



Deluxe Products

# The Lightning Box

**Lichtenberg**

**Wood Burner**

**List of Contents**

**Standard Burner System**



# Thank you for purchasing my burner!

---



I really appreciate your trust in me to ship this burner to you. I try to get it to you as fast as possible. I use FedEx, DHL, & UPS.

If you have any damage when it arrives, please contact the carrier and save all packaging. Take photos and document the damage.

If you are happy with the product, I would appreciate you telling everyone. If you have a quality issue, please tell me ASAP.

Email: [donwehmeyer@yahoo.com](mailto:donwehmeyer@yahoo.com) (my personal email)

Please join our Facebook Group, Lichtenberg Wood Burning Safety

As of May 15, 2023, we have almost 20,000 members in our group with 100 to 200 more each day. It's a great place to see the latest techniques. You can ask questions or offer advice. Post your photos.

If you like this burner, please tell others and post in our FB Group. It will help prevent accidents/deaths from people using DIY dangerous YouTube-type burner.

Thanks Again, Enjoy the Lichtenberg experience and please follow safety procedures.

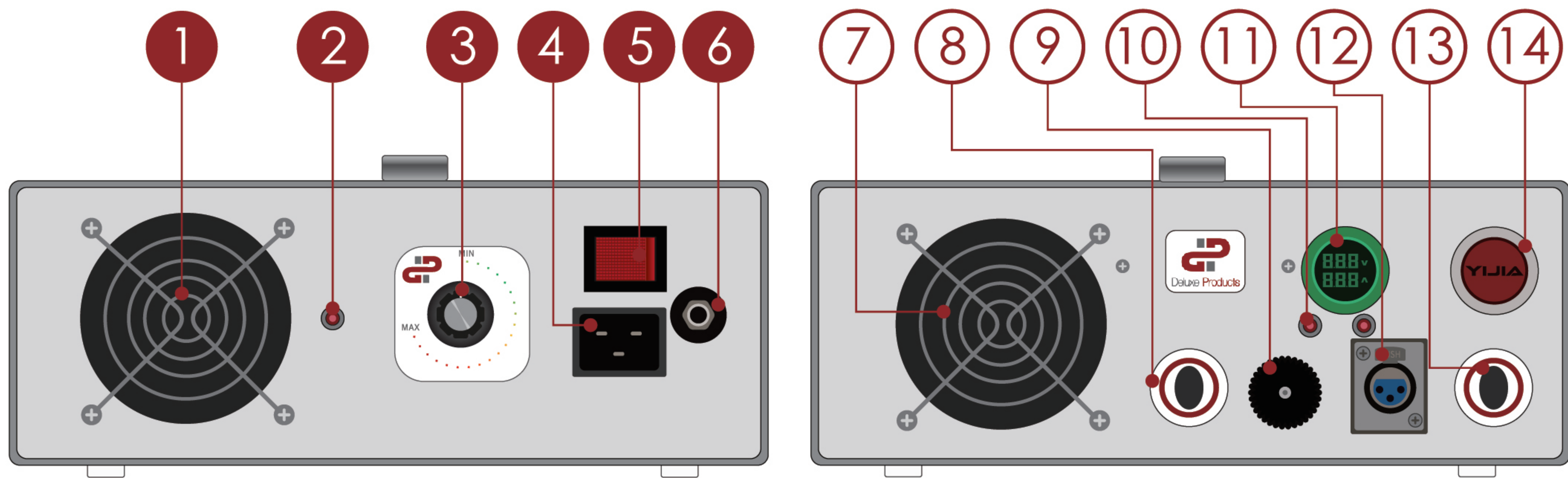
Donald Wehmeyer

Deluxe Products





# The Lightning Box FEATURES



- ① FANS    ② BURNER POWER LED    ③ VVR    ④ 20A-250V RECEPTACLE
- ⑤ POWER ROCKER SWITCH    ⑥ CIRCUIT BREAKER

- ⑦ FANS    ⑧ HIGH VOLTAGE SOCKETS    ⑨ REMOTE SOCKET    ⑩ FOOTSWITCH LEDS
- ⑪ VOLT/AMMETER    ⑫ FOOTSWITCH SOCKET    ⑬ HIGH VOLTAGE SOCKETS
- ⑭ BURNER POWER PUSH BUTTON

