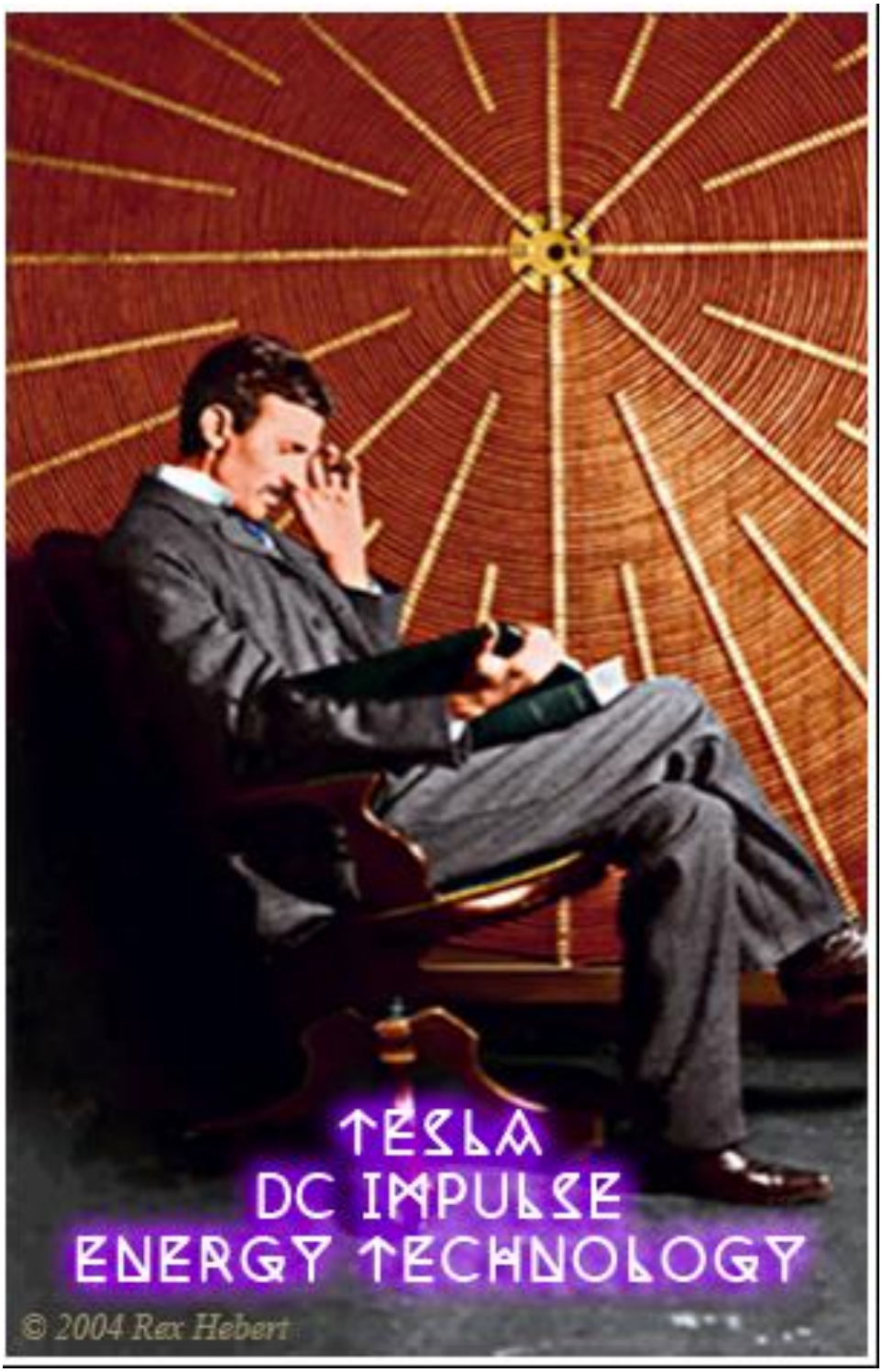
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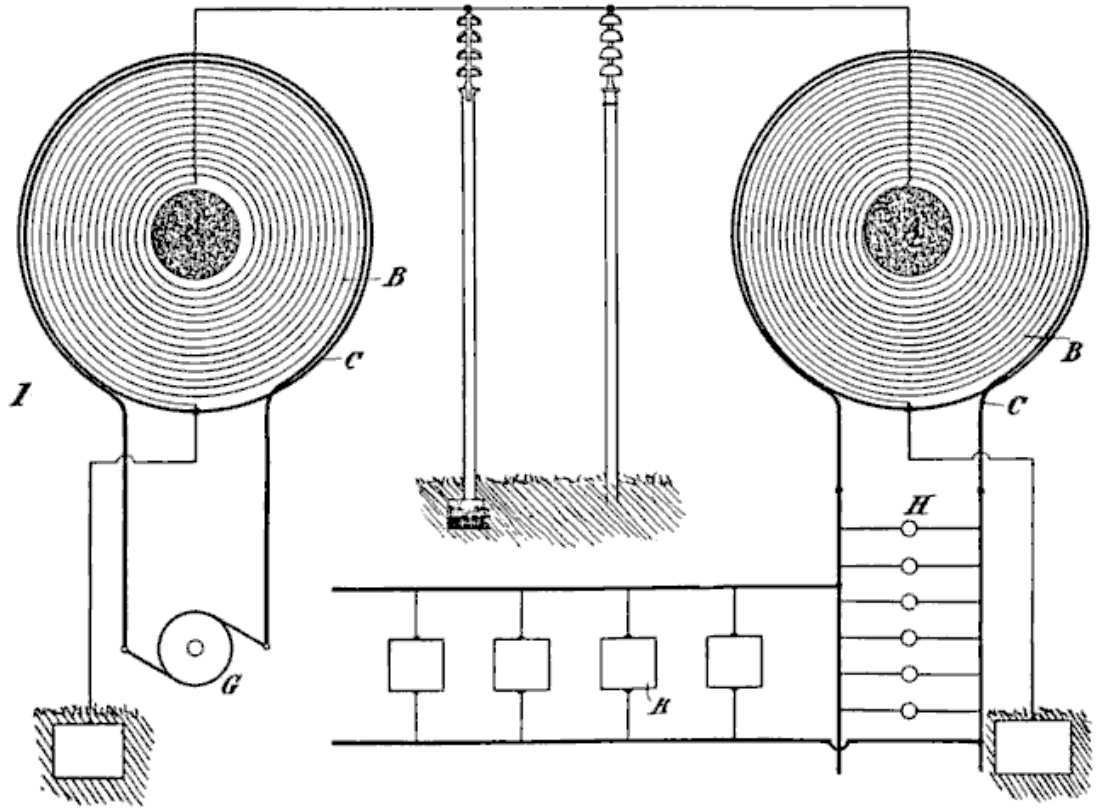
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# The Devices of Don Smith.

Donald Lee Smith died a few years ago. He is famous for his high-power self-powered free energy designs. There are several videos on the web, showing some of his lectures. He produced one pdf document which is shown at the end of this chapter, and in May 2004 he was granted one patent. Don stated clearly in one of his lectures, that he never did disclose the full details of his designs. However, Don says that he discloses enough for somebody who is experienced in radio-frequency electronics to be able to deduce the things which he does not disclose and so build a device for his own use. If that is the case, then anybody who has succeeded in doing so has kept very quiet about it afterwards (which would be understandable). Don produced at least forty eight different devices which draw energy from what Don prefers to call "the ambient background". His devices are capable of supplying kilowatts of excess energy and in most cases they do not require any input energy to be supplied by the user. Don's work is subtle and not easy to replicate. It is based on the principle that the power output of a circuit increases with the square of the frequency and the square of the voltage. So, if you double the frequency and double the voltage, then the output power goes up and becomes sixteen times greater. As a result of this, Don's best known design uses a Neon Sign Transformer circuit which raises the frequency to around 35,000 cycles per second and raises the voltage to anything from 2,000 volts to 12,000 volts, giving a power output is physically quite small and yet it has an output of 160 kilowatts (8000 volts at 20 amps) from an input of 12 volts 1 amp. That is, the output power is more than thirteen thousand times greater than the input power. Consequently, **his designs are dangerous and can kill you instantly**. In other words, his designs are for experienced developers only. **Please bear in mind that the voltages here and their associated power levels are literally lethal and perfectly capable of killing anyone who handles the device carelessly when it is powered up. When a replication of this device is ready for routine use, it must be encased so that none of the high-voltage connections can be touched by anyone. This is not a suggestion, but it is a mandatory requirement, despite the fact that the components shown in the photographs are laid out in what would be a most dangerous fashion were the circuit to be powered up as it stands. Under no circumstances, construct and test this circuit unless you are already experienced in the use of high-voltage circuits or can be supervised by somebody who is experienced in this field. This is a "one hand in the pocket at all times" type of circuit and it needs to be treated with great care and respect at all times, so be sensible.** Don Smith considered himself to be self taught. Don says that his understanding comes from the work of Nikola Tesla as recorded in Thomas C. Martin's book "The Inventions, Researches, and Writings of Nikola Tesla" ISBN 0-7873-0582-0. This book can be downloaded from http://www.free-energy-info.com/TeslaBook.pdf as a pdf file. Don states that he repeated each of the experiments found in the book and that gave him his understanding of what he prefers to describe as the 'ambient background energy' which is also called the 'zero-point energy field'. Don remarks that he advanced further than Tesla in this field, partly because of the devices now available

to him and which were not available when Tesla was alive. Don stresses two key points. Firstly, a dipole can cause a disturbance in the magnetic component of the 'ambient background' and that imbalance allows you to collect large amounts of electrical power, using capacitors and inductors (coils). Secondly, you can pick up as many powerful electrical outputs as you want from that one magnetic disturbance, without depleting the magnetic disturbance in any way. This allows massively more power output than the small power needed to create the magnetic disturbance in the first place. This is what produces a "Coefficient Of Performance">1 device and Don has created nearly fifty different devices based on that understanding. Although they get removed quite frequently, there is one video which is definitely worth watching if it is still there. It is located at http://www.metacafe.com/watch/2820531/don_smith_free_energy/ and was recorded in 2006. It covers a good deal of what Don has done. In the video, reference is made to Don's website but you will find that it has been taken over by Big Oil who have filled it with innocuous similarsounding things of no consequence, apparently intended to confuse newcomers searching for information on Don's designs. The present situation in 2019 is that few people understand Don's designs fully (and I myself, fall into that category), the high-voltage components are expensive and hard to find, and the high voltages are dangerous. However, we will look at three of his many designs and try to understand them as best we can. We will start with his patented design:

**Patent NL 02000035 A 20th May 2004 Inventor: Donald Lee Smith TRANSFORMER GENERATOR MAGNETIC RESONANCE INTO ELECTRIC ENERGY**

**ABSTRACT**

The present invention refers to an Electromagnetic Dipole Device and Method, where wasted radiated energy is transformed into useful energy. A Dipole as seen in Antenna Systems is adapted for use with capacitor plates in such a way that the Heaviside Current Component becomes a useful source of electrical energy.

**DESCRIPTION**

**Technical Field:**

This invention relates to loaded Dipole Antenna Systems and their Electromagnetic radiation. When used as atransformer with an appropriate energy collector system, it becomes a transformer/generator. The invention collects and converts energy which is radiated and wasted by conventional devices.

**Background Art:**

A search of the International Patent Database for closely related methods did not reveal any prior art with an interest in conserving radiated and wasted magnetic waves as useful energy.

**DISCLOSURE OF THE INVENTION**

The invention is a new and useful departure from transformer generator construction, such that radiated and wasted magnetic energy changes into useful electrical energy. Gauss meters show that much energy from conventional electromagnetic devices is radiated into the ambient background and wasted. In the case of conventional transformer generators, a radical change in the physical construction allows better

access to the energy available. It is found that creating a dipole and inserting capacitor plates at right angles to the current flow, allows magnetic waves to change back into useful electrical (coulombs) energy. Magnetic waves passing through the capacitor plates do not degrade and the full impact of the available energy is accessed. One, or as many sets of capacitor plates as is desired, may be used. Each set makes an exact copy of the full force and effect of the energy present in the magnetic waves. The originating source is not depleted of degraded as is common in conventional transformers.

## BRIEF DESCRIPTION OF THE DRAWINGS

The Dipole at right angles, allows the magnetic flux surrounding it to intercept the capacitor plate, or plates, at right angles. The electrons present are spun such that the electrical component of each electron is collected by the capacitor plates. Essential parts are the South and North component of an active Dipole. Examples presented here exist as fully functional prototypes and were engineer constructed and fully tested in use by the Inventor. In each of the three examples shown in the drawings, corresponding parts are used.

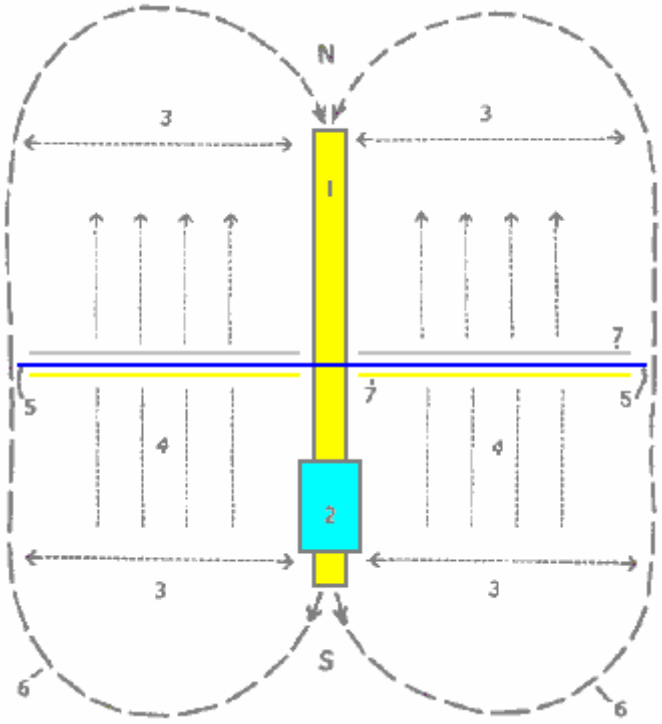



**Fig.1** is a View of the Method, where **N** is the North and **S** is the South component of the Dipole. Here, **1** marks the Dipole with its North and South components. **2** is a resonant high-voltage induction coil. **3** indicates the position of the electromagnetic wave emission from the Dipole. **4** indicates the position and flow direction of the corresponding Heaviside current component of the energy flow caused by the induction coil **2**. **5** is the dielectric separator for the capacitor plates **7**. **6** for the purposes of this drawing, indicates a virtual limit for the scope of the electromagnetic wave energy.

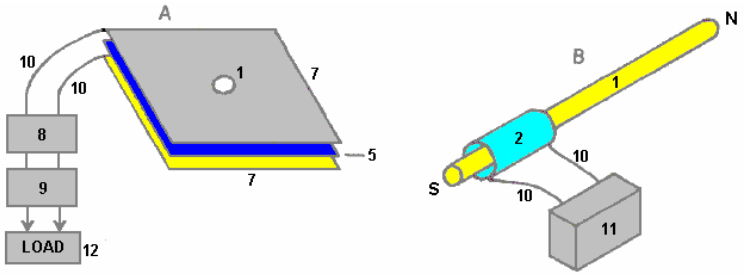



**Fig.2** has two parts; **A** and **B**.

In **Fig.2A** **1** is the hole in the capacitor plates through which the Dipole is inserted and in **Fig.2B** it is the Dipole with its North and South poles shown. **2** is the resonant high-voltage induction coil surrounding part of the Dipole **1**. The dielectric separator **5**, is a thin sheet of plastic placed between the two capacitor plates **7**, the upper plate being made of aluminium and the lower plate made of copper. Unit **8** is a deep-cycle battery system powering a DC inverter **9** which produces 120 volts at 60 Hz (the US mains supply voltage and frequency, obviously, a 240 volt 50 Hz inverter could be used here just as easily) which is used to power whatever equipment is to be driven by the device. The reference number **10** just indicates connecting wires. Unit **11** is a high-voltage generating device such as a neon transformer with its oscillating power supply.

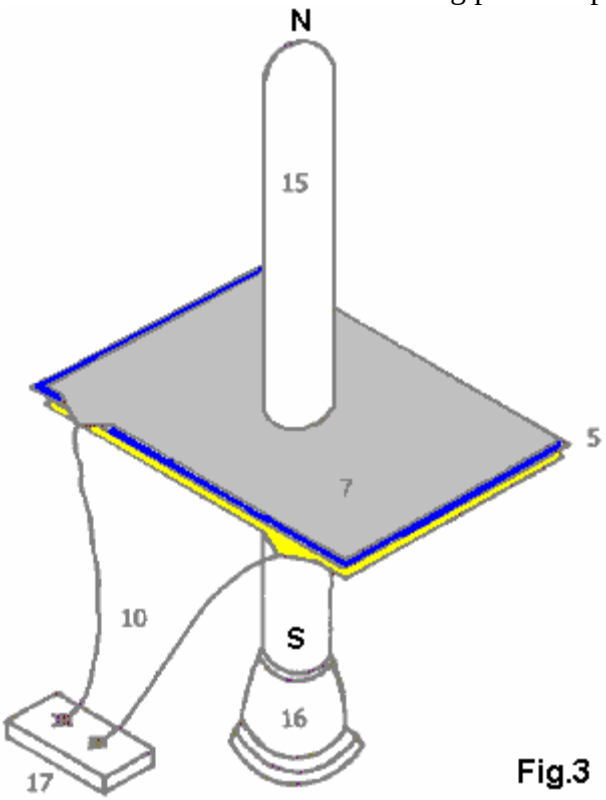



Fig.3

**Fig.3** is a Proof Of Principal Device using a Plasma Tube as an active Dipole. In this drawing, **5** is the plastic sheet dielectric separator of the two plates **7** of the capacitor, the upper plate being aluminium and the lower plate copper. The connecting wires are marked **10** and the plasma tube is designated **15**. The plasma tube is four feet long (1.22 m) and six inches (100 mm) in diameter. The high-voltage energy source for the active plasma dipole is marked **16** and there is a connector box **17** shown

as that is a convenient method of connecting to the capacitor plates when running tests on the device.

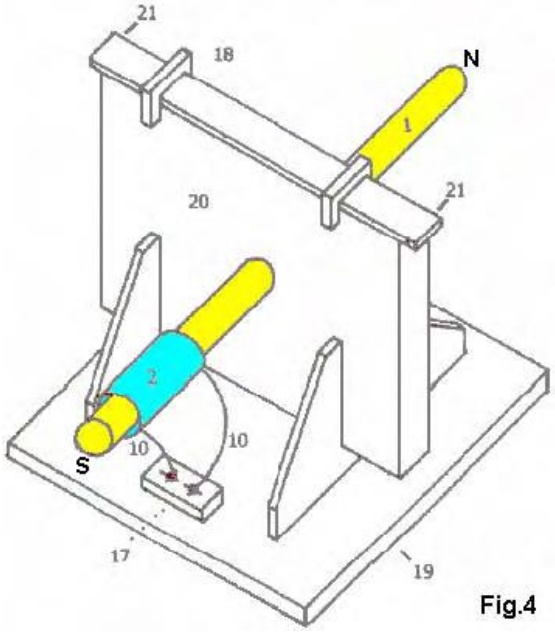


Fig.4

**Fig.4** shows a Manufacturer's Prototype, constructed and fully tested. **1** is a metal Dipole rod and **2** the resonant high-voltage induction coil, connected through wires **10** to connector block **17** which facilitates the connection of it's high-voltage power supply. Clamps **18** hold the upper edge of the capacitor packet in place and **19** is the base plate with it's supporting brackets which hold the whole device in place. **20** is a housing which contains the capacitor plates and **21** is the point at which the power output from the capacitor plates is drawn off and fed to the DC inverter.

## BEST METHOD OF CARRYING OUT THE INVENTION

The invention is applicable to any and all electrical energy requirements. The small size and it's high efficiency make it an attractive option, especially for remote areas, homes, office buildings, factories, shopping centres, public places, transportation, water systems, electric trains, boats, ships and 'all things great and small'. The construction materials are commonly available and only moderate skill levels are needed to make the device.

## CLAIMS

**1.** Radiated magnetic flux from the Dipole, when intercepted by capacitor plates at right angles, changes into useful electrical energy.

**2.** A Device and Method for converting for use, normally wasted electromagnetic energy.

**3.** The Dipole of the Invention is any resonating substance such as Metal Rods, Coils and Plasma Tubes which
have interacting Positive and Negative components.

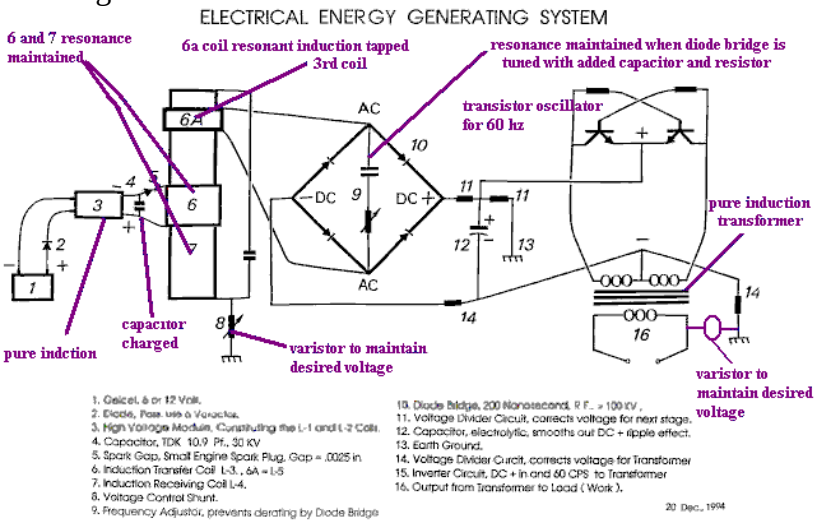
**4.** The resulting Heaviside current component is changed to useful electrical energy.

**********

This patent does not make it clear that the device needs to be tuned and that the tuning is related to its physical location on Earth. The tuning will be accomplished by applying a variable-frequency input signal to the neon transformer and adjusting that input frequency to give the maximum

output. The second of Don's devices to consider is his table-top very high power generator. This is effectively a Tesla Coil system and so the normal electromagnetic effect of the ratio of the number of coil turns does NOT determine the effect between the coils. The demonstration device looks like this:

This device is not the easiest thing in the world to understand. Here is the circuit diagram:



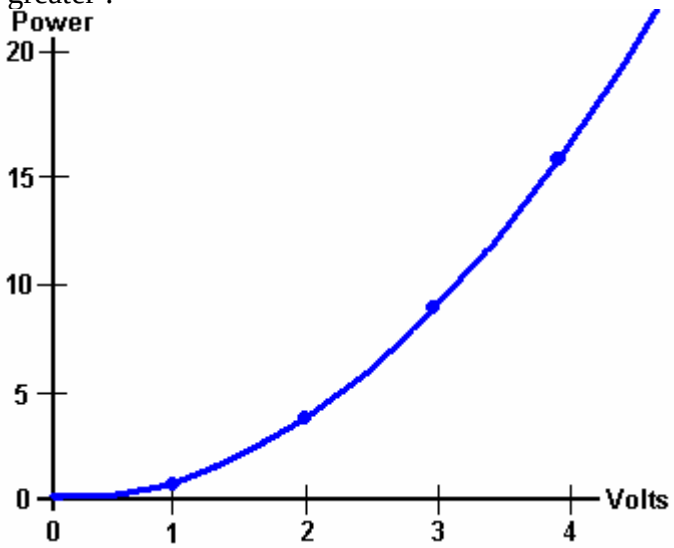

it is probably worth mentioning some of the main points which Don Smith appears to be making. There are some very important points being made here, and grasping these may make a considerable difference to our ability to tap into the excess energy available in our local environment. There are four points worth mentioning:

**1. Voltage**
**2. Frequency**
**3. Magnetic / Electric relationship**
**4. Resonance**

**1. Voltage**.

We tend to view things with an 'intuitive' view, generally based on fairly simple concepts. For example, we automatically think that it is more difficult to pick up a heavy object than to pick up a light one. How much more difficult? Well, if it is twice as heavy, it would probably be about twice as much effort to pick it up. This view has developed from our experience of things which we have done in the past, rather than on any mathematical calculation or formula. Well, how about pulsing an electronic system with a voltage? How would the output power of a

system be affected by increasing the voltage? Our initial 'off-the cuff' reaction might be that the power output might be increased a bit, but then hold on… we've just remembered that Watts = Volts x Amps, so if you double the voltage, then you would double the power in watts. So we might settle for the notion that if we doubled the voltage then we could double the output power. If we thought that, then we would be wrong. Don Smith points out that as capacitors and coils store energy, if they are involved in the circuit, then the output power is proportional to the **square** of the voltage used. Double the voltage, and the output power is four times greater. Use three times the voltage and the output power is nine times greater. Use ten times the voltage and the output power is one hundred times greater !




Don says that the energy stored, multiplied by the cycles per second, is the energy being pumped by the system. Capacitors and inductors (coils) temporarily store electrons, and their performance is given by:
Capacitor formula: **W = 0.5 x C x V2 x Hz** where:
W is the energy in Joules (Joules = Volts x Amps x seconds)
C is the capacitance in Farads
V is the voltage
Hz is the cycles per second
Inductor formula: **W = 0.5 x L x A2 x Hz** where:
W is the energy in Joules
L is the inductance in henrys
A is the current in amps
Hz is the frequency in cycles per second

You will notice that where inductors (coils) are involved, then the output power goes up with the square of the current. Double the voltage **and** double the current gives four times the power output due to the increased voltage and that increased output is increased by a further four times due to the increased current, giving sixteen times the output power.

**2. Frequency**. You will notice from the formulas above, that the output power is directly proportional to the frequency "Hz". The frequency is the number of cycles per second (or pulses per second) applied to the circuit. This is something which is not intuitive for most people. If you double the rate of pulsing, then you double the power

output. When this sinks in, you suddenly see why Nikola Tesla tended to use millions of volts and millions of pulses per second. However, Don Smith states that when a circuit is at it's point of resonance, resistance in the circuit drops to zero and the circuit becomes effectively, a superconductor. The energy for such a system which is in resonance is:

Resonant circuit: **W = 0.5 x C x V2 x (Hz)2** where:

W is the energy in Joules

C is the capacitance in Farads

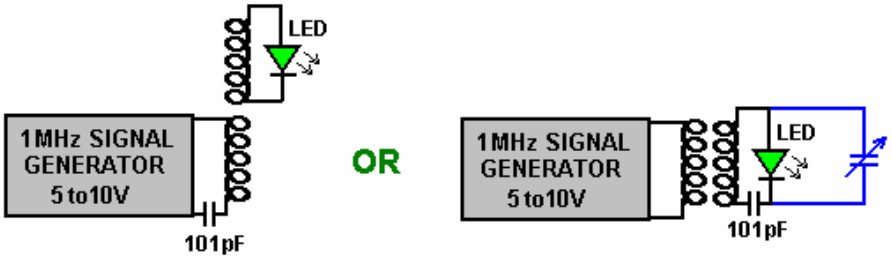
V is the voltage

Hz is the cycles per second

If this is correct, then raising the frequency in a resonating circuit has a massive effect on the power output of the device. The question then arises: why is the mains power in Europe just fifty cycles per second and in America just sixty cycles per second? If power goes up with frequency, then why not feed households at a million cycles per second? One major reason is that it is not easy to make electric motors which can be driven with power delivered at that frequency, so a more suitable frequency is chosen in order to suit the motors in vacuum cleaners, washing machines and other household equipment. However, if we want to extract energy from the environment, then we should go for high voltage and high frequency. Then, when high power has been extracted, if we want a low frequency suited to electric motors, we can pulse the already captured power at that low frequency. It might be speculated that if a device is being driven with sharp pulses which have a very sharply rising leading edge, that the effective frequency of the pulsing is actually determined by the speed of that rising edge, rather than the rate at which the pulses are actually generated. For example, if pulses are being generated at, say, 50 kHz but the pulses have a leading edge which would be suited to a 200 kHz pulse train, then the device might well see the signal as a 200 kHz signal with a 25% Mark/Space ratio, the very suddenness of the applied voltage having a magnetic shocking effect equivalent to a 200 kHz pulse train.

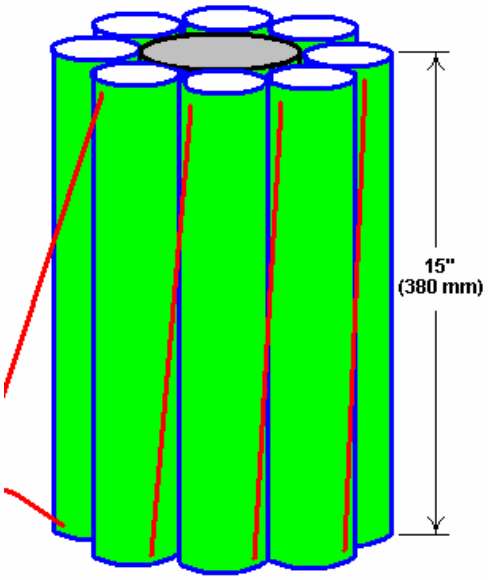
**3. Magnetic / Electric relationship**. Don states that the reason why our present power systems are so inefficient is because we concentrate on the electric component of electromagnetism. These systems are always COP<1 as electricity is the 'losses' of electromagnetic power. Instead, if you concentrate on the magnetic component, then there is no limit on the electric power which can be extracted from that magnetic component. Contrary to what you might expect, if you install a pick-up system which extracts electrical energy from the magnetic component, you can install any number of other identical pick-ups, each of which extract the same amount of electrical energy from the magnetic input, **without** loading the magnetic wave in any way. Unlimited electrical output for the 'cost' of creating a single magnetic effect. The magnetic effect which we want to create is a ripple in the zero-point energy field, and ideally, we want to create that effect while using very little power. Creating a dipole with a battery which has a Plus and a Minus terminal or a magnet which has North and South poles, is an easy way to do create an electromagnetic imbalance in the local environment. Pulsing a coil is probably an even better way as the magnetic field reverses rapidly if it is an air-core coil,

such as a Tesla Coil. Using a ferromagnetic core to the coil can create a problem as iron can't reverse it's magnetic alignment very rapidly, and ideally, you want pulsing which is at least a thousand times faster than iron can handle. Don draws attention to the "Transmitter / Receiver" educational kit "Resonant Circuits #10-416" which was supplied by The Science Source, Maine. This kit demonstrated the generation of resonant energy and it's collection with a receiver circuit. However, if several receiver circuits are used, then the energy collected is increased several times without any increase in the transmitted energy. This is similar to a radio transmitter where hundreds of thousands of radio receivers can receive the transmitted signal without loading the transmitter in any way. In Don's day, this kit was driven by a 1.5 volt battery and lit a 60-watt bulb which was supplied. Not surprisingly, that kit has been discontinued and a trivial kit substituted. If you get the Science Source educational kit, then there are some details which you need to watch out for. The unit has two very nice quality plastic bases and two very neatly wound coils each of 60 turns of 0.47 mm diameter enamelled copper wire on clear acrylic tubes 57 mm (2.25") in diameter. The winding covers a 28 mm section of the tube. The layout of the transmitter and receiver modules does not match the accompanying instruction sheet and so considerable care needs to be taken when wiring up any of their circuits. The circuit diagrams are not shown, just a wiring diagram, which is not great from an educational point of view. The one relevant circuit is:

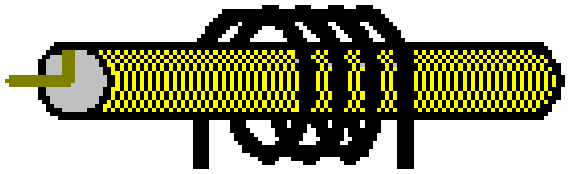



Before you buy the kit, it is not mentioned that in order to use it, you now need a signal generator capable of producing a 10-volt signal at 1 MHz. The coil has a DC resistance of just 1.9 ohms but at a 1 MHz resonant frequency, the necessary drive power is quite low. A variable capacitor is mounted on the receiver coil tube, but the one in my kit made absolutely no difference to the frequency tuning, nor was my capacitance meter able to determine any capacitance value for it at all, even though it had no trouble at all in measuring the 101 pF capacitor which was exactly the capacitance printed on it. For that reason, it is shown in blue in the circuit diagram above. Disconnecting it made no difference whatsoever. In this particular kit, standard screw connectors have had one screw replaced with an Allen key headed bolt which has a head large enough to allow finger tightening. Unfortunately, those bolts have a square cut tip where a domed tip is essential if small diameter wires are to be clamped securely. If you get the kit, then I suggest that you replace the connectors with a standard electrical screw connector strip. In tests, the LED lights up when the coils are aligned and within about 100 mm of each other, or if they are close together side by side. This immediately makes the Hubbard device spring to mind. Hubbard has a central "electromagnetic transmitter" surrounded by a ring of "receivers" closely coupled magnetically to the

transmitter, each of which will receive a copy of the energy sent by the transmitter:




Don points to an even more clearly demonstrated occurrence of this effect in the Tesla Coil. In a typical Tesla Coil, the primary coil is much larger diameter than the inner secondary coil:



If, for example, 8,000 volts is applied to the primary coil which has four turns, then each turn would have 2,000 volts of potential. Each turn of the primary coil transfers electromagnetic flux to every single turn of the secondary winding, and the secondary coil has a very large number of turns. Massively more power is produced in the secondary coil than was used to energise the primary coil. A common mistake is to believe that a Tesla Coil can't produce serious amperage. If the primary coil is positioned in the middle of the secondary coil as shown, then the amperage generated will be as large as the voltage generated. A low power input to the primary coil can produce kilowatts of usable electrical power.

**4. Resonance**. An important factor in circuits aimed at tapping external energy is resonance. It can be hard to see where this comes in when it is an electronic circuit which is being considered. However, everything has it's own resonant frequency, whether it is a coil or any other electronic component. When components are connected together to form a circuit, the circuit has an overall resonant frequency. As a simple example, consider a swing:

If the swing is pushed before it reaches the highest point on the mother's side, then the push actually opposes the swinging action. The time of one full swing is the resonant frequency of the swing, and that is determined by the length of the supporting ropes holding the seat and not the weight of the child nor the power with which the child is pushed. Provided that the timing is exactly right, a very small push can get a swing moving in a substantial arc. The key factor is, matching the pulses applied to the swing, that is, to the resonant frequency of the swing. Get it right and a large movement is produced. Get it wrong, and the swing doesn't get going at all (at which point, critics would say "see, see …swings just don't work - this proves it !!"). This principle is demonstrated in the video at http://www.youtube.com/watch?v=irwK1VfoiOA Establishing the exact pulsing rate needed for a resonant circuit is not particularly easy, because the circuit contains coils (which have inductance, capacitance and resistance), capacitors (which have capacitance and a small amount of resistance) and resistors and wires, both of which have resistance and some capacitance. These kinds of circuit are called "LRC" circuits because "L" is the symbol used for inductance, "R" is the symbol used for resistance and "C" is the symbol used for capacitance. Don Smith provides instructions for winding and using the type of air-core coils needed for a Tesla Coil. He says:

**1.** Decide a frequency and bear in mind, the economy of the size of construction selected. The factors are:

(a) Use radio frequency (above 20 kHz).

(b) Use natural frequency, i.e. match the coil wire length to the frequency - coils have both capacitance and inductance.

(c) Make the wire length either one quarter, one half of the full wavelength.

(d) Calculate the wire length in feet as follows:

If using one quarter wavelength, then divide 247 by the frequency in MHz. If using one half wavelength, then divide 494 by the frequency in MHz. If using the full wavelength, then divide 998 by the frequency in MHz. For wire lengths in metres: If using one quarter wavelength, then divide 75.29 by the frequency in MHz. If using one half wavelength, then divide 150.57 by the frequency in MHz. If using the full wavelength, then divide 304.19 by the frequency in MHz.

**2.** Choose the number of turns to be used in the coil when winding it using the wire length just calculated. The number of turns will be governed by the diameter of the tube on which the coil is to be wound. Remember that the ratio of the number of turns in the "L - 1" and "L - 2" coils, controls the overall output voltage. For example, if the voltage applied the large outer coil "L - 1" is 2,400

volts and L - 1 has ten turns, then each turn of L - 1 will have 240 volts dropped across it. This 240 volts of magnetic induction transfers 240 volts of electricity to every turn of wire in the inner "L - 2" coil. If the diameter of L - 2 is small enough to have 100 turns, then the voltage produced will be 24,000 volts. If the diameter of the L - 2 former allows 500 turns, then the output voltage will be 120,000 volts.

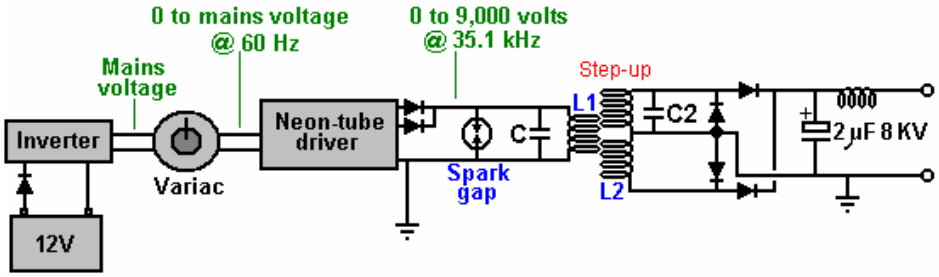
**3.** Choose the length and diameter of the coils. The larger the diameter of the coil, the fewer turns can be made with the wire length and so the coil length will be less, and the output voltage will be lower.

**4.** For example, if 24.7 MHz is the desired output frequency, then the length of wire, in feet, would be 247 divided by 24.7 which is 10 feet of wire (3,048 mm). The coil may be wound on a standard size of PVC pipe or alternatively, it can be purchased from a supplier - typically, an amateur radio supply store. If the voltage on each turn of L - 1 is arranged to be 24 volts and the desired output voltage 640 volts, then there needs to be 640 / 24 = 26.66 turns on L - 2, wound with the 10 feet of wire already calculated. PJK: At this point, Don's calculations go adrift and he suggests winding 30 turns on a 2-inch former. If you do that, then it will take about 16 feet of wire and the resonant point at 10-feet will be at about 19 turns, giving an output voltage of 458 volts instead of the required 640 volts, unless the number of turns on L1 is reduced to give more than 24 volts per turn. However, the actual required diameter of the coil former (plus one diameter of the wire) is 10 x 12 / (26.67 x 3.14159) = 1.43 inches. You can make this size of former up quite easily if you want to stay with ten turns on the L1 coil.

