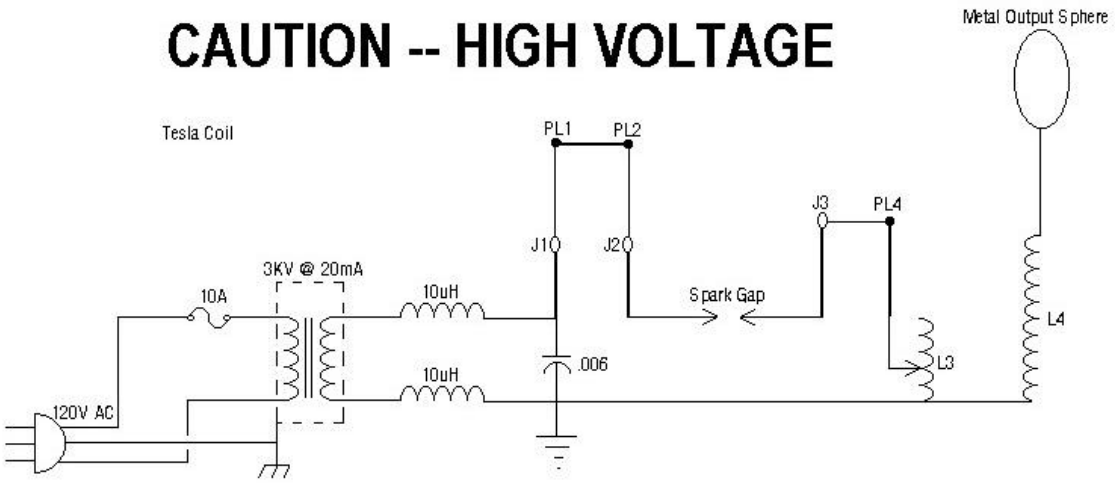
Tesla coil



Power is fed to transformer, a small neon-sign transformer, which steps the voltage to about 3,000 VAC. The stepped-up voltage is fed through the 10uH coils and across C1 causing he capacitor to charge until enough power is stored in the usnit to produce an arc across the spark gap. The spart gap, which momentraily connects C1 and L3 in parallel, determines the amount of current transferred between C1 and L3. The energy fed through L3 is transferred to L4 via the magnetic coupling between the two coils. Because of the turn ratio taht exists between L3 and L4, an even higher voltage is produced across L4. Coil L4 steps up the voltage which collects on the cop-capacitance spere. There, it causes an avalanche breakdown of the surounding air, giving off a liminous discharge. The rotary spark gap is a simple add-on circuit for the Tesla Coil, consisting of a variable DC power supply and a small, 5,000-rpm DC motor. The circuit allows you to vary the output of the Tesla coil by adjusting the rotating speed of the motor. A rotary gap is far more eficient that a stationary gap, bacause the stationary gap could cut-out and require readjustment.