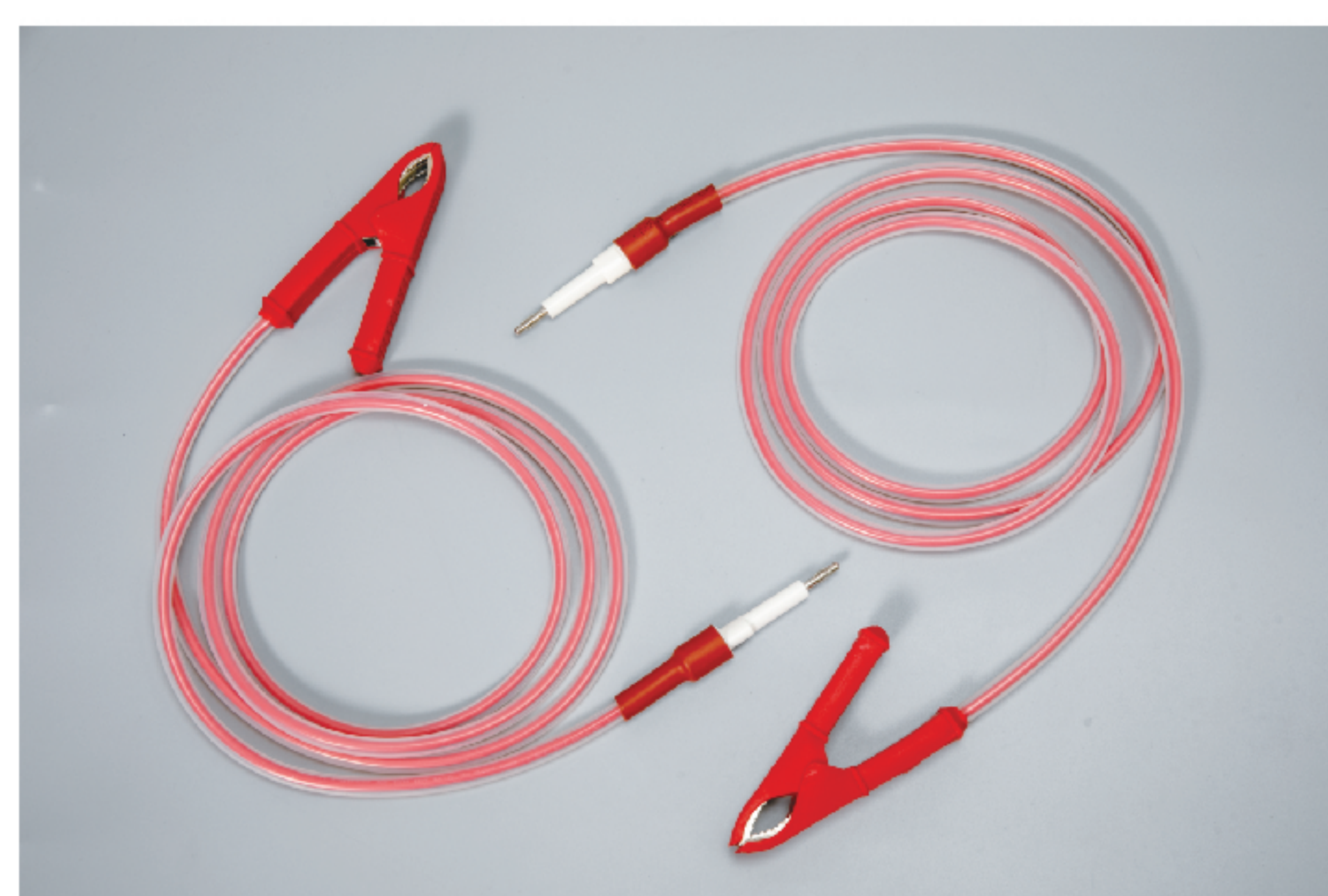


**HIGH-OUTPUT**  
**1000 VOLTS**  
**1000 Ma**

OPTION A



OPTION B



OPTION C



OPTION D



# Lichtenberg Wood Burner Contents List

## Lichtenberg Wood