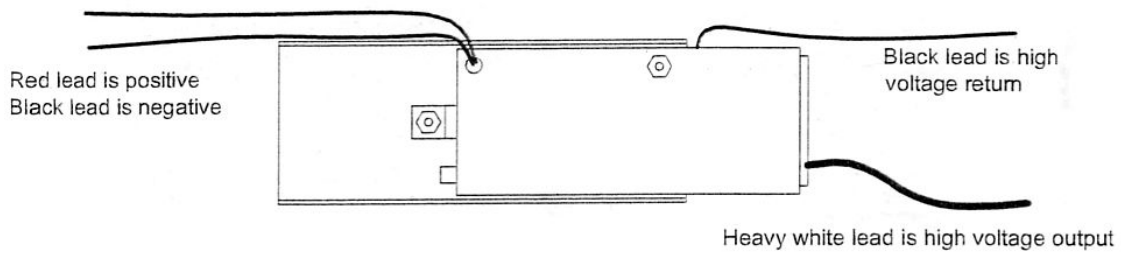


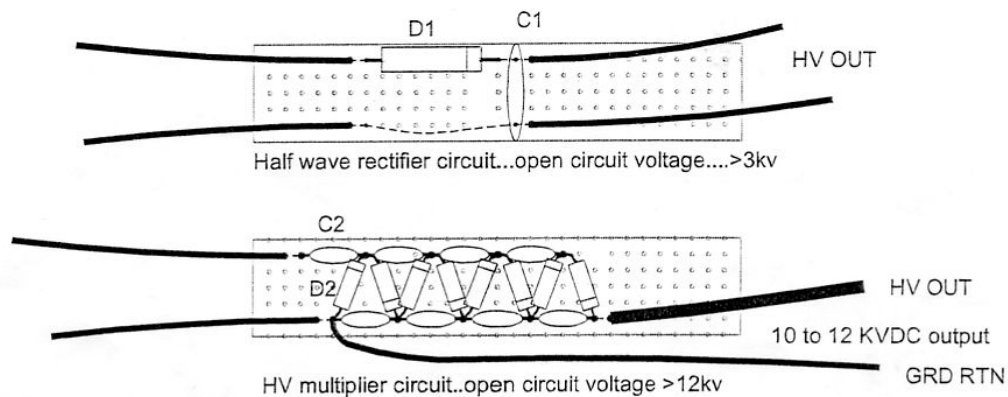
# MINIMAX4/NEONX8 INSTRUCTIONS



This universal high voltage power supply was originally designed for neon displays in our laboratories. It is UL approved and virtually indestructible. It is open circuit and short circuit protected. Open circuit output voltage is over 4000 at a frequency of 30 KHz. Short circuit current is >15 ma. Unit load lines at 3000 vac delivering 10 ma. with 12 vdc input. Applications include powering gas discharge tubes up to eight feet, plasma generation for burning and etching, output is easily converted to high voltage dc up to 25 kv and can be used for capacitor charging and a host of high voltage experiments. Always allow to operate for an hour or so and check for heat. Unit never should be uncomfortably hot to touch.

Use a 12 volt 1 amp dc adapter for full output or a 12 volt .5 amp for 1/2 output. You may use a 12 volt 1.5 amp for increased output intermittently for experimental and laboratory use.

## Optional high voltage dc multiplier circuits easily used with this power supply



## Parts available through information <[www.amazing1.com](http://www.amazing1.com)>

WR1 24" #20 Hook up wire  
PB1 1 X 4" .1 Grid perfboard  
Note 4 stages shown can produce 10 to12 KV!!

