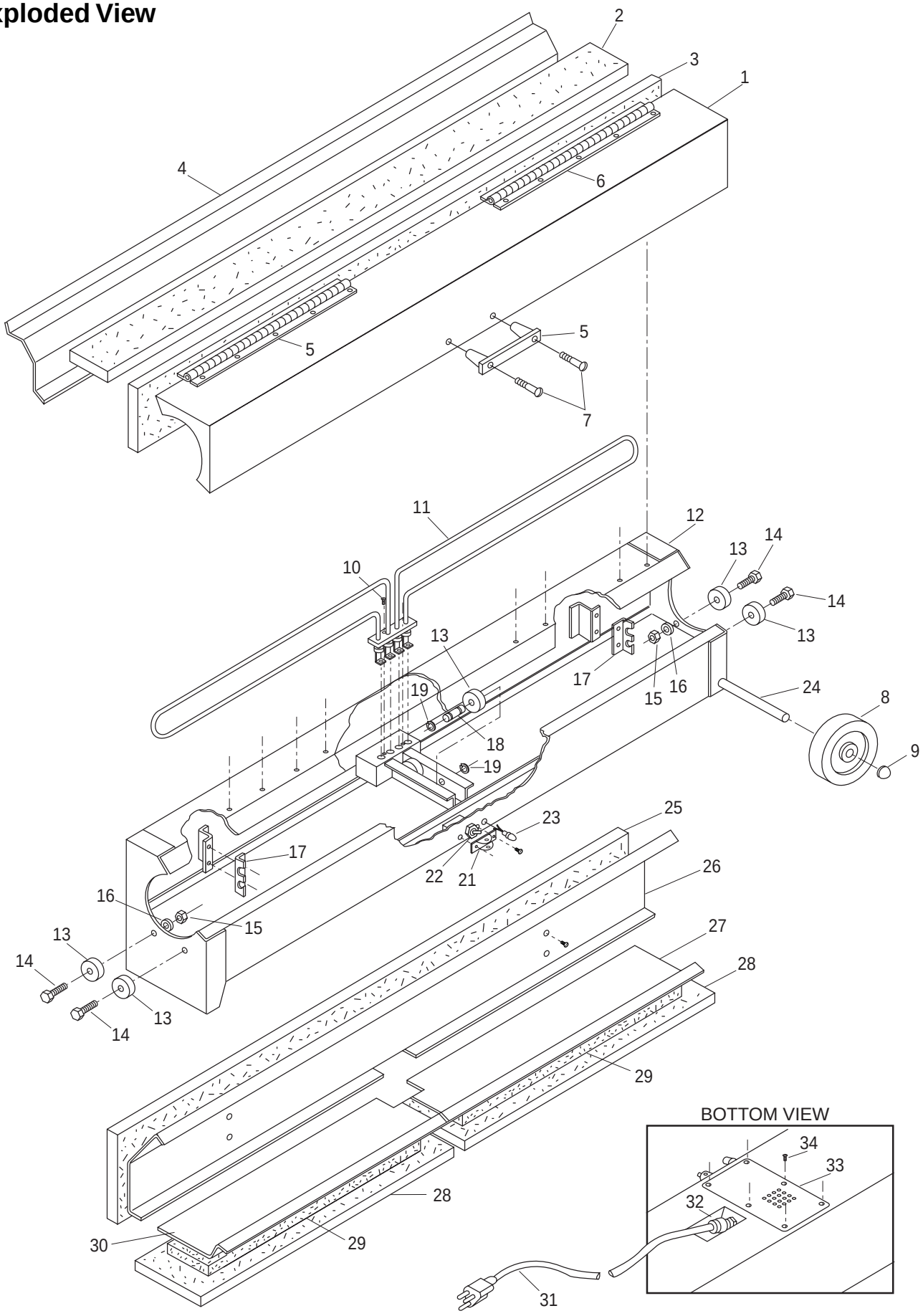
Troubleshooting

PROBLEM	PROBABLE CAUSE	PROBABLE REMEDY
Pilot light does not light up.	Pilot light is faulty.	Disconnect power. Check continuity between terminals 13 and 14. Replace pilot light if this terminal pair does not have continuity.
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: • terminals 4 and 8 • terminals 5 and 7 Replace the switch if either terminal pair does not have continuity.
	Heating element is faulty.	Disconnect power. Allow heating elements to cool. Disconnect wires at terminals 9, 10, 11 and 12. Check continuity between: • terminals 9 and 10 • terminals 10 and 11 Replace the corresponding heating element if either terminal pair does not have continuity.
	Power cord is faulty.	Disconnect power. Check continuity between: • terminals 1 and 4 • terminals 2 and 5 • terminals 3 and 6 Replace the power cord if any terminal pair does not have continuity.

Wiring Diagram



Exploded View



Parts List

1	503 5583.0	Cover unit (includes 2 – 5)	1
2	503 5595.3	Insulation, top cover	1
3	503 5594.5	Insulation, rear cover	1
4	503 5590.2	Reflector, cover	1
5	905 2970.7	Handle	1
6	503 5598.8	Hinge	2
7	905 2969.3	Screw, machine, #10 – 24 x 2.00 round head	2
8	905 3296.1	Wheel	2
9	905 2265.6	Retainer, push-on	2
10	905 0704.5	Screw, machine, #10 – 32 x .375 round head	2
11	503 5592.9	Heating element	1
12	503 5582.1	Housing unit	1
13	905 2971.5	Wheel	6
14	905 0877.7	Screw, cap, 1/4 – 20 x 1.250 hex head	4
15	905 1593.5	Nut, hex, 1/4 – 20	4
16	905 2339.3	Washer, flat, .312 x .750 x .090	4
17	503 5601.1	Bracket, heating element	2
18	503 5599.6	Pin, roller	2
19	905 0937.4	Retaining ring, .250, Truarc #5100-25	4
21	918 6410.0	Guard, switch	1
22	918 6409.7	Switch, toggle	1
23	918 6091.1	Pilot light	1
24	503 5600.3	Axle, wheel	1
25	503 5596.1	Insulation, rear	1
26	503 5587.2	Reflector, rear	1
27	503 6311.5	Reflector, lower right	1
28	503 5597.0	Insulation, bottom	2
29	503 7189.4	Insulation, lower reflector	2
30	503 6310.7	Reflector, lower left	1
31	503 5603.8	Cord, power	1
32	918 6441.0	Grip, cord	1
33	503 5593.7	Cover, electrical	1
34	905 2401.2	Screw, #10 – 32 x .375	7

Decals and Warning Plate

503 6097.3	Plate, Hot Warning	1
503 6098.1	Decal, Lift Point	1
503 6096.5	Decal, Use GFCI Cord	1
503 5191.5	Decal, Safety Instruction	1
503 0392.9	Decal, Damp Warning	1



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