Burner List of Contents Standard Burner System

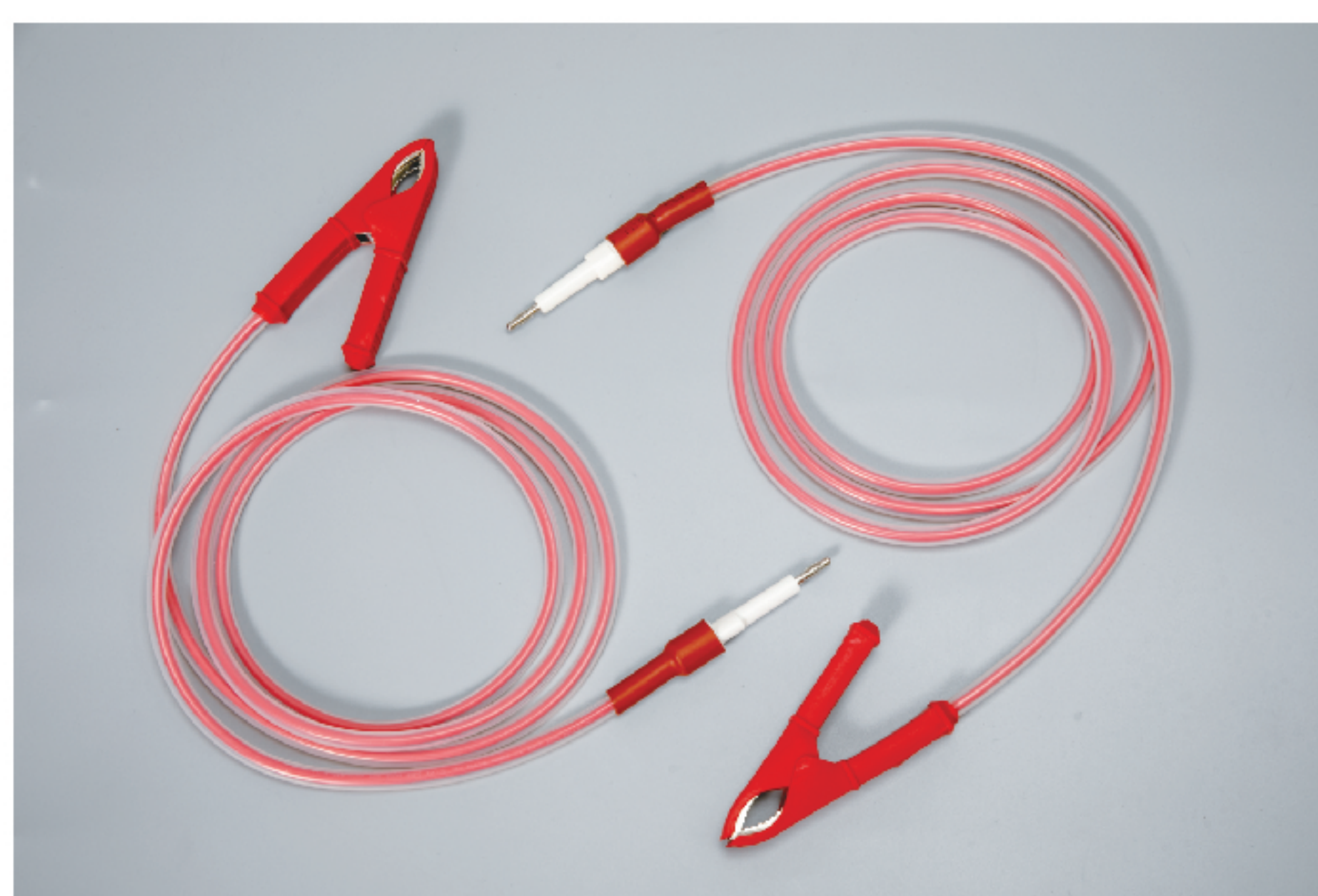


- 120v power supply
- 220v Power Supply
- H.O
- AWG12 Power Cord
- Power Cord Adapter
- US  UK  EU  AU
- 2 Probe Bodies