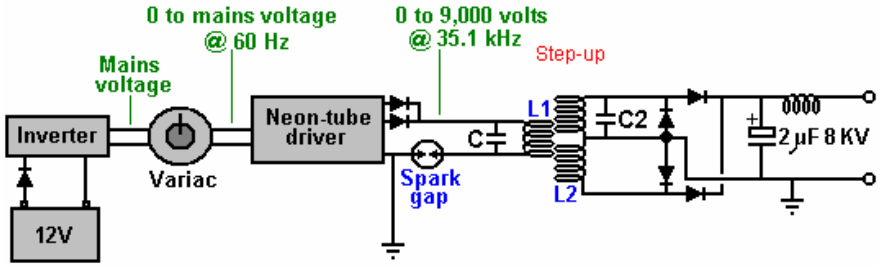
**5.** Connect to the start of the coil. To determine the exact resonant point on the coil, a measurement is made. Off-the-shelf multimeters are not responsive to high-frequency signals so a cheap neon is used instead. Holding one wire of the neon in one hand and running the other neon wire along the outside of the L - 2 winding, the point of brightest light is located. Then the neon is moved along that turn to find the brightest point along that turn, and when it is located, a connection is made to the winding at that exact point. L - 2 is now a resonant winding. It is possible to increase the ("Q") effectiveness of the coil by spreading the turns out a bit instead of positioning them so that each turn touches both of the adjacent turns. **6.** The input power has been suggested as 2,400 volts. This can be constructed from a Jacob's ladder arrangement or any step-up voltage system. An off-the-shelf module as used with lasers is another option. **7.** Construction of the L - 1 input coil has been suggested as having 10 turns. The length of the wire in this coil is not critical. If a 2-inch diameter PVC pipe was used for the L - 2 coil, then the next larger size of PVC pipe can be used for the L - 1 coil former. Cut a 10-turn length of the pipe (probably a 3-inch diameter pipe). The pipe length will depend on the diameter of the insulated wire used to make the winding. Use a good quality multimeter or a specialised LCR meter to measure the capacitance (in Farads) and the inductance (in henrys) of the L - 2 coil. Now, put a capacitor for matching L - 1 to L - 2 across the voltage input of L - 1, and a spark gap connected **in parallel** is required for the return voltage from L - 1. A trimmer capacitor for L - 1 is desirable. **8.** The performance of L - 2 can be further enhanced by attaching an earth

connection to the base of the coil. The maximum output voltage will be between the ends of coil L - 2 and lesser voltages can be taken off intermediate points along the coil if that is desirable. This frequency information can be rather hard to understand in the way that Don states it. It may be easier to follow the description given by one developer who says: **I have noticed that any machine can be made a super machine just by adding a bipolar capacitor across the coil. Nothing else is needed. With the correct capacitor the coil becomes Naturally Resonant and uses very little Amperage. Each machine uses a different size capacitor. The correct capacitor size can be calculated by dividing the speed of light by the coil's wire length first to get the coil's Natural Frequency and then dividing the voltage to be used by that frequency. The result is the correct size for the capacitor. Your machine will then be very powerful even working from a 12V car battery, no other additions needed. My coil's wire length is 497.333 meters. 299000000 m/sec / 497.333 m = 600000 Hz. 12V / 600000 = 0.00002 or 20 microfarads. A beautiful Naturally Resonant Tank circuit. You can use this with any coil for overunity! Once we have a Naturally Resonant Coil/Capacitor combination we can bring the frequency down to 50 Hz by calculating for the Power Factor Correction: Hz = Resistance x Farads then 50 Hz = R x 0.00002 so 50 / 0.00002 = 2500000 and R = 2500000 or 2.5 Meg Ohms. We then place all three components in parallel and our coil should give us a 50 Hz output.** Don provides quite an amount of information on one of his devices shown here:

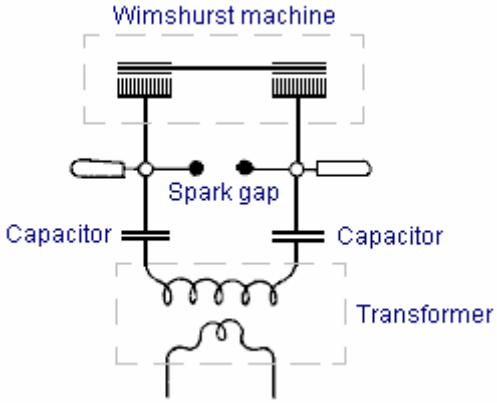
Without his description of the device, it would be difficult to understand it's construction and method of operation. As I understand it, the circuit of what is mounted on this board is as shown here:



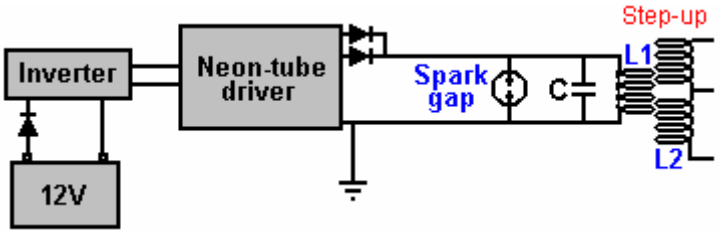
This arrangement has bothered some readers recently as they feel that the spark gap should be in series with the L1 coil, like this:




This is understandable, as there is always a tendency to think of the spark gap as being a device which is there to protect against excessive voltages rather than seeing it as an active component of the circuit, a component which is in continuous use. In 1925, Hermann Plauson was granted a patent for a whole series of methods for converting the high voltage produced by a tall aerial system into useable, standard electricity. Hermann starts off by explaining how high voltage can be converted into a convenient form and he uses a Wimshurst static electricity generator as an example of a constant source of high voltage. The output from a rectified Tesla Coil, a Wimshurst machine and a tall aerial are very much alike, and so Hermann's comments are very relevant here. He shows it like this:

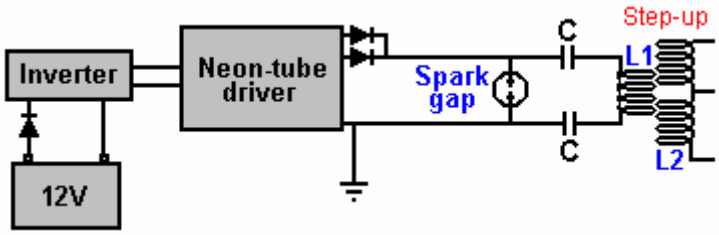



Here, the output of the Wimshurst machine is stored in two high-voltage capacitors (Leyden jars) causing a very high voltage to be created across those capacitors. When the voltage is high enough, a spark jumps across the spark gap, causing a massive surge of current through the primary winding of the transformer, which in his case is a step-down transformer as he is aimed at getting a lower output voltage. Don's circuit is almost identical:

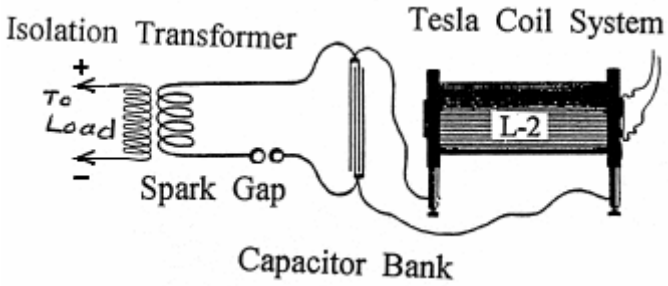



Here the high voltage comes from the battery/inverter/neon-tube driver/rectifiers, rather than from a mechanically driven Wimshurst machine. He has the same build up of voltage in a capacitor with a spark gap across the capacitor. The spark gap will fire when the capacitor voltage reaches its designed level. The only difference is in the

positioning of the capacitor, which if it matched Hermann's arrangement exactly, would be like this:




which would be a perfectly viable arrangement as far as I can see. You will remember that Tesla, who always speaks very highly of the energy released by the very sharp discharge produced by a spark, shows a high-voltage source feeding a capacitor with the energy passing through a spark gap to the primary winding of a transformer:




However, with Don's arrangement, it can be a little difficult to see why the capacitor is not shortcircuited by the very low resistance of the few turns of thick wire forming the L1 coil. Well, it would do that if we were operating with DC, but we are most definitely not doing that as the output from the neontube driver circuit is pulsing 35,000 times per second. This causes the DC resistance of the L1 coil to be of almost no consequence and instead, the coil's "impedance" or "reactance" (effectively, it's AC resistance) is what counts. Actually, the capacitor and the L1 coil being connected across each other have a combined "reactance" or resistance to pulsing current at this frequency. This is where the nomograph diagram comes into play, and there is a much easier to understand version of it a few pages later on in this document. So, because of the high pulsing frequency, the L1 coil does not shortcircuit the capacitor and if the pulsing frequency matches the resonant frequency of the L1 coil (or a harmonic of that frequency), then the L1 coil will actually have a very high resistance to current flow through it. This is how a crystal set radio receiver tunes in a particular radio station, broadcasting on it's own frequency.

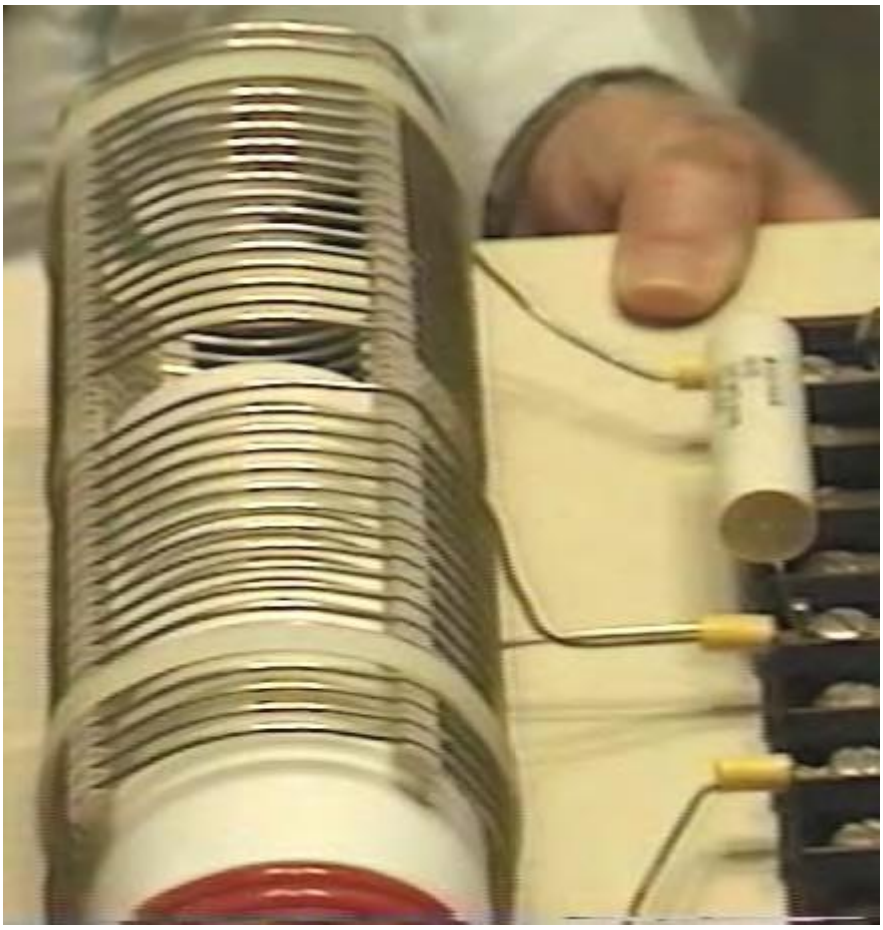
Anyway, coming back to Don's device shown in the photograph above, the electrical drive is from a 12- volt battery which is not seen in the photograph. Interestingly, Don remarks that if the length of the wires connecting the battery to the inverter are exactly one quarter of the wave length of the frequency of the oscillating magnetic field generated by the circuit, then the current induced in the battery wires will recharge the battery continuously, even if the battery is supplying power to the circuit at the same time. The battery supplies a small current through a protecting diode, to a standard off-the-shelf "true sinewave" inverter. An inverter is a device which produces mains-voltage Alternating Current from a DC battery. As Don wants adjustable voltage, he feeds the output from the inverter into a variable transformer called a "Variac" although this is often made as part of the neon-driver circuit to allow the brightness of the neon tube to be adjusted by the user. This arrangement produces an AC output voltage which is adjustable from zero volts up to the full mains voltage (or a little higher, though Don does not want to use a higher voltage). The use of this kind of adjustment usually makes it essential for the inverter to be a true sine-wave type. As the power requirement of the neon-tube driver circuit is so low, the inverter should not cost very much. The neon-tube driver circuit is a standard off-the-shelf device used to drive neon tube displays for commercial establishments. The one used by Don contains an oscillator and a step-up transformer, which together produce an Alternating Current of 9,000 volts at a frequency of 35,100 Hz (sometimes written as 35.1 kHz). The term "Hz" stands for "cycles per second". Don lowers the 9,000 volts as he gets great power output at lower input voltages and the cost of the output capacitors is a significant factor. The particular neon-tube driver circuit which Don is using here, has two separate outputs out of phase with each other, so Don connects them together and uses a blocking diode in each line to prevent either of them affecting the other one. Not easily seen in the photograph, the high-voltage output line has a very small, encapsulated, Gas-Discharge Tube spark gap in it and the line is also earthed. The device looks like this:

Please note that when an earth connection is mentioned in connection with Don Smith's devices, we are talking about an actual wire

connection to a metal object physically buried in the ground, whether it is a long copper rod driven into the ground, or an old car radiator buried in a hole like Tariel Kapanadze uses. When Thomas Henry Moray performed his requested demonstration deep in the countryside at a location chosen by the sceptics, the light bulbs which formed his demonstration electrical load, glowed more brightly with each hammer stroke as a length of gas pipe was hammered into the ground to form his earth connection. It should be remarked that since Don purchased his neon-tube driver module that newer designs have generally taken over completely, especially in Europe, and these designs have built in “earth-leakage current” protection which instantly disables the circuit if any current is detected leaking to ground. This feature makes the unit completely unsuitable for use in a Don Smith circuit because there, the transfer of current to the ground is wholly intentional and vital for the operation of the circuit. The output of the neon-tube driver circuit is used to drive the primary "L1" winding of a Tesla Coil style transformer. This looks ever so simple and straightforward, but there are some subtle details which need to be considered. The operating frequency of 35.1 kHz is set and maintained by the neon-tube driver circuitry, and so, in theory, we do not have to do any direct tuning ourselves. However, we want the resonant frequency of the L1 coil and the capacitor across it to match the neon-driver circuit frequency. The frequency of the "L1" coil winding will induce exactly the same frequency in the "L2" secondary winding. However, we need to pay special attention to the ratio of the wire lengths of the two coil windings as we want these two windings to resonate together. A rule of thumb followed by most Tesla Coil builders is to have the same weight of copper in the L1 and L2 coils, which means that the wire of the L1 coil is usually much thicker than the wire of the L2 coil. If the L1 coil is to be one quarter of the length of the L2 coil, then we would expect the cross-sectional area of the L1 coil to be four times that of the wire of the L2 coil and so the wire should have twice the diameter (as the area is proportional to the square of the radius, and the square of two is four).

Don uses a white plastic tube as the former for his "L1" primary coil winding. As you can see here, the wire is fed into the former, leaving sufficient clearance to allow the former to slide all the way into the outer coil. The wire is fed up inside the pipe and out through another hole to allow the coil turns to be made on the outside of the pipe. There appear to be five turns, but Don does not always go for a complete number of turns, so it might be 4.3 turns or some other value. The key point here is that the length of wire in the "L1" coil turns should be exactly one quarter of the length of wire in the "L2" coil turns. The "L2" coil used here is a commercial 3-inch diameter unit from Barker & Williamson, constructed from uninsulated, solid, single-strand "tinned" copper wire (how to make home-build versions is shown later on). Don has taken this coil and unwound four turns in the middle of the coil in order to make a centre-tap. He then measured the exact length of wire in the remaining section and made the length of the "L1" coil turns to be exactly one quarter of that length. The wire used for the "L1" coil looks like Don's favourite "Jumbo Speaker Wire" which is a very flexible wire with a very large number of extremely fine uninsulated copper wires inside it. You will notice that Don has placed a plastic collar on each side of the winding, matching the thickness of the wire, in order to create a secure sliding operation inside the outer "L2" coil, and the additional plastic collars positioned further along the pipe provide further support for the inner coil. This sliding action allows the primary coil "L1" to be positioned at any point along the length of the "L2" secondary coil, and that has a marked tuning effect on the operation of the system. The outer "L2" coil does not have any kind of tube support but instead, the coil shape is maintained by the stiffness of

the solid wire plus four slotted strips. This style of construction produces the highest possible coil performance at radio frequencies. With a Tesla Coil, it is most unusual to have the L1 coil of smaller diameter than the L2 coil.

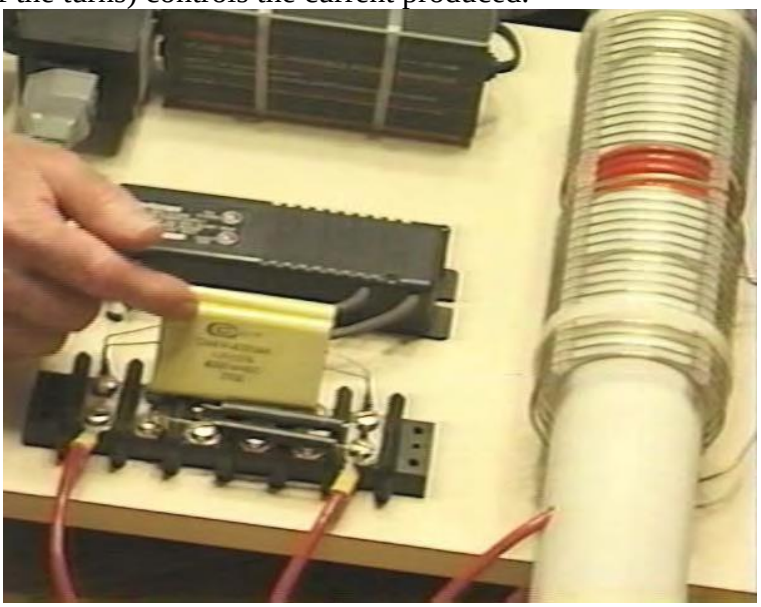


The "L2" coil has two separate sections, each of seventeen turns. One point to note is the turns are spaced apart using slotted strips to support the wires and maintain an accurate spacing between adjacent turns. It must be remembered that spacing coil turns apart like this alters the characteristics of the coil, increasing it's "capacitance" factor substantially. Every coil has resistance, inductance and capacitance, but the form of the coil construction has a major effect on the ratio of these three characteristics. The coil assembly is held in position on the base board by two off-white plastic cable ties. The nearer half of the coil is effectively connected across the further half as shown in the circuit diagram above. One point which Don stresses, is that the length of the wire in the "L1" coil and the length of wire in the "L2" coil, must be an exact even division or multiple of each other (in this case, the "L2" wire length in each half of the "L2" coil is exactly four times as long as the "L1" coil wire length). This is likely to cause the "L1" coil to have part of a turn, due to the different coil diameters. For example, if the length of the "L2" coil wire is 160 inches and "L1" is to be one quarter of that length, namely, 40 inches. Then, if the "L1" coil has an effective diameter of 2.25 inches, (allowing for the thickness of the wire when wound on a 2-inch diameter former), then the "L1" coil would have 5.65 (or 5 and 2/3) turns which causes the finishing turn of "L2" to be 240 degrees further around

the coil former than the start of the first turn - that is, five full turns plus two thirds of the sixth turn.

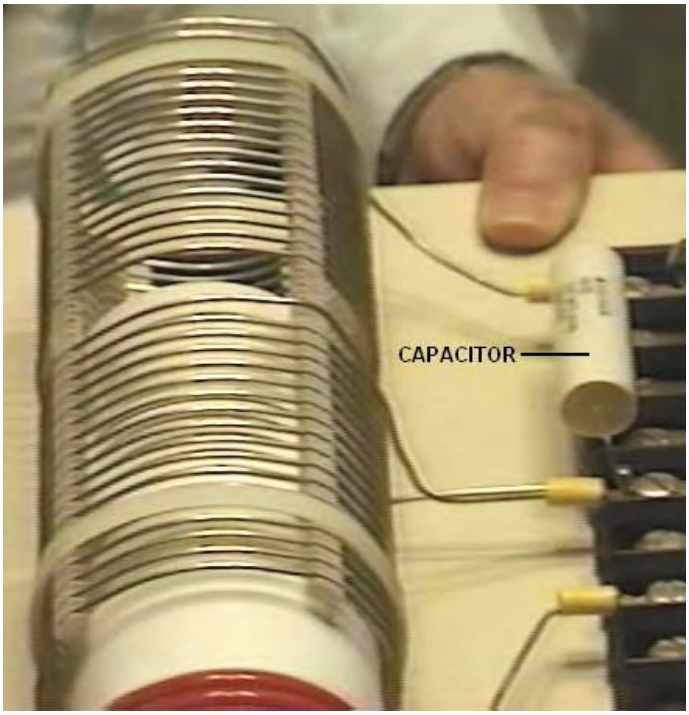
The L1 / L2 coil arrangement in a Tesla Coil.

The positioning of the "L1" coil along the length of the "L2" coil, adjusts the voltage to current ratio produced by the coil. When the "L1" coil is near the middle of the "L2" coil, then the amplified voltage and amplified current are roughly the same. The exact wire ratio of these two coils gives them an almost automatic tuning with each other, and the exact resonance between them can be achieved by the positioning of the "L1" coil along the length of the "L2" coil. While this is a perfectly good way of adjusting the circuit, in the build shown in the photograph, Don has opted to get the exact tuning by connecting a capacitor across "L1" as marked as "C" in the circuit diagram. Don found that the appropriate capacitor value was around the 0.1 microfarad (100 nF) mark. It must be remembered that the voltage across "L1" is very high, so if a capacitor is used in that position it will need a voltage rating of at least 9,000 volts. Don remarks that the actual capacitors seen in the photograph of this prototype are rated at fifteen thousand volts, and were custom made for him using a "self-healing" style of construction. As has already been remarked, this capacitor is an optional component. Don also opted to connect a small capacitor across the "L2" coil, also for fine-tuning of the circuit, and that component is optional and so is not shown on the circuit diagram. As the two halves of the "L2" coil are effectively connected across each other, it is only necessary to have one fine-tuning capacitor. However, Don stresses that the "height" length of the coil (when standing vertically) controls the voltage produced while the coil "width" (the diameter of the turns) controls the current produced.



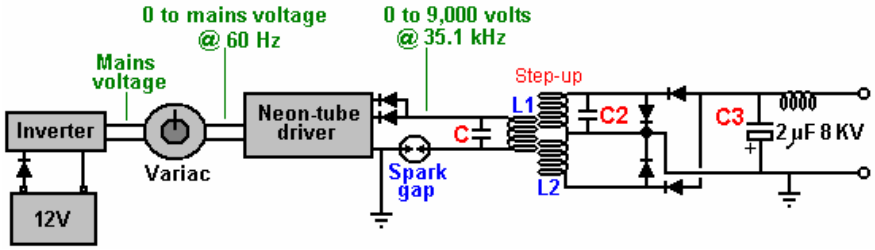
The exact wire length ratio of the turns in the "L1" and "L2" coils gives them an almost automatic synchronous tuning with each other, and the exact resonance between them can be achieved by the positioning of the "L1" coil along the length of the "L2" coil. While this is a perfectly good way of adjusting the circuit, in the 1994 build shown in the photograph, Don has opted to get the exact tuning by connecting a capacitor across "L1" as marked as "**C**" in the circuit diagram. Don found

that the appropriate capacitor value for his particular coil build, was about 0.1 microfarad (100 nF) and so he connected two 47 nF high-voltage capacitors in parallel to get the value which he wanted. It must be remembered that the voltage across "L1" is very high, so a capacitor used in that position needs a voltage rating of at least 9,000 volts. Don remarks that the actual capacitors seen in the photograph of this prototype are rated at fifteen thousand volts, and were custom made for him using a "self-healing" style of construction. Don has also connected a small capacitor across the "L2" coil, and that optional component is marked as "C2" in the circuit diagram and the value used by Don happened to be a single 47nF, high-voltage capacitor. As the two halves of the "L2" coil are effectively connected across each other, it is only necessary to have one capacitor for "L2":



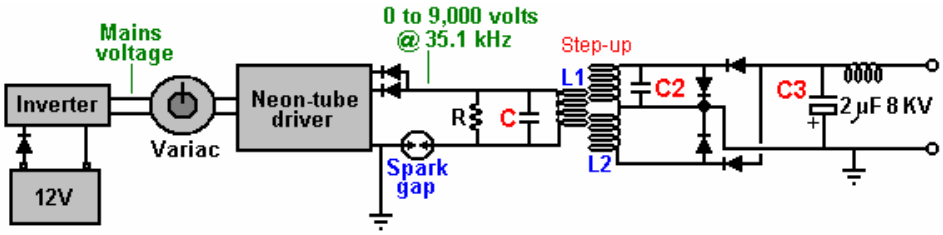

There are various ways of dealing with the output from the "L2" coil in order to get large amounts of conventional electrical power out of the device. The method shown here uses the four very large capacitors seen in the photograph. These have an 8,000 or 9,000 volt rating and a large capacity and they are used to store the circuit power as DC prior to use in the load equipment. This is achieved by feeding the capacitor bank through a diode which is rated for both high voltage and high current, as Don states that the device produces 8,000 volts at 20 amps, in which case, this rectifying diode has to be able to handle that level of power, both at start-up when the capacitor bank is fully discharged and "L2" is producing 8,000 volts, and when the full load of 20 amps is being drawn. This capacitor bank is fed through a diode which is rated for both high voltage and high current, as Don states that the device produces 8,000 volts at 20 amps, in which case, this rectifying diode has to be able to handle that level of power, both at start-up when the capacitor bank is fully discharged and "L2" is producing 8,000 volts, and when the full load of 20 amps is being drawn. The actual diodes used by Don happen to be rated at 25 KV but that is a far greater rating than is actually needed. In passing, it

might be remarked that the average home user will not have an electrical requirement of anything remotely like as large as this, seeing that 10 kW is more than most people use on a continuous basis, while 8 KV at 20 A is a power of 160 kilowatts. As the neon-tube driver circuit can put out 9,000 volts and since the L1 / L2 coil system is a step-up transformer, if the voltage fed to the capacitor bank is to be kept down to 8,000 volts, then the Variac adjustment must be used to reduce the voltage fed to the neon-tube driver circuit, in order to lower the voltage fed to the L1 / L2 coil pair, typically, to 3,000 volts. A very astute and knowledgeable member of the EVGRAY Yahoo EVGRAY forum whose ID is "silverhealtheu" has recently pointed out that Don Smith says quite freely that he does not disclose all of the details of his designs, and it is his opinion that a major item which has not been disclosed is that the diodes in the circuit diagrams shown here are the wrong way round and that Don operates his voltages in reverse to the conventional way. In fact, the circuit diagram should be:



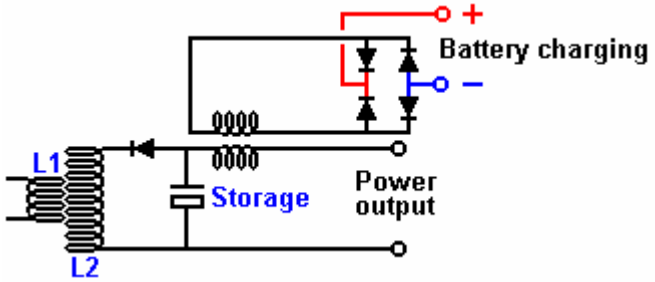

He comments: "the diodes leaving the Neon-tube Driver may need to be reversed as we want to collect the negative polarity. The spark gap will then operate on ambient inversion and the spark will look and sound totally different with a much faster crack and producing very little heat and even becoming covered in frost is possible. The Variac should be raised up just enough to get a spark going then backed off slightly. Any higher voltage is liable to make the Neon-tube Driver think that it has a short-circuit condition, and the new electronic designs will then shut down automatically and fail to operate at all if this method is not followed. When running, C, L1 and L2 operate somewhere up in the Radio Frequency band because the Neontube Driver only acts as a tank-circuit exciter. The large collection capacitor C3, should fill inverted to earth polarity as shown above. The load will then be pulling electrons from the earth as the cap is REFILLED back to ZERO rather than the joules in the capacitor being depleted. Also remember that the Back-EMF systems of John Bedini and others, create a small positive pulse but they collect a super large NEGATIVE polarity spike which shoots off the bottom of an oscilloscope display. This is what we want, plenty of this stored in capacitors, and then let the ambient background energy supply the current when it makes the correction."

This is **a very important point** and it may well make a really major difference to the performance of a device of this nature.

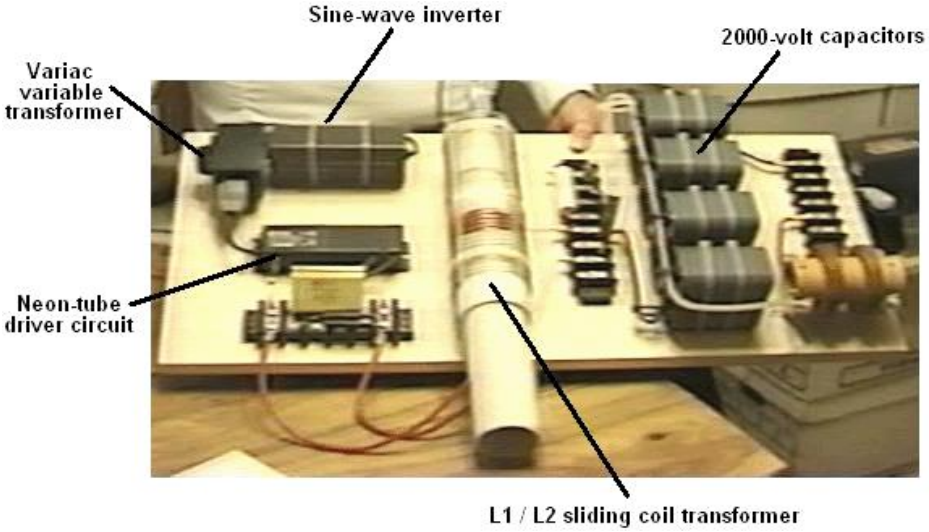



One reader has drawn attention to the fact that Don's main document indicates that there should be a resistor "R" across the L1 coil as well as the capacitor "C" and he suggests that the circuit should actually be as shown above, considering what Don said earlier about his "suitcase" design. Another reader points out that the wire in the output choke shown in the photograph below appears to be wound with wire that is far too small diameter to carry the currents mentioned by Don. It seems likely that a choke is not needed in that position except to suppress possible radio frequency transmissions from the circuit, but a more powerful choke can easily be wound using larger diameter wire. When the circuit is running, the storage capacitor bank behaves like an 8,000 volt battery which never runs down and which can supply 20 amps of current for as long as you want. The circuitry for producing a 220 volt 50 Hz AC output or a 110 volt 60 Hz AC output from the storage capacitors is just standard electronics. In passing, one option for charging the battery is to use the magnetic field caused by drawing mains-frequency current pulses through the output "choke" coil, shown here:

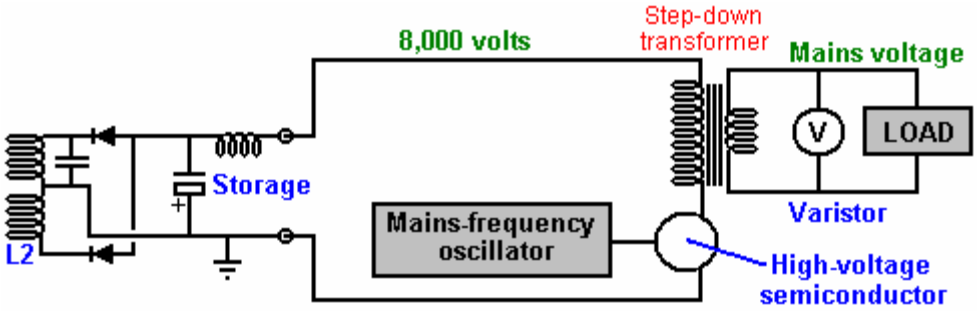
The output current flows through the left hand winding on the brown cylindrical former, and when the photograph was taken, the right-hand winding was no longer in use. Previously, it had been used to provide charging power to the battery by rectifying the electrical power in the coil, caused by the fluctuating magnetic field caused by the pulsing current flowing through the left hand winding, as shown here:



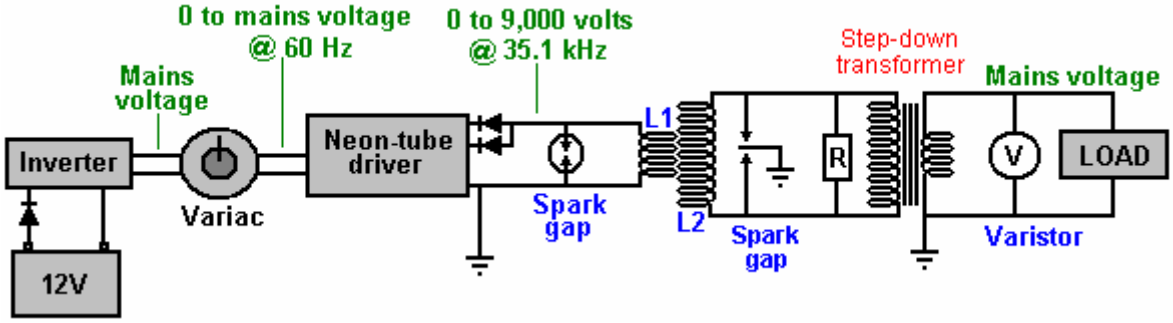
The DC output produced by the four diodes was then used to charge the driving battery, and the power level produced is substantially greater than the minor current drain from the battery. Consequently, it is a sensible precaution to pass this current to the battery via a circuit which prevents the battery voltage rising higher than it should. A simple voltage level sensor can be used to switch off the charging when the battery has reached its optimum level. Other batteries can also be charged if that is wanted. Simple circuitry of the type shown in chapter 12 can be used for controlling and limiting the charging process. The components on Don's board are laid out like this:




Don draws attention to the fact that the cables used to connect the output of "L2" to the output of the board, connecting the storage capacitors on the way, are very high-voltage rated cables with special multiple coverings to ensure that the cables will remain sound over an indefinite period. It should be remarked at this point, that the outer 3" diameter coil used by Don, is not wound on a former, but in order to get higher performance at high frequencies, the turns are supported with four separate strips physically attached to the turns - the technique described later in this document as being an excellent way for home construction of such coils. **Please bear in mind that the voltages here and their associated power levels are literally lethal and perfectly capable of killing anyone who handles the device carelessly when it is powered up. When a replication of this device is ready for routine use, it must be encased so that none of the high-voltage connections can be touched by anyone. This is not a suggestion, but it is a mandatory requirement, despite the fact that the components shown in the photographs are laid out in what would be a most dangerous fashion were the circuit to be powered up as it stands. Under no circumstances, construct and test this circuit unless you are already experienced in the use of high-voltage circuits or can be supervised by somebody who is experienced in this field. This is a "one hand in the pocket at all times" type of circuit and it needs to be treated with great care and respect at all times, so be sensible.** The remainder of the circuit is not mounted on the board, possibly because there are various ways in which the required end result can be achieved. The one suggested here is perhaps the most simple solution:

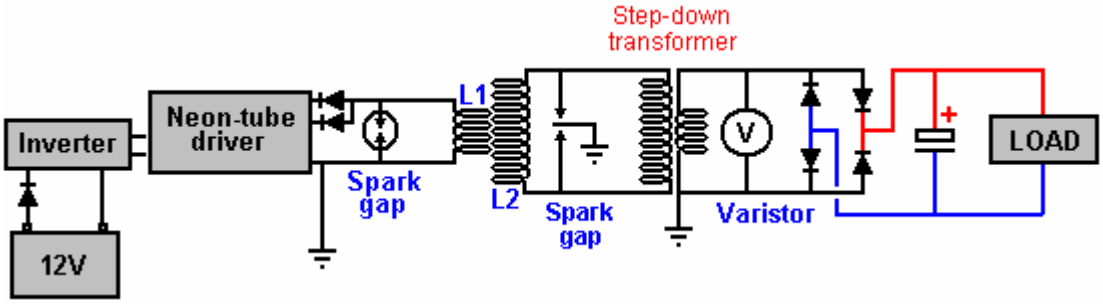



The voltage has to be dropped, so an iron-cored mains-frequency step-down transformer is used to do this. To get the frequency to the standard mains frequency for the country in which the device is to be used, an oscillator is used to generate that particular mains frequency. The oscillator output is used to drive a suitable high-voltage semiconductor device, be it an FET transistor, an IGBT device, or whatever. This device has to switch the working current at 8,000 volts, though admittedly, that will be a current which will be at least thirty six times lower than the final output current, due to the higher voltage on the primary winding of the transformer. The available power will be limited by the current handling capabilities of this output transformer which needs to be very large and expensive. As the circuit is capable of picking up additional magnetic pulses, such as those generated by other equipment, nearby lightning strikes, etc. an electronic component called a "varistor" marked "V" in the diagram, is connected across the load. This device acts as a voltage spike suppressor as it short circuits any voltage above its design voltage, protecting the load from power surges. Don also explains an even more simple version of the circuit as shown here:

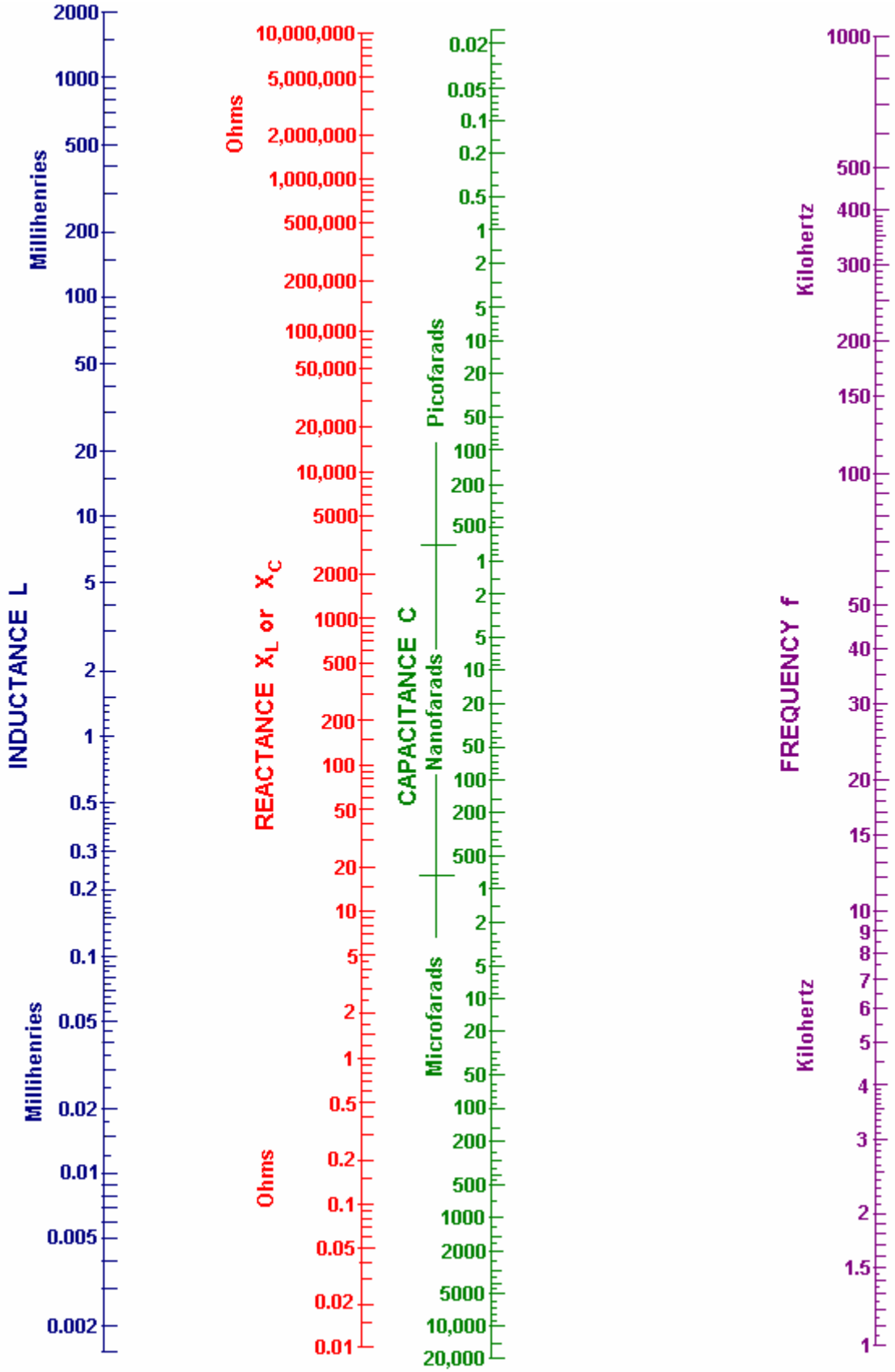



This simplified circuit avoids the need for expensive capacitors and the constraints of their voltage ratings, and the need for electronic control of the output frequency. The wire length in the turns of coil "L2" still needs to be exactly four times the wire length of the turns in coil "L1", but there is only one component which needs to be introduced, and that is the resistor "**R**" placed across the primary winding of the step-down isolation transformer. This transformer is a laminated iron-core type, suitable for the low mains frequency, but the output from "L2" is at much higher frequency. It is possible to pull the frequency down to suit the step-down transformer by connecting the correct value of resistor "R" across the output transformer (or a coil and resistor, or a coil and a capacitor). The value of resistor needed can be predicted from the American Radio Relay League graph (shown as Fig.44 in Don's pdf document. The sixth edition of the Howard Sams book "Handbook of Electronics Tables and Formulas" (ISBN-10: 0672224690 or ISBN-13**:** 978-0672224690) has a

table which goes down to 1 kHz and so does not need to be extended to reach the frequencies used here. The correct resistor value could also be found by experimentation. You will notice that an earthed dual spark gap has been placed across "L2" in order to make sure that the voltage levels always stay within the design range. Don also explains an even more simple version which does not need a Variac, high voltage capacitors or high voltage diodes. Here, a DC output is accepted which means that high-frequency step-down transformer operation can be used. This calls for an air-core transformer which you would wind yourself from heavy duty wire. Mains loads would then be powered by using a standard off-the-shelf inverter. In this version, it is of course, necessary to make the "L1" turns wire length exactly one quarter of the "L2" turns wire length in order to make the two coils resonate together. The operating frequency of each of these coils is imposed on them by the output frequency of the neon-tube driver circuit. That frequency is maintained throughout the entire circuit until it is rectified by the four diodes feeding the low-voltage storage capacitor. The target output voltage will be either just over 12 volts or just over 24 volts, depending on the voltage rating of the inverter which is to be driven by the system. The circuit diagram is:

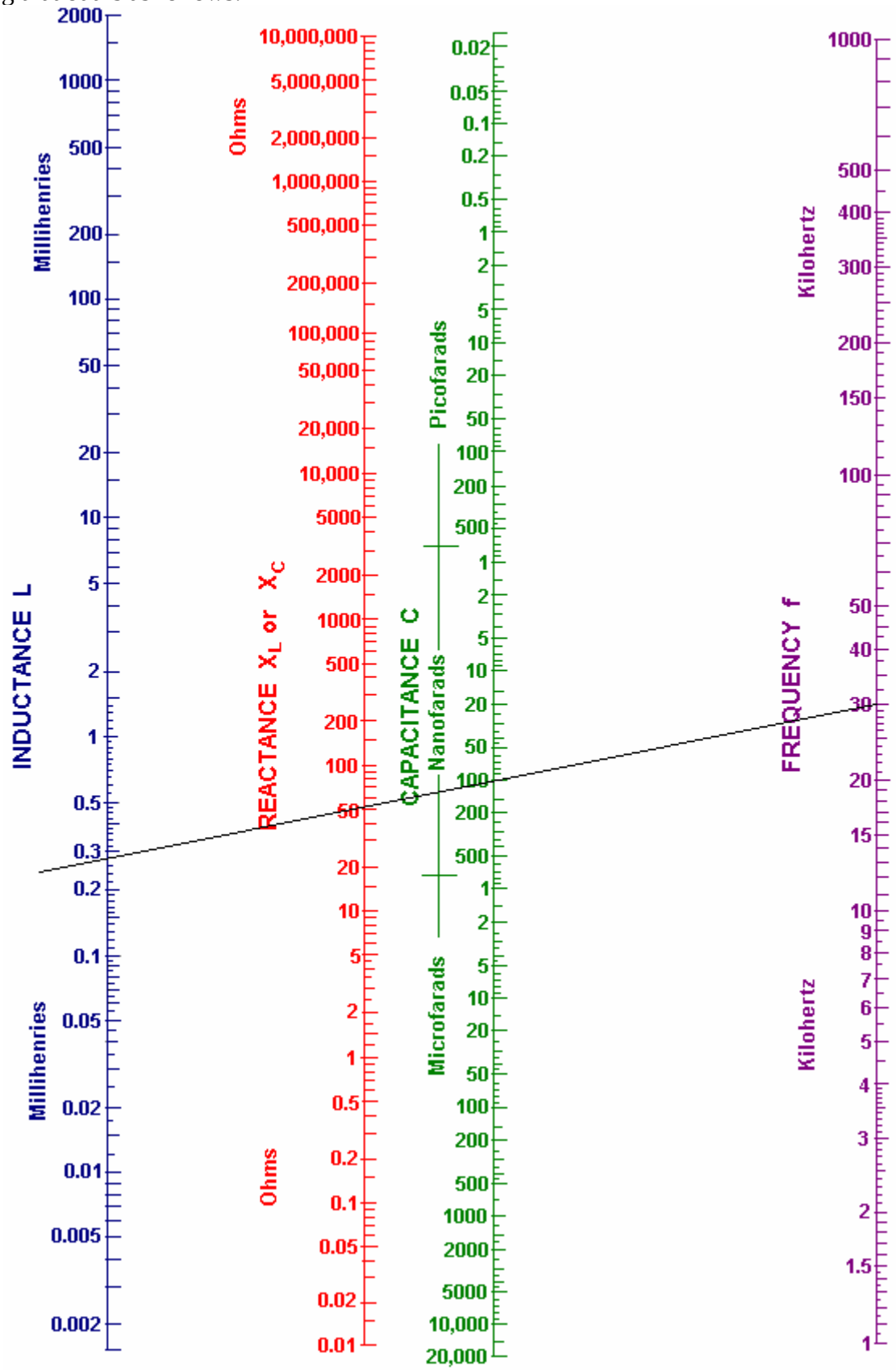



As many people will find the nomograph chart in Don's pdf document very difficult to understand and use, here is an easier version:

