

Tesla's Electric Car #2 - 01/09/98

This file was originally posted on the KeelyNet BBS on January 31, 1993 as TESLAFE2.ASC.

This file is a Sysop commentary on the Tesla Power Box as described in the original file TESLAFE1.ASC on KeelyNet.

These are my own thoughts on the Tesla Power Box, I welcome your constructive comments regarding this device.....Jerry W. Decker/KeelyNet

The following are the details as removed from the file TESLAFE1 :

"The standard internal combustion engine was removed and an 80-H.P. 1800 r.p.m electric motor installed to the clutch and transmission.

The A.C. motor measured 40 inches long and 30 inches in diameter and the power leads were left standing in the air - no external power source!

He then went to a local radio store and purchased a handful of tubes (12), wires and assorted resistors. A box measuring 24 inches long, 12 inches wide and 6 inches high was assembled housing the circuit.

The box was placed on the front seat and had its wires connected to the air-cooled, brushless motor. Two rods 1/4" in diameter stuck out of the box about 3" in length."

The mention of this experiment in a local paper kind of blew me away but it did give "some" detail of

what was in this mysterious power box.

We know that T.H. Moray had probably the best known version of such a device. In his case he used a special "valve" which appeared to be basically a diode. Except this diode worked more like a Triac. That is, any electrical wave, both positive AND negative going currents, was picked up by an antenna and passed through this diode with minimal loss of energy. As far as we know, this valve was based on a composite substance with GERMANIUM as the host material.

From there it went through a tuned circuit based on vacuum tubes and capacitors to build and discharge the energy as demanded by the load.

The tuned circuits were resonant with one or more earth or cosmic frequencies and the vacuum tubes acted as harmonic constructive interference amplifiers of the input signals.

We will note that Moray's resonant circuits used CAPACITORS, COILS and RESISTORS. Experiments done during Moray's heyday showed an output up to 50,000 Watts of high frequency energy. It is believed that the energy was high frequency because 100 watt light bulbs burned cool to the touch.

One other CRITICAL POINT about Moray's converter was that it would ONLY energize RESISTIVE loads and NOT INDUCTIVE loads. This is because inductive loads imply coils of wire which are heated more so by HYSTERESIS (interferring electro-magnetic fields) rather than simple resistance from the flow of current through molecular/atomic patterns.

This type of interferring field caused an energy

backup and subsequent de-tuning of Moray's generator. Since it was essentially a TUNED device, it could not compensate for any frequency changes or distortions ONCE TUNED. As a result, any attempt to hook up an inductive load would cause the device to stop generating electrical energy. To restart it, all inductive loading must be removed, the device re-tuned and restarted.

Moray also used an unusual mode of operation for a vacuum tube in that he operated with a "cold cathode." This did not require a heated plate for the "thermionic emissions" deemed necessary to successful vacuum tube operation.

There is also mention of radioactive elements in the antenna circuit which leads one to think he might have been tuning into the continual radioactive decay processes of nature, rather than cosmic or earth energies.

Now to the Tesla Power Box

We will first of all note the use of an AC coil motor. This alone tells us that the Tesla device was superior and not so dependent on tuning as was Moray's machine which could only power RESISTIVE loads. All universal energy moves in WAVES and so is essentially for alternating current (AC). That is why Moray called his book "THE SEA OF ENERGY IN WHICH THE EARTH FLOATS". The entire universe is continually bathed in these AC energies and they cover the entire frequency spectrum.

What intrigues the hell out of me was how Tesla could use "off-the-shelf" vacuum tubes and other components, put them together in the correct configuration and make it work.