- 4 Probe Legs
- 2 HV Leads
- Footswitch
- Deluxe Burner System

### Standard System plus



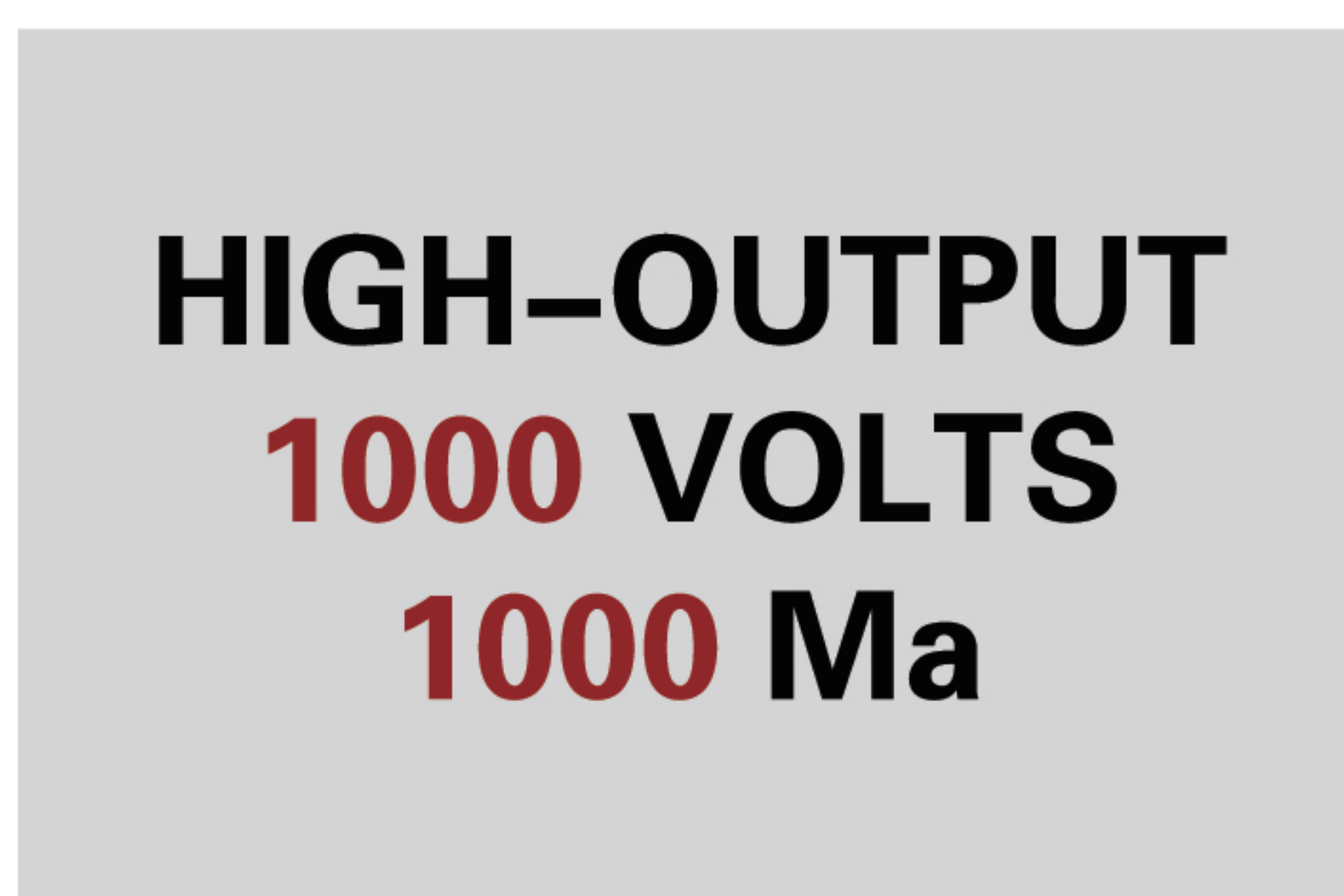
- \$179.95  
if ordered separately.  
2-in-1 Adapters (2)