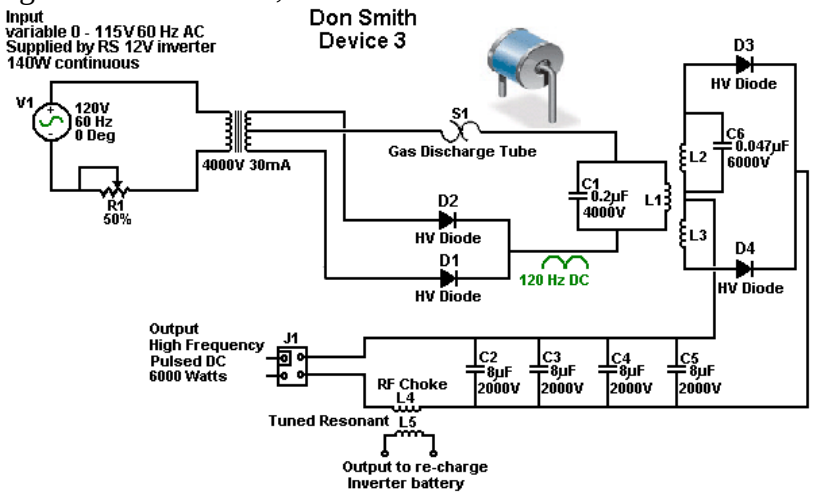



The objective here is to determine the "reactance" or 'AC resistance' in ohms and the way to do that is as follows: Suppose that your neon-tube driver is running at 30 kHz and you are using a capacitor of 100 nF (which is the same as 0.1 microfarad) and you want to know what is the

AC resistance of your capacitor is at that frequency. Also, what coil inductance would have that same AC resistance. Then the procedure for finding that out is as follows:

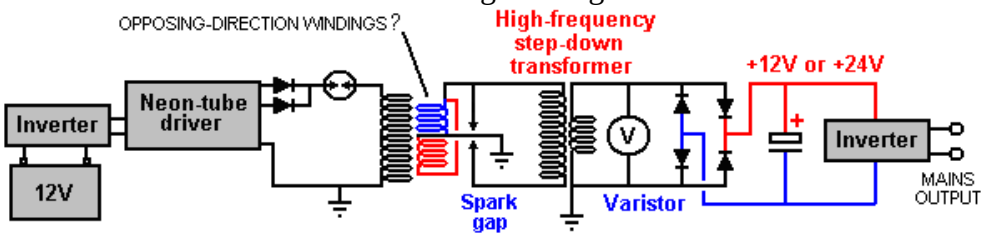


Draw a straight line from your 30 kHz frequency (purple line) through your 100 nanofarad capacitor value and carry the line on as far as the (blue) inductance line as shown above. You can now read the reactance ("AC resistance") off the red line, which looks like 51 ohms to me. This means that when the circuit is running at a frequency of 30 kHz, then the current flow through your 100 nF capacitor will be the same as through a 51 ohm resistor. Reading off the blue "Inductance" line that same current flow at that frequency would occur with a coil which has an inductance of 0.28 millihenries. I have been passed a copy of Don's circuit diagram for this device, and it is shown here:




The 4000V 30mA transformer shown in this circuit diagram, may use a ferrite-cored transformer from a neon-tube driver module which steps up the voltage but it does not raise the frequency as that is clearly marked at 120 Hz pulsed DC. You will notice that this circuit diagram is drawn with Plus shown below Minus (which is most unusual). Please note that when an earth connection is mentioned in connection with Don Smith's devices, we are talking about an actual wire connection to a metal object physically buried in the ground, whether it is a long copper rod driven into the ground, or an old car radiator buried in a hole like Tariel Kapanadze used, or a buried metal plate. When Thomas Henry Moray performed his requested demonstration deep in the countryside at a location chosen by the sceptics, the light bulbs which formed his demonstration electrical load, glowed more brightly with each hammer stroke as a length of gas pipe was hammered into the ground to form his earth connection. Don also explains an even more simple version of his main device. This version does not need a Variac (variable voltage transformer) or high voltage capacitors. Here, a DC output is accepted which means that high-frequency step-down transformer operation can be used. This calls on the output side, for an air-core (or ferrite rod core) transformer which you would wind yourself from heavy duty wire. Mains loads would then be powered by using a standard off-the-shelf inverter. In this version, it is of course, very helpful to make the "L1" turns wire length exactly one quarter of the "L2" turns wire length in order to make the two coils automatically resonate together. The operating frequency of each of these coils is imposed on them by the output frequency of the neon-tube driver circuit. That frequency is maintained throughout the entire circuit until it is rectified by the four diodes feeding the low-voltage

storage capacitor. The target output voltage will be either just over 12 volts or just over 24 volts, depending on the voltage rating of the inverter which is to be driven by the system. As the circuit is capable of picking up additional magnetic pulses, such as those generated by other equipment, nearby lightning strikes, etc. an electronic component called a "varistor" marked "V" in the diagram, is connected across the load. This device acts as a voltage spike suppressor as it shortcircuits any voltage above its design voltage, protecting the load from power surges. A Gas-Discharge Tube is an effective alternative to a varistor. This circuit is effectively two Tesla Coils back-to-back and the circuit diagram might be:




It is by no means certain that in this circuit, the red and blue windings are wound in opposing directions. The spark gap (or gas-discharge tube) in series with the primary of the first transformer alters the operation in a somewhat unpredictable way as it causes the primary to oscillate at a frequency determined by it's inductance and it's self-capacitance, and that may result in megahertz frequencies. The secondary winding(s) of that transformer **must** resonate with the primary and in this circuit which has no frequency-compensating capacitors, that resonance is being produced by the exact wire length in the turns of the secondary. This looks like a simple circuit, but it is anything but that. The excess energy is produced by the raised frequency, the raised voltage, and the very sharp pulsing produced by the spark. That part is straightforward. The remainder of the circuit is likely to be very difficult to get resonating as it needs to be in order to deliver that excess energy to the output inverter. When considering the "length" of wire in a resonant coil, it is necessary to pay attention to the standing wave created under those conditions. The wave is caused by reflection of the signal when it reaches the end of the wire OR when there is a sudden change in the diameter of the wire as that changes the signal reflection ability at that point in the connection. You should pay attention to Richard Quick's very clear description of this in the section of his patent which is included later on in this chapter. Also, remember what Don Smith said about locating the peaks of the standing wave by using a hand-held neon lamp. One very significant thing which Don pointed out is that the mains electricity available through the wall socket in my home, does **not** come along the wires from the generating station. Instead, the power station influences a local 'sub-station' and the electrons which flow through my equipment actually come from my local environment because of the influence of my local sub-station. Therefore, if I can create a similar influence in my home, then I no longer need that sub-station and can have as much electrical energy as I want, without having to pay somebody else to provide that influence for me.

**A Practical Implementation of one of Don Smith's Designs**

The objective here, is to determine how to construct a self-powered, free-energy electrical generator which has no moving parts, is not too expensive to build, uses readily available parts and which has an output of some kilowatts. However, under no circumstances should this document be considered to be an encouragement for you, or anyone else to actually build one of these devices. This document is presented solely for information and educational purposes, and as high voltages are involved, it should be considered to be a dangerous device unsuited to being built by inexperienced amateurs. The following section is just my opinions and so should not be taken as tried and tested, working technology, but instead, just the opinion of an inexperienced writer. However, questions from several different readers indicate that a short, reasonably specific description of the steps needed to attempt a replication of a Don Smith device would be helpful. Again, this document must not be considered to be a recommendation that you actually build one of these high-voltage, potentially dangerous devices. This is just information intended to help you understand what I believe is involved in this process. In broad outline, the following steps are used in the most simple version of the arrangement:

1. The very low frequency and voltage of the local mains supply is discarded in favour of an electrical supply which operates at more than 20,000 Hz (cycles per second) and has a voltage of anything from 350 volts to 10,000 volts. The higher voltages can give greater overall output power, but they involve greater effort in getting the voltage back down again to the level of the local mains voltage in order for standard mains equipment to be used.

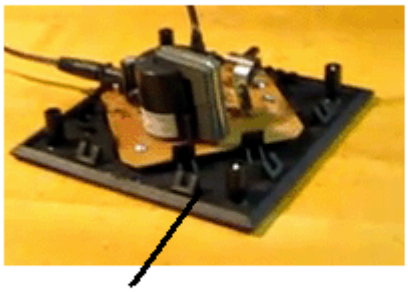
2. This high-frequency high voltage is used to create a series of very rapid sparks using a spark gap which is connected to a ground connection. Properly done, the spark frequency is so high that there is no audible sound caused by the sparks. Each spark causes a flow of energy from the local environment into the circuit. This energy is not standard electricity which makes things hot when current flows through them, but instead this energy flow causes things to become cold when the power flows through them, and so it is often called “cold” electricity. It is tricky to use this energy unless all you want to do is light up a series of light bulbs (which incidentally, give out a different quality of light when powered with this energy). Surprisingly, the circuit now contains substantially more power than the amount of power needed to produce the sparks. This is because additional energy flows in from the ground as well as from the local environment. If you have conventional training and have been fed the myth of “closed systems”, then this will seem impossible to you. So, let me ask you the question: if, as can be shown, all of the electricity flowing into the primary winding of a transformer, flows back out of that winding, then where does the massive, continuous flow of electricity coming from the secondary winding come from? None of it comes from the primary circuit and yet millions of electrons flow out of the secondary in a continuous stream which can be supplied indefinitely. So, where do these electrons come from? The answer is ‘from the surrounding local environment which is seething with excess energy’ but your textbooks won’t like that fact as they believe that the transformer circuit is a ‘closed

system' – something which probably can't be found anywhere in this universe.

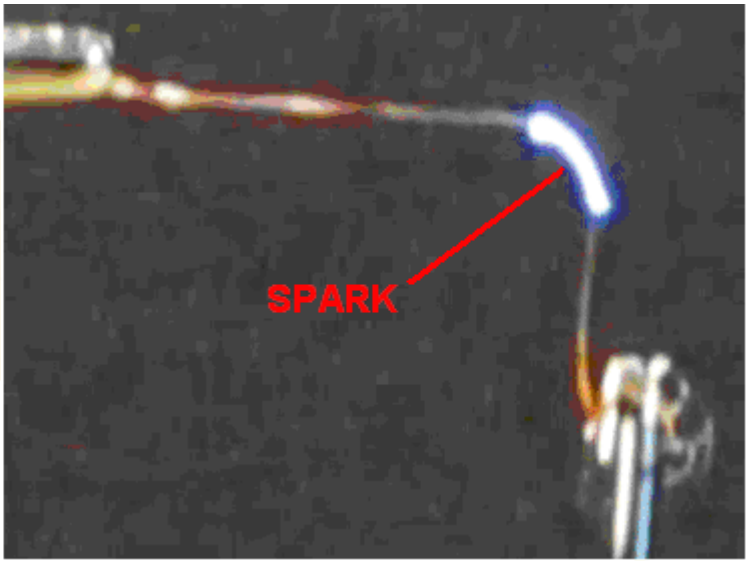
3. This high-voltage, high-frequency, high-power energy needs to be converted to the same sort of hot electricity which comes out of a mains wall socket at the local voltage and frequency. This is where skill and understanding come into play. The first step is to lower the voltage and increase the available current with a step-down resonant transformer. This sounds highly technical and complicated, and looking at Don Smith's expensive Barker & Williamson coil, makes the whole operation appear to be one for rich experimenters only. This is not the case and a working solution can be cheap and easy. It is generally not convenient to get the very high voltage all the way down to convenient levels in a single step, and so, one or more of those resonant transformers can be used to reach the target voltage level. Each step down transformer boosts the available current higher and higher.

4. When a satisfactory voltage has been reached, we need to deal with the very high frequency. The easiest way to deal with it is to use high-speed diodes to convert it to pulsing DC and feed that into a capacitor to create what is essentially, an everlasting battery. Feeding this energy into a capacitor converts it into conventional "hot" electricity and a standard off-the-shelf inverter can be used to give the exact voltage and frequency of the local mains supply. In most of the world, that is 220 volts at 50 cycles per second. In America it is 110 volts at 60 cycles per second. Low-cost inverters generally run on either 12 volts or 24 volts with the more common 12 volt units being cheaper. So, let's take a look at each of these step in more detail and see if we can understand what is involved and what our options are:

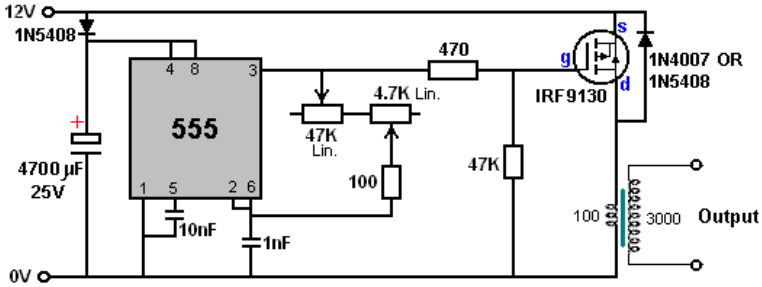
**1.** We want to produce a high-voltage, high-frequency, low-current power source. Don Smith shows a Neon-Sign Transformer module. His module produced a voltage which was higher than was convenient and so he used a variable AC transformer or "Variac" as it is commonly known, to lower the input voltage and so, lower the output voltage. There is actually no need for a Variac as we can handle the higher voltage or alternatively, use a more suitable Neon-Sign Transformer module. However, we have a problem with using that technique. In the years since Don bought his module, they have been redesigned to include circuitry which disables the module if any current flows out of it directly to earth, and as that is exactly what we would want to use it for, so most, if not all of the currently available neon-sign transformer modules are not suitable for our needs. However, I'm told that if the module has an earth wire and that earth wire is left unconnected, that it disables the earth-leakage circuitry, allowing the unit to be used in a Don Smith circuit. Personally, I would not recommend that if the module is enclosed in a metal housing. A much cheaper alternative is shown here: http://www.youtube.com/watch?v=RDDRe_4D93Q where a small plasma globe circuit is used to generate a high-frequency spark. It seems highly likely that one of those modules would suit our needs:

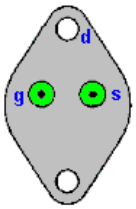


MODULE WITHOUT
THE PLASMA GLOBE




An alternative method is to build your own power supply from scratch. Doing that is not particularly difficult and if you do not understand any electronics, then perhaps, reading the beginner's electronics tutorial in chapter 12 (http://www.free-energy-info.com/Chapter12.pdf) will fill you in on all of the basics needed for understanding (and probably designing your own) circuits of this type. Here is a variable frequency design for home-construction:

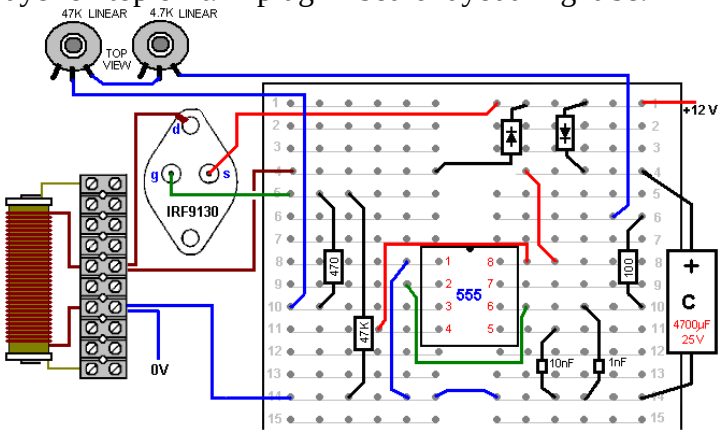


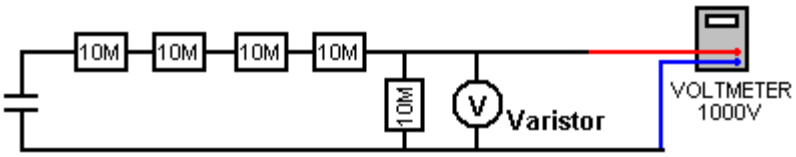

One advantage of this circuit is that the output transformer is driven at the frequency set by the 555 timer and that frequency is not affected by the number of turns in the primary winding, nor it's inductance, wire diameter, or anything else to do with the coil. While this circuit shows the rather expensive IRF9130 transistor, I expect that other P-channel FETs would work satisfactorily in this circuit. The IRF9130 transistor looks like this:

The circuit has a power supply diode and capacitor, ready to receive energy from the output at some later date if that is possible and desired. The 555 circuit is standard, giving a 50% Mark/Space ratio. The 10 nF capacitor is there to maintain the stability of the 555 and the timing section consists of two variable resistors, one fixed resistor and the 1 nF capacitor. This resistor arrangement gives a variable resistance of anything from 100 ohms to 51.8K and that allows a substantial frequency range. The 47K (Linear) variable resistor controls the main tuning and the 4.7K (Linear) variable resistor gives a more easily adjustable frequency

for exact tuning. The 100 ohm resistor is there in case both of the variable resistors are set to zero resistance. The output is fed through a 470 ohm resistor to the gate of a very powerful P-channel FET transistor which drives the primary winding of the output transformer. The output transformer can be wound on an insulating spool covering a ferrite rod, giving both good coupling between the windings, and high-frequency operation as well. The turns ratio is set to just 30:1 due to the high number of primary winding turns. With a 12-volt supply, this will give a 360-volt output waveform, and by reducing the primary turns progressively, allows the output voltage to be increased in controlled steps. With 10 turns in the primary, the output voltage should be 3,600 volts and with just 5 turns 7,200 volts. The higher the voltage used, the greater the amount of work needed later on to get the voltage back down to the output level which we want. Looking at the wire specification table, indicates that quite a small wire diameter could be used for the oscillator output transformer's secondary winding. While this is perfectly true, it is not the whole story. Neon Tube Drivers are very small and the wire in their output windings is very small diameter indeed. Those driver modules are very prone to failure. If the insulation on any one turn of the winding fails and one turn becomes a short-circuit, then that stops the winding from oscillating, and a replacement is needed. As there are no particular size constraints for this project, it might be a good idea to use enamelled copper wire of 0.45 mm or larger in an attempt to avoid this insulation failure hazard. No part of the transformer coil spool should be metal and it would not be any harm to cover each layer of secondary winding with a layer of electrical tape to provide additional insulation between the coil turns in one layer and the turns in the layer on top of it. A plug-in board layout might be:




Please remember that you can't just stick your average voltmeter across a 4 kV capacitor (unless you really do want to buy another meter) as they only measure up to about a thousand volts DC. So, if you are using high voltage, then you need to use a resistor-divider pair and measure the voltage on the lower resistor. But what resistor values should you use? If you put a 10 Megohm resistor across your 4 kV charged capacitor, the current flowing through the resistor would be 0.4 milliamps. Sounds tiny, doesn't it? But that 0.4 mA is 1.6 watts which is a good deal more than the wattage which your resistor can handle. Even using this arrangement:




the current will be 0.08 mA and the wattage per resistor will be 64 mW. The meter reading will be about 20% of the capacitor voltage which will give a voltmeter reading of 800 volts. The input resistance of the meter needs to be checked and possibly, allowed for as the resistance in this circuit is so high (see chapter 12). When making a measurement of this type, the capacitor is discharged, the resistor chain and meter attached, and then, and only then, is the circuit powered up, the reading taken, the input power disconnected, the capacitor discharged, and the resistors disconnected. High-voltage circuits are highly dangerous, especially so, where a capacitor is involved. The recommendation to wear thick rubber gloves for this kind of work, is not intended to be humorous. Circuits of this type are liable to generate unexpected high-voltage spikes, and so, it might be a good idea to connect a varistor across the meter to protect it from those spikes. The varistor need to be set to the voltage which you intend to measure and as varistors may not be available above a 300V threshold, two or more may need to be connected in series where just one is shown in the diagram above. The varistor should not have a higher voltage rating than your meter.

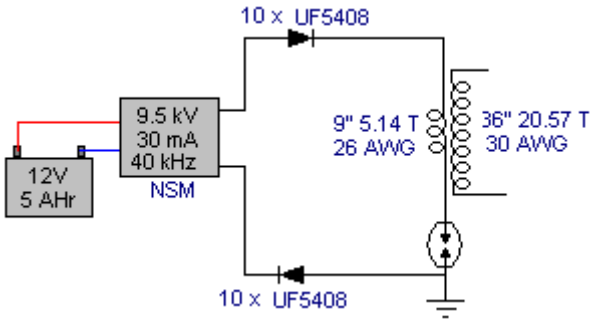
**2.** We now need to use this high voltage to create a strategically positioned spark to a ground connection. When making an earth connection, it is sometimes suggested that connecting to water pipes or radiators is a good idea as they have long lengths of metal piping running under the ground and making excellent contact with it. However, it has become very common for metal piping to be replaced with cheaper plastic piping and so any proposed pipe connection needs a check to ensure that that there is metal piping which runs all the way into the ground.

Neon

Gas-Discharge Tube

The spark gaps shown can be commercial high-voltage gas discharge tubes, adjustable home-made spark gaps with stainless steel tips about 1 mm apart, car spark plugs, or standard neon bulbs, although these run rather hot in this application. A 15 mm x 6 mm size neon bulb operates with only 90 or 100 volts across it, it would take a considerable number of them connected in series to create a high voltage spark gap, but it is probably a misconception that the spark gap itself needs a high voltage. Later on in this chapter, there is an example of a very successful system where just one neon bulb is used for the spark gap and an oscillating magnetic field more than a meter wide is created when driven by just an old 2,500 volt neon-sign transformer module. If using a neon bulb for the spark gap, then an experienced developer recommends that a

22K resistor is used in series with the neon in order to extend it's working life very considerably. This circuit is one way to connect the spark gap and ground connection:

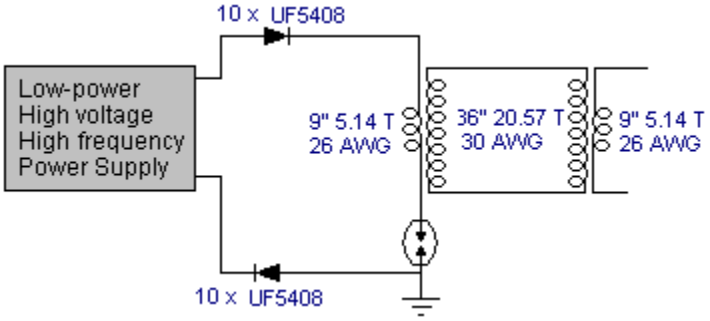



This is an adaption of a circuit arrangement used by the forum member "SLOW-'N-EASY" on the Don Smith topic in the energeticforum. Here, he is using a 'LowGlow' neon transformer intended for use on a bicycle. The diodes are there to protect the high-voltage power supply from any unexpected voltage spikes created later on in the circuit. The spark gap is connected between the primary winding of a step-up transformer and the earth connection. No capacitor is used. Seeing this circuit, we immediately think of Don Smith's large and expensive coils, but this experimenter does not use anything like that. Instead, he winds his transformer on a simple plastic former like this:

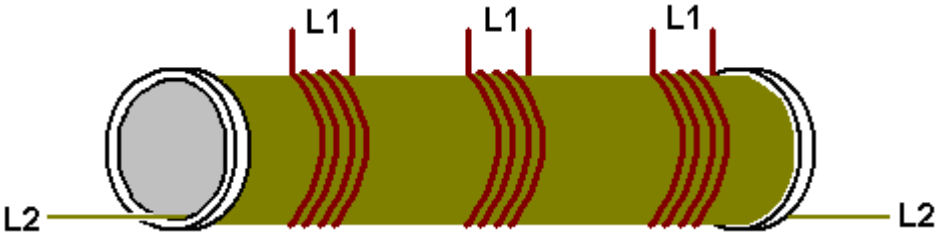
Ho Sung International. EI-2820 nylon bobbin. Core is 10 mm x 13 mm x 10 mm high. Top is 18.5 mm x 21.5 mm. Base is 22 mm x 26 mm. Four leads, 15 mm and 20 mm spacing

And to make matters 'worse' the primary winding wire is just 9 inches (228.6 mm) long and the secondary just 36 inches (914.4 mm) long, the primary being wound directly on top of the secondary. Not exactly a large or expensive construction and yet one which appears to perform adequately in actual tests. This is a very compact form of construction, but there is no necessity to use exactly the same former for coils, nor is there anything magic about the nine-inch length of the L1 coil, as it could easily be any convenient length, say two feet or 0.5 metres, or whatever. The important thing is to make the L2 wire length exactly four times that length, cutting the lengths accurately. It is common practice to match the weight of copper in each coil and so the shorter wire is usually twice the diameter of the longer wire. The circuit above, produces a cold electricity output of high voltage and high frequency. The voltage will not be the same as the neon transformer voltage, nor is the frequency the same either. The two coils resonate at their own natural frequency, unaltered by any capacitors.

**3.** The next step is to get the high voltage down to a more convenient level, perhaps, like this:

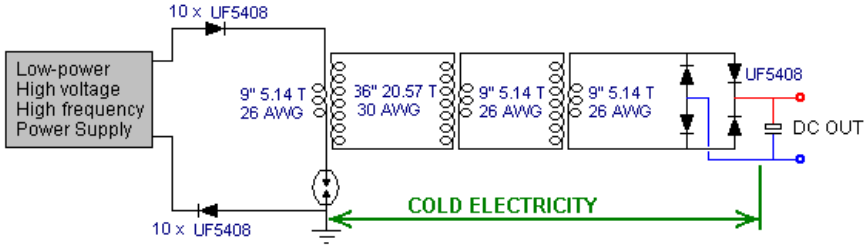



Here, an identical transformer, wound in exactly the same way, is used in reverse, to start the voltage lowering sequence. The wire length ratio is maintained to keep the transformer windings resonant with each other. Supposing we were to wind the L2 coil of this second transformer in a single straight winding and instead of winding just one L1 winding on top of it, two or more L1 identical windings were placed on top of it – what would happen?:



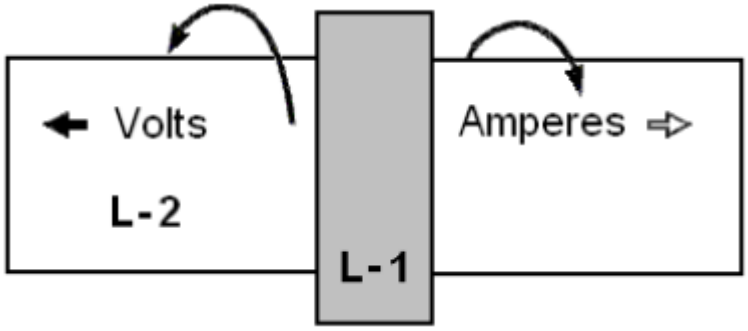

Now for a comment which will seem heretical to people steeped in the present day (inadequate) level of technology. The power flowing in these transformers is cold electricity which operates in an entirely different way to hot electricity. The coupling between these coils would be inductive if they were carrying hot electricity and in that case, any additional power take-off from additional L1 coils would have to be 'paid' for by additional current draw through the L2 coil. However, with the cold electricity which these coils are actually carrying, the coupling between the coils is magnetic and not inductive and that results in no increase in L2 current, no matter how many L1 coil take-offs there are. Any additional L1 coils will be powered for free. However, the position of the coils relative to each other has an effect on the tuning, so the L1 coil should be in the middle of the L2 coil, which means that any additional L1 coils are going to be slightly off the optimum tuning point.

**4.** Anyway, following through on just one L1 coil, there is likely to be at least one further step-down transformer needed and eventually, we need conversion to hot electricity:

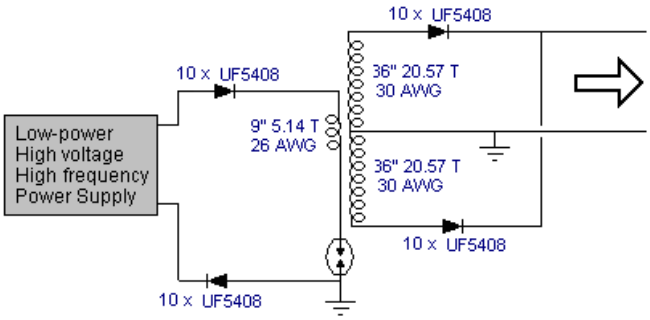



Probably the easiest conversion is by feeding the energy into a capacitor and making it standard DC. The frequency is still very high, so high-speed diodes (such as the 75-nanosecond UF54008) are needed here although the voltage level is now low enough to be no problem. The DC

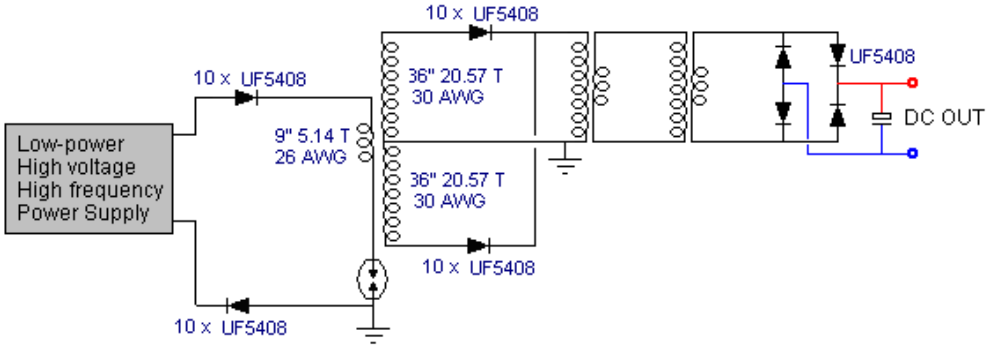
output can be used to power an inverter so that standard mains equipment can be used. It is not necessary to use just one (expensive) large-capacity inverter to power all possible loads as it is cheaper to have several smaller inverters, each powering it's own set of equipment. Most equipment will run satisfactorily on square-wave inverters and that includes a mains unit for powering the input oscillator circuit. PVC pipe is not a great material when using high-frequency high-voltage signals, and grey PVC pipe is a particularly poor coil former material. The much more expensive acrylic pipe is excellent, but if using PVC, then performance will be better if the PVC pipe is coated with an insulating lacquer (or table tennis balls dissolved in acetone as show on YouTube). However, there are some other factors which have not been mentioned. For example, if the L1 coil is wound directly on top of the L2 coil, it will have roughly the same diameter and so, the wire being four times longer, will have roughly four times as many turns, giving a step-up or step-down ratio of around 4:1. If, on the other hand, the coil diameters were different, the ratio would be different as the wire lengths are fixed relative to each other. If the L2 coil were half the diameter of the L1 coil, then the turns ratio would be about 8:1 and at one third diameter, 12:1 and at a quarter diameter 16:1 which means that a much greater effect could be had from the same wire length by reducing the L2 coil diameter. However, the magnetic effect produced by a coil is linked to the cross-sectional area of the coil and so a small diameter is not necessarily at great advantage. Also, the length of the L1 coil wire and number of turns in it, affect the DC resistance, and more importantly, the AC impedance which affects the amount of power needed to pulse the coil. It is also thought that having the same weight of copper in each winding gives an improved performance, but what is not often mentioned is the opinion that the greater the weight of copper, the greater the effect. You will recall that Joseph Newman (chapter 11) uses large amounts of copper wire to produce remarkable effects. So, while 9 inches and 36 inches of wire will work for L1 and L2, there may well be improved performance from longer lengths of wire and/or thicker wires. We should also not forget that Don Smith pointed out that voltage and current act (out of phase and) in opposite directions along the L2 coil, moving away from the L1 coil:



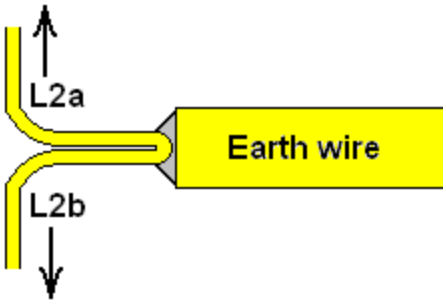

It has been suggested that a greater and more effective power output can be obtained by splitting the L2 coil underneath the L1 coil position, winding the second part of L2 in the opposite direction and grounding the junction of the two L2 windings. Don doesn't consider it necessary to reverse the direction of winding. The result is an L2 winding which is twice as long as before and arranged like this:




Here, the additional high-voltage diodes allow the two out of phase windings to be connected across each other. You will notice that this arrangement calls for two separate earth connections, both of which need to be high-quality connections, something like a pipe or rod driven deeply into moist soil or alternatively, a metal plate or similar metal object of substantial surface area, buried deep in moist earth, and a thick copper wire or copper braid used to make the connection. These earthing points need to be fairly far apart, say, ten metres. A single earth connection can't be used as that would effectively short-circuit across the L1/L2 transformer which you really do not want to do. With this arrangement, the outline circuit becomes:



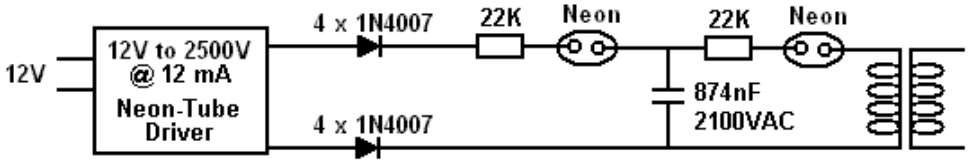

The thick earth wiring is helpful because in order to avoid the earth wire being included in the resonant wire length, you need a sudden change in wire cross-section:




These are just some ideas which might be considered by some experienced developer who may be thinking of investigating Don Smith style circuitry. To give you some idea of the capacity of some commercially available wires when carrying hot electricity, this table may help:

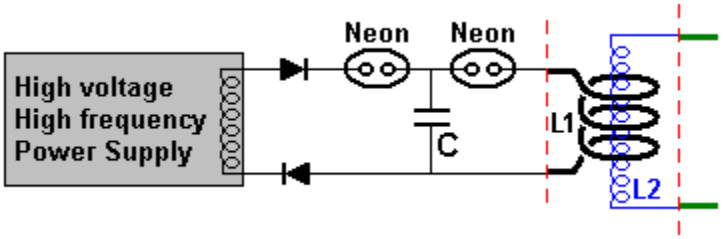
| AWG | SWG | Diameter | Maximum Amps | 220V kW | 110V kW |
|---|---|---|---|---|---|
| 1 | 2 | 7.01 mm | 119 | 26.18 | 13.09 |
| 3 | 4 | 5.89 mm | 75 | 16.50 | 8.25 |
| 4 | 6 | 4.88 mm | 60 | 13.20 | 6.60 |
| 6 | 8 | 4.06 mm | 37 | 8.14 | 4.07 |
| 8 | 10 | 3.25 mm | 24 | 5.28 | 2.64 |
| 10 | 12 | 2.64 mm | 15 | 3.30 | 1.65 |
| 12 | 14 | 2.03 mm | 9.3 | 2.05 | 1.02 |
| 13 | 15 | 1.83 mm | 7.4 | 1.63 | 801 watts |
| 14 | 16 | 1.63 mm | 5.9 | 1.30 | 650 watts |
| 15 | 17 | 1.42 mm | 4.7 | 1.03 | 515 watts |
| 16 | 18 | 1.22 mm | 3.7 | 814 watts | 407 watts |

It is recommended that the wire have a current carrying capacity of 20% more than the expected actual load, so that it does not get very hot when in use. The wire diameters do not include the insulation, although for solid enamelled copper wire, that can be ignored. There is a most impressive video and circuit shown at http://youtu.be/Q3vr6qmOwLw where a very simple arrangement produces an immediately successful performance for the front end of Don's circuitry. The circuit appears to be:



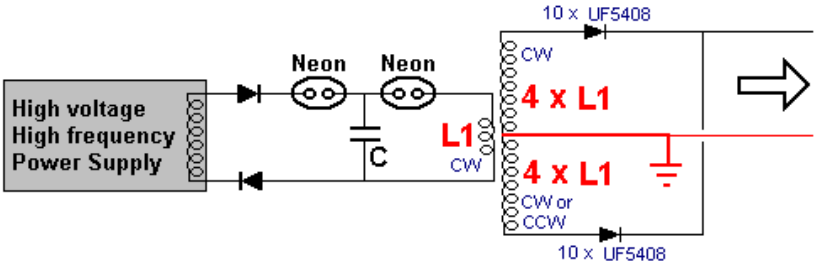

Here, a simple Neon Sign Transformer module which has no earth connection, is used to produce a 2.5 kV voltage with a frequency of 25 kHz and a maximum output current capacity of 12 mA. There is no difficulty in constructing the equivalent to that power supply unit. The two outputs from the module are converted to DC by a chain of four 1N4007 diodes in series in each of the two outputs (each chain being inside a plastic tube for insulation). This output is fed through an optional 22K resistor via a neon lamp to a microwave oven capacitor which happens to be 874 nF with a voltage rating of 2,100 volts. You might feel that the voltage rating of the capacitor is too low for the output voltage of the neon sign module, but the neon has a striking voltage of just 90 volts and so the capacitor is not going to reach the output voltage of the power supply. The resistors are solely to extend the life of the neons as the gas inside the tube gets a considerable jolt in the first nanosecond after switch-on. It is unlikely that omitting those resistors would have any significant effect, but then, including them is a trivial matter. The second neon feeds the primary of the resonant transformer which is only shown in notional outline in the diagram above as the developer suggests that the primary acts as a transmitter and that any number of receiving coils can be used as individual secondaries by being tuned to the exact frequency of that resonating primary.

