

BOW POWER SUPPLY CIRCUIT

The circuit shown below should be adequate for most applications. It is the classic unregulated linear power supply. With the many different wire materials, diameters, and lengths it's nearly impossible to say this is best. I do know it works very well and can heat up my nichrome wire quite well.

A few words of caution are in order. First of them concerns working with 115VAC. NEVER work on the circuit with the plug in the outlet! BE very careful. It is lethal! A well ventilated plastic enclosure is highly recommended. Secondly, be very careful not to short the terminals of the capacitor. A painful shock will result. I suggest several layers of black tape over the screw terminals before applying any power to it. The Bridge Rectifier will get warm, mount it accordingly. Lastly, builder and/or user of this circuit assume all risks and liability with it. It is presented here as a reference only.

Values given are adequate for the loads. Feel free to “upscale” them if you wish. For example, the 10,000uF capacitor, its OK to use higher values for sure in both capacitance and working voltage. I would NOT downsize the Bridge Rectifier. The Bleed Resistor is required. Ok to use 2 4K 1/2W in parallel, or 3pcs 5.6K 1/2W in parallel.