- \$114.95  
If ordered separately  
Mini Probes 80" Leads



- \$114.95  
80" Lead Extensions (2)



- \$199.5  
Hand Controller 80" Cord



- \$249.95  
HandHeld Probe (HHP)  
If ordered separately



- \$249.95  
Small Probe Set (2)  
If ordered separately



## What voltage is required for a Lichtenberg Wood Burner?

The Lichtenberg Wood Burner is available in two voltage configurations. The North American (United States, Canada and Mexico) model operates on 110 volts, 60 Hertz, and 1000 watts. It has a Special 20A three prong plug that requires an adapter to fit a standard 15A receptacle. The burner VVR must be adjusted to lower the amperage if used on a 15A circuit. The International model operates on 220 volts, 50 Hertz, and 1000 watts. The overseas model has a plug configured for the local country's normal household electrical receptacle. A stepdown transformer is not required to operate the burner. The burner's input voltage cannot be switched between 110 volts and 220 volts.

## Why doesn't my burner start burning?

Most likely the wood is too wet or not wet enough. When the wood is too wet, the wood will not burn because the path between the probes is effectively shorted out. To find out if that's the problem, place the probes on the wood and while activating the foot switch, lift one probe from the surface of the wood. If there is an arc between the probe tip and the wood, the wood is too wet.

If the wood is too dry, the burn path will not start. Wood is a fairly good insulator; thus, it must be moistened with the electrolyte solution to create a path for the electricity to flow between the probes.

## Will the burner burn deep channels that can be filled with epoxy?

Yes, Our MOT burner will burn deep channels in the wood. The power can be adjusted with the VVR (Variable Voltage Regulator) so you can also burn fine detailed patterns. When burning deep channels, be sure to monitor the current draw (ampere draw) with the volt/ammeter on the front panel of the burner, and regulate the amperes to below 20 amperes.

## How to apply the electrolyte solution?

The best way to moisten the wood is to use a foam brush and paint the solution on the surface of the wood. Do not leave any standing solution on the wood. Use a paper towel to tamp up any excess solution. Let the solution soak into the wood for a few minutes until the surface appears to be dry, then apply a light coat of solution again and start the burning.

## What is the best wood to burn?

The best wood to burn is a tight grained, light-colored wood such as Maple, Cherry, Pine, Birch, or Poplar. Open grained woods such as Ash and Oak will also burn quite nicely; however, the burn pattern will tend to follow the grain because of the way it soaks up the solution. Very dense exotic woods such as Ebony tend to not burn well because they will not absorb the solution. Plywood and high-density particle board tend to burn quite well.

## How do I set up my workplace?

Place the item being burned on an insulated surface. The insulated pad may be a rubber mat or other insulating material such as carpet padding or nylon carpet. It is not necessary to insulate the bench from the floor nor stand on an insulated pad. The maximum current flow is between the two probe tips and the most important point is to ensure they are only touching the surface to be burned when the footswitch is activated. Do not allow anyone to touch the item being burned while actively burning it. Do not burn an object that is mounted on a lathe or on other metal surfaces. Screws or bolts in a bench top nor metal bench legs will not create a problem as long as the object being burned is on an insulated pad.

## Will the burner set off smoke detectors?

Yes, the Lichtenberg Figure Wood Burner will produce a flame while burning wood, but it will create smoke.



