

# CONESTOGA WORKS

PURVEYOR OF FINE TOOLS FOR THE WOODWORKER



## LICHTENBERG FIGURE WOOD BURNER™

### DETAILS:

A state of the art high voltage wood burner designed with user safety as a paramount feature.

#### Power supply specifications:

- Voltage 120 Volt AC  $\pm$  3%. **Use on a 220/240-volt supply source will require a step-down voltage converter.**
- Input frequency 50/60 Hz
- Input wattage 300 Watts
- Output voltage 12,000 volt RMS
- Output current 35 mA RMS

Momentary foot activator switch, press to turn the unit on – release to turn the unit off.

Indicator lamp illuminates when unit is on.

Power supply is manufactured in Canada.

Insulated nonconductive ABS plastic case with built-in insulated pockets for probe storage.

36" insulated TUF-HIDE SUPERFLEX GTO-15 leads manufactured by Paige.

#### Lead specifications:

- 15,000-volt service use.
- Dielectric strength in Mils = 650V/Mil = (55,250 volts).
- Insulation wall thickness = 85 Mils.
- 14 AWG copper strands.
- Tested IAW *UL Standard # 814, UL Standard for Safety Gas-Tube-Sign cable.*

Custom designed phenolic probes with safety ring to protect the user from the brass probe tips.

#### Probe specifications:

- Phenolic probe material,
  - Inner tube:
    - Grade XX Phenolic tube constructed from a cellulosic paper combined with a phenolic resin binder.
    - 3/16 id x 5/16 od, 0.0625" wall thickness.
    - Dielectric strength in Mils = 200 V/Mil (12,500 volts).
    - Tested per ASTM D-348, *Standard Test Methods for Rigid Tubes Used for Electrical Insulation.*
  - Outer tube:
    - Grade XX Phenolic tube constructed from a cellulosic paper combined with a phenolic resin binder.
    - 5/16 id x 9/16 od, 0.125" wall thickness.
    - Dielectric strength in Mils = 200 V/Mil (25,000 volts).
    - Tested per ASTM D-348, *Standard Test Methods for Rigid Tubes Used for Electrical Insulation.*
- Acrylic washer on probes:
  - Polymethyl-methacrylate material (*Plexiglas*).
  - 1/8" thick.
- Dielectric strength in Mils = 400V/Mil (50,000 volts).

- Tested per ASTM D-149, *Standard Test Method for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies.*

Please note: The insulational value of the probes above the washers exceed the operational voltage of the burner by 585% while the cable insulation is providing an insulational value in excess of 400%.