In the video showing this arrangement, the developer demonstrates the fluctuating, high-frequency field which extends for some four feet (1.2 m) around the coil. He also remarks that the single neons in his arrangement could each be replaced with two neons in series. In test which I ran, I found that I needed two neons in series ahead of the capacitor in order to get continuous lighting of the output neon. Also, one of the diodes needed to be reversed so that one faced towards the input and one away from it. It did not matter which diode was reversed as both configurations worked. Again, please note that this presentation is for information purposes only and it is **NOT** a recommendation that you should actually build one of these devices. Let me stress again that this is a high-voltage device made even more dangerous by the inclusion of a capacitor, and it is quite capable of killing you, so, don't build one. The developer suggests that it is an implementation of the "transmitter" section of Don's Transmitter/multiple-receivers design shown below. However, before looking at that design, there is one question which causes a good deal of discussion on the forums, namely, if the centre-tap of the L2 secondary coil is connected to ground, then should that earth-connection wire length be considered to be part of the quarter length of the L1 coil? To examine this possibility in depth, the following quote from Richard Quick's very clear explanation of resonance in his US patent 7,973,296 of 5th July 2011 is very helpful. However, the simple answer is that for there to be exact resonance between two lengths of wire (whether or not part, or all of those lengths of wire happen to be wound into a coil), then one length needs to be **exactly** four times as long as the other, and ideally, half the diameter as well. At both ends of both lengths of wire, there needs to be a sudden change in wire diameter and Richard explains why this is. But, leaving that detailed explanation for now, we can use that knowledge to explain the above simplified system in more detail. Here is the circuit again:

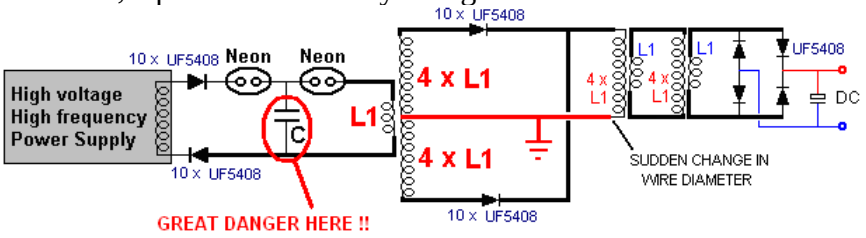



One very important point to note is that no earth connection is required and in spite of that, the performance shown on video is very

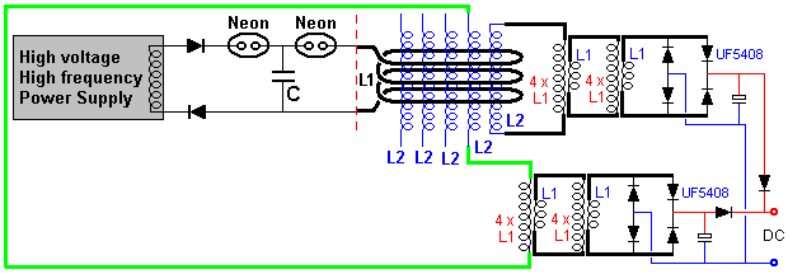
impressive. While an earth connection can feed substantial power into the circuit, not needing one for the front end is an enormous advantage and potentially, opens the way for a truly portable device. Another very important point is the utter simplicity of the arrangement where only cheap, readily available components are used (and not many of those are needed). The resistors for extending the life of the neon bulbs are not shown, but they can be included if desired and the circuit operation is not altered significantly by having them there. If a higher spark voltage is wanted, then two or more neon bulbs can be used in series where these circuit diagrams show just one. A point to note is that the lower diode is shown reversed when compared to the previous diagram. This is because the power supply shown is any generic power supply which drives a simple output coil which does not have a centre tap. The neon supply of the earlier diagram appears to have two separate outputs which will, presumably, be out of phase with each other as that is common practice for neonsign driver modules. If you wish, the two diodes shown here could be replaced by a diode bridge of four high-voltage, high-speed diodes. The wire lengths of L1 and L2 are measured very accurately from where the wire diameter changes suddenly, as indicated by the red dashed lines. The L2 wire length is exactly four times as long as the L1 wire length and the L2 wire diameter is half of the L1 wire diameter. How long is the L1 wire? Well, how long would you like it to be? It can be whatever length you want and the radius of the L1 coil can be whatever you want it to be. The theory experts will say that the L1 coil should resonate at the frequency of the power feeding it. Well, good for them, I say, so please tell me what frequency that is. It is not going to be the frequency of the power supply as that will be changed by at least one of the neon bulbs. So, what frequency will the neon bulb produce? Not even the manufacturer could tell you that as there is quite a variation between individual bulbs which are supposedly identical. Actually, it doesn't matter at all, because the L1 coil (and the L2 coil if you measure them accurately) has a resonant frequency all of its own and it will vibrate at that frequency no matter what the frequency feeding it happens to be. A coil resonates in very much the same way that a bell rings when it is struck. It doesn't matter how hard you strike the bell or how rapidly you strike it – the bell will ring at it's own natural frequency. So the L1 coil will resonate at it's own natural frequency no matter what rate the voltage spikes striking it arrive, and as the L2 coil has been carefully constructed to have exactly that same frequency, it will resonate in synchronisation with the L1 coil. This means that the length of the wire for the L1 coil is the choice of the builder, but once that length is chosen it determines the length of the wire for the L2 coil as that is exactly four times as long, unless the builder decides to use an arrangement which has L2 wound in both the Clockwise and counterclockwise directions, in which case, each half of the L2 coil will be four times the length of the wire in the L1 coil, like this:



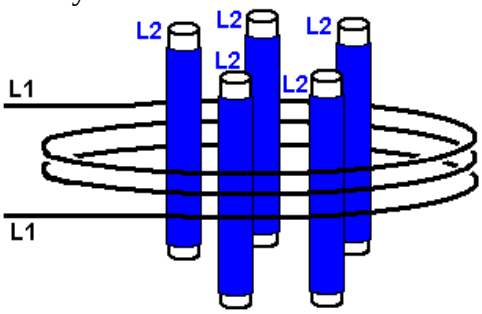

Mind you, there is one other factor to be considered when deciding what the most convenient wire length for L1 might be, and that is the number of turns in the L1 coil. The larger the ratio between the turns in L1 and the turns in L2, the higher the voltage boost produced by the L1/L2 transformer, and remember that the length of L2 is fixed relative to the length of L1. So, a possible circuit style might be:




There are some important points to remember. One is that there must be a sudden change of wire diameter at both ends of each L1 coil and at the ends of each L2 coil. If there isn't, then the connecting wire length will form part of the coil and if there is some change in diameter but not very much, then it is anybody's guess what the resonant wire length for that coil will be. There can be as many step-down isolation air-core L1/L2 transformers as desired and these do not need to be particularly large or expensive. The builder of this circuit put it together in just a few minutes, using components which were to hand, including the microwave oven capacitor marked "C" in the diagrams above. That capacitor is isolated on both sides by the neon bulb spark gaps and so it will have no modifying effect on the resonant frequency of any of the coils in this circuit. But it is vital to understand that the energy stored in that capacitor can, and will, kill you instantly if you were to touch it, so let me stress once again that this information is **NOT** a recommendation that you actually build this circuit. The DC output from the circuit is intended to power a standard inverter, which in turn, would be perfectly capable of powering the high voltage, high frequency input oscillator. One final point is that as demonstrated in the video, the oscillating magnetic field produced by the L1 coil can power several identical L2 coils, giving several additional power outputs for no increase in input power, because the coupling is magnetic and not inductive as mentioned earlier in this chapter. Please notice that neither the L1 coil nor the L2 coil has a capacitor connected across it, so resonance is due solely to wire length and no expensive high-voltage capacitors are needed to get every L1/L2 coil pair resonating together. One possible arrangement might be like this:




Where two of the L2 coils are shown connected together to give increased output power. This arrangement uses low-voltage inexpensive components for the output stages and there is no obvious limit to the amount of output power which could be provided. As the circuit operates at high frequency throughout, there is no particular need for additional L2 coils to be placed physically inside the L1 coil:




However, there can be an advantage to this arrangement in that the wire length of the L1 coil is greater, which in turn makes the wire length of each L2 coil greater (being four times longer). This gives greater flexibility when planning the turns ratio of the L1/L2 transformer. The voltage step-up or step-down of that transformer happens to be in the ratio of the turns, in spite of the fact that this is not inductive coupling and so standard transformer technology does not apply. When you choose the number of turns and coil diameter for L1, that also gives the length of the L2 wire. In order to get the desired output voltage, if perhaps, the step-down ratio is needed to be an amount of 46:1, then you need 46 times the number of L1 turns on the L2 coil. That means that you know both the wire length and number of turns wanted in the L2 coil. But, as each turn will have a length of 3.14159 times the diameter, it follows then that the wanted diameter is the wire length per turn, divided by 3.14159. The wire sits on top of the tube on which it is wound and so has a greater diameter by one wire thickness, so the calculated tube diameter needs to be reduced by one wire diameter. For example, if the length per turn is 162 mm and the wire diameter 0.8 mm, then the tube diameter would be 162 / 3.14159 – 0.8 which is 50.766 mm (just over two inches). Now for Richard's explanation of the resonant frequency of any length of wire:

**"Quarter-Wave" Resonance; Standing Electromagnetic Waves"**

One of the two main types is electrical resonance is referred to here as quarter-wave resonance. This type of resonance depends almost entirely on the length of a wire element For reasons described below, if a segment or length of wire is one quarter as long as the "voltage waves" which are travelling through the wire, then a set of "reflected" waves will be added to the emitted waves, in a synchronised alignment which creates stronger "superimposed waves". Accordingly, an understanding of the

"quarter-wave" phenomenon will help a reader understand how a straightforward and easily-controlled factor (i.e., the length of a wire ribbon which will be used to form a spiral coil) can help create a "quarter-wave" resonant response, which will create the types of electromagnetic pulses and fields referred to as "standing waves". The speed at which a voltage impulse is transmitted through a metal wire is extremely fast. It is essentially the same as the speed of light, which travels 300 million meters (186,000 miles) in a single second (that distance would circle the earth more than 7 times). If wavelength (in meters) is multiplied by frequency (cycles per second), the result will be the speed of light, 300 million meters/second. Therefore, the wavelength of an "alternating current" (AC) voltage, at some particular frequency, will be the speed of light, divided by which frequency. Therefore, using simple division, if an alternating voltage operates at a frequency of 1 megahertz (MHz), which is a million cycles per second, then the "wavelength" at that frequency will be 300 meters. If the frequency halves become 500 kilohertz, the wavelength becomes twice as long (600 meters); and, if the frequency were to increase to 2 megahertz, the wavelength drops to 150 meters. It should be noted which the term "cycles" is what scientists call "a dimensionless unit", which drops out and becomes silent when other physical terms are multiplied or divided. At AC frequencies of 10 kilohertz or greater, the common references to "alternating current" (AC) voltage begin using a different term, which is "radio-frequency" (RF) voltage. Accordingly, RF voltage is a form (or subset) of AC voltage, which operates at frequencies higher than 10 kilohertz. RF power generators are readily available, and are sold by numerous companies which can be easily located by an Internet search, using the term "RF power generator". For example, Hotek Technologies Inc. (hotektech.com) sells two RF power generators, called the AG 1024 and AG 1012 models, which can provide output power at frequencies ranging from 20 kHz to 1 MHz; the 1012 model has a power output of 1000 watts, while the 1024 model has a power output of 2000 watts. The output frequency of any such RF power supply can be adjusted and "tuned" across the entire range of operating frequencies, merely by turning knobs or manipulating other controls in a power supply of this type. In a wire having a fixed and unchanging length, the easiest way to create a "standing wave" is to adjust the RF frequency emitted by a power supply with an adjustable frequency, until the "tuned" frequency creates a wavelength which is 4 times as long as the wire. This principle is well-known to physicists, and it is commonly referred to as "quarter-wave" behaviour, since the length of the wire segment must be one quarter as long as the wavelength. Since it is important to this invention, the principles behind it are illustrated in a series of drawings provided in **Fig.1** to **Fig.4**, all of which are well-known prior art.

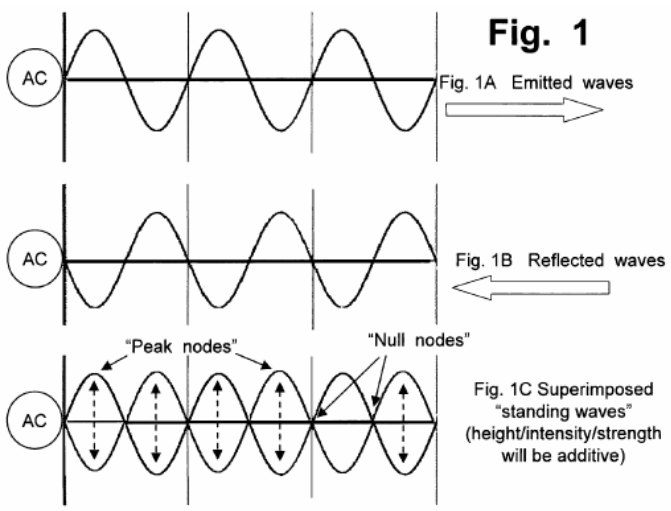



**Fig.1A** indicates an idealized wavelength of an alternating voltage, depicted by a sine wave which is being sent from an AC power supply (shown by a circle at the left end of a horizontal straight wire) into the "input" end of the wire. The voltage waves travel through the wire towards the right, as indicated by the block arrow in **Fig.1A**. When the waves reach the end of the wire, they cannot leave the wire (at least, not in a simplified and "ideal" system, which is being assumed and used here to explain the principle of how a simple straight wire can create a standing wave). Therefore, the voltage wave will effectively "bounce" or "reflect" back from the tip of the wire, and the "reflected wave" will begin travelling back through the wire, going in the opposite direction, as indicated by the left-pointing block arrow in **Fig.1B**. Because of the laws of conservation of energy, the reflection and "return travel" of these types of waves, when they bounce off the tip of a wire, is actually quite good, and rather efficient, as discussed below, provided which the wire tip does not emit sparks, arc discharges, or other forms of "escaping" electrical energy. Accordingly, **Fig.1A** depicts a set of "emitted waves" travelling towards the right, while **Fig.1B** depicts an idealised set of "reflected waves" travelling toward the left along the same wire. **Fig.1C** illustrates what happens when both sets of waves (emitted and reflected) are superimposed on each other. Since the two sets of waves are travelling at exactly the same speed, and since they have exactly the same wavelength, they will create a "standing wave" pattern when they are added together. As can be visualised from **Fig.1C**, there will be a set of locations, along the length of the wire, which can be referred to as "peak nodes", where the AC voltage reaches it's maximum. At a location halfway between a pair of adjacent "peak nodes", there will be a spot which can be called a "null node", a "zero node", a trough or valley node, or similar terms. At each "null node" location, the AC voltage will appear to be not fluctuating at all. Those are the sites, along the length of the wire, where each "positive" hump (created by a sine wave travelling toward the right) will be counter-balanced and offset by a "negative hump" with exactly the same height, travelling at an identical speed toward the left. As a result, this type of response within a wire creates a "standing wave". If the instantaneous voltage is measured at a "null node", it would appear that nothing is

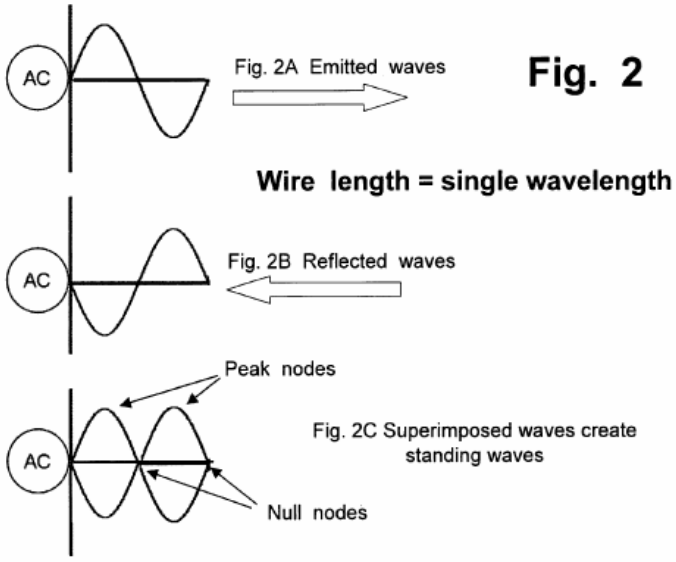
happening, in terms of fluctuating voltage. Furthermore, the "null node" will not be moving, along the length of the wire; instead, it will appear to be standing still. This can be demonstrated, in a coil, by using a "grounded lead" to test for voltages along the length of a coil. If a "grounded lead" coupled to a volt meter is used to touch the surfaces of a series of strands in a non-insulated coil (such as a coil made of thin copper tubing, wrapped around a plastic cylindrical shape, as used in the types of large transformers used by hobbyists to create "Tesla coils" which will emit large and visually impressive electrical arcs), the "test lead" will detect no apparent voltage at a null node, which will occur at some particular strand in the coil. At a different strand of the coil, the "test lead" will detect an alternating voltage which has twice the strength and intensity of the voltage being emitted by the power supply. If voltage is measured at a "peak node", the voltage will be doing something which can be called, using vernacular or laymen's terms, "the full-tilt boogie". The AC voltage levels will be moving back and forth, between: (i) a very high and intense positive voltage, to (ii) an equally intense negative voltage. This is indicated by the "bubble" shapes shown along the wire in **Fig.1C**. The "bubbles" which are shown in **Fig.1C** can help someone understand how standing waves are created, and how they act in a synchronised manner. However, which drawing fails to show another result which is very important in what actually happens in a standing wave. For purposes of description and analysis at this introductory level, the system can be assumed to be "ideal", which implies a perfect "mirror-image" reflection of each wave from the right end of the wire. An "ideal" system also implies that no reflections occur at the left hand end of the wire where the power supply is located, and all "reflected" wave activity simply ceases. In real circuits and wires of this type, second and third order reflections do in fact occur, and they are used to further increase the strength and power output of these types of systems; however, those additional factors and "harmonics" should be ignored until after the basic principles of this type of system have been grasped and understood. In an ideal system, when the reflected waves (which are travelling toward the left, in the wire segments illustrated in **Fig.1**) are "superimposed" on the emitted waves (travelling toward the right), the "peak" positive voltage which will be instantaneously reached, at the highest point of each "bubble" shown in **Fig.1C**, will occur when the positive peak of an emitted wave crosses a mirror-image positive peak of a reflected wave, travelling in the opposite direction. Accordingly, when those two "positive peak" values are added to each other, the instantaneous positive peak voltage which will occur, in the wire, will actually be twice as intense as the "positive peak" voltage being emitted by the AC power supply. An instant later, at that exact point on that segment of wire, a negative peak voltage will be created, which will be the sum of (i) the negative peak voltage emitted by the power supply, and (ii) the negative peak voltage of a reflected wave also will pass through, travelling toward the left. At which instant, when those two negative peak voltages are added to each other, the instantaneous negative voltage which will occur, in the wire, will be twice as intense as the "negative peak" voltage being generated by the AC power supply. A more accurate and representative visual depiction of a "standing wave" in

a wire would actually show the heights of the peaks as being twice as tall as the peaks of the emitted voltage waves, and the reflected voltage waves. However, which depiction might confuse people, so it usually is not shown in drawings of "standing waves". Accordingly, the instantaneous response in the wire, at a location halfway between two "null nodes", is doing something which can fairly and properly be called "the full-tilt double double boogie". The "double double" phrase (note which it contains not just one but two "doubles") was added to that phrase, for two reasons: (i) To emphasise the fact that each and every voltage peak (maximum positive, and maximum negative) will be twice as strong, and twice as intense, as the maximum positive and negative peak voltages emitted by the power supply; and, (ii) to point out that the frequency of the superimposed "bubbles", shown in **Fig.1C**, is actually twice as fast as the frequency of the AC cycle which is emitted by the power supply, as discussed below. The "twice the intensity" result is directly comparable to what an observer will see, if a large mirror is placed behind a light bulb in an otherwise dark room. The mirror effectively keeps the room dark, everywhere behind the mirror, so there is no "magical doubling" of the light in the room; which would violate the basic law of conservation of energy. Instead, what the mirror does is to shift light away from the backside of the mirror, and keep that light energy on the reflective side of the mirror. Anyone standing in front of the mirror will see two apparent light bulbs. Both of those light bulbs (the original bulb, and the reflected image) will have the same brightness (if the mirror is perfect). Therefore, the mirror will double the intensity of the light energy reaching the observer. That same effect, in a circuit, will happen if the end of a wire acts like a mirror. If a wire does not have any components which will cause it to become an active "emission source" (which is the behaviour of transmission antennas and certain other components), in a way which efficiently releases voltage-created energy into the atmosphere, then the basic rules which require conservation of energy will prevent that energy from simply disappearing and ceasing to exist. As a result, even if the end of a wire is not designed to be a perfect reflector, a large portion of the voltage wave will indeed reflect off the wire tip, and travel back through the same wire, in a "second pass". To understand adequately, the type and amount of "wave reflection" which occurs at a wire tip, consider what happens if a light bulb is shining in a room which has shiny, glossy white paint on all the walls and ceilings; then, consider how it would look if the same light bulb were located in a room with all of the walls and ceilings painted "matt black". The total amount of light which would be available, to carry out a task such as reading a newspaper, clearly would be much greater in the white room, because light reflects off white paint, even though white paint does not even begin to approach the type of "reflection quality or clarity" which a mirror creates. The difference in what happens, when light intensity in a room painted matt black is compared to a room painted a glossy white, does not arise from the presence or absence of "reflection quality or clarity"; instead, it is governed by the laws of conservation of energy. When light shines on to a surface which is painted matt black, the light energy is absorbed by the paint, and it literally warms the paint up. In

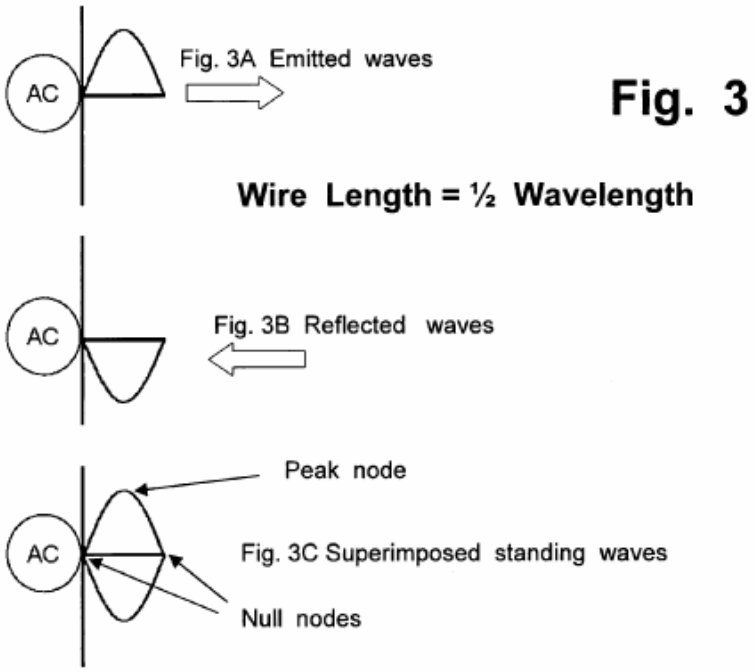
contrast to that, glossy white paint will not absorb light energy, so it reflects the light back out, for a "second pass" through the air which fills a room. Because of the laws of conservation of energy, and without depending on any "quality of reflectance" characteristic of wire tips, electrical energy cannot simply disappear, when it reaches the end of a wire. Instead, there are only two things which can happen to that energy: (i) the electrical energy can be emitted into the surroundings, such as by emitting sparks, arcs, or radio-frequency signals which will carry energy; or (ii) if the energy is not emitted by the tip of the wire, then, by simple necessity and because of the basic law of conservation of energy, it must be reflected back into the wire, and it will be forced to travel back through the wire again. If a wire has a long and tapered tip, then the reflected wave might become somewhat diffused, and it might lose some portion of the "clarity" of the wave. However, since wavelengths in the frequencies of interest here are hundreds of meters long, the type of tip created by a conventional wire cutter will not create any significant diffusion, in a reflected wave. And, unlike the white-painted walls of a room, there is not a large area which is available, at the tip of a wire, which can create scatter, spread, or diffusion. As a result, the tip of a wire will be a relatively efficient mirror-type reflector, when an AC voltage is "pumped" into one end of the wire.

The second factor mentioned above, when the "double-double" boogie phrase was mentioned, relates to a doubling of the frequency of a standing wave. When a standing wave is created in a wire by reflection of an emitted AC voltage wave, the frequency of the standing wave is, quite literally, double the frequency of the emitted wave. This can be seen, visually, by noting that in the emitted AC voltage, shown in **Fig.1A**, a single complete wavelength contains both a "positive hump" and a "negative hump". Accordingly, three complete sine waves, divided into three segments by the imaginary vertical lines, are shown in **Fig.1A**. By contrast, each and every "bubble" shown in **Fig.1C** depicts a complete and total "wavelength", in a standing wave. Six of those standing wave "bubbles" fit into exactly the same length of wire which holds only 3 emitted wavelengths from the power supply. The "frequency doubling" effect of standing waves is important, because AC systems can convey and release energy in a manner which increases, as the frequency of the AC voltage supply increases. To some extent, this is analogous to saying that, if a motor can be run at twice the speed (while still generating the same torque), then the work output of that motor can be twice as great, at the higher speed. That analogy is not entirely accurate, since work output from an electric device which uses AC power depends on "area of the curve" functions which occur when sine waves are involved. Nevertheless, as a general principle, if the frequency of the voltage peaks increases, then power output will also increase, in many types of electric circuit components. In the three panels of **Fig.1**, the wire length is three times as long as the wavelength of the voltage from the power supply. However, to create standing waves, a wire length does not need to be any particular multiple of the wavelength of an AC voltage. As can be seen by considering **Fig.1C**, the same types of "bubbles" would be created: (i) if

the wire length were exactly twice as long as the wavelength; or, (ii) if the wire length were the same length as the wavelength.

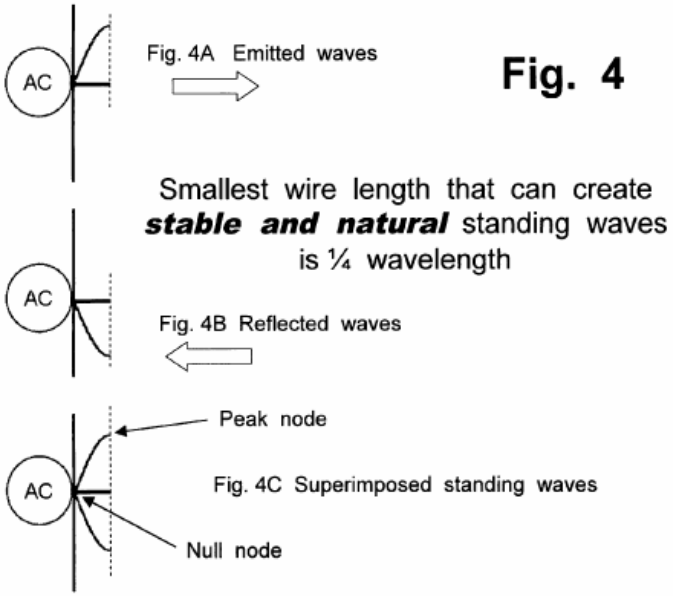



Accordingly, **Fig.2** (which includes **Fig.2A** showing an emitted wave, **Fig.2B** showing a reflected wave, and **Fig.2C** showing the superimposed "bubbles") shows what happens in a wire segment which has a length which is equal to a single wavelength from an AC voltage at a fixed frequency. A resonant standing wave will be formed, with a frequency which is double the frequency of the input AC voltage. which same result will apply, in a wire having any length which is an exact (integer) multiple (such as 1x, 2x, 3x, etc.) of the wavelength of the AC voltage being pushed (or forced, driven, pumped, etc.) into the wire segment.




Moving to still shorter wires, the same principle also applies to any wire with a length equal to one half of an AC voltage wavelength. As

shown in **Fig.3** (which includes **Fig. 3A** showing an emitted wave, **Fig. 3B** showing a reflected wave, and **Fig. 3C** showing the superimposed "bubbles"), if the wire length is one half of the wavelength, a natural and resonant standing wave will still form, with a frequency which is double the frequency of the input AC voltage.




Finally, moving to a still shorter wire, the same principle also applies to any wire which has a length equal to one quarter of an AC voltage wavelength, as shown in **Fig.4A**, **Fig.4B**, and **Fig.4C** Even though it does not stretch across or cover a complete "bubble", the standing wave shown in **Fig.4C** is nevertheless a stable, natural, and resonant "standing wave", with a frequency which is exactly twice the frequency of the input AC voltage. It is possible to create partially stable and semi-resonant responses, using one eighth, one sixteenth, or shorter lengths of wire, by using additional devices which can remove electrical power from the system, or which can generate effects which are usually called "harmonics". However, those are not the types of natural and stable responses which can be created by a simple, basic system consisting of nothing more than: (i) a wire having a fixed length and a "reflective" tip; and (ii) an AC power source with a frequency which can be "tuned" until it creates a resonant response in any wire segment having a suitable length. Therefore, since quarter-wave wire lengths are the shortest lengths which can create natural and stable standing waves, the conventional term which is commonly used, to describe what happens when a wire creates a resonant standing-wave response, is a "quarter-wave" response. In some devices, telescoping components (or other elements which can alter the effective length of a wire-type element) can be used to alter the ability of the element to respond to a fixed wavelength. Many types of antennas use this approach, if they need to process signals which are being transmitted on fixed and known frequencies. However, those examples are not relevant to spiral coil reactors, which will use an approach which involves tuning and adjusting the frequency of the voltage which is being supplied to a reactor, until a resonant response is observed in coils with fixed and unchanging lengths. It should also be noted that certain types of "tuning"

elements (such as capacitors, which can have either fixed or adjustable capacitance levels) can also be coupled electrically to a wire, in a manner which “emulates” adding more length to that wire. This approach can be used to alter (or increase the range of) the frequencies to which a wire circuit will respond resonantly. So, if we have resonant standing-wave voltages in our L2 coil and some of that signal passes through the wire connecting one end of the coil to the earth, then what will happen? The best way to check it is to test the way which a prototype behaves, however, if I may express an opinion, I would suggest that the signal passing down the earth wire will be absorbed when it reaches the earth and that will prevent the signal being reflected back to the L2 coil to upset it’s operation. The third of Don’s designs which we can consider is particularly attractive because almost no homeconstruction is needed, all of the components being available commercially, and the output power being adaptable to any level which you want. Don particularly likes this circuit because it demonstrates COP>1 so neatly and he remarks that the central transmitter Tesla Coil on its own is sufficient to power a household.

The coil in the centre of the board is a power transmitter made from a Tesla Coil constructed from two Barker & Williamson ready-made coils. Three more of the inner coil are also used as power receivers. The outer, larger diameter coil is a few turns taken from one of their standard coils and organised so that the coil wire length is one quarter of the coil wire length of the inner coil ("L2"). As before, a commercial neon-tube driver module is used to power the "L1" outer coil with high voltage and high frequency. It should be understood that as power is drawn from the local environment each time the power driving the transmitter coil "L1" cycles, that the power available is very much higher at higher frequencies. The power at mains frequency of less than 100 Hz is far, far less than the power available at 35,000 Hz, so if faced with the choice of buying a 25

kHz neon-tube driver module or a 35 kHz module, then the 35 kHz module is likely to give a much better output power at every voltage level.

The "L1" short outer coil is held in a raised position by the section of white plastic pipe in order to position it correctly relative to the smaller diameter "L2" secondary coil.

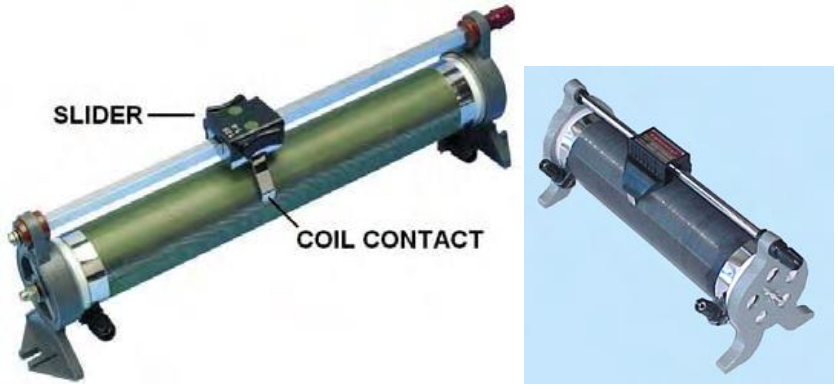
The secondary coils are constructed using Barker & Williamson's normal method of using slotted strips to hold the tinned, solid copper wire turns in place.

As there are very slight differences in the manufactured coils, each one is tuned to the exact transmitter frequency and a miniature neon is used to show when the tuning has been set correctly. The key feature of this device is the fact that any number of receiver coils can be placed near

the transmitter and each will receive a full electrical pick up from the local environment, without altering the power needed to drive the Tesla Coil transmitter - more and more output without increasing the input power - unlimited COP values, all of which are over 1. The extra power is flowing in from the local environment where there is almost unlimited amounts of excess energy and that inflow is caused by the rapidly vibrating magnetic field generated by the central Tesla Coil. While the additional coils appear to just be scattered around the base board, this is not the case. The YouTube video http://www.youtube.com/watch?v=TiNEHZRm4z4&feature=related demonstrates that the pick-up of these coils is affected to a major degree by the distance from the radiating magnetic field. This is to do with the wavelength of the signal driving the Tesla Coil, so the coils shown above are all positioned at exactly the same distance from the Tesla Coil. You still can have as many pick-up coils as you want, but they will be mounted in rings around the Tesla Coil and the coils in each ring will be at the same distance from the Tesla Coil in the centre. Each of the pick up coils act exactly the same as the "L2" secondary coil of the Tesla Coil transmitter, each picking up the same level of power. Just as with the actual "L2" coil, each will need an output circuit arrangement as described for the previous device. Presumably, the coil outputs could be connected in parallel to increase the output amperage, as they are all resonating at the same frequency and in phase with each other. Each will have its own separate output circuit with a step-down isolation transformer and frequency adjustment as before. If any output is to be a rectified DC output, then no frequency adjustment is needed, just rectifier diodes and a smoothing capacitor following the step-down transformer which will need to be an air core or ferrite core type due to the high frequency. High voltage capacitors are very expensive. The http://www.richieburnett.co.uk/parts.html web site shows various ways of making your own high-voltage capacitors and the advantages and disadvantages of each type. There are two practical points which need to be mentioned. Firstly, as the Don Smith devices shown above feed radio frequency waveforms to coils which transmit those signals, it may be necessary to enclose the device in an earthed metal container in order not to transmit illegal radio signals. Secondly, as it can be difficult to obtain high-voltage high-current diodes, they can be constructed from several lower power diodes. To increase the voltage rating, diodes can be wired in a chain. Suitable diodes are available as repair items for microwave ovens. These typically have about 4,000 volt ratings and can carry a good level of current. As there will be minor manufacturing differences in the diodes, it is good practice to connect a high value resistor (in the 1 to 10 megohm range) across each diode as that ensures that there is a roughly equal voltage drop across each of the diodes:

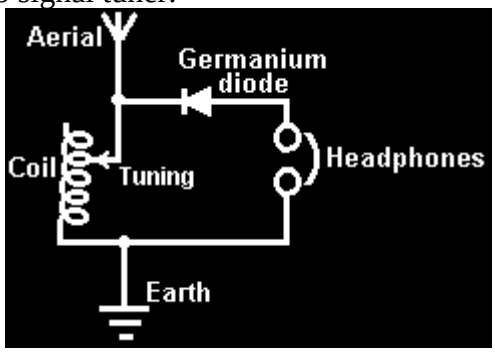
If the diode rating of these diodes were 4 amps at 4,000 volts, then the chain of five could handle 4 amps at 20,000 volts. The current capacity can be increased by connecting two or more chains in parallel. Most constructors omit the resistors and find that they seem to get satisfactory

performance. The impedance of a coil depends on it's size, shape, method of winding, number of turns and core material. It also depends on the frequency of the AC voltage being applied to it. If the core is made up of iron or steel, usually thin layers of iron which are insulated from each other, then it can only handle low frequencies. You can forget about trying to pass 10,000 cycles per second ("Hz") through the coil as the core just can't change it's magnetic poles fast enough to cope with that frequency. A core of that type is ok for the very low 50 Hz or 60 Hz frequencies used for mains power, which are kept that low so that electric motors can use it. For higher frequencies, ferrite can be used for a core and that is why some portable radios use ferriterod aerials, which are a bar of ferrite with a coil wound on it. For higher frequencies (or higher efficiencies) iron dust encapsulated in epoxy resin is used. An alternative is to not use any core material and that is usually referred to as an "air-core" coil. These are not limited in frequency by the core but they have a very much lower inductance for any given number of turns. The efficiency of the coil is called it's "Q" (for "Quality") and the higher the Q factor, the better. The resistance of the wire lowers the Q factor. A coil has inductance, and resistance caused by the wire, and capacitance caused by the turns being near each other. However, having said that, the inductance is normally so much bigger than the other two components that we tend to ignore the other two. Something which may not be immediately obvious is that the impedance to AC current flow through the coil depends on how fast the voltage is changing. If the AC voltage applied to a coil completes one cycle every ten seconds, then the impedance will be much lower than if the voltage cycles a million times per second. If you had to guess, you would think that the impedance would increase steadily as the AC frequency increased. In other words, a straight-line graph type of change. That is not the case. Due to a feature called resonance, there is one particular frequency at which the impedance of the coil increases massively. This is used in the tuning method for AM radio receivers. In the very early days when electronic components were hard to come by, variable coils were sometimes used for tuning. We still have variable coils today, generally for handling large currents rather than radio signals, and we call them "rheostats" and some look like this:

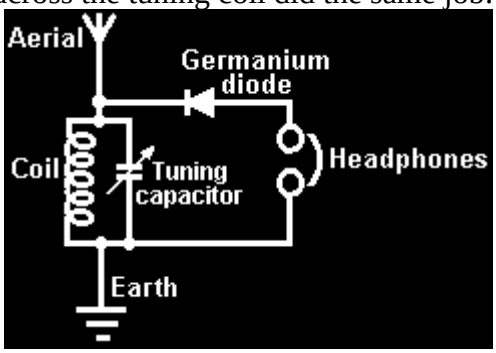



These have a coil of wire wound around a hollow former and a slider can be pushed along a bar, connecting the slider to different winds in the coil depending on it's position along the supporting bar. The terminal connections are then made to the slider and to one end of the coil.

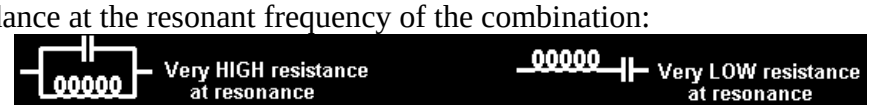
The position of the slider effectively changes the number of turns of wire in the part of the coil which is being used in the circuit. Changing the number of turns in the coil, changes the resonant frequency of that coil. AC current finds it very, very hard to get through a coil which has the same resonant frequency as the AC current frequency. Because of this, it can be used as a radio signal tuner:



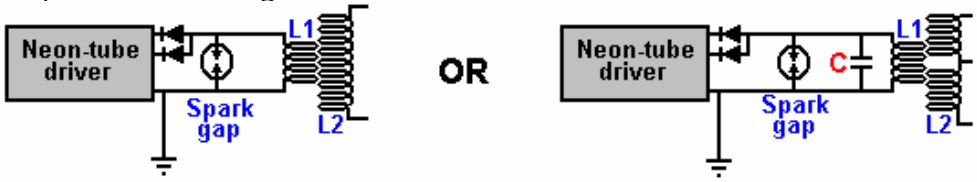

If the coil's resonant frequency is changed to match that of a local radio station by sliding the contact along the coil, then that particular AC signal frequency from the radio transmitter finds it almost impossible to get through the coil and so it (and only it) diverts through the diode and headphones as it flows from the aerial wire to the earth wire and the radio station is heard in the headphones. If there are other radio signals coming down the aerial wire, then, because they are not at the resonant frequency of the coil, they flow freely through the coil and don't go through the headphones. This system was soon changed when variable capacitors became available as they are cheaper to make and they are more compact. So, instead of using a variable coil for tuning the radio signal, a variable capacitor connected across the tuning coil did the same job:




While the circuit diagram above is marked "Tuning capacitor" that is actually quite misleading. Yes, you tune the radio receiver by adjusting the setting of the variable capacitor, **but**, what the capacitor is doing is altering the resonant frequency of the coil/capacitor combination and it is the resonant frequency of that combination which is doing exactly the same job as the variable coil did on it's own. This draws attention to two very important facts concerning coil/capacitor combinations. When a capacitor is placed across a coil "in parallel" as shown in this radio receiver circuit, then the combination has a very high impedance (resistance to AC current flow) at the resonant frequency. But if the capacitor is placed "in series" with the coil, then there is nearly zero impedance at the resonant frequency of the combination:



This may seem like something which practical people would not bother with, after all, who really cares? However, it is a very practical point indeed. Remember that Don Smith often uses an early version, offthe-shelf neon-tube driver module as an easy way to provide a high-voltage, high-frequency AC current source, typically, 6,000 volts at 30,000 Hz. He then feeds that power into a Tesla Coil which is itself, a power amplifier. The arrangement is like this:




People who try to replicate Don's designs tend to say "I get great sparks at the spark gap until I connect the **L1** coil and then the sparks stop. This circuit can never work because the resistance of the coil is too low". If the resonant frequency of the **L1** coil does not match the frequency being produced by the neon-tube driver circuit, then the low impedance of the **L1** coil at that frequency, will definitely pull the voltage of the neon-tube driver down to a very low value. But if the **L1** coil has the same resonant frequency as the driver circuit, then the **L1** coil (or the **L1** coil/capacitor combination shown on the right, will have a very high resistance to current flow through it and it will work well with the driver circuit. So, no sparks, means that the coil tuning is off. It is the same as tuning a radio receiver, get the tuning wrong and you don't hear the radio station. This is very nicely demonstrated using simple torch bulbs and two coils in the YouTube video showing good output for almost no input power: http://www.youtube.com/watch?v=kQdcwDCBoNY and while only one resonant pick-up coil is shown, there is the possibility of using many resonant pick-up coils with just the one transmitter. With a coil (fancy name "inductor" and symbol "L"), AC operation is very different to DC operation. The coil has a DC resistance which can be measured with the ohms range of a multimeter, but that resistance does not apply when AC is being used as the AC current flow is **not** determined by the DC resistance of the coil. Because of this, a second term has to be used for the current-controlling factor of the coil, and the term chosen is "impedance" which is the feature of the coil which "impedes" AC current flow through the coil. The impedance of a coil depends on it's size, shape, method of winding, number of turns and core material. It also depends on the frequency of the AC voltage being applied to it. If the core is made up of iron or steel, usually thin layers of iron which are insulated from each other, then it can only handle low frequencies. You can forget about trying to pass 10,000 cycles per second ("Hz") through the coil as the core just can't change it's magnetic poles fast enough to cope with that frequency. A core of that type is ok for the very low 50 Hz or 60 Hz frequencies used for mains power, which are kept that low so that electric motors can use it. For higher frequencies, ferrite can be used for a core and that is why some portable radios use ferriterod aerials, which are a bar of ferrite with a coil wound on it. For higher frequencies (or higher efficiencies) iron dust encapsulated in epoxy resin is used. An alternative is to not use any core material and that is usually referred to as an "air-core" coil. These are not

limited in frequency by the core but they have a very much lower inductance for any given number of turns. The efficiency of the coil is called it's "Q" (for "Quality") and the higher the Q factor, the better. The resistance of the wire lowers the Q factor. Here is a copy of Don Smith's pdf:

# RESONANCE ENERGY METHODS

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September 23, 2002

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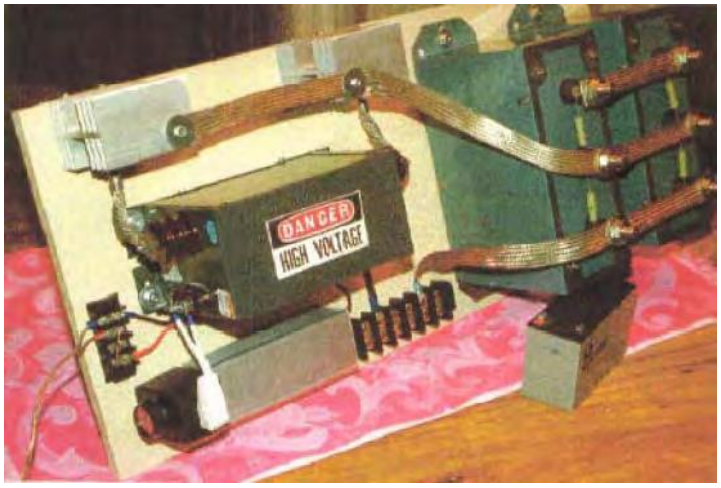
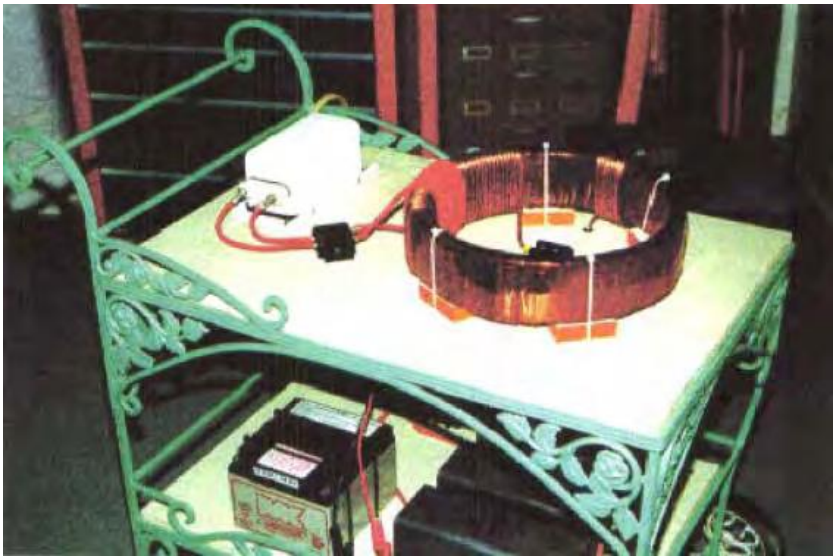
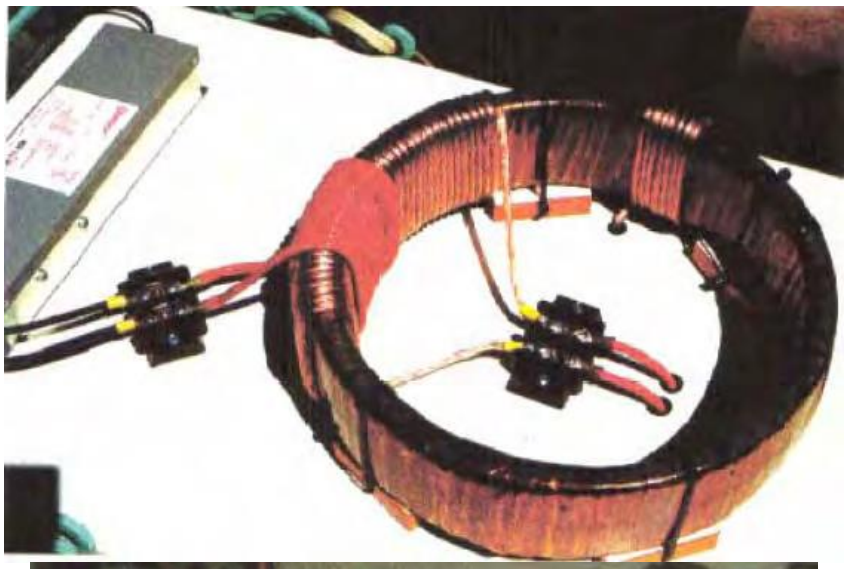
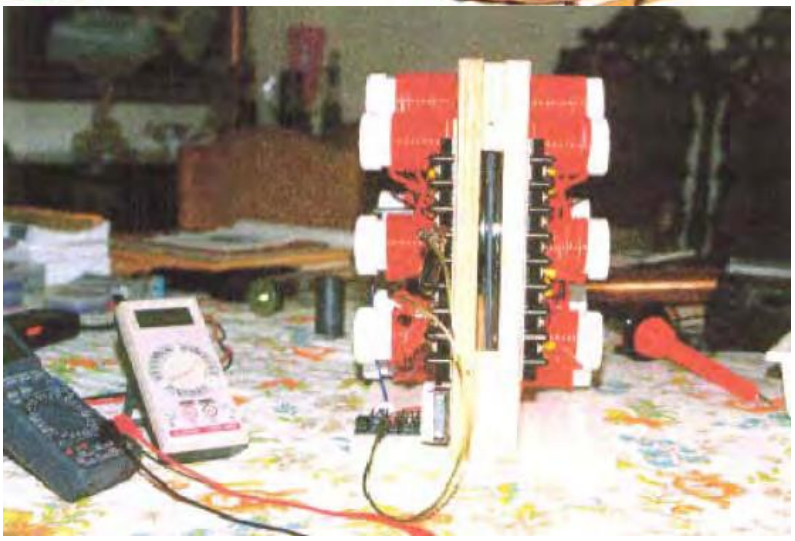
DANGER
HIGH VOLTAGE

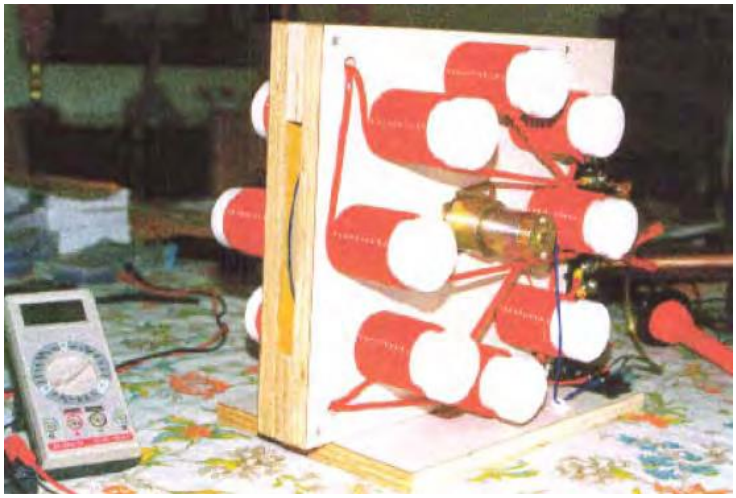

DANGER
HIGH VOLTAGE

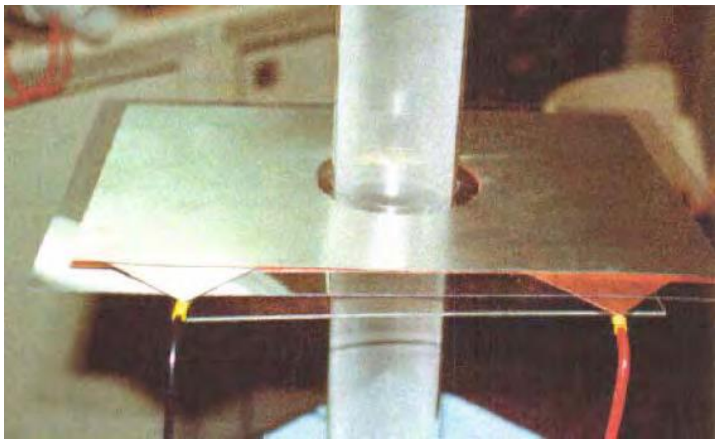
DRI-VAR
LISTED
DRI-VAR
LISTED

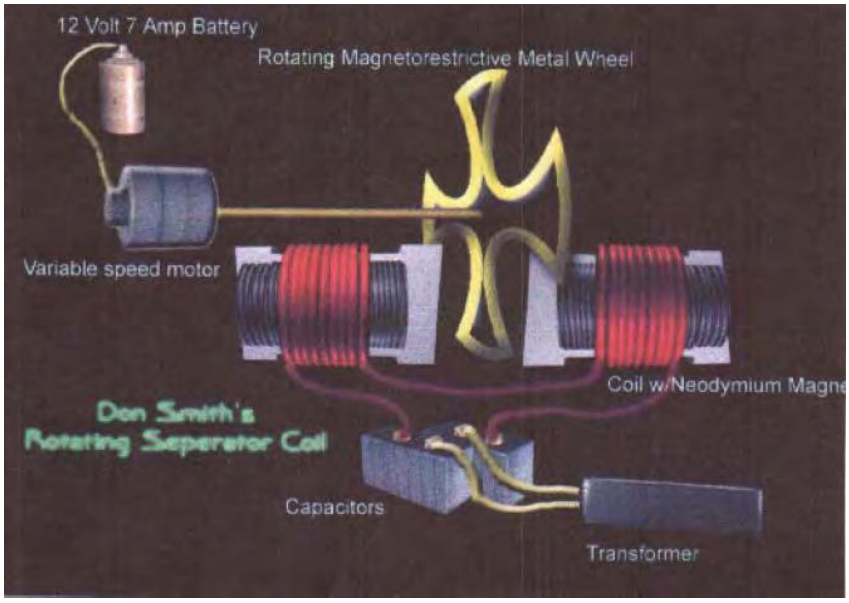













## DIPOLE TRANSFORMER GENERATOR DESCRIPTION

**TECHNICAL FIELD:** The Invention relates to loaded Dipole Antenna Systems and their Electromagnetic radiation. When used as a transformer with an appropriate energy collector system it becomes a transformer generator. The invention collects and converts energy which, with conventional devices, is radiated and wasted.

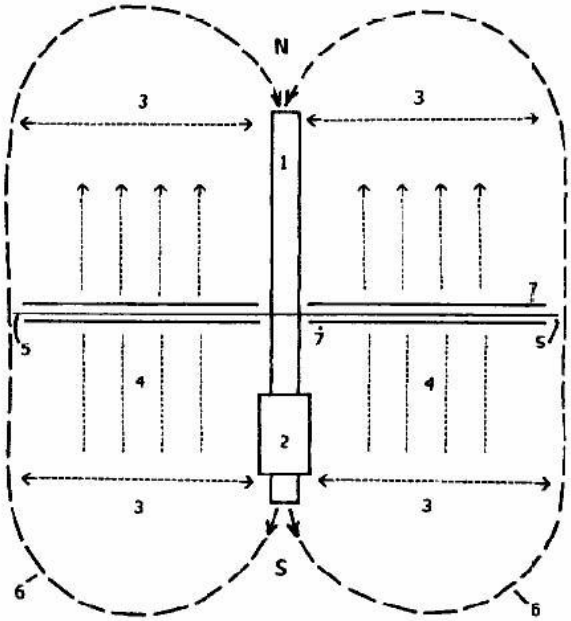
**BACKGROUND ART:** An International search of Patent Databases for closely related methods did not reveal any prior Art with an Interest in conserving radiated and wasted magnetic waves as useful energy.

**DISCLOSURE OF INVENTION:** The Invention is a new and useful departure from transformer generator construction, such that radiated and wasted magnetic energy changes into useful electrical energy. Gauss Meters show that much energy from conventional electromagnetic devices is radiated back into the ambient background and wasted. In the case of conventional transformer generators, a radical change in the physical construction, allows better access to the energy available. It is found that creating a dipole and Inserting capacitor plates at right angle to the current flow, allows magnetic waves to change back to useful electrical (coulombs) energy. Magnetic waves passing through the capacitor plates do not degrade and the full impact of the available energy is accessed. One, or many sets of capacitor plates, may be used as desired. Each set of plates makes an exact copy of the full force and effect of the energy present in the magnetic waves. The originating source is not depleted or degraded as is common in conventional transformers.

**BRIEF DESCRIPTION OF THE DRAWINGS:** The Dipole at right angle allows the magnetic flux surrounding it to intercept the capacitor plate, or plates, at right angles. The electrons present are spun in such a way that the electrical component of the electrons is collected by the capacitor plates. Essential parts are the South and North component of an active Dipole. Examples presented here, exist as fully functional prototypes, and were engineer constructed and fully tested for utility by the Inventor. Corresponding parts are utilized in each of the three examples as shown in the Drawings.

**DRAWING 1 OF 4: VIEW OF THE METHOD**

N = North and S = South of the Dipole




**1.** North and South component of the Dipole.

**2.** Resonate High Voltage induction coil.

**3.** Dipole's electromagnetic wave emission.

**4.** Heaviside current component.

**5.** Dielectric separator for the capacitor plates.

**6.** For purposes of the drawing, a virtual limit of the electromagnetic wave energy.

**7.** Capacitor plates with dielectric in between.

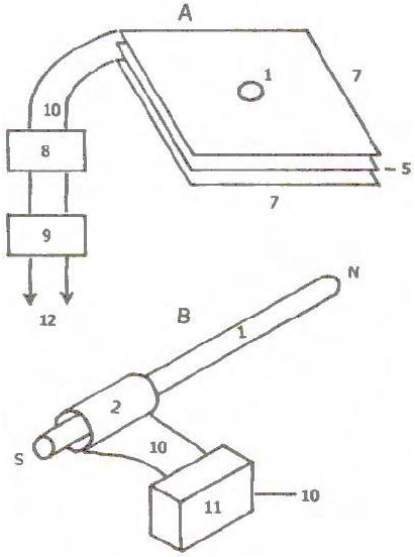



**Fig.2-A:**

**1.** Hole for mounting Dipole **B-1**.

**2.** Resonate high voltage induction coil.

**5.** Dielectric separator, a thin sheet of plastic separating the capacitor pl

**7.** Capacitor plates, upper plate is aluminium and lower plate is copper.

**8.** Battery system, deep cycle.

**9.** Inverter. Input: Direct Current, output 120 Volts at 60 cycles per second.

**10.** Connector wires.

**11.** Output to point of use being the load

**Fig.2-B N = North and S = South component of the Dipole**

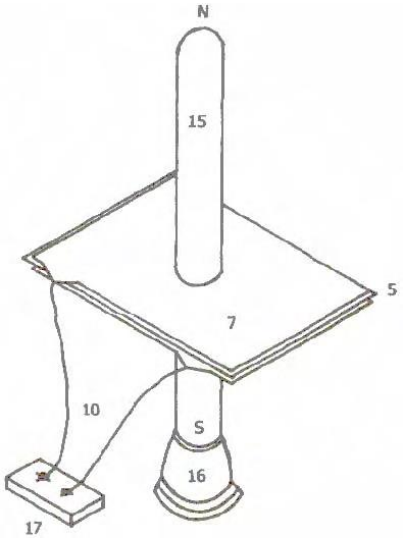
**1.** Metal rod, being soft magnetic metal such as iron.

**2.** Resonate high voltage induction coil.

**10.** Connector wires.

**11.** High Voltage input energy source such as a neon tube transformer.

**DRAWING 3 OF 4 : Proof of Principle Device, using a Plasma Tube as an active Dipole. N = North and S = South Components of the active Dipole.**




**5.** Dielectric separator of the capacitor plates.

**7.** Upper capacitor plate: upper plate is aluminium and lower plate is copper.

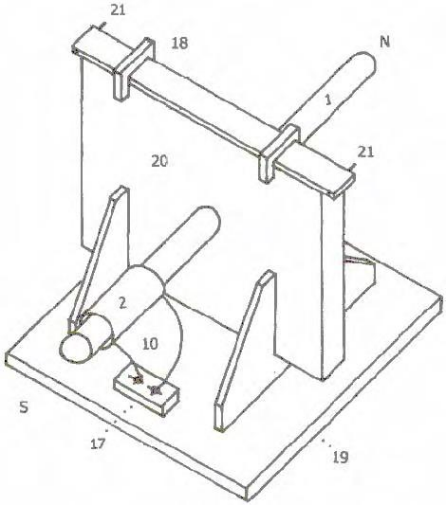
**10.** Connector wires.

**15.** Plasma Tube, 4 feet long and 6 inches in diameter.

**16.** High Voltage Energy source for the active Plasma Dipole.

**17.** Connector block: outlet for testing and use.

**DRAWING 4 OF 4: Manufactures Prototype, Constructed and fully tested.**



**1.** Metal Dipole rod.
**2.** Resonate High Voltage induction coil.
**10.** Connector wires.
**17.** Connector block for Input from high voltage energy source.
**18.** Clamps for upper edge of capacitor packet.
**19.** Support Device for The Dipole Transformer Generator.
**20.** Packet of Capacitor Plates.
**21.** Output connectors of the capacitor, producing energy into a deep cycle battery which then powers the inverter.

**1.** Metal Dipole rod.
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The Book which You are viewing has more than 40,000 copies in circulation. It has been translated and distributed in all major languages including Japanese, Arabic, Portuguese, French, Italian, Russian, Chinese, German, Spanish and many more. There are seven editions in circulation. An enormous interest is evident in the subject matter. An average of about fifty e-mails per day are received from the ends of the Earth (that is about 1,500 per month). Once the Web Site and the book are viewed, it will become evident that abundant, self- sustainable energy is available everywhere for the taking. This is natural energy which does not harm the environment or those using it. The proper Device for Collecting is all that's required. The Good News is that the problem is solved and with assistance, an ultimate source of energy which is environmentally benign, abundant throughout the universe and inexpensive to capture, is there for the taking.

Thank You for your consideration

_____

Donald L. Smith, CEO

**Electrical Energy Generating System Description and Function:** The Generation of Electrical Power requires the presence of electrons with various methods of stimulation, yielding magnetic and electrical impulses, collectively resulting in Electrical Energy (Power). In place of the mechanical - coils and magnet system, present in conventional electrical power generation, visible moving parts are replaced by resonate magnetic induction, using radio frequency. Transfer of energy by resonate induction is related to the ratio of the square of the cycles per second. The Energy System, presented here, operates at millions of cycles per second verses the conventional 60 C.P.S. This tells us that it has a frequency advantage over conventional methods. This same advantage applies to the amount of electrical energy output. Therefore the Device is small in size and produces large amounts of Electrical Energy. The Electrons acquired, are from the surrounding Air and Earth Groundings, being the same source as

in conventional methods. This is accomplished by magnetic resonate radio induction.

**Applications:** This Electrical System adapts nicely to all Energy Requirements. It is a direct replacement for all existing Energy Systems. This includes such things as Manufacturing, Agricultural, Home Usage, Office Complexes, Shopping Centers, Rail Transportation, Automobiles, Electrical Power Grids, Municipalities, Subdivisions, and Remote Areas. Briefly, the only limiting factor is the imagination.

**Economic Possibilities:** No Historical Reference Point exists for a comparison of the Possibilities of this System. One can see from the impacted applications listed above, that the magnitude exceeds any known invention, presently 3 – 130 a part of the Human Experience.

**Present and Future Plans:** The Energy System has been in the developmental stage during the past seven years. It is Patent Pending # 08/100,074 with the Patent Office. No prior art exists according to the Patent Office's response. The System is presently being introduced into the World Market. Useful energy occurs as the result of imbalances in the ambient background energy, which is a transient phenomena. In the electrical field, it is a closed system subject to heat death, which severely limits it's utility. The flip side of the electron, produces magnetic waves which are an open system, not subject to heat death. These waves, being unrestricted, are the universal source of energy when unlimited resonate duplicates from this one source are available. Therefore, the key to unlimited energy, is Magnetic Resonance. In order to understand this, requires putting a stake through the Heart of Antique Physics. Non-linear and Open Systems are universally available in Magnetic Resonance Systems. A highly obvious example is the Piano where the Key impacts the one note giving one sound level, which resonates with it's two side keys providing a much higher sound level. Magnetic Resonance Energy clearly amplifies itself, demonstrating more energy out, than in. Ohmic resistance does not apply to Magnetic Resonance which travels unrestricted for great distances, therefore multitudes of electrons are disturbed, and their back-spin translates magnetic into usable electric energy. The right angle component which the magnetic flux provides, translates into useful electrical energy. Taken at right angles, the Magnetic Dipole provides an unlimited source of electrical energy. The writer is recognized world-wide for his knowledge and experience. See his Web Site at altenergy-pro.com . Gravity is a function of spin phenomenon as observed in gravity separation of liquids. When spun, milk and cream separate. Therefore, relative specific gravity is function of mass versus spin. Magnetics and gravity are both spin related. In part, a top levitates when spun. Therefore, spinning magnetic fields are a functional motor source as in flying saucers.

## ABSTRACT: Technology of New Energy:

Developments in the understanding of Electricity, along with Materials which were not previously available, allows the construction of Devices which collect energy in large quantities, from the Earth's Ambient Electrical Background. This Energy is naturally occurring, environmentally benign and is available everywhere. It is available wherever and whenever it is required. New Devices use Resonate

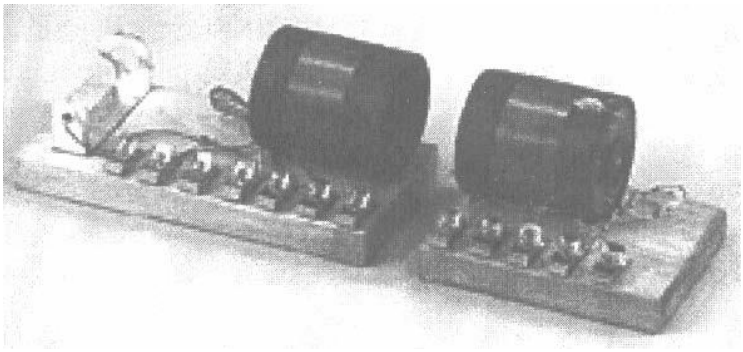
Magnetic Waves which replicate upon spinning the locally present electrons, providing multiple duplicate copies of the Energy Present. Each electron when spun yields both magnetic and electric waves in equal proportion. The electrical component is a closed system limited by Ohms Law. The magnetic component is an open system not limited and it replicates multiple copies of the energy present. Special materials and recent developments allow the magnetic energy to reproduce, through resonance, unlimited duplicate copies acquired from the ambient background. These Devices harvest the energy that has been, and is always present universally. Conventional methods consist of coils and magnets systems. Upon moving past each other, the magnetic flux field disturbs electrons which yield electricity, which is collected by the coils system. This is accomplished electronically with the new technology, without any moving parts and the energy is multiplied such that the Device becomes self-sustaining once it is started. This Technology, already presented Worldwide, will be shown at the Conference. Dr. Smith www.altenergy-pro.com e-mail donsml@earthlink.net "Putting a stake through the Heart" and thus removing the mental block created by antique physics is required. Conditions wherein this becomes necessary are non-linearity, resonance and explosions of any sort. Combustibles of any sort such gasoline and atomic explosions are good examples wherein more energy out than in, is obvious. You can add to that the non-linearity found in pulleys, hydraulics, steam power and suchlike. Magnetic resonance is a highly obvious source for multiplying energy output. The sound system present in the piano, demonstrates this very clearly. Energy amplification clearly present in the above, demonstrates the silliness attested to by many Physicists. Ohmic resistance does not apply to magnetic resonance which travels unrestricted for great distances, therefore multitudes of electrons are disturbed, and their back-spin converts from magnetic energy to usable electric energy. These same electrons have been around from the beginning of time and they are undiminished and will remain so until the end of time.

## ELECTRICAL ENERGY SYSTEMS PREFACE

Useful Electrical Energy is obtained directly from electron spin induced by incoming magnetic waves, or indirectly through mechanical exchange as in dynamo type devices. Simply put, electron spin converts from magnetic to electrical energy and vice versa. Nature provides grand scale magnetic wave induction throughout the universe, for free. In Electrical Systems, movement is at right angles to the direction of current movement. This explains the rotary movement of the Earth and other related Systems. The rate of Spin for the Earth is known as well as the mass (5.98 x $10^{\wedge 24}$ Kg - "Physics for Scientist and Engineers " , by Raymond A. Serway, Saunders College Publishing, 2nd Ed. page 288, Table 14.2), therefore the amount of incoming Electrical Energy which produces this action can be calculated. It can be seen quite easily, that the incoming magnetic wave energy is Vast and Continuous. As an accretion mass, the Earth is an Energy Sink, getting it's energy from elsewhere, being Cosmic, Galactic and Solar. Conversion of incoming magnetic waves into electrical energy provides an unending, inexpensive and environmentally friendly source available to all. Cosmic and Galactic

Energy is available twenty four hours per day. Large amounts of this Energy accumulates in the Earth's radiation belts. This Giant Energy Storage, when properly understood, provides a major source of free unending electrical energy. Each of My Inventions plugs into this vast energy source. A perverse, Intentional Ignorance on the part of the Establishment, prevents recognition of the importance of the Energy Systems shown here. Any new system which is favourable towards the masses, is considered as disruptive, and therefore not allowed. Those who have the (Gold) Energy Rule (Golden rule ) Mandated Destruction of all Humanity is not a consideration. This Presenter will remove some of the Fog placed with the intention of preventing the recognition of this unending, environmentally clean, electrical energy Source, which is present everywhere throughout the Universe.

RESONANCE CIRCUITS DEMO



Used to demonstrate electromagnetic radiation between two UC circuits - one a transmitter and the other a receiver. When the 1.5 volt power transmitter is pulsed, the radiated signal is picked up by the remote receiver circuit which then lights up a 70 volt neon lamp. With this apparatus, the student quickly understands some basic principles governing wireless communication, broadcasting, etc. Kit: #10-416 $49.95

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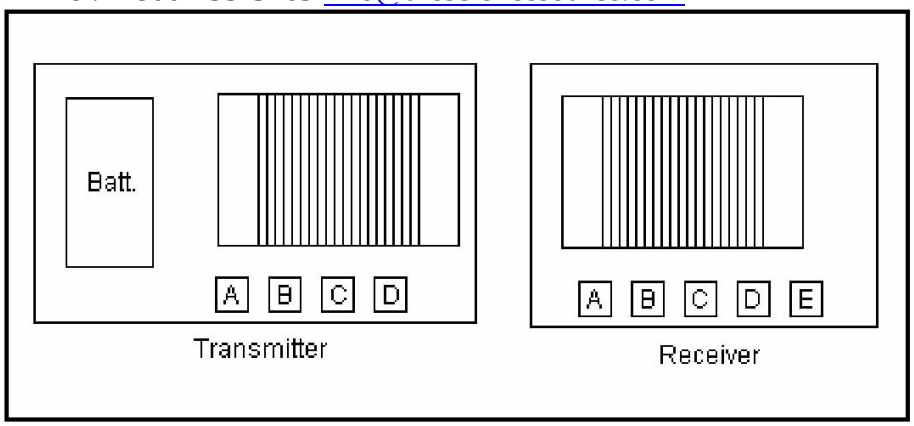



Diagram of transmitter and receiver coils

## ULTIMATE ENERGY SOURCES

A human is a speck of dust on Earth, the Solar System is a speck of dust in the Galaxy and in turn, the Galaxy is a speck of dust in the Universe (Cosmos). All of these respectively represent vast ambient

energy reservoirs. Awareness of the Sun, opens doors into other energy sources. Electromagnetic Energy which is present everywhere throughout the Universe, is accessed by catalytic activity, directly as in Solar Cells or indirectly as by mechanical means. Resonate, Magnetic Waves (Faraday's "Action at a Distance") allow Energy Activation Transfer to remote points of usage. The method of capture and use of this Energy is optional, and therefore it's cost is a function of Human Stupidity (Free-Energy). Direct access is more desirable, and technology transfer from Solar Cell-type Devices provides the Catalyst. Enormously high Ambient Energy Levels are not detected by instruments that use the Ambient Background as a Reference Plane. A spoonful of water lifted from the Ocean does not define the Ocean. Incoming magnetic waves are reflected, Deflected or absorbed. Deflected Magnetic Waves spin electrons sideways producing useful Electrical Energy. Absorbed Wave Energy produces heat, therefore a hot interior for the Earth. In Electrical Systems physical movement is in the direction of current flow, frictional drag from inflow current defines gravity. Accretion masses resulting from Energy Sinks, provide all solid entities with their respective gravitational effect. Increasing the tolerance level for Intellectual Awakening opens Doors of Reality. These doors blink into, and out of existence, and upon recognition, benefit Mankind. Opening some of these Doors, which at the present time are seen through a deep fog, is our purpose. Exploring Unrecognized Energy Sources, which are a Part of the Ambient Background, is another goal. Our Available Instruments do not use reference planes which allow recognition of this energy, as we shall see, vast Energy Sources that totally surround us are available through Technology Transfer. They are inexpensive (Free), fully self-renewable and environmentally benign. Incoming Magnetic Wave Energy with Faraday's "action at a distance" will be looked at closely. Particle Physics will be left for the Astrophysics. Excited Electrons at point "A" the Sun (including the Galaxy and Cosmos) do not travel to point "B" the Earth, however a corresponding action occurs at point "B". The Electrons being disturbed at the Central Power Plant, in the same manner excite the Electrons at Your House, upon switching into an Earth grounding (known as "flipping the switch"). Correspondingly, there are Four Major Power Sources providing enormous amounts of Ambient Background Magnetic Wave Energy. They are The Cosmic, Galactic, Solar and Earth's Ambient Electromagnetic Backgrounds. The Earth's Electromagnetic Field comes from reflection, deflection and absorption as a result of action at a distance from the above. Prescription Physics mandates that the Earth's background is of little interest. When we have Considered the evidence herein, it will become obvious that Special Interest's effort at keeping the People ignorant has, until now, largely succeeded. Information for the entire World is available regarding the Magnetic Flux Background of the Earth's Surface (United State's Geological Survey, Colorado, USA, Office). When examined and properly understood, these Maps yield important information regarding reflection, deflection and absorption of incoming Magnetic Waves, plus action at a distance. When properly understood, these Maps reveal a very large Ambient Electromagnetic Energy Source. This is the Part of the Earth's Energy System that relates to the Bird on the

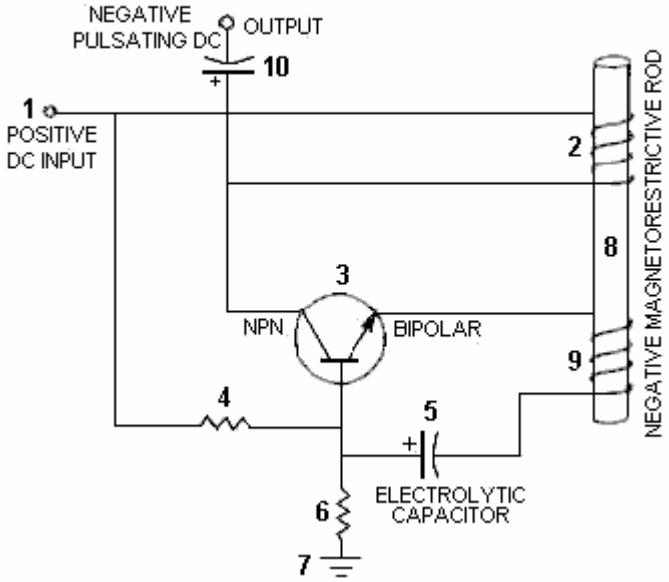
High Voltage Line. When deflected, magnetic flux from electrons changes to electrical flux, providing the Motor System that spins or rotates the Earth. Physical movement by electrical systems is from inflow current movement. What level of current movement is required to spin the Earth? The Earth's Mass is 5.98 x $10^{\wedge 24}$ . From this Information, the Watts of Electricity Required may be calculated! Absorbed microwave flux energy heats from the inside out, therefore a hot interior of the Earth results. Water is strongly diamagnetic, and on windless days, ocean waves provide visible Proof of the overhead incoming magnetic flux. From the information above, the Earth's weight and rate of spin allows the calculation of the amount of incoming ambient background energy required. As You can see, it is not inconsequential as Prescription Physics mandates. Astrophysicist are concerned with charged particles that whiz by, once every one hundred years, rather than Wave Phenomenon associated with action at a distance. This highly Active Wave Energy translates into Electrical Energy at point "B". The Galaxy is alive With Energy which is billions of times greater than that of the Sun. Visible Light is a very tiny part of the Electromagnetic Energy Spectrum. Frequencies present in the Galaxy and Cosmos allow Radio Telescope photographs of their existence and magnitude. One such 408 MHz photograph of the Electromagnetic Energy Spectrum shows that the Earth is a tiny speck of dust in this Enormous Ocean of Energy, and can be seen near the left end of the Central High Energy Area. This Energy extends in all directions. Accretion and formation of Planets, Suns and Galaxies are results of energy sinks and variable sized black holes. Mass retains heat, and is cooked from the inside out by the microwave background energy provided by the Universe. Flux movement into energy sinks, provides the frictional force know as gravity. Spinning mass in the presence of incoming flux amplifies the gravitational effect. At present, only Solar Energy is recognized. It is inconsistent, flaky and a very small Part of the Magnetic Wave Energy Present. Technology Transfer from Solar Power provides uncomplicated and inexpensive, direct access to the Other Greater Energy Sources. All Electromagnetic Energy harvesting methods include a Catalyst, a Collector and a Pump. Catalysts include sensitization through doping with certain elements, air and earth groundings. Collectors include temporary storage as in Capacitors, Coils and Transformers. The Pump System includes induced movement onward to the point of use. Conventional rotating coils and magnet systems activate electrons present, such that action at a distance can occur, therefore it is an energy activation pump. In Direct Access Systems such as Solar Cells, the same occurs without mechanical action. Direct access occurs when Magnetic Waves impact a catalyst, spinning the local electrons sideways, producing useful electrical energy. Indirect acquisition of electrical energy by mechanical means is wasteful, troublesome, expensive and degrades the environment. The dynamo is a combination collector and pump of energy which is collected from the Earth's Ambient Energy Background. Generators do not. make electricity, they collect it from the Ambient Background and forward it, as in Faraday's "action at a distance". Energy Conservation Laws relating to these systems, relate to grey areas, and when understood, are excluded because of the existence of External forces, open and non-

linear systems as per Einstein. The Knowledge Base just viewed, provides a Direct Understanding of the Requirements for Harvesting of unending, fully renewable, environmentally benign Sources of Electrical Energy.

## Magnetic Resonance Power System Suggestions for Construction

This is the Basic Sonar Power System which permits submarines to see approximately 50 miles distance. What is not commonly known is that it works better at higher frequencies in the Gigahertz range. Any Device that can radiate 50 miles plus, is producing an enormous electromagnetic disturbance from a small input into a rod of magnetostrictive material. Disturbing the Earth's Ambient Background plus the strong dipole being produced, turns the magnetostrictive rod into a combination of a receiving antenna and a vastly superior output transformer. The Drawing is only the Key Unit. A power input module and an output inverter circuit (diode bridge plus output transformer) are also required. The metal core and the wire size of the output transformer, plus adjusting the Earth Grounding of the Load, will determine the Amperage. The Ideal rod material is Terfenol-D (check the internet). However a 1.5" diameter 10" long rod, costs over $5,000 each. Less expensive alternatives are obvious. When constructing, use PVC tubing with removable caps. Wind the coils on it and insert the experimental rod. Use only magnetostrictive material. When you get it right, you will have exactly what the Doctor ordered:

**Magnetic Resonance Power System for Water Systems**
**Donald L. Smith**




Magnetostriction oscillators work by magnetic resonance in a rod of magnetostriction material. This rod serves two purposes: It vibrates at the frequency of resonance oscillation, and it becomes the feedback transformer. Frequency is determined by items 4, 5, 6 and 8. The diameter, length and volume of the rod and output windings, determines the output. Item 2 provides feedback into the system. The negative magnetic character of item 8 plus the windings 2, in reaction to the magnetic flux field provided by 9, increases (amplifies or magnifies) the output. Magnetic permeability is the counterpart of negative resistance. Resonating with negative magnetic resistance, it pumps energy from the

Earth's ambient background. Magnetic permeability is the ratio of flux density (Earth's B field) to the magnetizing force (H) in oersteds. Magnetostrictive materials are piezoelectric in character, and have a very high resistance to electrical current flow. Examples are:

1. Permealloy Negative Magnetic Permeability > 80,000
2. Sendust Negative Magnetic Permeability 30,000 -120,000
3. Metglas Negative Magnetic Permeability > 200,000
4. Iron with ( 34% ) Cobalt Magnetic Permeability 13,000
5. New Technology Magnetic Permeability > 1,000,000

**ELECTRICAL ENERGY SYSTEMS METHODS**

**1. DIRECT** - Faraday's "Action at a Distance" incoming magnetic wave conversion to useful electrical energy. This includes Cosmic, Galactic, Solar and Magnets. Technology Transfer is from Solar Cell Technology.

**2. INDIRECT** - Electron Stimulation-Induced Electron Spin Systems, Electron Avalanche Pumping Systems *Primitive*, Indirect Conversion from another form of energy. Coils and Magnet as in Dynamo Systems (Closed Systems). Chemical Systems, Atomic, Pons & Fleischman and etc.

*Advanced*, Direct Conversion, Magnetic Wave ( Open Systems ).
Ambient Sources
Air Core Coil Systems
Gaseous Tube Systems,
Solid State Marx Generator Avalanche Type Systems.
Leyden Bottle Capacitor Types inserted in Lakes and other.
Magnet Systems
Electron Beam Antenna Systems

**3. TRANSFER MECHANISMS**

Solids - as in metal conductors

Gaseous as in radio wave transmission, a form of ionization.

Sensitizing of Systems by use of Trace Doping with Radioactive elements, includes metal surfaces.

Open Systems, non-linear with external forces. Albert Einstein in a direct quote from his biography states that these are excluded from the conservation of energy laws.

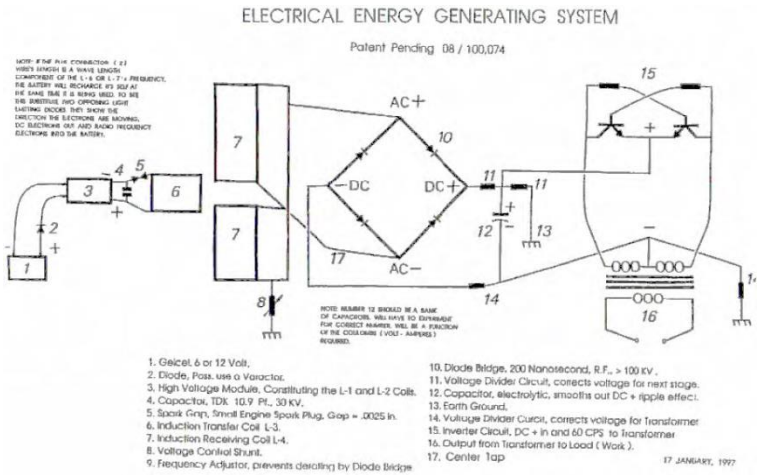
Closed Systems Maxwellian Type Systems. Mathematics are predictable requiring deductive reasoning. Ohm's Law is King, and Establishment Intellectuals being comfortable with this, brand all else as a violation of the Laws of Nature by obtaining something for nothing. This is Dishonesty grand mal.

**AMBIENT ENERGY SOURCES**

| *Radiation system* | *Diffusion Method* | *Magnetic Wave Energy* |
|---|---|---|
| **1. Cosmic** | **Reflection,Deflection and Absorption** | **Ultraviolet** |
| **2. Galactic** | **Reflection, Deflection and Absorption** | **Infrared** |
| **3. Solar** | **Reflection, Deflection and Absorption** | **Visible Light** |
| **4. Earth** | **Reflection, Deflection and Absorption, Faraday's "Action at a Distance"** | **Earth's Electrical** |

| | | |
|---|---|---|
| | **also, a Composite of all of the above** | |

A deep fog pervades the entire Scientific Community with regards to the Significance of the Above Energy Sources. Magnetic Waves convert directly into Electrical Waves (useful electricity). Two sides of the electromagnetic system are always present and never separate. Local electron spin provides (action at a distance) the flip side of the incoming magnetic wave energy. Enormous amounts of incoming magnetic wave energy becomes a part of the Ambient Background, and as such, cannot be measured directly. Reconstruction from indirect information, allows us to establish the actual energy levels which are present. Instruments provided by the Scientific Community measure only point "A" to "B", and when both are ambient, no potential energy is shown. This is the "bird sitting on the million volt power line and sensing nothing" approach. The Earth's actual ambient background has as it's Energy level multi-billions of Volts, which are conveniently and obliviously ignored by the scientific community. When properly understood, this enormous, never-ending source of environmentally-friendly energy becomes available.




# Electrical Energy System

Don L. Smith, Energy Consultant

At a meeting between J.P. Morgan, Edison and Tesla, Tesla proposed an Electrical Energy System which could he connected into directly, without using a meter. Tesla's Idea of "Free Energy" was not compatible with their thinking. Courtesy of Morgan and Edison, from that day foreword, a complete and total bastardization of the Idea has been in progress. Agents for Morgan and Friends include the U.S. Patent Office and Academia. Academia's bad habit of incestuous quoting of each other, eliminates them as a possibility in cleaning up the mess. This selective ignorance, permeates throughout the study of electricity. Many people,

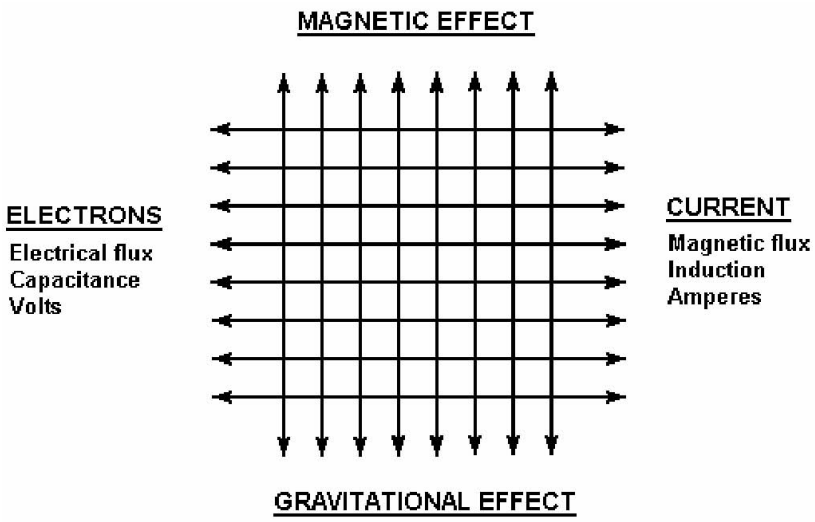
otherwise known as "intellectuals", have a total blackout and become jabbering idiots when "free-energy" is mentioned. The term has been amended to say, "something which was never there is being harvested and that this violates the laws of physics". For the selectively ignorant, this seems the way to run. Those who choose Morgan's drum beat, have severely limited the possibilities built into electricity. This paper will be an exercise in creative understanding, in placing updated knowledge at your disposal. Whether it becomes a useful tool or is selectively ignored is your choice. Electrons are defined as being the practical source of electrical and magnetic energy. The electron as a particle, was postulated by professor J. Thompson in early 1900's. It is now universally accepted that the electron exists and that it is the source of electricity. When the electron is agitated it produces magnetic and negative electrical energy. Physics as it exists today, cannot explain why the electron remains intact and is not diminished by the energy it releases. This is a part of the built-in ignorance provided by the Morgan and Edison Camp. One volts worth of electrons, when cycled, yields one volts worth of electricity. This can be repeated continuously forever and it never deplete or diminishes the electrons in question. They simply return to their air and/or earth source, waiting to do the whole thing again and again. Therefore, electrical energy is available, anywhere and everywhere humans go. People who intercede for profit, set the cost of electrical energy. Otherwise, all electrical energy is free, Morgan and Edison be damned. Improving upon Professor Thompson's postulation, other obvious characteristics can be seen to further define the electron. It has both magnetic and electrical emanations resulting from a right-hand and lefthand spin. Since magnetism and amperage come as one package, this suggest, that electrons in their natural non-ionic state, exist as doublets. When pushed apart by agitation one spins and supplies electricity and the other spins and provides magnetic (amperage) energy. When they reunite, we have Volts x Amperage = Watts. This Idea, until now, has been totally absent from the knowledge base. The number of times that an electron is cycled, sets the collective energy potential present. The electrical equivalent of $E = mC^{\wedge 2}$ is $E = (\text{Volts x Amperes}) \text{ x } (\text{Cycles Per Second})^{\wedge 2}$ . Those who choose, are now free to head for the bushes and make their usual contribution to humanity. Prior to Tesla, there was a large group of people in Europe, who were building resonant coil systems for medical use. Amperage was dangerous in their coil systems. The Tesla Coil is only the Voltage half of their coil system, as will be demonstrated. A short list of those (from 1860 onwards) active in resonate high frequency coil systems include; the Curies, Roentgen, Ruhmkoff, Oudin, Hertz, Levassor, Dumont, D'Arsonval and many others. Peugeot, Panhard-Levassor, Bollee, Renault and others had successful electric automobiles in production using A C. motors. Various electrically-powered airships, including the Dirigible "France" were in service. D'Arsonval, Professor of Experimental Medicine at the College of France, invented the electrocardiograph, oscilloscope, amp and volt meters, thermography and numerous other medical applications of high frequency electricity. As early as 1860, he was building high frequency coil systems, which he used in his experimental work. There is a strong connection between the work of Tesla and the people mentioned above.