## **Why not hold the probes?**

The probes are insulated to over 50,000 volts. If you decide to hold the probes, don't hold both. The danger is that you may drop a probe accidentally and have a quick reflex action to grab it. That can be fatal! It's much safer to use the adjustable legs to position the probes, stop the burn, and move the probes.

## **Why is the Lichtenberg Wood Burner safer than the DIY YouTube burners?**

Safety is designed into my burners. My burners are a complete system with a power supply, probes, footswitch, power cord, with FREE shipping. It has many safety features in the power supply. Dual, push-pull fans, thermal overload switch, manual-reset circuit breaker, 12kv silicone power circuit wires inside, 30kv probe leads, 50kv insulated probe handles, quick disconnect leads and footswitch, Custom built transformer (not a MOT), a VVR to adjust the voltage (similar to a Variac), a volt/ammeter, three power control switches (footswitch and burner power switch must be pressed to burn), all wire connections are soldered and crimped.

## **What material can be burned with the Lichtenberg Wood Burner?**

Any organic material that will absorb the electrolyte solution can be burned with the burner. Gourds, antlers, bones and leather can be burned. Each of these materials may require the use of different techniques than wood but can be very successfully burned.

## **Is there a warranty on the Lichtenberg Wood Burner?**

Yes, there is a 60-day warranty on the burner. A warranty is to assure that the parts perform as required. It's not an indication of the expected life cycle. There is no warranty for parts damaged due to heat. If you operate the burner at high amperage, you will overheat the transformer. Please see the warranty at the bottom of the page on our website. [www.lichtenbergwoodburning.com](http://www.lichtenbergwoodburning.com)

## **Do the probe tips wear out and need replacing?**

No, the tips will not wear out nor burn. They will get dirty from the sap in the wood which has no impact on their burning ability. They may be cleaned with a wire brush, brass or steel, however, there really isn't a need to do so.

## **Will welding gloves provide protection from the high voltage?**

No, welding gloves are designed to protect the user from the heat associated with the welding process, not voltage. They will probably help but that is not their primary purpose.

## **Is there a fuse in the burner?**

NO, there is a manually reset circuit breaker that is redundant if your house has an adequate electrical circuit.



# SETUP PROCEDURE

---

- 1 Select a work surface that is non-conductive and non-porous. Keep it clean and dry.
- 2 Plug in the probes, footswitch, and handheld controller(it' s optional).
- 3 Please your work piece on the surface. Wet the wood with an electrolyte liquid solution. Position the probes.
- 4 The aluminum burner case is “Earth Grounded” through the power receptacle. Use the 12 AWG power cord that was supplied with the burner. If you need an extension cord, it must be 12AWG and less than 25 feet long.
- 5 When you have the work pieces and the probes in position, plug in the power cord. Push the “Power Rocker Switch” on the back panel to “ON”. If the “burner Power LED” is lighted, it indicates that the “Burner Power Push Button” is “ON”, push the “Burner Power Push Button” to “OFF”. The ventilation fans should be “ON” now.
- 6 Adjust the “VVR” knob to minimum (low power). The “Volt/Ammeter” will be lighted. You may adjust the “VVR” while you are burning. Set the “VVR” to mid-range to start burning.
- 7 **You are ready to start a burn! Push the “Burner Power Push Button”, it will light RED.** When you press the “Footswitch”, the probes are “HOT”. If your wood is prepared correctly, The probes will arc and the burn process will begin.
- 8 When you release the pressure on the “Footswitch”, the power to the probes is interrupted, and stops! Push the “Burner Power Push Button” to “OFF” before moving the probes.
- 9 When you are finished burning, push the “Power Rocker Switch” to “OFF”, unplug the “Power Cord”, then remove the probes and the footswitch, “Safety First”.



Deluxe Products

# The Lightning Box

[www.LichtenbergWoodBurning.com](http://www.LichtenbergWoodBurning.com)

[sales@lichtenbergwoodburning.com](mailto:sales@lichtenbergwoodburning.com)