Another point we should note is the list of components :

- **1) 12 Vacuum Tubes (70L7-GT rectifier beam power tubes)**
- **2) Wires**
- **3) Assorted Resistors**
- **4) 1/4" diameter rods 3" in length**

NOTE, NO CAPACITORS! The wires could have been simply for connection or wound as coils. The 1/4" rods were either **BUS BARS** for power output taps **OR** more likely **ANTENNAS!** Resonant circuits can be constructed using several techniques. You can achieve the same effect from :

- **1) Resistors AND capacitors**
- **2) Capacitors AND coils**
- **3) Coils AND resistors**

So, in the case of the Tesla Power Box, he either wound his own coils or simply used the wire to connect the resistors with the vacuum tubes. I am of the opinion that he used the wire ONLY for connection and DID NOT USE COILS! I also think he used a DIODE somewhere in the circuit in order to tap ONLY one polarity.

We have no specifications for the AC motor that Tesla used in the auto, so we have no idea if it was single or polyphase. In the case of a single phase motor, it only requires a single winding which projects a magnetic field that rotates according to the increase or decrease of the alternating current.

A polyphase (poly = two or more) motor uses multiple windings which are fed by phased input currents that alternate in such a manner as to

reinforce each other. In the case of a 3 phase motor, the currents are phased 120 degrees apart. This gives much greater torque to the motor but requires 3 times the current because it uses 3 times the input energy.

Since the box powered an AC (coil) motor, it is probable it was TUNED to one or more frequencies, most likely polyphased frequencies.

So, if the 3" long rods were in fact ANTENNAS, we can calculate their frequency by using the following :

(I cannot express Lambda here so we will use w f

w = wavelength

v = velocity of propagation

f = signal frequency

a short example : w = v / f = wavelength in f

w = 984,000,000/1,500,000 =

f = 984,000,000/656 = 1,500

3 inches * 4 = 1 foot

984,000,000/1 = 984,000,000

984,000,000/4 = 246,000,000

This would indicate the 3" rods (if they were truly 3" in length and functioning as antennas) would resonate at 246 MHZ.

Because of the parts list description, I am of the opinion that it was a DUAL circuit. That is, 6 vacuum tubes and one 1/4" diameter 3" rod along with assorted resistors were to pick up and "pump" ONLY the positive going signals, while the other 6 vacuum tubes, rod and resistors did the same for the negative going signals. Such a scheme could either use PARALLEL or SERIAL connections of the vacuum tubes. Since current conduction is proportional to surface area, one would think that a parallel

arrangement of the 70L7-GT rectifier beam power tubes with all INPUTS connected to one antenna source and all OUTPUTS connected to a common terminal attached to the load, would provide for the MAXIMUM current flow from incoming energy waves.

The nature of these "energy waves" is the question here. Are they cosmic rays, electrostatic, Schumann peaks, magnetic force, something "other" or Aether flow into the neutral centers of mass as per Keely.

Vacuum tube construction takes several forms. Of these, the simplest is two plates separated by a grid wire. When the bottom plate is heated, thermally induced ions (thermionic emissions) are emitted by the bottom plate. The grid can be biased by the application of voltage to increase, decrease or halt the flow of these ions to the upper plate.

Other forms include more plates with more grids to allow better control of the ion flow. By proper biasing, vacuum tubes can be operated as switches, modulators or amplifiers among other uses.

Vacuum tubes operate primarily with high voltages that control the ion flows. Modern transistors are equivalent to vacuum tubes except that they operate using CURRENT instead of voltage. Transistors equate to Vacuum tubes by the following comparisons :

	Vacuum Tube	Transistor	Polarit
Operates from	Voltage	Current	
	lower plate	emitter	negativ
	grid	base	neutral
	upper plate	collector	positiv

In the case of the Tesla Power Box, the vacuum tube appears to function as a "pump", collecting

incoming current in the form of ion intensification. Once this "compressed" ion field reaches a certain density, the pump allows it to be released into the next stage of the circuit, be it the actual load or another vacuum tube.

So if the circuit is 6 vacuum tubes in parallel, all fed from a common antenna, outputting to a common load terminal, then the common antenna input would feed all vacuum tubes with the same wave. This would give the greatest CURRENT accumulation because of the EXPANDED SURFACE AREA of the paralleled tubes.