Electric vehicles of all sorts, dominated until the 1920s, when the electric starter motor made the internal combustion engine practical. Prior to that, upon cranking, it frequently would break the owner's arm. At that point the use of batteries as a source of power was replaced by oil. The establishment's carpet has some rather large lumps under it. Coulomb's and Newton's inverse square law is politely ignored and it's opposite is allowed to have only the most abstract status. Without opposites we have no definition. The source value of a remote flux reading, requires the squaring of the distance, times the remote reading, to obtain the original value. The opposite of this, being the derivations relate to Energy equals Mass times the Velocity constant squared. The electrical equivalent, being Energy equal capacitance times voltage squared and Energy equals induction times amperes squared. Flux lines increase as the law of squares and then activate electron energy which was not previously a part of the sum. The cumulative capacitance and inductance increase as the outer ends of a Tesla coil are approached, and this results in output energy being greater than the input energy present. This Energy is real. It can be safely measured by magnetic flux methods and electrostatic voltmeters, based on the inverse square law As seen above, flux lines result both from induction-henrys-amperage and capacitance-coulombs-volts, and define electrical energy. The non-linearity of this system does not obey Ohm's law, which is replaced with impedance and reactance for alternating current systems. Impedance is the sum of the system's resistance to AC current flow, and this becomes zero at resonance. In resonant induction systems, a cycles-per-second increase, invokes a second round for the law of squares. The degree to which flux lines are present, disturbs an equal amount of electrons, upsetting the ambient background energy, resulting in useful electrical energy being obtained. The frequency at which the disturbance occurs, increases the useful energy available, and it obeys the law of squares. Two squarelaw components, *flux density* and *frequency* are involved. Enter resonance which cancels the resistive effect. Only the electrical energy which is either above or below the ambient level is useful. For the Central U.S. going east to west, ambient as approximated by electro-static voltmeters and flux methods is 200,000 volts on a solar-quiet day. At night time, the ambient energy level drops to about one half of the daytime value. On a solar-active day, it may reach more than five times that of a solar-quiet day. Ambient background energy at the polar regions, is approximately 500,000 volts on a solar-quiet day. The background energy varies as it relates to the North-South component and the East-West continuum. This leaves us with an interesting problem. Electrons, when disturbed, first produce magnetic flux and then produce electrical flux when they spin back to their normal position. Therefore any electron movement produces above ambient energy, being over unity.

ELECTRICAL ENERGY WITH ASSOCIATED PHENOMENA

**1.** Current-amperes results from the unequal distribution of negativity (electrons). **2.** Electron spin causes electrical current and magnetic lines of force. **3.** Magnetic imbalance causes the gravitational effect. This is evidenced in electric motors by magneto-gravitational displacement of mess, which causes the motor to rotate.

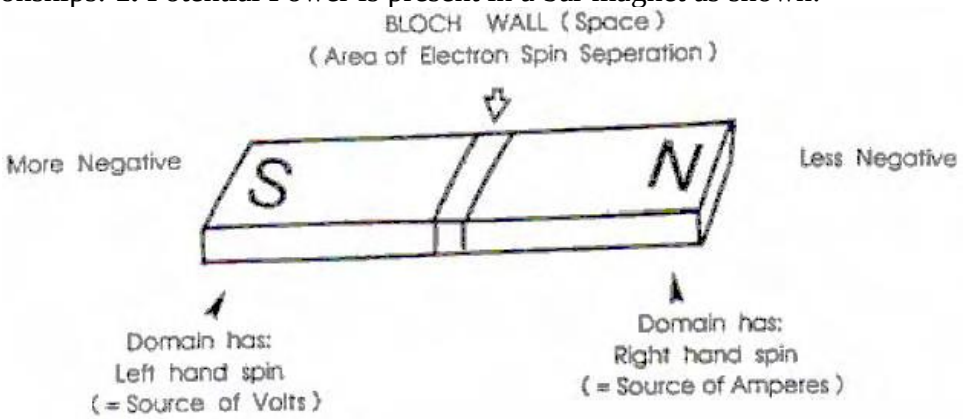
ENERGY LINES OF FLUX (FORCE) FIELDS & WAVES



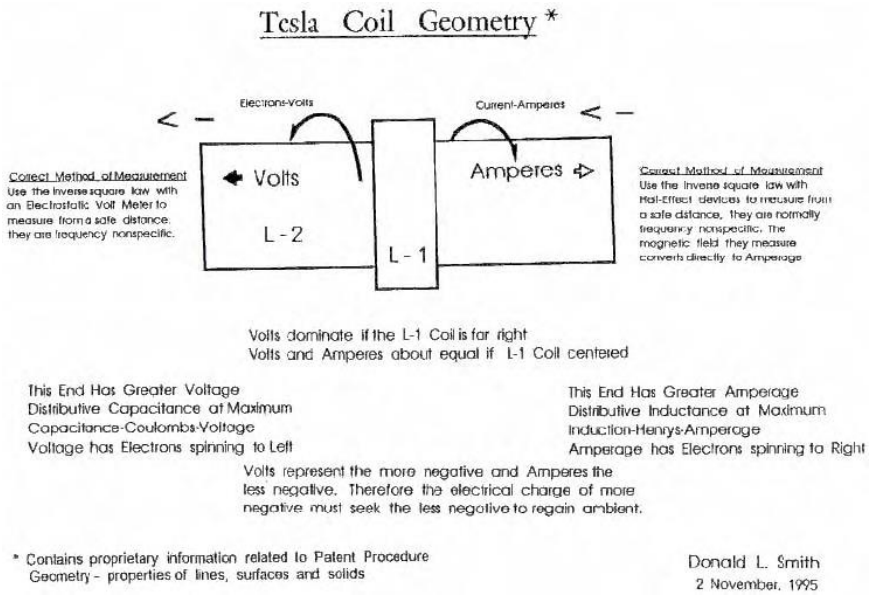

Below 20,000 Cycles Per Second = **Fields**

Above 20,000 Cycles Per Second = **Waves** (Radio Frequency)

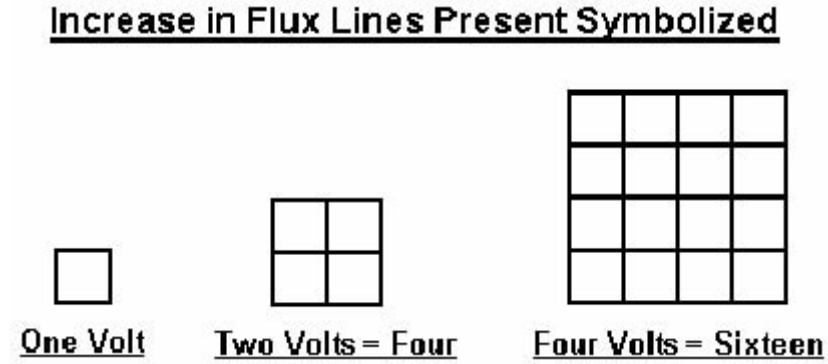
Derivation of Magnetic and Electrical Power Analogous Relationships: **1.** Potential Power is present in a bar magnet as shown:




**2.** The Source of these Electrons being from the Solar Plasma, are non-ionic and occupy all Free Space. They are commonly obtained from Earth and Air Groundings. They exist in Doublet Pairs, one being more negative than the other. The more negative one has a Left Hand Spin. The less negative one has a Right Hand Spin. **3.** Resonate Electrical Coil Systems (Tesla ) are Analogous to the System observed in the Bar Magnet (above). The Bloch Wall Area is Located at the base of the L-2 Coil. The Left Spin portion of the coil (Voltage Only ) Coil predominates. The Right hand Spin portion of the coil (MagneticAmperage) is mostly absent.



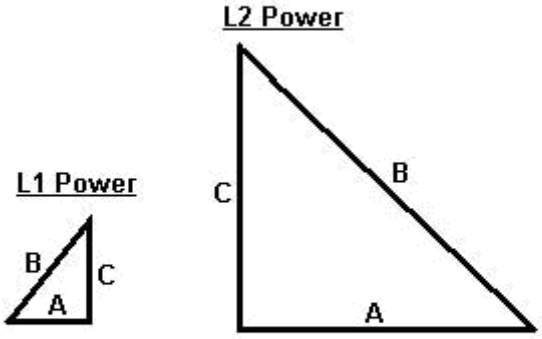

**Induced Electrical Energy System** Collection and transfer of energy requires temporary storage, which occurs as capacitors and coils of a resonant circuit are cycled, on and off. The frequency at which the capacitors and coils are pumped, determines the amount of electrical energy that moves onward. The amount of Energy transferred relates directly to the density of lines of flux present. The Kinetic Energy Formula is helpful in establishing the amount of energy present. This formula squares the velocity times mass. In the case of electrical energy, the intensity of voltage and amperes multiplied by the cycles per second, replace the velocity component. Note that the "acceleration" of the Voltage "E" and Amperage "I", which increase as non-linear components, then obeys the Law of Squares. Each unit of increase, causes a squaring of the flux lines present. The amount of energy transfer caused by this increase in flux lines is demonstrated below.




In resonant air-core coil energy transfer, the increase in flux lines present disturbs more electrons than previously, resulting in over-unity energy being present and available. Energy stored, times the cycles per second, represents the energy being pumped by the system. Capacitors and inductors store electrons temporarily. Capacitor formula: **W = 0.5 x C x E x Cycles per second** where: **W** = energy in Joules (Watt Seconds ) **C** = capacitance in farads **E** = applied potential in volts squared. Inductor (Coil) formula: **W = 0.5 x L x I x Cycles per second** where: **W** = energy in Joules (Watt Seconds ) **L** = inductance in henrys **I** = current in amperes squared Both one henry, and one farad, equal one volt. The higher the

cycles per second, including the squaring of the flux lines, cause a large increase in the amount of energy being produced. The above combined with a resonant energy induction system (where all electrons are moving in the same direction at the same time), make the next move into over-unity practical. The dampening process of conventional electrical power generation, has all the available electrons bouncing randomly, mostly cancelling out each other. In that System, the useful energy available is a very small percentage of the energy which is present. In the resonant induction system, a very high percentage of the energy present is useful. At resonance, (ohmsimpedance-Z) becomes zero and all of the energy present is not degraded and becomes available to do useful work. "Ohms" is load or wasted energy, and "amperes" is the rate of that wasting of energy. Using the previous information, if we now apply it to an air-core coil, resonant transformer energy system. L-1 and L-2 coils are now present. L-1 has a smaller number of turns and is several times the diameter of L-2. Input from a 12 volt high-voltage laser driver source, produces 8,000 volts with a low level of wasted energy, pushing amperage into, say, 4 turns of coil L-1. Each turn of the L-1 coil then acquires 2,000 volts of resonant potential. Consequently, each turn of L-2 is then exposed to the electric flux of 2,000 volts. Each turn at the bottom end of L-2 acquires 2,000 volts. The flux lines are squared and are additive as the voltage and amperage progresses towards the top end of L-2's large number of turns. A huge number of additional flux lines which were not previously present become present at the top end of the L- 2 coil. These flux lines excite the nearby electrons in it's earth and air and groundings. This high level of excitement above the ambient, causes a large number of electrons which were not previously a part of the energy present, to become available for use. At this point over-unity is present in large amounts. The "bubble gum between the ears" response to this is: "this must be lots of volts but no amperes". Please recall that amperage is wasted energy, and that until that wasting occurs, there are no amperes. A good way to demonstrate this, would be to let the bubble gum crowd put their hands on the high-voltage end of the device while standing on wet ground (a people zapper). **Note: don't do this.** This over-unity device produces energy at radio frequencies which range into the megahertz band. This allows the device to be small in size, and yet produce large amounts of energy. A megawatt-sized unit will sit comfortably on a breakfast table. This energy is changed to Direct Current and then switched to produce the desired working frequency AC.

## Power Triangle




**A: Volts x Amperes (the Available Power)**

**B: Volts x Ampres x Time (the Used Power)**

**C: Volts x Amperes x Recative (the Resonant Power)**

Random movement of electrons in "A" and "B", mostly cancel each other out. This dampening, or wasteful concept of energy, is a source of much pleasure for the establishment. **2.** "C" (Volt, Amperes, Reactive "V.A.R."), is the situation where all of the electrons move in the same direction at the same time. This results in near-unity energy output by resonant induction transfer. **3.** Resonant induction transfer from one isolated power system, allows other resonant induction systems to duplicate the original source, which in no way diminishes the original source. Air-core coils (isolation-transformers) confirm this when they are a part of one of these functioning systems. A less perfect illustration would be the fact that the number of radio sets tuned to a particular radio transmission, does not alter the power required at the radio transmitter. **4.** Resonant induction transfer, disturbs a large number of adjacent electrons which were not a part of the original input power source. The pulsating-pumping effect then draws in the newly available additional electrons into the on-going energy generation system. A near unity energy system of resonant air-core coils and the extra acquired electron-energy source constitute an over-unity system. Electrical Power Generation / Points of Reference Useful Electrical Power is Generated when Electrons from Earth and Air Groundings are disturbed by the movement of coils and magnets with reference to each other. The resulting electrical and magnetic energy is then changed to joules [watt-seconds: Volts x Amps x Seconds]. Each forward electron movement results in a magnetic impulse and each return movement causes an electrical impulse. The composite of the electrical energy impulses from these electrons yields useful energy [Power]. Let the above electron movement be represented by a room full of ping pong balls bouncing randomly. Most of the energy present cancels out by random impacts. This is the Classic Under-Unity approach to Electrical Power Generation, sanctioned by the Establishment. In contrast to that, in the Electrical Energy Generation System presented here, the resonant Electrons are all moving in the same direction at the same time. This allows Near-Unity Electrical Power to Develop. This is the room-temperature equivalent of super conductivity. The Energy System

presented here, consists of a properly-adjusted and functional resonant air-core coil tank. The magnetic energy is stored in the coil system and the Electrical Energy is stored in capacitors. From Maxwell and others, we know that electrical-related energy has an equal amount of magnetic energy associated with it. "The formula which establishes the Useful Energy of the System": Joules = 0.5 x **C** x **V2** x (**Cycles Per Second)2** *units:*

Joules (Volts x Amps x Seconds) Watt Seconds where

**C** = Capacitance in microfarads

**V** = Potential in Volts

The transfer of Electrical Power by Resonant Induction is a direct function of the squaring of the cycles per second. For example, square 60 C.P.S. and then square the radio frequency C.P.S.s of the System here presented. Obviously, One Million Cycles per Second transfers more energy than Sixty Cycles per second. The Sanctioned Method of Electrical Power Generation uses the 60 C.P.S. Method. Using 60 C.P.S. and the random scattering of the Electrons System, assures the Establishment of it's desired Under-Unity Goal. This random bouncing of the Electrons is the Ohms of Ohm's Law and is used to establish the rate of dissipation and/or Load [Work]. In the Resonant Tank Induction Energy Transfer System presented here, Impedance [system resistance] replaces the conventional ohm's usage. At Resonance, impedance becomes zero and the full force and effect of the Energy Transfer occurs. This is superconducting conditions at room temperature. At radio frequency the Electrons do not pass through the conductor as they do at lower frequencies. Instead, these Electrons encircle the conductor and are free of the conductor's resistance. Let the Establishments Power Generation System be called 'A" and the System presented here be called "B". With "A": Given 60 C.P.S. at 120 Volts using a 10 microfarad Capacitor: **Joules** = [0.5 x 0.000010 x 120]2 x (C.P.S)^2

(120 x 120 = 14,400)

[0.000010 x 14,400 = 0.144]

[0.144 x 0.5 = .072]

(0.072 x 3,600 = **259.2**]

Using the Inventor's Resonant Induction System, the Electrical Power available would then be 259.2 Joules [Watt-Seconds]. Using the Establishment's method only permits less than 10 Watt-Seconds of Useful Electrical Energy. "B". Given One Million Cycles per second at 100,000 Volts, using a 10 microfarad Capacitor.

**Joules** = [0.5 x 0.000010 x 100,000]2 x (C.P.S.)2

(100,000 x 100,000 = 10,000,000,000)

[0.000010 x 10,000,000,000 = 100,000]

(100,000 x 0.5 = 50,000]

(50,000 x One Million squared = **50,000,000,000,000,000**)

The useful Electrical Energy available is greater than 50 Mega Watts. Since the Resonant Electrons are non-impacting, all of the Energy is available for direct usage.

**Benefits of the Inventor's System**

**1.** Induction Energy transfer is enhanced by the squaring of the cycles per second produced by the System.

**2.** Induction Energy transfer is enhanced by the squaring the input voltage and amperage.
**3.** The increase of the flux lines occurring from the above, disturbing more electrons, causes more electrical energy to become available.
**4.** Resonant Induction has all of the Electrons moving unimpeded, resulting in superconductor conditions at room temperature.
**5.** A smaller amount of energy is used to disturb a larger number of Electrons. Electrons not originally a part of the System then contribute their energy, resulting in a net gain in available usable power.
**6.** The physical size of the System [Device] is small. The Device described in "B" sits comfortable on a breakfast table.
**7.** A small energy source is used to start the device and that source remains fully charged at all times by the System.

The Evidence Against Under Unity

**1.** Use of Logarithmic Scales on electrical measurement instruments. Linear measurement works fine where Ohm's Law applies (direct current). In alternating current, ohms are replaced by impedance and the measurements become non-linear.
**2.** Infinite "Q" at resonance confirms that voltage and amperage is squared, as in the kinetic energy formula. See the formulas of this report.
**3.** Square waves are clipped infinite "Q"s.
**4.** Maxwell and others show that magnetic-inductance-amperage and electrical-capacitance-voltage are two sides of the same coin. Magnetic-inductance is directly equal to amperage. Both obey the Law of Squares, which has over-unity built in.
**5.** Magnetic and electrical flux are present in enormous amounts at the outer ends of an operating Tesla Coil.
**6.** Ignorance of how to measure and relate magnetic and electrical flux, is the chief weapon of the underunity gaggle.
**7.** The Cumulative inductance and capacitance of the Tesla Coil grounds itself out, if not properly utilized. See this report for the temporary energy storage accessible, when properly managed.
**8.** The Patent Office refers devices related to over-unity to their metering group, which is a sure indication that they are aware and accept the logarithmic measuring devices. This is direct and absolute evidence that they accept the square law as it relates to kinetic energy. This also indicates they are aware that over-unity exists. Since their bureaucratic brain is improperly motivated they continue to badger inventors who are working in the over-unity arena. Their level of intellectual dishonesty is sanctioned by, and is a real part of doing business with, a government which prides itself in being a hooliganistic bureaucracy.

**Reading List**

1. Alston, L.L. ( Ed.), 1968, High-Voltage Technology, Oxford Univ. Press, London
2. Beck, E. 1954, Lightning Protection for Electric Systems, McGraw-Hill, N Y.
3. Bowdler, GAV. 1973, Measurements in High-voltage Test Circuits Pergamom, Oxford. L C. 72-86488
4. Brewley, L.V., 1951, Traveling Waves in Transmission Lines Pub: John Wiley. N.Y.

5. Chapman, S. and Barteis, J . 1940, Geomagnetism, two volumes, 1,000 plus pages, Oxford at the Clarendon press, England
6. Craggs. J.D. and Meek, J.M. 1954, High-Voltage laboratory Technique., Butterworth, London
7. EHV Transmission Line Reference Book, 1968 Edison Elcctric Institute, N.Y.
8. Farno, R.M., Chu. L.J., and Adler, R.B., 1968, Electromagnetic Fields, Energy and Forces, Pub: M.I.T Press, Cambridge, Mass.
9. Feinberg, R. (Ed. ) 1979, Modern Power Transformer Practice, McMillan. London
10. Frungel, F., High Speed Pulse Technology, Vols 1 and 2, Pub: Academic Press. 1965, N.Y., and London
11. Gallagher, T.J. and Pearmain, AJ. 1983, ISBN 0-471-90096-6 High Voltage Measurement and Design, John Wiley, N.Y.°
12. Hague, B., Alternating-Current Bridge Methods, 5 th. ed. Pub: Sir lsaac Pitman and Sons, 1959, London.
13. Hawley, W.G. 1959, Impulse-voltage Testing, Chapman and Hill, London.
14. Hayashi, Ch., Non-linear Oscillations in Physical Systems, Pub: McGraw-Hill, 1964. N.Y.
15. Henny, K. 1933-1959, Editor-in-Chief, Radio Engineering Handbook, five different copyrights, L.C. 58-11174, McGraw-Hill. N.Y.
16. Hudlestone, R.H. and Leonard, S.L., Plasma Diagnostics Techniques, Pub: Academic Press. N.Y.
17. Jacobs, J A., Editor, Geomagnetism, ( a massive work ) 3 large volumes, Pub: Academic Press, London.
18. Jeans, J.H. 1925, The Mathematics of Electricity and Magnetism, 5 th. Ed., Cambridge University Press,
19. Jones, B. 1972, New Approaches to the Design and Economics of EHV Transmission Plant, Pergamom, London.
20. Kind, D. 1978, An Introduction to High-voltage Experimental Technique, Viewieg, Braunschweig
ISBN 3-528-08383-2
21. Knoepfel. H. 1970. Pulsed High Magnetic Fields, North-Holland, Amsterdam.
22. Kreuger, F H. 1964, Discharge Detection in High-Voltage Equipment, Temple Press, Heywood, London.
23. Kuffel, E. and Zacngl. W S. 1984, High-Voltage Engineering, Pergamom, ;London. ISBN 0-08-024213-8°
24. Kupfmuller, K. 1957, Introduction to the Scientific Basis of Electrical Engineering, Pub Spinger. Berlin.
25. Lemon. H.B. and Ference, M. Jr., Analytical Experimental Physics " a major work" from The Ryerson Physical Laboratory at the University of Chicago, numerous copyrights 1933-1944. Printed as a text book by the University of Chicago Press
26. Lewis, I.A.D., and Well, F.H., Milli-microsecond Pulse Techniques Pub: Pergamom Press, N.Y. and London.
27. Malan, D.J. 1963, Physics of Lightning, English University Press, London.

28. Martin, T.L Jr., Physical Basis for Electrical Engineering, Prentice-Hall, N.J.
29. Matsusta, S. and Campbell, W.H . 1967 Physics of Geomagnetic Phenomena, Massive work in two volumes of 700 pages each. Academic Press, London.
30. National Physical laboratory, 1956, Notes on Applied Science ii 17, High Voltage Impulse Testing. HMSO.
31. Rather, H.. 1961, The Electron Avalanche and it's Generation, Pub: Vo. 33, Springer, Berlin.
32. Rokityansky, I.I., 1982. Geo-electromagnetic Investigation of the Earth's Crust and Mantle, Pub: Springer-Verlag, Berlin.
33. Salge, J., Pcier, D , Brilka, R., Schneider, D,, 1970, Applications of Inductive Energy Storage for the Production of Intense Magnetic Fields, Pub: Procedure of 6 th. Symp. on Fusion Technology, Aachen
34. Schulz, E.H., Anderson, L.T., and Leger, R.M., Experiments in Electronics and Communication Engineering, Copyrights, various, from 1943 thru 1954 LC 55-5033 Harper and Brothers, N.Y.
35. Schwab, AJ 1972, High-Voltage Measurement Techniques, The M I T. Press, Cambridge. Mass., ISBN 0262-19096-6
36. Sevin, L., 1965, Field Effect Transistors, McGraw-Hill, London.
37. Silsbee, F.B., 1942, Static Electricity, U.S. Department of Commerce, Washington. DC, U.S. Government Printing Office, (N.B.S. Circular C 438)
38. Smith, A. A., 1977, Coupling of External Electromagnetic Fields to Transmission Lines, ISBN 0-471-01995-X
39. Terman. F.E., Electronics and Radio Engineering, 4 th. ed., Copyrights 1932, 1937, 1947 and 1955 LC 55-6174 McGraw-Hill Book Co., N.Y
40. Thomas, R.T.,1970 High-Impulse Current and Voltage Measurement, Trans. I.E.E.E. EV1-19, pages 102-107
41. Thompson, Professor W, (titled Lord Kelvin ) Reprint of Papers or. Electrostatics and Magnetism (original 1872) London.
42. Traister, R., 1983, The Experimenter's Guide to Solid State Diodes, Prentice-Hall, Inc. ISBN 0-13-295444
43. Valley, G.E, and Wallman. II . 1948, Vacuum Tube Amplifiers, McGraw-Hill, N.Y.
44. Weedy, B.M. 1980, Underground Transmission of Electrical Power, Wiley, London,
45. Weeks, W L. 1981, Transmission and Distribution of Electrical Energy, Harper and Row, N.Y.
46. Winch, R_P. Electricity and Magnetism ( several printings ) Composed in Copenhagen, Denmark, Prentice-Hall Physics Series
47. Zijlstra, H., 1957, Experimental Methods in Magnetism, two volumes, the North-Holland Publishing Co.. Amsterdam.

## An Answer to America's Energy Deficit

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Energy, energy everywhere and not a Joule to Jounce. Conventional wisdom, when properly tuned will appreciate the nature of energy, as here presented. The basic unit of electricity (the electron) upon encountering a

moving magnetic field (or wave) spins, giving off an electric impulse. When this impulse collapses, it spins back to it's natural position, giving off a magnetic impulse. Therefore, magnetic and electric are two sides of the same coin. When the magnetic side is pulsed, it yields electricity and conversely, pulsing of the electrical side yields a magnetic field. Moving one in relation to the other produces useful energy. When done consecutively, each cycle pushes (current) forward, while pulling electrons into the system... in much the same way as a water pump moves water. These electrons are obtained from Earth and air grounding. The word "electric" comes from the Latin word electron "amber". When rubbed, amber develops an electrical charge, which can be transferred to a dissimilar substance. During the seventeenth and eighteenth centuries, a great deal of attention was centered on this attribute of amber. Amber was used to differentiate the non-metals. Carbon-related substances and other non-metals, when subjected to friction, give up negative electrical charges. On the other hand, metals when subjected to friction, simply conduct the charge. It is important to note that approximately 70% of the Earth's exposed crustal portions (surface) consist of silicone-related non-metals (electron donors) and become a direct source of electrical energy when properly agitated. Useful electrical energy can be obtained by grounding into the Earth's non-metal crust and into it's atmosphere as a natural source of electrons. These electrons have accumulated from the solar plasma during the aging of the Earth for more than 4.5 billion years, at a rate exceeding 3.9 exajoules per year This indicates that the Earth's electrical field contains in excess of 17.6 x $10^{\wedge 18}$ of cumulative exajoules of energy. One exajoule is the approximate energy equivalent of 125 million barrels of oil. The electrical energy in one display of lightning is approximately ten trillion joules. During each 24 hour period, the land portions of Earth's surface yields in excess of 200,000 emissions, which involves more than 2,000 quadrillion watts. C.F. Gauss (1777-1855) and H.C. Oersted (1777-1851) were each separately trying to define the Earth's electrical field with all external influences removed. These external influences being solar-quiet periods and being remote from the land's surface. The air electricity background which they measured varies with latitude. Their European measurements correspond to approximately the latitude of Washington. D C. They were measuring magnetic field flux as an indicator of negative electron energy active and present. A related family of measurement are now presented. Units of measurement used to define flux fields include Gauss (one unit = 100,000 volts), Oersted (one unit = 50,000 volts), Tesla (one unit = 10,000 Gauss) and Gamma (one unit = 1/10,000 of a Gauss). Much confusion exists in electrical related publications about these units. As presented here they are correct with values taken from their original definitions. The entire surface of the Earth has been surveyed by aerial magnetometer, in most cases using gamma or nano teslas. One gamma is the magnetic flux equivalent of 10 active volts of electricity. When the data is corrected for flight height it becomes obvious that there are numerous areas where the gamma readings exceed one trillion gammas. Lightning strikes from the ground up are in that energy range. With knowledge of these electron enriched areas, the quality of Earth grounding, becomes enhanced. The correction necessary

for land surface data when acquired from aerial magnetometer maps (using Coulomb's law) requires that the remote distance be squared and then multiplied by the remote reading. As an example, if the remote reading is 1,600 gammas and the flight height being 1,000 feet. Take 1,000 x 1,000 = 1,000,000 x 1,600 gammas = 1.6 trillion gammas x 10 volts = 16 trillion volts equivalent for land surface data. Present day methodology requires mechanical energy in exchange for electrical energy. Once obtained, this energy is subject to Ohm's Law. Present Methodology obtains it's electrical energy from it's non-metal and air groundings. This same energy can be obtained without the wasteful mechanical approach and at a much, much lower cost. Any required amount of electricity is available by resonant induction transfer from the Earth's magnetic and electrical fields. The major difference is in the functioning of Ohm's Law in relation to resonant circuits. In the resonant induction system suggested here, system resistance (Z) becomes zero at resonance. Therefore, Volts and Amperes are equal (V.A.R.) until work (load) is introduced. Each cycling of this resonant induction system pulls in additional electrons from the Earth's electrical field, generating electrical energy in any required amount. In this system, a small amount of electrical energy is used to activate and pull a much larger amount of energy into the system. This electrical advantage corresponds to the pulley and lever of the mechanical world. The electrical system presented here is extremely efficient. Using present methodology as a basis for comparison, with it's 60 cycles per second system. The resonant induction system, cycling at 60 million times per second produces one million times the energy which is produced by the present energy systems. A single small size unit of the resonant induction system has more usable electrical output than a major conventional unit. The radio frequency energy produced is easily changed to Direct Current, and then to the present 60 cycles per second system in preparation for commercial usage.

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The Patent Pending on this system is #08/100,074, "Electrical Energy Generating System", dated 4 February, 1992. **Definitions:** One **Joule** is one watt for one second One **Watt** is one volt ampere **V.A.R.** is Volt Amperes Reactive

**Additional Reading:**

Electricity and Magnetism by B.I. Bleany and B. Bleany Oxford University Press 1991 ISBN. 0-19-851172-8 Engineering Electromagnetics by W. H. Hayt. Jr. McGraw-Hill 1989 ISBN. 0-07-027406-1

Energy Methods in Electromagnetism by P. Hammond Oxford University Press 1986 ISBN. 0-19-859368-6 Energy in Electromagnetism by H. G. Booker Institution of Electrical Engineers by Peter Peregrinus Ltd. 1982 ISBN 0-900040-59-1

The American Radio Relay League Handbook for 1992 and 1993. 69th and 70th editions. Published by The American Radio Relay League. (For V.A.R. information) ISBN. 0-87259-169-7 Electron Paramagnetic Resonance, Techniques & Applications by R. S. Alger, U. S. Naval Radiological Defence Laboratory, San Francisco, California. Pub. Interscience Lib. Congress #67-20255

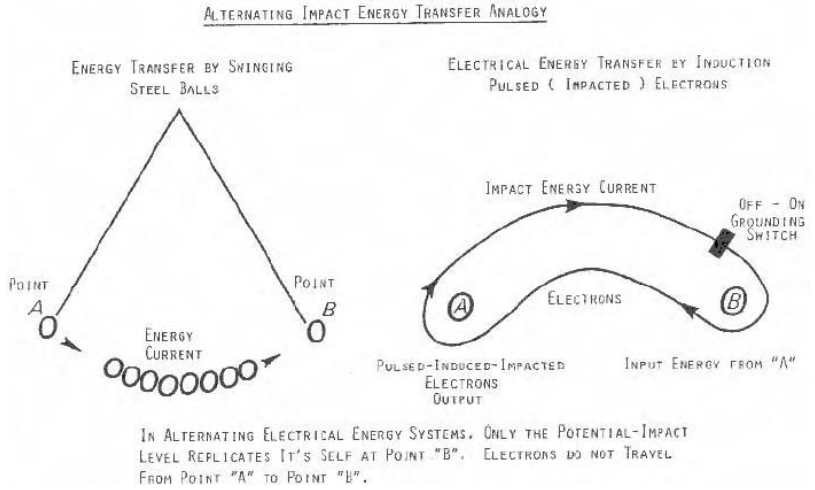
Geomagnetic Diagnosis of the Magnetosphere by A. Nishida, University of Tokyo 1978 Pub: Springer-Verlag ISBN. 0-387-08297-2

Energy and The Missing Resource by I. Dostrovsky. Pub: Cambridge University Press 1988 ISBN. 0-521- 26592-4

High Voltage Measurement Techniques By A. Schwab, M.I.T.. 1971 I S.B.N. 0-262-19096 Environmental Magnetism by R. Thompson & F. Oldfield Pub: Allen & Unwin, London 1986 ISBN. 0-04- 538003-1 Geo-electromagnetic Investigation of the Earth's Crust and Mantle. Translated from Russian, By I. I. Rokityansky. Institute of Geophysics, Kiev, U.S.S R. Pub: Springer-Verlag 1082. ISBN. 3-540-10630-8 Electron Paramagnetic Resonance of Transition Ions by A. Abragam and B. Bleaney Dover Publications, New York, N.Y. 1986 The Electromagnetic Field by A. Shadowitz, Dover Publications, New York, N.Y. Geomagnetism, Several Volumes, Pub. Periodically by J.A. Jacobs, Institute of Earth Studies, Dyfed, U.K. Pub: Academic Press 1989-1990's. Geomagnetism by S. Chapman and J. Bartels, 3 Volumes Oxford University Press, 1940 Physics of Geomagnetic Phenomena, Several Volumes by S. Matsushita and W. H. Campbell National Center for Atmospheric Research, Boulder, Colorado Library of Congress #67-23168 Pub:

Academic Press, 1967

Physics Problems and How to Solve Them by C. E. Bennett, Professor Emeritus of Physics. University of Main (Particularly the sections on Electricity and Magnetism, and Units of Measure). Pub: Harper & Row ISBN. 0-06-460203-6 Units and Standards for Electromagnetics By P. Vigoureux, National Physical Laboratory Pub: Springer-Verlag 1071 ISBN. 0-387-91077-8 Surveyor's Guide to Electromagnetic Distance Measurement. Edited by J. J. Saastamoinen, Canada Pub: University of Toronto Press Electromagnetic Distance Measurement by C. D. Burnside Pub: Granada, London 1971 ISBN. 0-258-96793-5 Der Magnetische Kreis "The Magnetic Circuit" By Von Heinz Rieger of Siemens AG. 1970 Berlin and Munchen, Germany I.S.B.N. 3-8009-4719 6 Electronic Modelling of Power Electronic Converters by J. A Ferreira Pub: Kluwer Academic 1989 33 AH Dordrecht, The Netherlands I.S.B.N. 0-7923-9034-2




**E.E.S. II, BACKGROUND INFORMATION & CONCEPT**

With alternating electrical current, electrons do not move from point "A"

to point "B" as commonly envisioned! Electrical potential (oscillating electrons) at point "A", results in harmonic electron activity at point "B", when the grounding switch (circuit) is closed. That is to say, point "B" supplies it's own electrons and mirrors the activity of point "A". Impulsing (turbulence) by magnetic induction causes electrons to be pulled into the system, which then oscillates. When the magnetic field collapses (becomes absent) the electrical potential returns to it's natural background level. Several major flaws are present in the conventional 60 cycles per second method of electrical power generation and it's iron core transformer system. ***This system is handcuffed by the inverse relationship of volts to amperes.*** This represents a stodgy, inflexible inheritance, courtesy of Mr. T.A. Edison and his concept of electrical power generation. Nikola Tesla stood, almost alone, against Edison and managed to prevail with his Alternating Current system. Without the alternating current system, electronic things in the modern sense would not exist. This report will be concerned with some of the extensions and benefits of the alternating current electrical system. ***This study will limit it's scope to air core coil transformers at radio frequency and upwards. The electrical power produced by this method is inverted to Direct Current and then to Alternating Current as required for popular usage.*** There are several important advantages of this system over conventional power generation. Start with two coils (separate-apart), one being a reactor coil (L-1) and a second coil (L-2), being the reactant coil. Magnetic field fluxing (off-on of the electrical source) causes inductive reactance of L-1 which replicates by induction in L-2. Pulsing of the magnetic field (from L-1) in the presence of L-2, generates electrical potential. For example, should the L-1 coil have ten turns, with an imposed AC. potential of 1,200 volts. This results in each turn of L-1 acquiring 120 volts of potential. This induced magnetic field, then replicates itself in each turn of the L-2 coil. The L-2 coil may have one or many hundreds of turns. Modern encapsulation techniques makes high frequency and high energy controllable. Let's take another important step in this air-core transformer process. For purpose of discussion, let the value of inductive reactance at 60 cycles per second, equal one. Each time the frequency is doubled, the effectiveness of induction is squared. At about 20,000 Hz, ***when radio frequency is achieved, the electrons begin spinning free, outside of the inductor and they become increasingly free of the inverse relationship of volt-amperes.*** From this point on, they replicate by the inductive process as V.A.R.. *That is to say,* ***volts and amperes are equal, until resistance (work) is introduced. Therefore, additional, not previously available electrons become incorporated for a very large net gain in potential. This gain is real !*** The quality of the grounding system determines the effectiveness of this method of producing electricity. A handy reference to locate the negative grounding areas for power generation can be found in the Aeromagnetic Map Studies of the US Geological Survey. They provide an excellent method for locating the best sites for optimum negative grounding areas. When this method is combined with the induction coil system, already described, it provides an electrical power generating system millions of times more efficient than any known conventional method. This new system ("E.E.S.

II") is uncomplicated, physically small and it is inexpensive to build. The technology required for it's construction already exists. Maintenance is near zero, as there are no moving parts. Once operating, this system could last forever. Small mobile E.E.S. II units are already available as replacements for the batteries used in electric automobiles. Larger E.E.S. II units can be provided as a replacement source of power for hotels, office buildings, subdivisions, electric trains, manufacturing, heavy equipment, ships, and generally speaking, any present day application of electrical power.

**Earth Electrical System II, Modular Units**

The system consists of three separate modules. Reverse engineering is used in matching the modules to the desired usage.

**HIGH VOLTAGE INDUCTION TRANSFORMER MODULE:**

**1.** Preferably an off-the-shelf-unit similar to a TV flyback and/or automobile ignition type related coil (transformer).

**2.** Ratio of input to output may be from less than 1:100 to greater than 1:1,000 A voltage tripler may then be used.

**3.** A connection allowing the high voltage output to pass onward through the induction coil L-1 and then to it's grounding.

**AN AIR CORE INDUCTION COIL TRANSFORMER MODULE:**

**1.** There are two coils: the reactor coil L-1 and the reactant coil L-2. L-1 has a high voltage radio frequency

capacitor between it and it's grounding.

**2.** Input into the L-1 inductor is divided by the number of turns in it. The magnetic flux field provided from each turn of L-1 replicates itself as an electrical potential in each turn of L-2.

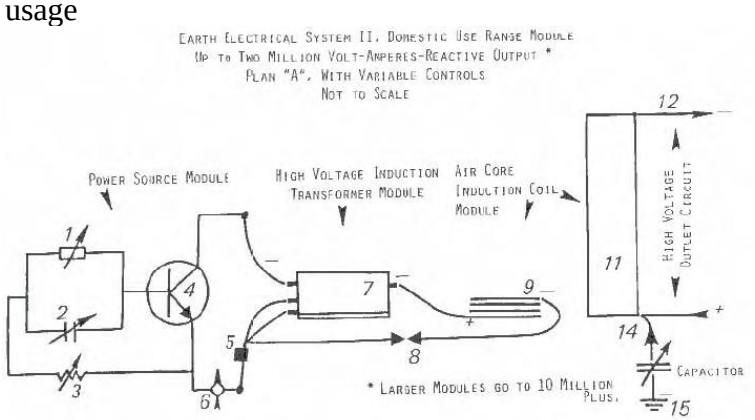
**3.** L-2 may have one turn or many hundreds of turns. The net gain depends upon the number of turns in L-2. Output from L-2 is in V.A.R. ***With this type of output, volts and amperes are the same until work(resistivity) is introduced.***

**THE INVERTER MODULE:**

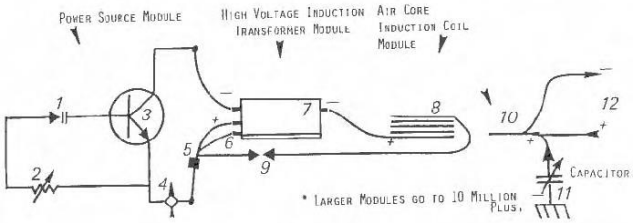
**1.** Inverts to direct current (D C.)

**2.** Inverts to alternating current (A C ), as desired.

**3.** Provides customized output of electrical power ready for designated usage



EARTH ELECTRICAL SYSTEM II. DOMESTIC USE RANGE MODULE
UP TO TWO MILLION VOLT-AMPERES-REACTIVE OUTPUT *
PLAN "B". ELECTRICAL AUTOMOBILE ENERGY SOURCE




PARTS: 1. VARACTOR, RADIO FREQUENCY. 2. RESISTOR. 3. TRANSISTOR, RADIO FREQUENCY. 4. OFF-ON SWITCH, MULTI-POSITION. 5. BATTERY, RECHARGEABLE. 6. TRANSFORMER GROUNDING. 7. HIGH VOLTAGE INDUCTION TRANSFORMER. 8. REACTOR, INDUCTION COIL. 9. FEED BACK WITH SPARK GAP. 10. REACTANT, INDUCTION COIL. 11. GROUNDING FOR # 10, OUTPUT CIRCUIT. IN VOLT-AMPERES-REACTIVE.