C1 .01mfd 2kv disk capacitor.....#01M2KV  
D1 6KV .1 usec diode.....#VG6  
C2 270 pfd 3kv disk capacitors...#270 /3KV

### SPECIAL NOTE

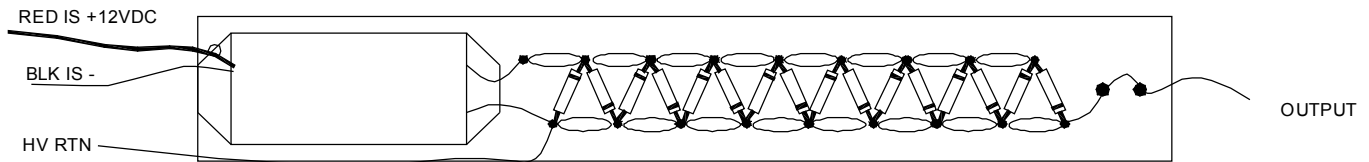
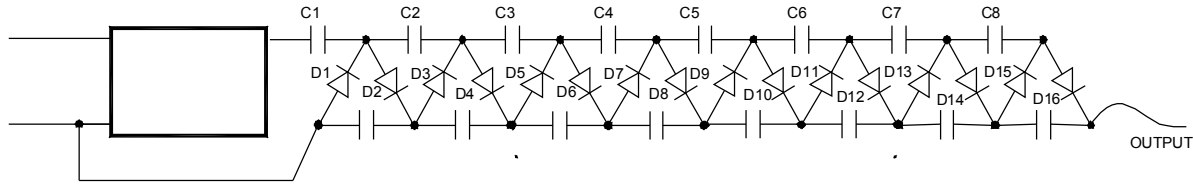
If you use this unit to power a piece of neon under 6 feet it will be necessary to pit a 50 pfd 6kv capacitor in serie and located adjacent to the return electrode of the display

Information Unlimited PO Box 716  
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603 673 4730 Fax 603 672 5406

# CHARGE SERIES HV POWER SUPPLY AND CHARGER

Danger!! Danger!! Charging External Capacitors to Over 50 Joules of Energy Exposes The Experimenter To A Potentially Deadly Electrocution Device.

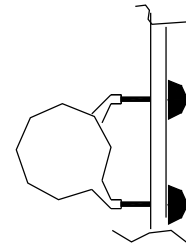
**It is assumed the user of this equipment is experienced in high voltage applications and the associated hazards involved.**



## ASSEMBLY STEPS FOR KITS: NOTES ON OPERATION

- Identify kit parts:  
 \*MINIMAX3 Module  
 5 x 1/12" piece of perf board.  
 #500/10KV ceramic capacitors  
 #VG12 HV rectangular diodes-*positive ends identified by blue dye on lead*  
 (24") of #20 hook up wire
- Attach a 5 x 1 1/2" piece of perfboard to module using RTV silicon rubber.
- Insert components as shown along with connecting leads.
- Solder leaving large, round, smooth globular joints. This is contrary to normal soldering techniques but is necessary in high voltage wiring to reduce corona and leakage.
- Connect a source of 12 VDC capable of supplying 1 amp to input leads. Note a bright energetic spark occurring at output leads. Input current should not exceed 1 amp when delivering power.

Use 1/8-3/16 wide smooth globular solder joints for connections to capacitors, diodes, R1 and HV output points. This is contrary to normal soldering but is necessary to prevent corona leakage.



Always connect a 2000 to 5000 ohm resistor in series with HV output lead when charging capacitors.

Unit may be battery or solar powered for portable or field use.

Output may be used for insect killing grids, shocking supplies, ozone and air purification, ion generation, spark gaps etc.

Basic system is shown as a multiple stage voltage doubler driven by our #MINIMAX3 producing 4000 volts. You may connect up to 8 stages for generating up to 25,000 volts. If you used our MINIMAX7 with the above you could generate up to 35,000 volts!

***An excellent science project is possible using this higher voltage module for driving a high speed ion motor***

***For those who intend to use this device as an animal shocker or anti-personal deterrent, it is suggested to obtain our #HEC1 plans showing "how to electrify objects, vehicles, areas etc.***