Note, these vacuum tubes most likely operate in the "cold cathode" mode since the heaters of the vacuum tubes were not fed by any outside voltage to provide the heat for the more orthodox therionic emission.

If the vacuum tubes are hooked in series, then one "pump" would feed another "pump" to get successively higher densities of electrons. This would give higher VOLTAGES because of increased PRESSURE.

Keep in mind that electricity is much like air or water. We can think of voltage as pounds per square inch (PSI) and current as cubic feet per minute (CFM). That is PSI is pressure, CFM is flow.

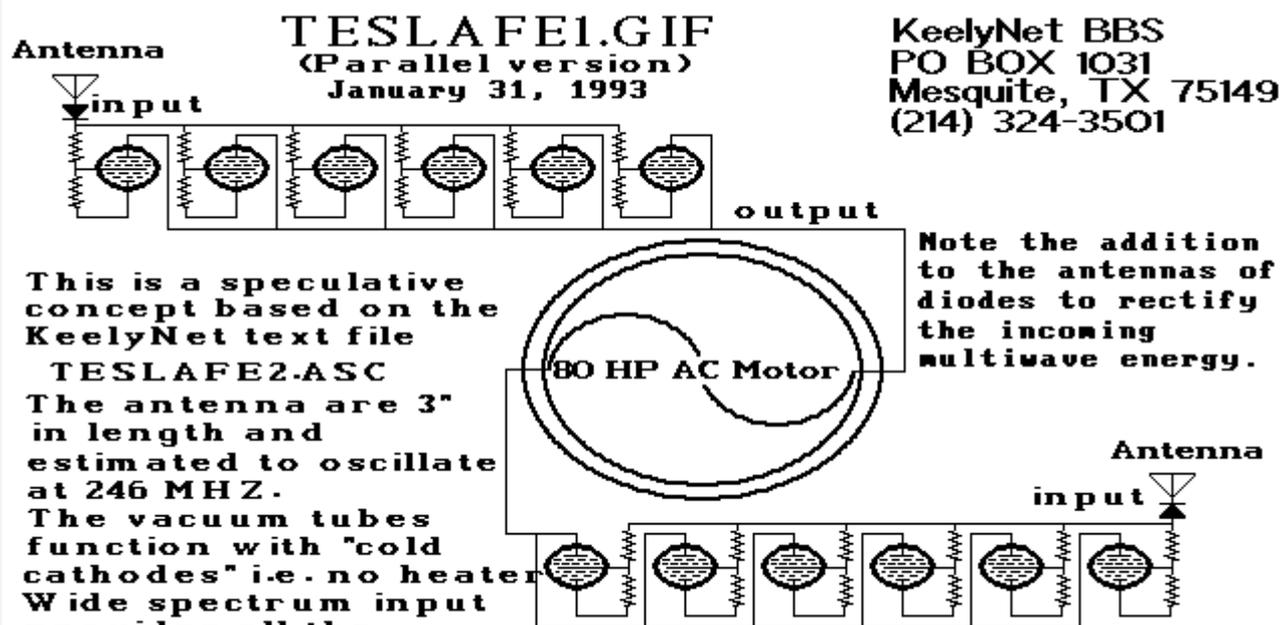
Another analog is comparing a river to electricity. In such a comparison, the speed of the river is the VOLTAGE or pressure while the width of the river is the CURRENT or rate of flow.

Such a comparison shows WHY current requires THE GREATEST SURFACE AREA for the maximum flow. Fuses function on just this principle, when the

current flows over the surface of the fuse, it creates heat. If too much current flows, it creates too much heat causing the fuse to melt and separate. The more surface area the fuse, the greater the amount of current can flow, another reason to not place a penny in a fuse socket.