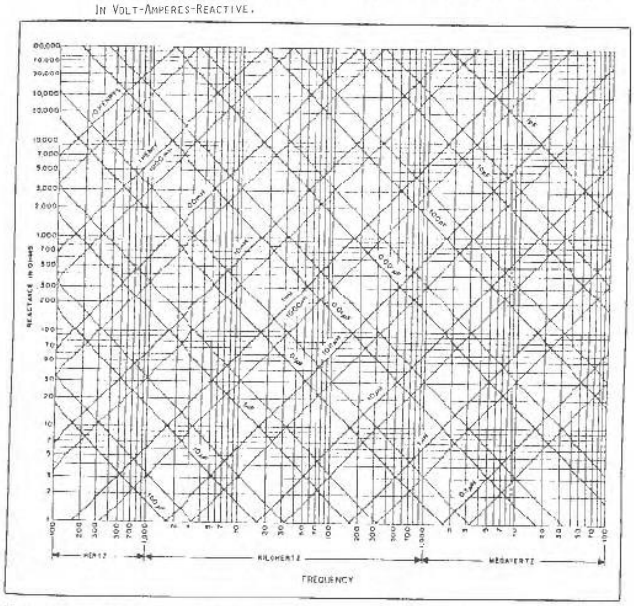



Fig. 44 — Inductive and capacitive reactance vs. frequency. Heavy lines represent multiples of 10, intermediate light lines multiples of five. For example, the light line between 10 μH and 100 μH represents 50 μH; the light line between 0.1 μF and 1 μF represents 0.5 μF, and so on. Intermediate values can be taken within the chart range. For example, the reactance of 10 henrys at 60 Hz can be found by taking the reactance of 6 henrys at 600 Hz and dividing by 10 (or the 10 x times decrease in frequency).

CHART, COURTESY OF A.R.R.L., 1992 ED.

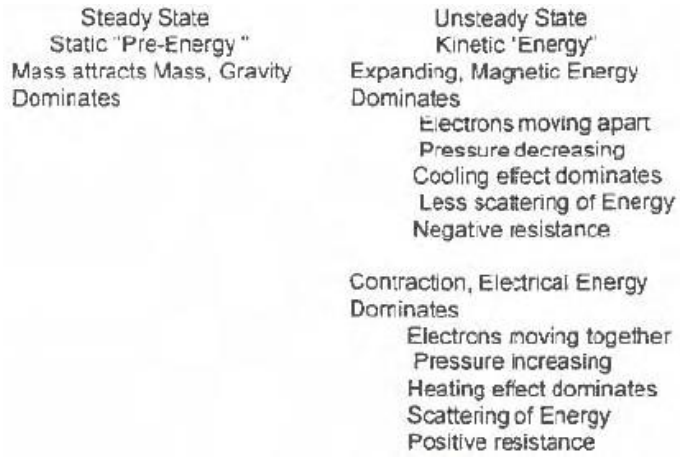
**Speech presented the evening of 23 July. 1994 at the International Tesla Society Convention at Colorado Springs. Colorado. DONALD L. SMITH ENERGY CONSULTANT 8110 BENT OAK LANE SPRING. TEXAS 77379 ELECTRICAL ENERGY REFERENCE POINTS**

**Electrical Energy Generating System Patent Pending # 08/100.074. 2/4/92**

The word "electric" comes from the Latin word electron "amber". When rubbed, amber develops an electrical charge, which can be transferred to a dissimilar substance. During the seventeenth and eighteenth centuries, a great deal of attention was centered on this attribute of amber. Amber was used to differentiate the non-metals. Carbon-related substances and other non-metals, when subjected to friction, give up negative electrical charges. On the other hand, metals when subjected to friction, simply conduct the charge. It is important to note that approximately 70% of the Earth's exposed crustal portions (surface) consist of silicone related non-metals (electron donors) and therefore becomes a direct source of electrical energy when properly agitated. Useful electrical energy is obtained by grounding into the Earth's non-metal crust and into it's atmosphere as a natural source of electrons.

These electrons have accumulated from the solar plasma during the aging of the Earth for more than 4.5 billion years, at a rate exceeding 3.9 exajoules per year. This indicates that the Earth's electrical field contains in excess of 17.6 x $10^{\wedge 18}$ power of cumulative exajoules of energy. One exajoule is the approximate energy equivalent of 125 million barrels of oil. The electrical energy in one display of lightning is approximately ten trillion joules. During each 24 hour period, the land portions of the Earth's surface yields in excess of 200,000 emissions, which involves more than 2,000 quadrillion watt-seconds of active energy on display. This physical phenomenon indicates that the Earth's crust is an unending source of electrical energy. The surface area involved is a very small portion of the Earth's crust. J.C. Maxwell (1891) suggested that an active electron field gives rise to an associated magnetic field. Therefore, both are present with pulsating current. Early studies, involving observation of compass needles by microscopy, revealed that the needle vibrates as with alternating current. More recent studies by A. Nishida and others, confirm that alternating current is common in the Earth's crust. C.F. Gauss (1777-1855) and H.C. Oersted (1777-1851), both were separately trying to define the Earth's electrical field with all external influences removed. These external influences being solar-quiet periods and being remote from the land's surface. The air electricity background which they measured varies with latitude. Their European measurements correspond to approximately the latitude of Washington, D.C. They were measuring magnetic field flux as an indicator of negative electron energy active and present. A related family of measurement is now presented. Units of measurement used to define flux fields include Gauss (one unit = 100,000 volts), Oersted (one unit - 50,000 volts), Tesla (one unit = 10,000 Gauss) and Gamma (one unit = 1/10,000 th of a Gauss). Much confusion exists in electrical related publications about these units. As presented here, they are correct with values taken from their original definitions. The entire surface of the Earth has been surveyed by aerial magnetometer, in most cases using gamma or nano teslas. One gamma is the magnetic flux equivalent of 10 active volts of electricity. When this data is corrected for flight height, it becomes obvious that there are numerous areas where the gamma readings exceed one trillion gammas. Lightning strikes from the ground up are in that energy range. With knowledge of these electron enriched areas, the quality of Earth grounding, becomes enhanced. The correction necessary for land surface data when acquired from aerial magnetometer maps (using the inverse square law) requires that the remote distance be squared and then multiplied by the remote reading. For example, if the reading is 1,600 gammas and the flight height is 1,000 feet. Take 1,000 x 1,000 = 1,000,000 x 1,600 gammas = 1.6 trillion gammas x 10 volts = 16 trillion volts equivalent for land surface data. Present day methodology requires mechanical energy to be expended in exchange for electrical energy. Any required amount of electricity is available by resonant induction transfer from the Earth's magnetic and electrical fields. Each cycling of this resonant induction system pulls in additional electrons, generating energy in any required amount. A small amount of electrical energy is used to activate and pull into the system a much larger amount of energy.

**ENERGY VERSUS MASS**




**Functions of active Electrons**

Electrons become active when placed inside the critical distance allowed by their negativity. Active Electrons provide:

**1.** Electricity

**2.** Magnetics

**3.** Gravitational thrust as in Electric Motors

**4.** The source of Visible Light

**5.** It's charge is Negative

They move in a closed loop as seen in the Icon for infinity, not in a circle as shown in many books. One half of the loop consist of a magnetic impulse and the return half consist of the electrical impulse. This is seen as the classic sine wave of alternating electrical energy. A flash of light occurs when two electrons suddenly find they are too close together. Daylight results from the impingement of Electrons in the Earth's atmosphere with the Electrons of the Solar Plasma. My Concept of the Forces of Nature differs from the conventional. It consist of a weak and a strong force, each being additionally composed of electrical, magnetic and gravitational (fields and waves). Any two of the three constitute the third member; Gravity "B" of the weak force competes with humans on a daily basis. Gravity "A" of the strong force is the force that holds the Solar System and the Universe in place. Energy from the Electrons represent the weak force. Energy inside the Atom represents the strong force "A". Controlled resonant induction of any two of the three, changes into the third and is the motor that runs the Universe. We see this in the electrically-induced magnetic thrust against gravity in electric motors. Weak force is required to dislodge electrons and strong force (atomic) to dislodge protons. Unless dislodged, these particles are of little value in producing Conventional Electrical Energy. Therefore, in conventional electrical energy production, the particle of importance is the negative electron. Electrons have a "grudging" relationship with other electrons. They like each other, especially at arms length. Like potentials repel each other, and unlike potentials attract. To demonstrate this, take two batteries of the same type, but of a different charge level (unequal potentials). Put the plus and minus ends facing the same direction. Then with a volt meter, measure the electrical potential between the two negative ends and then the two positive ends. It is obvious that the "more negative" moves to the "less negative" is the correct concept for electrical energy generation.

Electrical Energy flow consist of a higher concentration of electrons moving to an area of lesser concentration.

**OHM'S LAW WITH CORRECTIONS:**

A major obstruction in reference to the correct function of electrical energy is the establishment's incorrect interpretation of Ohm's Law. The corrected version is:

**Volts** = Energy Available (Potential)

**Ohm** = Scattering, dissipation of Energy (Load)

**Ampere** = the rate of, dissipation / scattering of energy

It is important to note that Ohm and Ampere are after the fact, and are not decisive except for the dissipation factor. High Voltage at low amperage simply means that the High Voltage is still intact for future usage. In no way is the potential diminished by low amperage.

**EXAMPLES OF OVERUNITY**

Dominos did not exist in England when the Laws of Conservation were originally put in place. Otherwise they might have been very different. For example, let us take a long row of upright dominos, (many thousands) and flip number one. The Energy required to flip the first domino must now be added with that of thousands more in order to have a correct assessment. The Electron itself is an excellent example of over-unity. The electron provides various forms of energy continuously throughout eternity and is in no way diminished. It simply cycles through the system and is available thereafter. In Electrical Systems, Electrons active at point "A" are not the same Electrons active at point "B". That is to say, the Electrons activated at the Central Electrical Energy Station are not the ones used at your house. When you ground your system by flipping the wall switch, you use your own electrons. In closed energy systems, electrons communicate with and replicate the activity of the overbalanced potential, when provided with Earth and or Air Groundings. The number of Radio sets and Television sets running at any one time do not diminish, in any way the electrical output of the source station. For example, let now use an Air Coil Resonant Induction System for the purpose of flipping some electrons. The flipping device (reactor coil L-1) is pulsed, which then provides a resonant induction pulse. In turn, this flips the electrons present at the (reactant L-2) Coil. The energy input in L-1 is divided by the number of turns present. The induced magnetic pulsing in turn flips the electrons in each turn of L-2. If more turns are present in L-2 than L-1, there is a net gain in the Energy present, as demonstrated by the dominos above. The farads and henrys of the resonant system provide the resonant frequency when pulsed by an external energy system. A system shunt in the resonant circuit sets the containment level for energy potential. The Induction Process itself provides an excellent example of over-unity. When comparing rate of induction, the cycles per second must be squared and then compared to the square of the second System. Let us then compare the 60 Hz System with my 220 MHz Device. Energy produced at radio frequency has several major advantages over the conventional system. Ohm's Law does not apply to a resonant air-core radio frequency system. For example: When the system is resonant, the following is true:

EXPECTED RESULTS

$$\frac{\text{Energy Potential as Volts}}{\text{Dissipation}} = \text{Rate of Dissipation}$$

ACTUAL RESULTS

Superconductor Conditions take over

$$\frac{\text{Energy Potential as Volts}}{(\text{Dissipation})^*} = (\text{Rate of Dissipation})^*$$

* OHMS / DISSIPATION IN AIR-COIL RESONANT INDUCTION SYSTEMS: RESISTIVITY BECOMES ZERO AT RESONANCE

This is named the V.A.R. ( Volt Amperes Reactive ) System. When compared to the Conventional Under-Unity iron-core transformer system, the results are over- unity. It is strange that mechanical advantage as in pulleys, gears, levers and others which correspond to the electrical advantage above mentioned, are not considered over-unity devices. Let us take a closer look at resonant induction. As an example, let a room full of ping pong balls randomly bouncing at a high speed represent the Conventional method of under-unity energy generation. Suppose that by resonant induction the balls all move in the same direction at the same time. When this occurs a huge amount of energy not previously available is present. The resonant air-core coil system lines up the electrons in such a manner that the energy factor is nearly 100 % , and not the 2% or 3% of Conventional under-unity devices sanction by the establishment. Some other devices where overunity is common would be resonant induction circuits present in conventional radio tubes (high plate voltage), negative-feedback systems found in Op-Amps and possibly others.

## SUMMARY

Useful electrical energy is achieved when the electron density at point "A" becomes greater than at point "B", (being the more-negative moving to the less-negative concept). Coils moving through a magnetic field or vice versa causes this imbalance. The mindset of the professional Electrical Engineer is restricted to non-resonant and iron-core coil resonant systems. Ohm's Law, when applied to resonant air-core induction systems, becomes, system resistivity (impedance, Z). "Z" becomes zero at resonance. Therefore, in this system, volts and amperes are equal until load (resistivity) is introduced. This is called the Volt Ampere Reactive (V.A.R.) System. With impedance being zero, the System grounding is coupled directly into the Earth's immense electrical potential. Efficiency of induction relates to the square of the cycles per second. Compare the ratio of the conventional 60 c.p.s. System and the 220 million plus cycles of my Earth Electrical System II. Electrons which cycle through this system, after being used, are returned intact to their former state for future usage. Electron spin causes electrical current and magnetic lines of force The effect of current, results from the unequal distribution of negativity (electrons). Magnetic imbalance causes the gravitational effect. This is evidenced in electric motors by magnet-gravitational displacement of mass which causes the motor to rotate.

The System is an extension of present technology.

The System and it's source utilizes magnetometer studies.

This System (Earth Electrical System II. "EES.II") utilizes a fully renewable energy source.

This System utilizes a non-polluting energy source.

This System utilizes an universally available energy source.

Endorsement and Certification of The System can be anticipated by States with pollution problems.

AIR CORE INDUCTION COIL BUILDERS GUIDE

**DONALD L. SMITH** Energy Consultant

**1.** Decide frequency. Considerations are: (economy of size)

**a.** Use radio frequency upward (above 20,000 Hz).

**b.** Use natural frequency (coils have both capacitance and inductance), that is match the wire length of the wire in the coil to the desired frequency.

**c.** Wire length is either one quarter, one half or full wave length.

**d.** To obtain the wire length (in feet) use the following: If using one quarter wave length divide 247 by the desired frequency (megahertz range is desirable). If using one half wave length divide 494 by the desired frequency. If using full wave length divide 998 by the desired frequency.

**2.** Decide number of turns, ratio of increase in number of turns sets the function. In the case of the L-1 coil, each turn divides the input voltage by the number of turns. In the case of L-2 coil, the resulting voltage in each turn of L-1 is induced into each turn of L-2, adding up with each turn. For example if the input into L-1 from a high voltage, low amperage module is 2,400 volts, and L-1, for example, has 10 turns, then each turn of L-1 will have 240 volts of magnetic induction which transfers 240 volts of electricity to each turn of L-2. L-2 may be one turn or many turns, such as 100 to 500 or more turns. At 100 turns, 24,000 volts would be produced. At 500 turns, 120,000 volts would be produced.

**3.** Decide the height and diameter of the coil system. The larger the diameter of the coil, the fewer turns are required, and the coil has a lesser height. In the case of L-2 this results in lowering the amplification of the induced voltage from L-1.

**4.** For example, if 24.7 MHz is the desired frequency output from L-2. One quarter wave length would be 247 divided by 24.7 which equals 10 feet of wire. The number of turns will be the amplification factor. The coil may be wound on standard size P.V.C. or purchased from a supplier. The supplier is normally a ham radio supply source. Once the length is determined and the number of turns decided, move to the next step. For example, let each turn of L-1 have 24 volts and desired output of L-2 be 640 volts. Therefore L-2 needs 26.67 turns. It has been determined that the wire length for one quarter wave length is 10 feet. The number of inches in 10 feet is 120. Using Chart "A" supplied look for next higher number of turns showing (being between 20 and 30 turns with a 2" diameter coil). This tells us to use a 2 inch coil. If ready-made as in the case of Barker and Williamson, 10 Canal Street, Bristol, Penna., 215-788-5581, the coils come in standard sizes of 4, 6 and 10 turns per inch. For higher "Q" use wider spacing of the turns. These coils come in a ready-made length of 10 inches. Select from the coil 30 turns and put input clamps on the base of the coil and at 30 turns. For exact determination of the correct position of

the output clamp, use an externally grounded voltage probe. The node of maximum intensity, being the natural resonant point. Off the shelf multimeters are not radio frequency responsive. The easiest way to accomplish the above is to get from the hardware store or Radio Shack a voltage detector having a neon bulb system (Radio Shack Cat. No. 272-1100b, NE2-Neon

Lamps) will work. With your hand as a ground, move the wire extension of the neon lamp along the coil surface until the neon is brightest. This is the desired point of resonance and it is the optimum connection point.

**5.** The input power now needs consideration. A 2,400 High Voltage module has been previously selected. This module can be made from a diode bridge or any combination of voltage amplifiers. The one used here is an off-the-shelf type, similar to those used for laser technology. **6.** Construction of the input L-1 coil. It has already been decided that there will be 10 turns. The length of the wire here is not critical. Since the L-2 coil is 2-inches in diameter, the next off-the-shelf larger size may be used for L-1. Use a 3 inch diameter off-the-shelf coil which has 10 turns to the inch. Remove (cut) a 10 turn portion from the larger coil. Use an L.C.R. meter and measure the natural farads (capacitance) and henrys (inductance) values of the L-2 coil. Now do the same for the L-1 coil. It will be necessary to put a capacitor across the voltage input of L-1 in order to match the L-1 coil to the L-2 coil. A spark gap across L1 is also required to deal with the return voltage from L-1. A tuneable capacitor of the pad ("trimmer") type for L-1 is desirable. **7.** The performance of the L-2 coil can be further enhanced by having an Earth grounding from the base of the coil. The maximum voltage output will be between the base and the top of the L-2 coil. Lesser voltages can be obtained at intermediate points along the length of the L-2 coil.

**SUPPLY SOURCES**

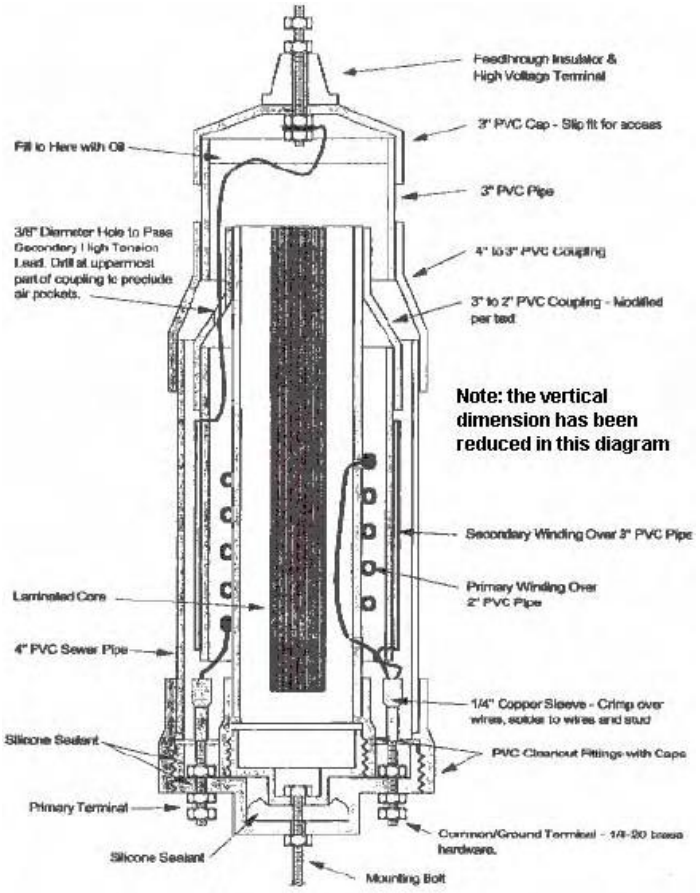
**1.** HAM RADIO SUPPLY STORES

**2.** COILS, AIR INDUCTOR IN HOUSTON

**3.** BAKER AND WILLIAMSON (READY MADE), BRISTOL. PENNA.

ALSO R.F. DUMMY LOADS AND WATTMETERS.

NOTES




**Impulse Transformer Assembly**

## ELECTRICAL PRINCIPLES: TERMINOLOGY & SAFETY

The use of electricity is so commonplace that most people assume that it will always be available on demand. To fully realize our dependence upon electricity, consider the ways in which electricity is being used each day in the home, on the farm and the ranch. Electricity is doing more to increase work efficiency and promote enjoyable living than any other single factor. The use of electricity has grown to the extent that an increasing portion of the home or business budget, is used in paying for this source of energy.

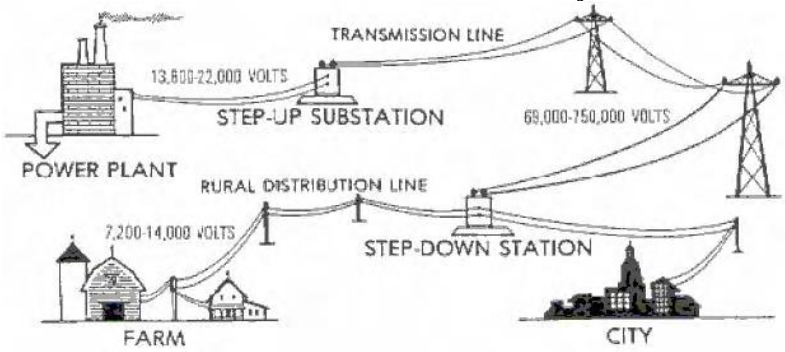
### 1. Definition of Electricity

Electricity can be defined in several ways. The layman defines electricity as a source of energy that can be converted to light, heat, or power. Electrical Engineers define electricity as a movement of electrons caused by electrical pressure or voltage. The amount of energy produced depends on the number of electrons in motion.

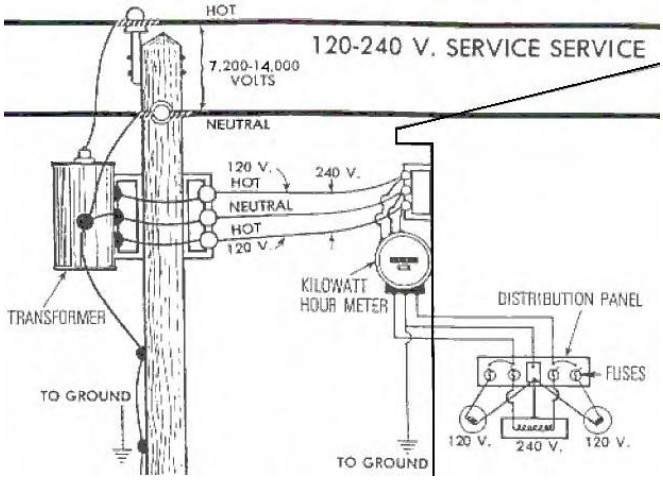
### 2. The Manufacture and Distribution of Electricity

Electricity is produced from generators that are run by water, steam, or internal combustion engines. If water is used as a source of power to turn generators, it is referred to as hydroelectric generation. There are a number of this type located in areas where huge dams have been built across large streams. Steam is used as a source of power for generating much of today's electricity. Water is heated to a high temperature, and the steam pressure is used to turn turbines which generate electricity. These are referred to as thermal-powered generators. Fuels used to heat the water are coal, natural gas, and/or fuel oil. Generators at the power plant

generate from 13,800 to 22,000 volts of electricity. From the power plant, electricity is carried to a step-up sub-station which, through the use of transformers, increases the voltage from 69,000 to 750,000 volts. This increase in voltage is necessary for the efficient transmission of electricity over long distances. From the step-up sub-station, the electricity is carried on transmission lines to a step-down sub-station which reduces the voltage to 7,200 to 14,000 volts for distribution to rural and city areas.




Transformers at the business or residence reduce the voltage to 120 or 240 volts to supply the meter of the customer:



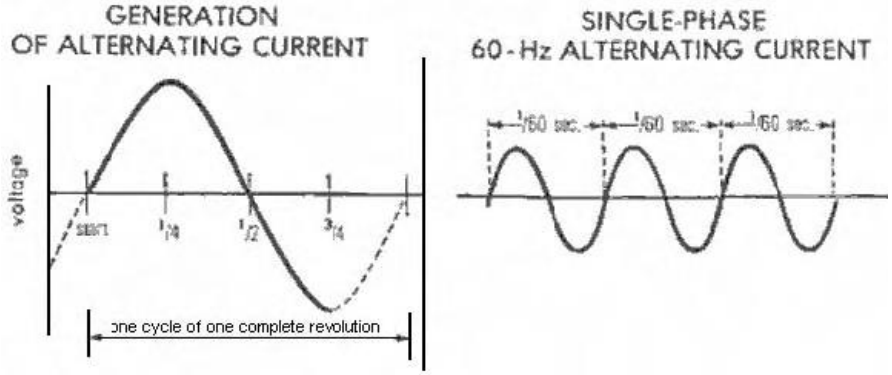

**3. Common Electrical Terms** In order to work safely and efficiently with electricity and have the ability to converse on the subject, the following terms should be understood:

**Ampere** (Amp) - A measurement in units of the rate of flow of electrical current. This may be compared with the rate of flow of water in gallons per minute. *Example:* A 60-watt incandescent lamp on a 120V circuit would pull 1/2 ampere of electricity (60 divided by 120 = 0.5 or 1/2, Formula: Amperes = Watts / Volts

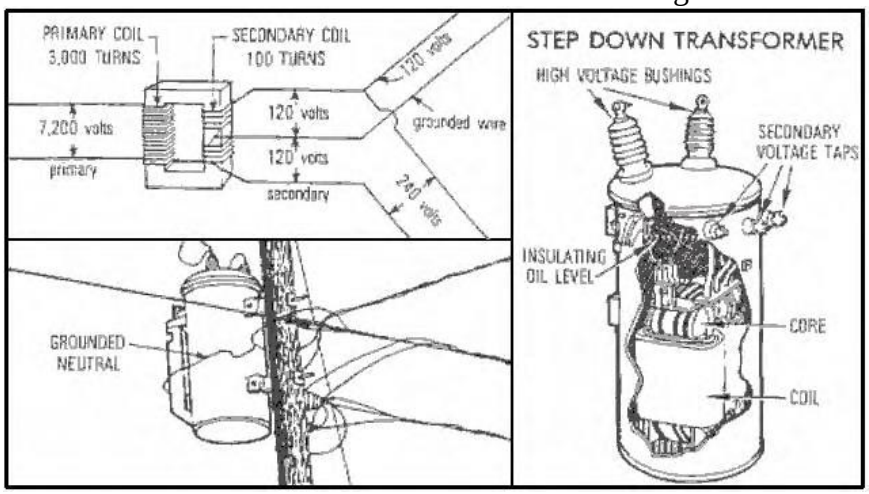
**Volt** (V) - A unit of measure of electrical pressure. A given electrical pressure (V) causes a given amount of electrical current (Amps) to flow through a load of given resistance. Voltage may be compared to water pressure in pounds per square inch in a water system. Common service voltages are 120 volts for lighting and small appliance circuits and 240 volts for heating, air conditioning, and large equipment circuits.

**Watt** (W) - A unit of measure of electrical power. When applied to electrical equipment, it is the rate that electrical energy is transformed into some other form of energy such as light. Watts may be compared to the work done by water in washing a car. (Formula: Volts x Amps = Watts)

**Kilowatt** (KW) - A unit of measurement used in computing the amount of electrical energy used. Kilowatts are determined by dividing the number of watts by 1000 as 1 kilowatt = 1,000 watts.
**Kilowatt-Hour** (KWH) - A measure of electricity in terms of power in kilowatts and time in hours. One KWH is 1000 watts used for one hour.
**Alternating Current** (A.C.) - Electrical current that alternates or changes direction several times per second. The direction current moves depends on the direction in which the voltage forces it.
**Cycle** - The flow of electricity in one direction, the reverse flow of electricity in the other direction, and the start of the flow back in the other direction. The cycles per second are regulated by the power supplier and are usually 60 in America. Most electric clocks are built to operate on the mains frequency. More or fewer cycles per second would cause mains-operated clocks to gain or lose time. The present practice is to use the term Hertz (Hz) rather than "cycles per second".




**Direct Current** (D.C.) - Electrical current flowing in one direction. Example: electrical circuits in automobiles and tractors.
**Transformer** - A device used to increase or decrease voltage.




**Single Phase** - The most common type of electrical service or power available to consumers. One transformer is used between the distribution line and the meter. Usually three wires, two "hot" and one neutral, are installed to provide 120V and 240V single-phase service. Single-phase service may also be supplied with a three-phase service.
**Three-Phase** - This type of service is designed especially for large electrical loads. It is a more expensive installation due to three wires and three transformers being required. The important advantage of three-phase power is that the total electrical load is divided among the three phases,

consequently, the wire and transformers can be smaller. Other advantages exist in the design of three-phase motors.

**Short Circuit** - A direct connection (before current flows through an appliance) between two "hot" wires, between a "hot" and neutral wire, or between a "hot" wire and ground.

**Voltage Drop** - A reduction of current between the power supply and the load. Due to resistance, there will be a loss of voltage any time electricity flows through a conductor (wire). Factors that influence voltage drop are size of wire, length of wire, and the number of amps flowing. A drop in voltage may cause a loss of heat, light, or the full power output of a motor. It could cause motor burn-out unless the motor is properly protected (time-delay fuse).

**Fuse** - A device used to protect circuits from an overload of current.

**Circuit Breaker** - A device used to protect circuits from an overload of current. May be manually reset.

**Time-Delay Fuse** - A fuse with the ability to carry an overload of current for a short duration without disengaging the contacts or melting the fuse link.

**Horsepower** (hp) - A unit of mechanical power equal to 746 watts of electrical power (assuming 74.6% electric motor efficiency). Motors of one horsepower and above are rated at 1000 watts per hp while motors below one horsepower are rated at 1,200 watts per hp.

**Conductor** - The wire used to carry electricity (typically, copper or aluminum). Copper and aluminum should not be spliced together due to their incompatibility resulting in deterioration and oxidation. **Insulator** - A material which will not conduct electricity and is usually made of glass, Bakelite, porcelain, rubber, or thermo-plastic.

**"Hot" Wire** - A current-carrying conductor under electrical pressure and connected to a fuse or circuit breaker at the distribution panel. (Color Code: usually black or red)

**Neutral Wire** - A current-carrying conductor not under electrical pressure and connected to the neutral bar at the distribution panel. (Color Code: usually white)

**Grounding** - The connection of the neutral part of the electrical system to the earth to reduce the possibility of damage from lightning and the connection of electrical equipment housings to the earth to minimize the danger from electrical shock. (Color Code: Can be green or bare wire).

**Underwriters' Laboratory** (U.L.) - An American national organization which tests all types of wiring materials and electrical devices to insure that they meet minimum standards for safety and quality.

**National Electric Code** (N.E.C.) - Regulations approved by the National Board of Fire Underwriters primarily for safety in electrical wiring installations. All wiring should meet the requirements of the national as well as the local code.

**4. Computing Electrical Energy Use and Cost**

If an estimate of cost for electricity used is desired, the name plate data on appliances and equipment and an estimate of operating time may be used. The following formulas should be used for determining watts, amps, volts, watt-hours, kilowatt-hours, and cost.

Watts = Volts x Amperes

Amperes = Watts / Volts

Volts = Watts / Amperes

Watt-Hours = Watts x Hours of operation

Kilowatt-Hours = Watt-Hours / 1000

Cost = Kilowatt-Hours x Local Rate per Kilowatt-Hour (or per "Unit")

*Example:*

Local electricity rate per Kilowatt-Hour: 8 cents

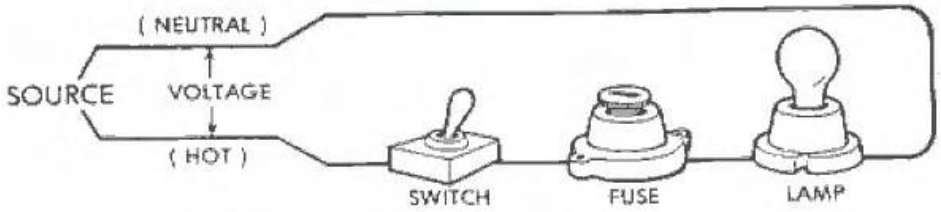
Equipment plate data: 120 Volts 5 Amps

Monthly hours of operation: 10

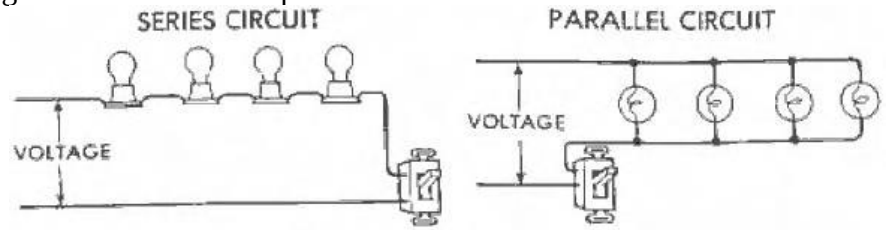
1. Watts = Volts x Amperes, so Watts = 120 x 5 = 600 watts
2. Watt-Hours = 600 x 10 = 6,000 watt-hours
3. Kilowatt-Hours = 5,000 / 1,000 = 6 kilowatt-hours (or 6 Units)
4. Cost = 6 x 8 = 48 cents

**5. Electrical Circuits**

An Electrical Circuit is a completed path through which electricity flows. Insulated conductors (wires) provide the path for the flow of electricity. A water system and an electrical circuit are similar in many respects. Water flows through pipes and is measured in gallons per minute, and electricity flows through conductors and is measured in amperes. A simple circuit is shown here:

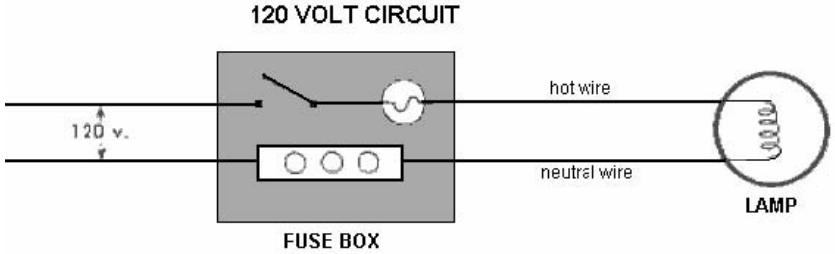



A circuit includes a "hot" wire (red or black) carrying current from the source through a switch, circuit protector (fuse or circuit-breaker), and an appliance. The neutral wire (white) conducts the current from the appliance to the source (ground). There are two methods for connecting devices in a circuit - "in series" or "in parallel". In a series circuit, all of the current must flow through each device in the circuit. Removing any one of the devices in a series circuit will stop the flow of current. In parallel circuits, the load (lights or appliances) are connected between the two wires of the circuit providing an independent path for the flow of current, and removing a lamp has no effect on the other lamps in the circuit. Switches, fuses, and circuit breakers are always connected in series. In most cases, except for some Christmas tree lights, appliances and lights are connected in parallel.

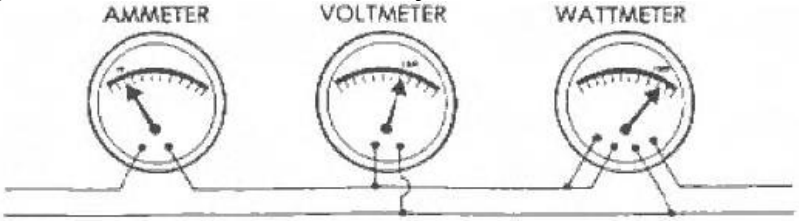



**6. 120 Volt and 240 Volt Circuits** The 120V circuit has one "hot" and one neutral wire, with the switch and circuit protector in the hot line. The neutral wire from the appliance is connected to the neutral bar in the

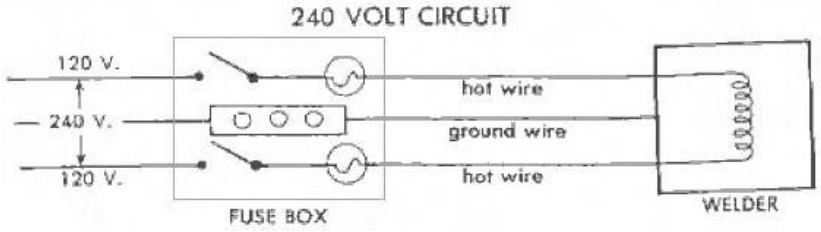
fuse or breaker box. For safety, the neutral wire should never be broken or interrupted with a switch or fuse.




The voltage in a 120V circuit is measured with a voltmeter with one lead on the hot terminal and the other lead on the neutral bar. The number of amperes flowing may be measured with a clamp-on ammeter by encircling the hot or neutral wire with the jaws of the ammeter.



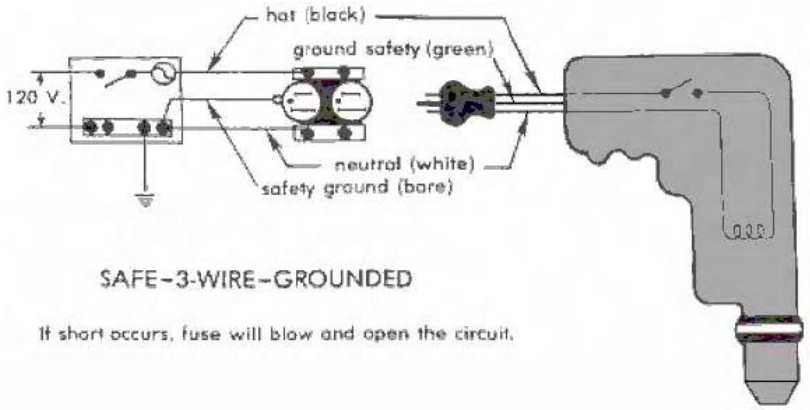

The 240V circuit has two hot wires and one safety-ground wire. Switches and fuses are installed in the hot lines. The two hot wires arc necessary for the operation of 240V welders and motors. The safetyground wire, connected to the metal frame of the equipment or motor and to the neutral bar, does not carry current unless a "short" develops in the motor or welder. If a short should occur, one of the circuit protectors will burn-out or open, thus opening the circuit.




The voltage on a 240V circuit is measured by fastening a lead on the voltmeter to each of the hot wires. Voltage between either hot terminal and the neutral bar will be one-half of the voltage between the two hot wires. The number of amperes flowing can be measured by clamping an ammeter around either of the hot wires.

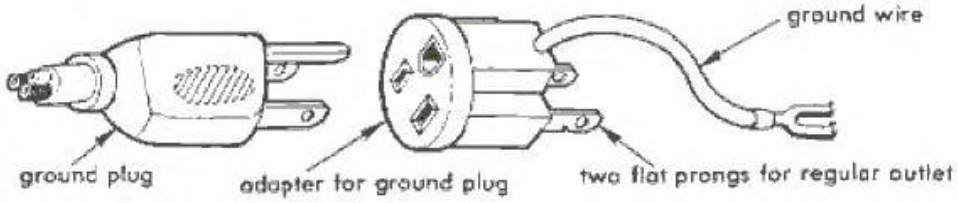
**7. Safety Grounding of Electrical Equipment**

Refer back, to the 240V circuit and note the ground wire from the metal frame to the neutral bar. The following illustration shows proper safety grounding when operating a drill in a 120V circuit. The safety-ground wire may be bare, but a three-wire cable is recommended. Safety-ground wire in threewire cable is usually green in color. A current-carrying neutral wire should never be used for a safetyground. Likewise, a safety-ground wire should never be used as a current-carrying hot or neutral wire.




Using grounded receptacles and a safety-ground on all circuits will allow the safety-grounding of appliances when they are plugged into the outlet. An adapter must be used to properly ground appliances connected to receptacles which are not safety-grounded. If an adapter is used, the green pigtail wire must be connected to a known ground to give protection from electrical shock should a short-circuit occur.

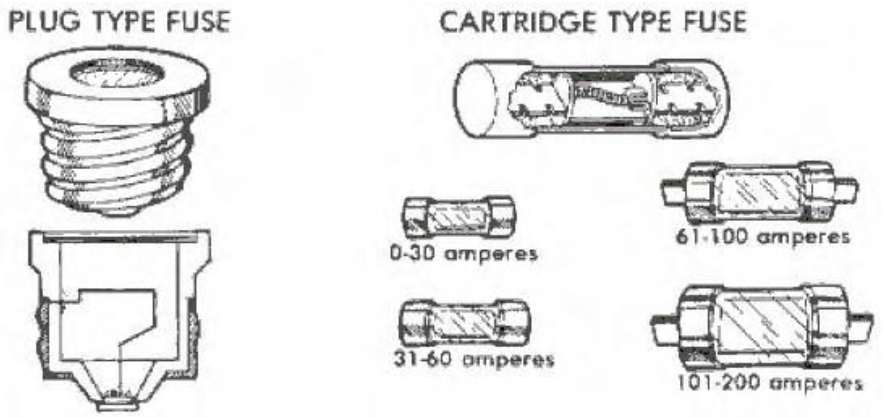
GROUND PLUG AND ADAPTER



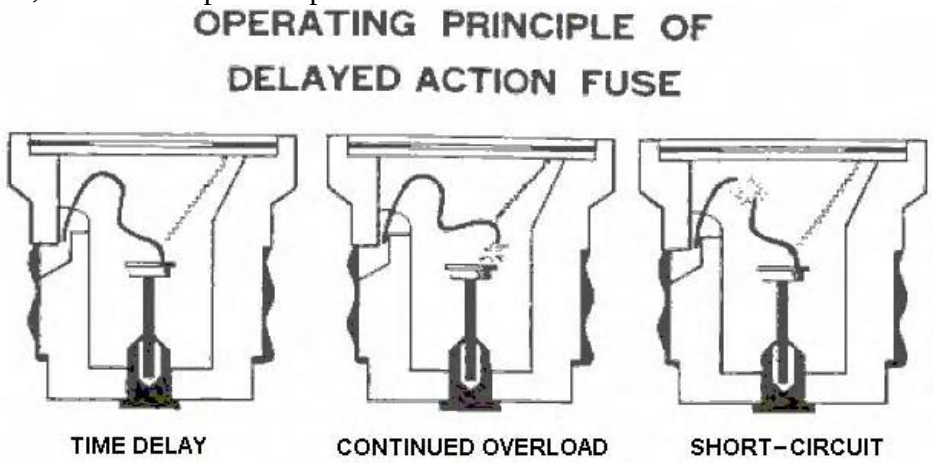

A test lamp can be used to check a circuit completed between a "hot" wire and a neutral wire. Use the test lamp to check appliances for shorts. With the appliance plugged into an outlet, touch the appliance frame with one lead of the test lamp while the other lead of the test lamp is grounded to a water or gas pipe. If the test light does not burn, reverse the appliance plug and check with the test lamp again. If the light burns, a short exists (the hot wire is touching the frame of the appliance). Unplug the appliance and repair or discard it.