So we have two antennas (1/4" diameter, 3" long rods), two sets of 6 vacuum tubes connected together by wire and assorted resistors. As the waves of energy are collected by the 3" rods, positive on one, negative on another, the energy builds up in the form of increased ions in each of the paralleled vacuum tubes. As in Moray's generator, the circuit will feed whatever load is attached as long as it does not EXCEED the current carrying capacity of the circuit components. What we have is an energy pumping system.

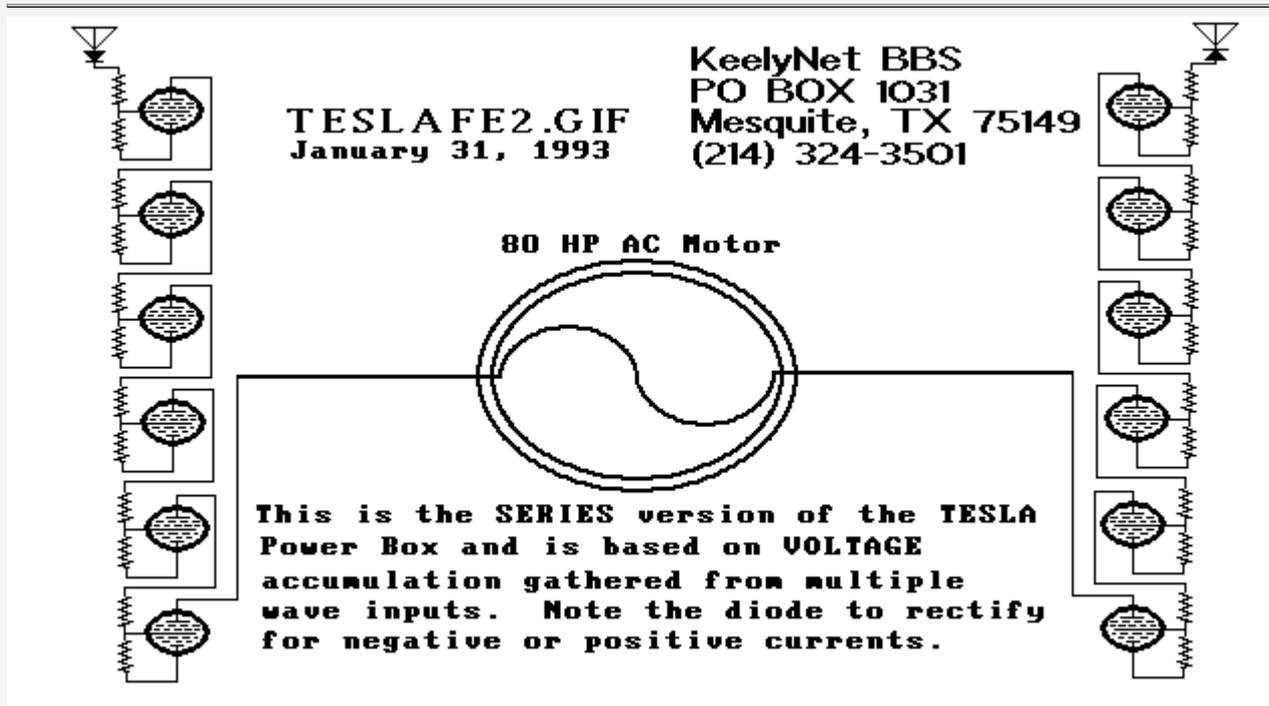
I made a drawing of the box with some idea of the circuit. My electronics knowledge is on IC's and transistors with almost nothing in regard to vacuum tubes so there won't be much technical concept of the circuit per se. Perhaps after some study, either I or someone else will come up with some testable or useable circuits.



KeelyNet BBS
PO BOX 1031
Mesquite, TX 75149
(214) 324-3501

provides all the necessary energy. output

The Parallel Version



The Serial Version

TESLA FE1.HTM - original articles

TESLA CAR.HTM - another viewpoint