**8. Electrical Circuit Protection**

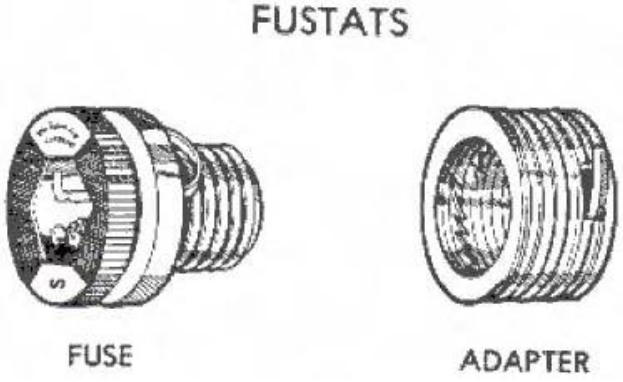
Electrical circuits should be protected from an overload of amperes. Too many amperes flowing through an unprotected circuit will generate heat, which will deteriorate or melt the insulation and possibly cause a fire. The number of amperes that a given conductor can safely carry, depends upon the kind and size of wire, type of insulation, length of run in feet, and the type of installation. Charts are available in reference texts giving allowable current-carrying capabilities of various conductors. The four types of circuit protection are: common fuses, fusetrons (time-delay), fustats (two- part timedelay), and circuit-breakers. Fuses are of two basic types: plug, and cartridge. Common fuses contain a link made from a low-temperature melting alloy which is designed to carry current up to the rating of the fuse. Current higher than the amperage rating causes the link to heat above it's melting point. When the fuse "blows", the link melts and opens the circuit.




**Fusetrons** (time-delay fuses) are made to carry a temporary overload, such as the overload caused by the starting of an electric motor. The fuse, however, still provides protection for the circuit, and a shortcircuit will melt the fuse link. If a common fuse is used, the fuse link will melt every time an electric motor starts. The use of a larger ampere common fuse will prevent the "blow" resulting from the temporary overload, but will not provide protection for the motor or the circuit.

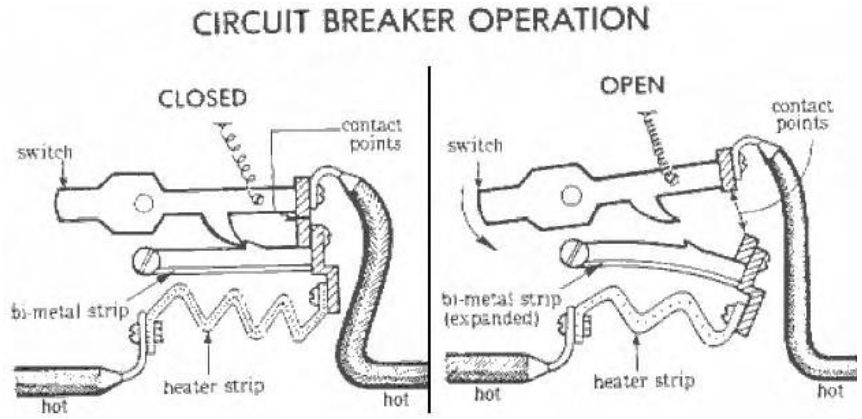



**Fustats**, non-tamperable fuses of the time-delay type, have a different size base and require a special adapter which is screwed into the standard fuse socket. After the adapter is installed, it cannot be removed. For example, the installation of a 15-ampere adapter allows only the use of 15-ampere or smaller fuse.

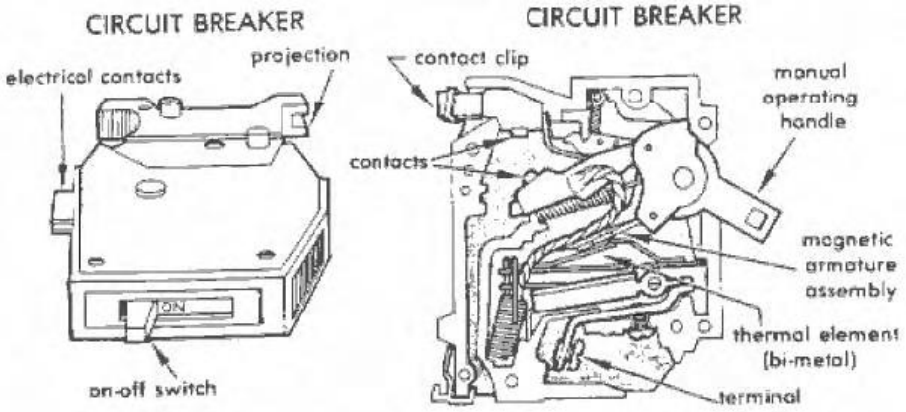



Circuit breakers eliminate the replacement of fuses and are commonly used even though a circuit breaker box costs more than a fuse box. Circuit breakers are of two types, thermal and magnetic. The thermal breaker has two contacts held together by a bi-metal latch. A current

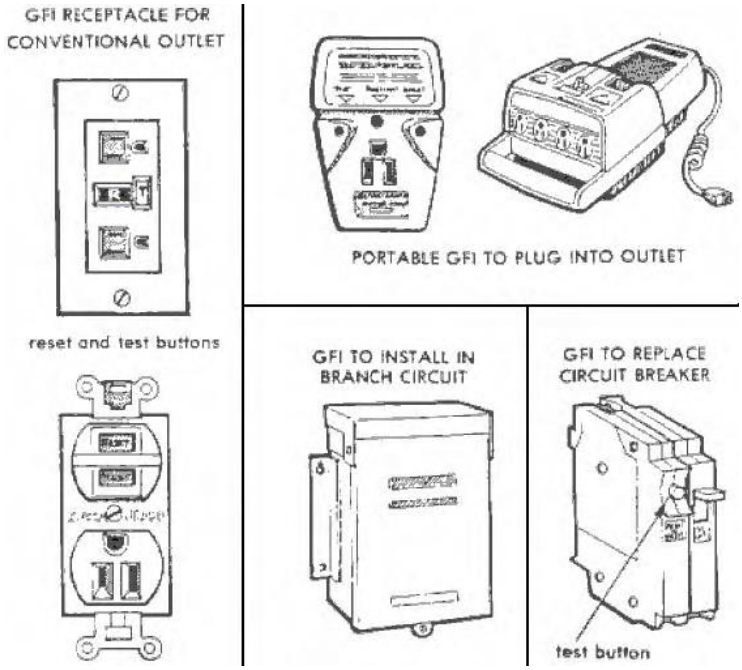
overload causes the bimetallic strip to become heated, the latch releases, and the points spring open. After the bi-metallic strip cools, the switch is reset and service is restored.




The magnetic breaker has contacts that are held together by a latch which is released by the action of an electromagnet. The amount of current flowing through the circuit will determine the size of the electromagnet. This type of circuit-breaker is reset by moving the toggle switch to the "on" position. The following diagram shows the parts of a circuit breaker.




**9. No Fault Grounding** Fuses and circuit-breakers are safety devices which limit current (amperage) in a circuit. Their main function is to protect equipment and wiring from overload. Ground fault circuit interrupters (GFI) are designed to protect humans, equipment, and/or electrical systems from injury or damage if electricity flows in an unintended path (a short-circuit). A GFI is a very sensitive device that functions by comparing the current moving in the "hot" wire with that in the neutral wire. If these two currents are not equal, a fault exists, and current is "leaking" out of the circuit. If the difference in current between the two wires is 5/1000 of an ampere or greater, the GFI will open the circuit, shutting off the power and eliminating any shock hazard. The National Electrical Code requires GFl's for all 120V, single phase, 15 and 20 amp receptacles installed outdoors, in bathrooms, and in garages for residential buildings. A GFI is required at construction sites and some other applications. After correcting a circuit fault, the GFI may be reset for further use. A variety of GFI equipment is made for 120 and 240 volt circuits:




**Note: This electrical information does not apply directly to areas outside America and local regulations for electrical supply should be checked.**

## Variations

Some people have experimented with Don Smith's basic ideas and found some interesting things. One of these people is Ukrainian: I. M. Solovey. The translation for his application for a PhD is shown below and thanks is due to Howerd Halay for making this translation:

**ELECTRIC POWER GENERATION SYSTEM HIGH FREQUENCY I. M. Solovey**, Candidate Ph.D.

NUBiP of Ukraine "Berezhany Agrotechnical Institute" LS Chervinsky, PhD National University of Life and Environmental Sciences of Ukraine NP Semenov, engineer NUBiP of Ukraine "Berezhany Agrotechnical Institute"

Considered: Existing scientific views do not have a convincing theoretical basis for the phenomenon of excess energy output. Power supply, Inductance, power, high-frequency measuring range, filter, energy. Currently, there is a great deal of information about devices, after which "Activation" in whatever working field; in the process of "relaxation" output energy is in excess of input energy used. For example, in the "production" of thermal energy observed in the oxygen-hydrogen electrolysers for normal and heavy water (Filimonenko V., 1957, S. Jones, 1989), the electric discharger (Chernetskyy A., 1971), vortex heat generators (Potapov Y., 1992). In the late 1980s Stanley Meyer patents "Water Fuel Cell" (WFC) that allows the conversion of ordinary tap water into hydrogen and oxygen with far less expenditure of energy than would be required by conventional electrolysis, and in much greater quantity than expected with simple electrolysis. His explanation of the results is based on the resonant electric field effects on water molecules [2]. Later Don Smith built a number of devices based on Tesla's experiments, mostly with high output power. In his articles, he notes that he repeated each of the experiments found in the Tesla books, and this gave him an

understanding of "ambient background energy "[3]. **Objective.** Repeat one of the above methods of obtaining energy. To test whether these devices really work. For this we implemented the circuit of the Don Smith device from his patent of 1994, where the generator can achieve an output of 15 kW (Fig. 1).

I.M. Solovey, LS Chervinsky, N. Semenov, 2011

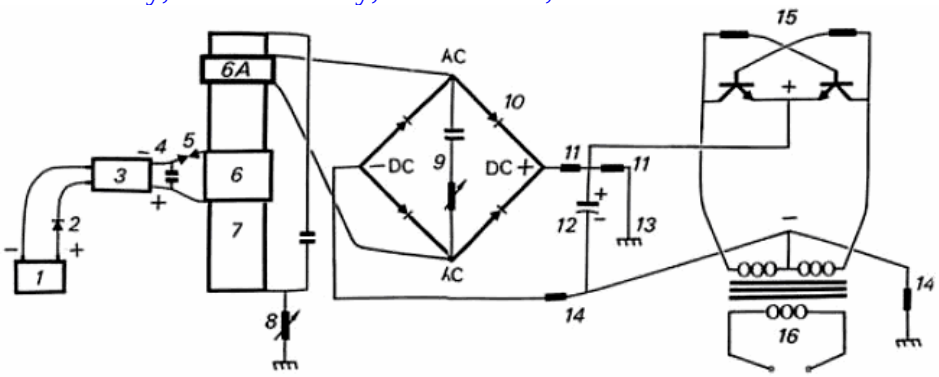



**Fig 1.** Schematic of electricity generator of Don Smith (according to his patent from 1994) **Basic materials and methods of research.** The main element in the schematic of Fig. 1 is an air-core transformer with the windings numbered 6 (primary), 6A (optional), 7 (secondary). For the study we prepared Primary L1, secondary L2 and an additional L3 coil according to specifications given in the following table:

**Coil Specifications**

| Specification | Primary *L1* | Secondary *L2* | Additional *L3* |
|---|---|---|---|
| Coil length, cm | 5,5 | 32 | 6 |
| Number of turns | 8 | 463 | 10 |
| Diameter см | 5,5 | 5,1 | 5,6 |
| Active resistance, ohms | 0,1 | 4,2 | 0,1 |
| Copper wire length per winding, M | 1,4 | 69,1 | 1,8 |
| Wire diameter, mm | 2 | 0,65 | 1,2 |

To calculate the electromagnetic parameters of the secondary coil L2 we used a program named "Flyback Tesla calculator".

**Calculation results:**

**L2** Coil inductance - 1559.9 uH;

self capacity - 4.61 pF;

Wire Length 73.2 m; number of turns - 457;

quality factor - 8492;

resonance frequency AC - 1.875 MHz; and ¼ resonance frequency – 1.024 MHz (Actual Experiment - 1.1 MHz). The study was conducted according to the schematic in Fig. 2. Placing of coil windings - as a Tesla transformer: primary on the base of the secondary.

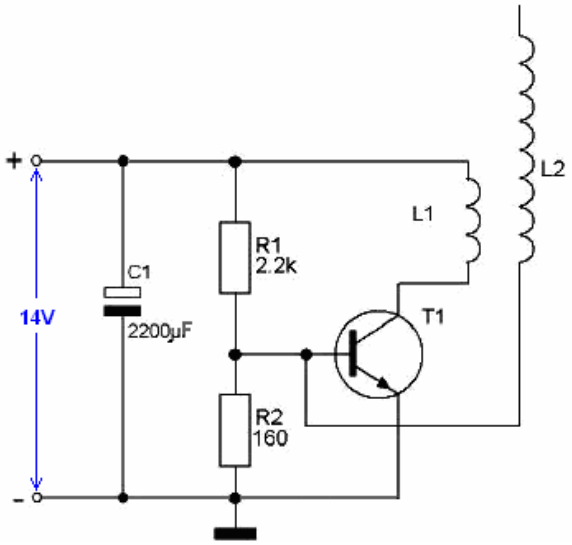



**Fig. 2.** Schematic of windings L1 and L2 Measurement of current was carried out by a DC ammeter on the PSU. Current consumption in the above schematic is 0.3 A. The value of voltage U2 at the output ends of the winding L2 is calculated by the formula: U2 = Um/N1.N2 = 14/8.463 = 810.25 V where Um is the voltage, 14 V; N1 is the number of primary turns and N2 is the number of secondary turns (see. Table). **Note.** The formula does not take into account the resistance of the transistor's base-emitter pn junction nor that of the connecting conductors. Experimentally determined values of voltage - largest breakdown in the air gap between the initial winding ends at L2 point of discharge. The magnitude of the voltage was 500-700 Volts. Frequency: 1.1 MHz measured experimentally by the use of a frequency generator. When connecting the circuit (see. Fig. 2) to the constant power supply, power consumption was 0.3 x 14 = 4.2 W and this power can be called a complete network power consumption of 4.7VA. On output of the L2 winding we obtain (at the base of the coil) current of about 0.3 A and a voltage between the two ends of the coil of 700 V which calculates to 0.3 x 700 = 210 VAR. The study of high-energy parameters of the generator power circuit was conducted in Figs. 3 - 6 where a bulb was used as an active load. The magnitude/intensity of lamp brightness determined the output power measurement. Lamps used were various capacities from 0.3 watts to 21 watts. Under the schematic of Fig. 3 switching in various incandescent lamps, for example 0.3 W, did not lead to lighting, although consumption of the circuit energy was 14 x 0.3 = 4.2 watts.

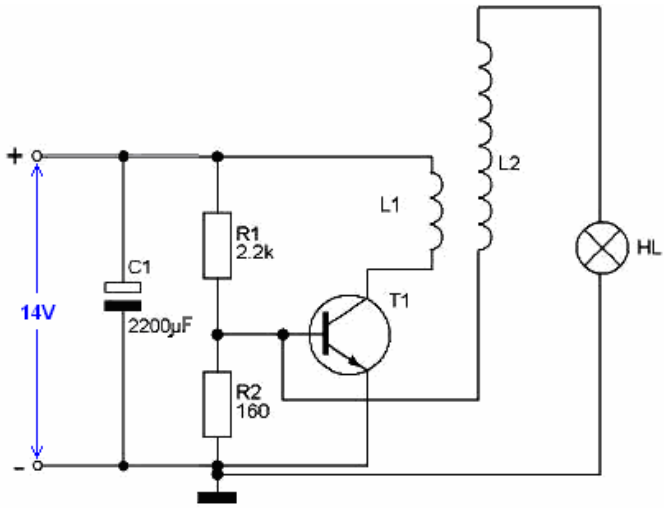



**Fig. 3.** Circuit of the experiment to determine the active power output of the L2 coil We placed an extra coil L3, as in Smith's schematic (Fig. 4). Coil L3 was placed in the upper third of the L2 coil. A 6 volt, 3 watt lamp was connected to the additional coil L3 (see Table) and it showed a subtle glow.

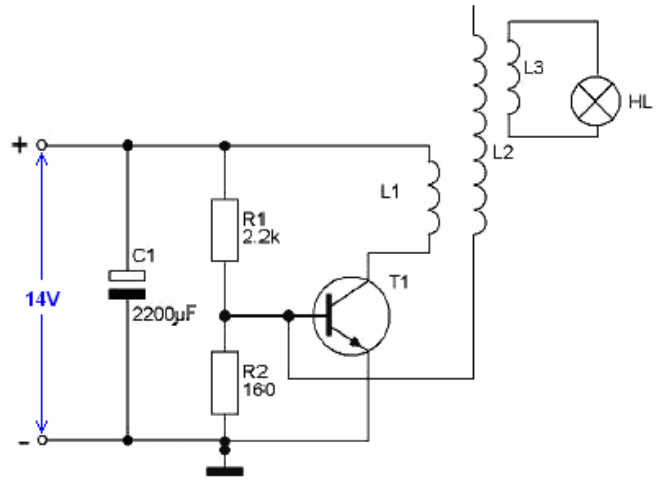



**Fig. 4.** Inserting various incandescent bulbs through additional winding L3. When we inserted a capacitor C2 in series with the winding L2 (Fig. 5) We inserted a 12 volt 21 watt lamp to the L3 coil output. The lamp became brightly lit and in 4 to 5 seconds it burned out. The current consumption was a net 1.2 amps.

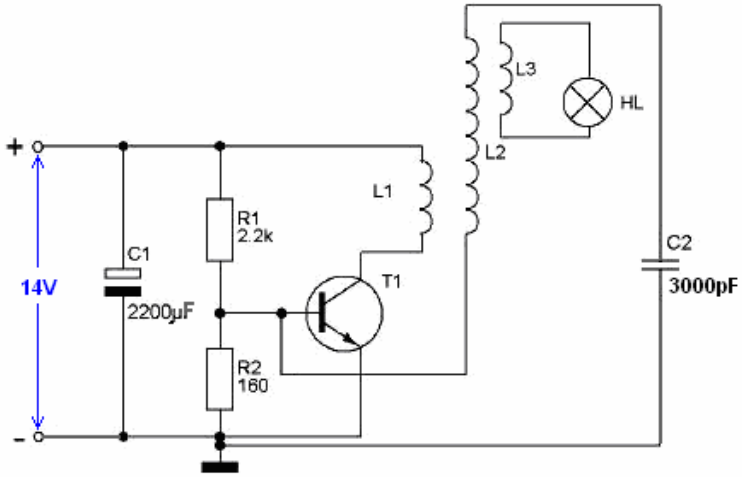


**Fig. 5.** Switching incandescent bulb(s) through the additional winding L3 when creating L2-C2 path. An analogous result was obtained when we switched in a tungsten lamp using the schematic in Fig. 6 in a series circuit L2 / C2. A 12 volt 21 watt lamp also burns out in 4 to 5 seconds. The current in the lamp in this configuration was 1.8 - 2.3 Amps.

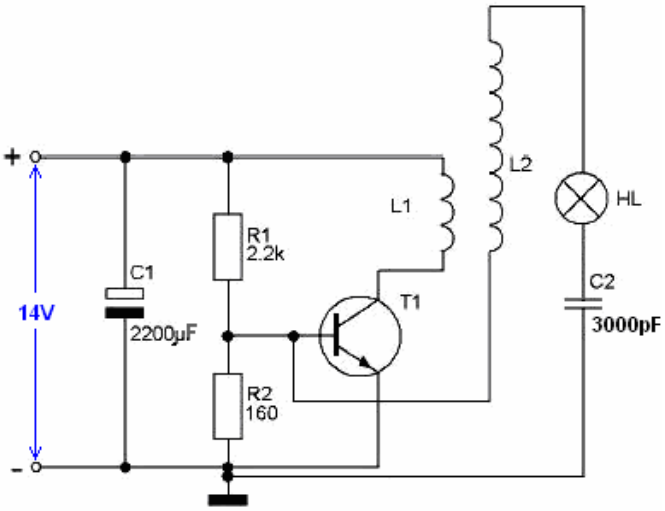



**Fig. 6.** Schematic: inserting an incandescent lamp in series through L2 and C2. **Conclusions :** The results of exploratory studies confirm the existing scientific thought that the processes of input and output routing/transmission of electricity using high-voltage high-frequency electromagnetic field (radiation) phenomena require further deep theoretical and experimental studies.

**References**

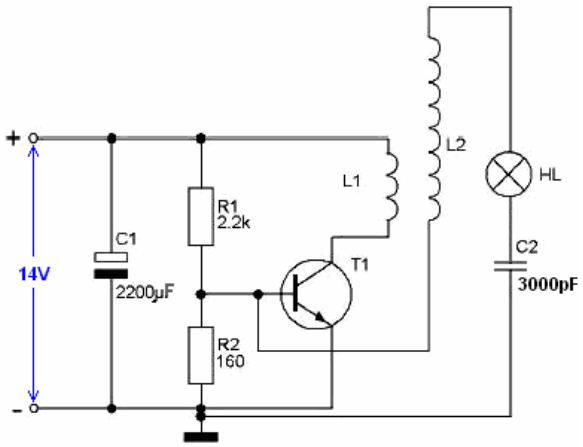
1. Kanarev FM Beginning Phys chemistry microcosm / Kanarev FM [8th ed.].

Krasnodar, 2007. - 750 s.

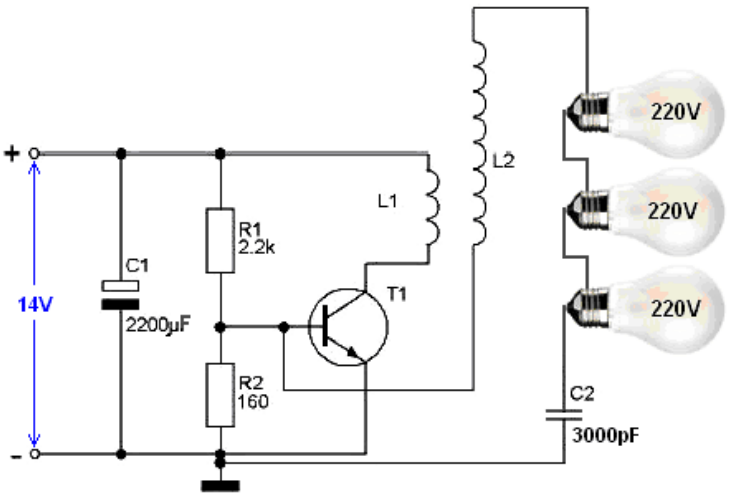
2. Fominsky LP Rotary generators of free heat. DIY Fominsky LP - Cherkasy: "OKO-Plus". 2003. - 342 s. 3. US Patent No. 08/100074 .

The phenomena of appearance of excess energy effects have not found a convincing theoretical explanation from the standpoint of existing scientific views.

The interesting thing about this paper from Solovey is that the input voltage is so low at a mere 14 volts, although, of course, the output voltage is much higher and is at 1.1 Megahertz. Solovey's final diagram Fig.6 is interesting in that his 21 watt 12 volt bulb was destroyed in just a few seconds.



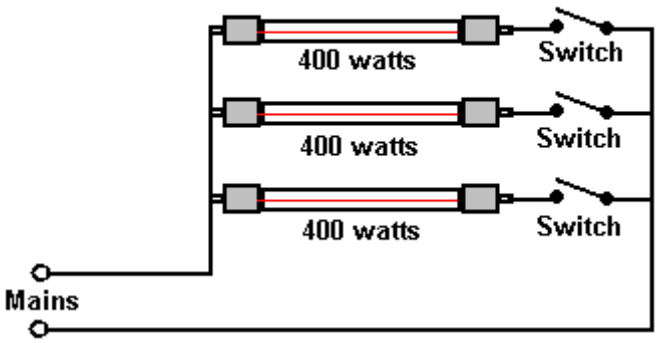

The measurement of current through the bulb was 2.1 amps while the bulb's design current is 1.75 amps. That difference is not enough to have destroyed the bulb so rapidly, so the problem will have been that the bulb wattage was exceeded severely. Earlier, the voltage across the coil "L2" was measured at 700 volts, so there may have been as much as that applied to the twelve volt bulb. If 700 volts were applied to the bulb and a current of 2.1 amps flowed through the bulb, then the dissipated power in the bulb would have been as much as 700 x 2.1 = 1470 watts which is 70 times the rating for the bulb and more than a kilowatt! Please don't be misled by the 14 volt input voltage, this circuit steps up the voltage and it could easily kill you. It is said that the high frequency of 1.1 MHz makes the output harmless to humans. I have not tested this and you really need to be careful around any high voltage circuit. A point which Solovey seems to have missed is the fact that the positioning of the L1 primary coil along the length of the L2 secondary coil has a major effect on the output amperage, so, positioning the L1 coil in the middle of the L2 coil should increase the output power considerably. The lamp used as the load is essentially a resistive load. I don't know enough about the subject, but putting a step-down air-core transformer in place of the bulb should lower the output voltage and increase the available output current considerably. However, a transformer is an inductive load and whether or not that change would completely alter the functioning of the circuit remains to be seen. It might be worth testing the following simple circuit if we were to assume that the output voltage is indeed the 700 volts measured by Solovey and that a resistive load is needed. Three 220-volt 100-watt filament bulbs connected in series would appear to be a satisfactory test load:



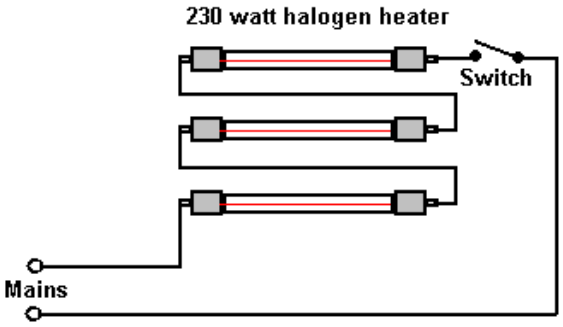

Another possibility would be to take an ordinary cheap halogen heater and re-wire it so that the three 400-watt lamps are in series rather than in parallel:

A standard, low-cost halogen heater consists of three separate 400-watt sections with a switching arrangement which allows one, two or three sections to be powered up:

**1200-watt halogen heater**




You can change the wiring inside the heater, so that all three halogen lamps are connected in a chain. As the wires connecting the lamps have push-on 'spade' connectors to allow for both simple manufacturing and easy replacement of a halogen lamp, this can often be done without any soldering. The new arrangement is like this:




This arrangement ‘under-runs’ the lamps as each lamp only gets one third of the voltage which it was designed for. If the halogen heater is now connected across 700 volts and the three lamps are similar to each other, then about one third of the 700 volts will be across each bulb. This is only an untested 700 volt suggestion although a heater of this type works well at low power on 220 volts. However, should give a high voltage resistive load as a starting point for experimentation.The South African developer says: I have built the Solovey replication as close to Solovey's version as I am able to do with the materials available to me. Solovey's original circuit:

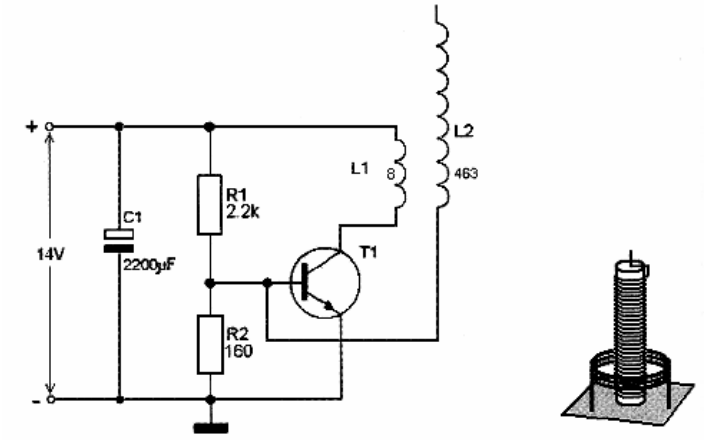
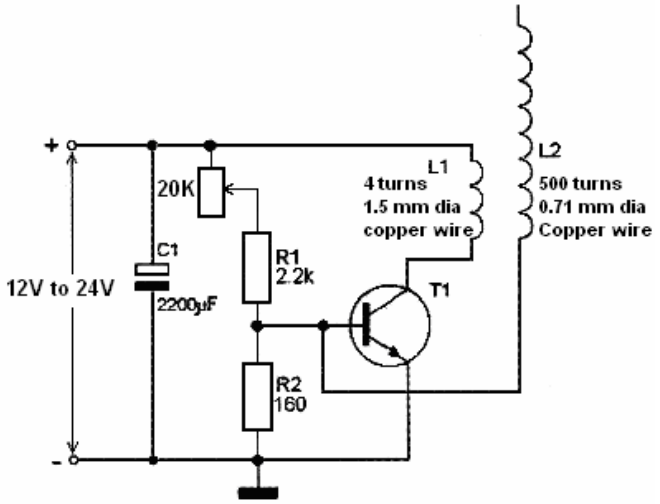



Fig. 2. Schematic of windings L1 and L2

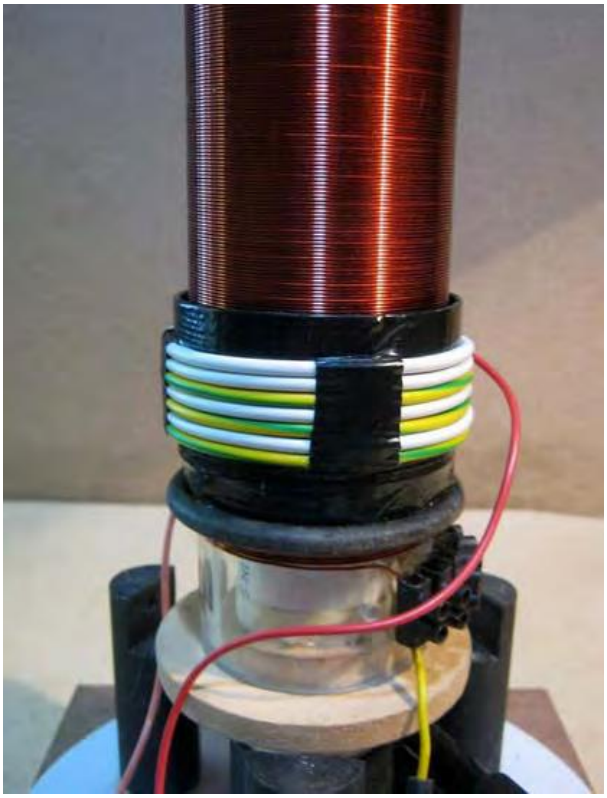
This is my slightly modified version: I have introduced a variable resistor to control the current etc. To the base of the transistor.



I am using a TIP3055 transistor. I have tried a range of transistors, MJE13009, TIP132 and all sorts of others, and the only one's which work at all are the 2SC3552 (1000V) and the TIP3055, which is the best by far. These are my coil details:

| Specification | Primary L1 | Secondary L2 | Additional L3 |
|---|---|---|---|
| Coil length, cm | 3 | 40 | 8 |
| Number of turns | 4 | 500 | 6 |
| Version 1 Diameter cm | 7.5 | 6.1 | 7.5 |
| Version 2 Diameter cm | 11 | | |
| Active resistance, ohms | .1 | 5 | .1 |
| Copper wire length per winding | | 95 M | 3.6 M |
| Version 1 Diameter cm | 94 | | |
| Version 2 Diameter cm | 138 | | |
| Wire diameter, mm | | .71 | 1.5 |
| Version 1 Wire diameter mm | 1.5 | | |
| Version 2 Wire diameter mm | 3 | | |

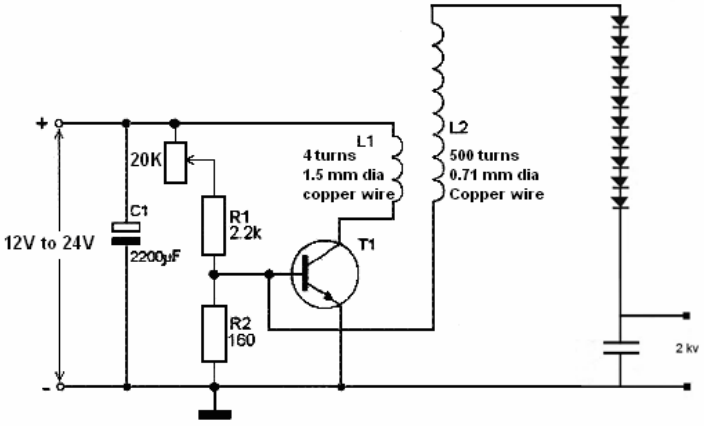
Initially I tried Solovey's Primary coil L1 with 8 turns and a diameter of 7 cm, but had far better results with only 3-4 turns. My criteria were the strength of the corona at the top of the secondary coil L2, and the degree of fluorescence produced in a nearby hand-held Compact Fluorescent lamps as well as the distance of the lamp from the coil.



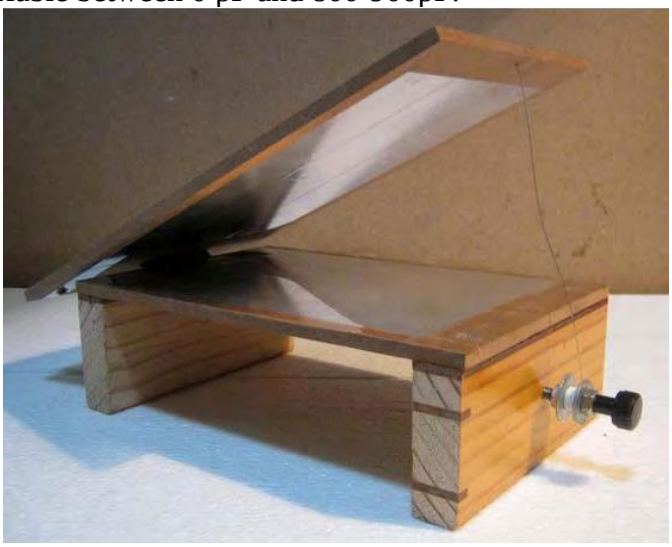
The white wires are not connected - they are just spacers. I then tried a larger primary L1 coil, with many more turns of thicker copper wire on which I could vary the number of turns and also the position vertically of L1 relative to L2. I found that the larger diameter seemed to produce an enlarged magnetic field which was better, but the wire thickness and the vertical position ***in this instance***, was not at all critical. Interestingly though, in every variation, the optimum number of turns in the L1 coil was 3-4. I presume this is the best resonant match with the secondary L2 coil in it's present form.

This is typical of the fluorescence and the corona:

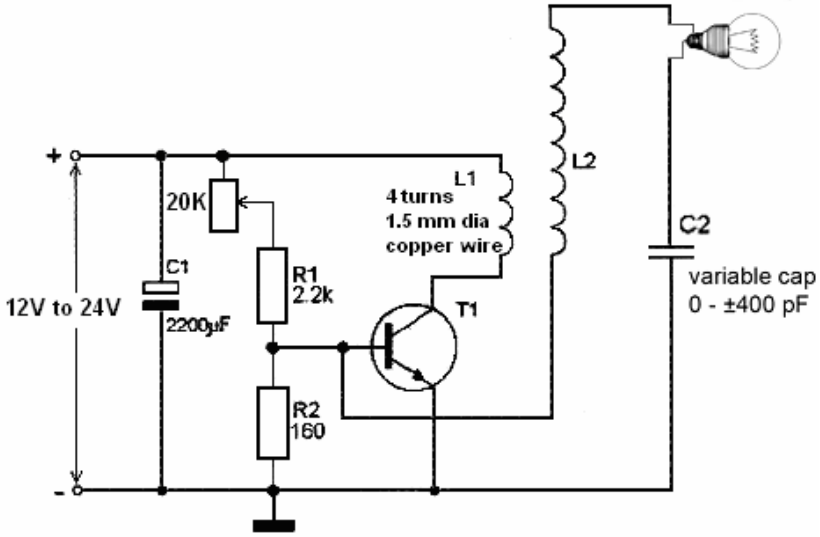
I then measured the voltage at L2 empirically, and found it able to charge a 1 microfarad capacitor rapidly to 2,000V. I presume the rectified AC voltage to be far higher, at least in the multi-kilovolt range. I feel that the formula mentioned by Solovey, U2 = Um / N1.N2, does not necessarily apply to this type of Tesla configuration, so I question his calculation of 700-800V. I was unable to measure the frequency accurately with my hand-held oscilloscope, but the reading which it displayed seemed to hover around 300 kHz. It may be much higher.



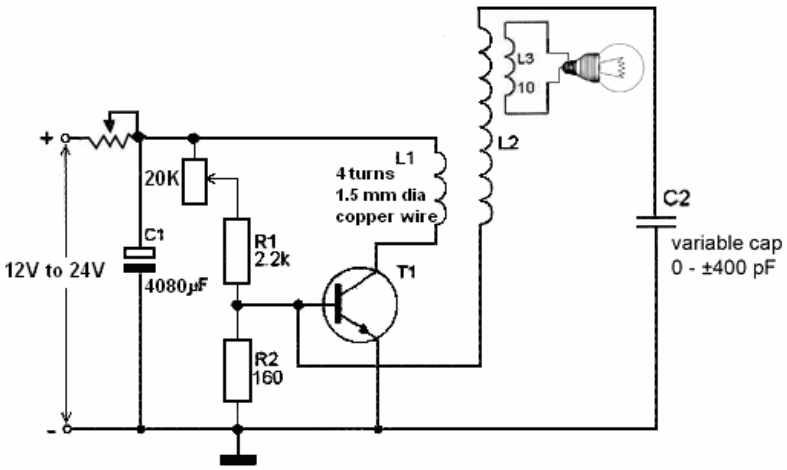
I then constructed a capacitor (to withstand the high voltages) of by calculation variable between 0 pF and 800-900pF.



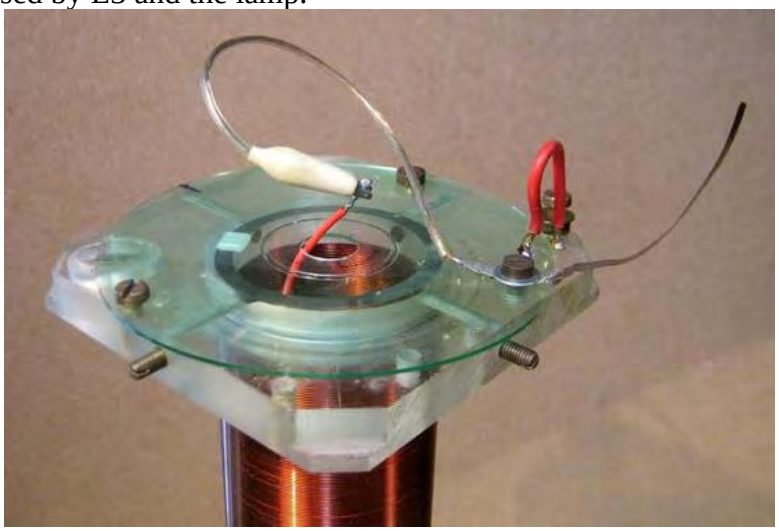
In all subsequent tests I found that the introduction of this capacitor between L2 and ground (*which admittedly I could tune to optimise resonance*) increased the current draw from the supply battery to such a degree, that three TIP3055's in parallel exploded and burnt out in seconds. They can handle 15 amps each so I measured the current as accurately as I could with both digital and analogue meters, and found that it could easily exceed 40 amps. This is why I have used such a massive heat-sink. Also, the voltage present at the top of L2 immediately drops when the capacitor to ground is present. This cannot be good as far as coil 3 is concerned. I used the same lamps as Solovey had used, 21 watts 12V, in series with the capacitor from L2 to ground.



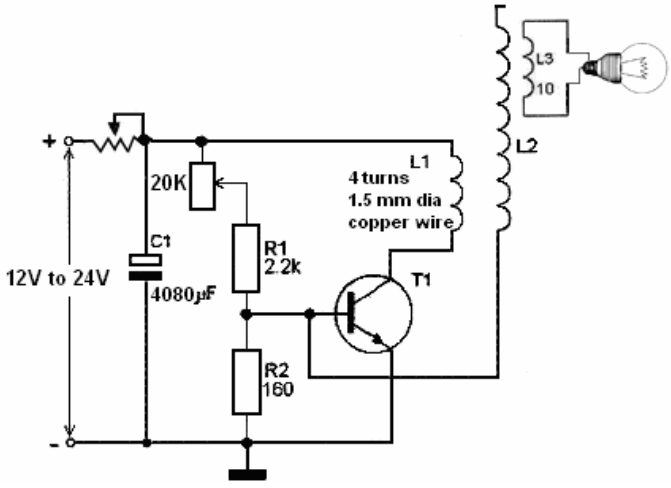

The lamp burnt out in seconds, but what I feel that Solovey has failed to indicate, in the paper that I have, is that the current draw does ***not*** remain at his measured 0.3 amperes drawn from the supply battery, when a capacitor is connected to ground as shown. This means that although the lamp is experiencing a current of 2 or more amps, one cannot calculate overall wattage based on the product of the voltage x current, when the supply current is now extremely high. I then moved on to the next phase which included a lamp across L3.



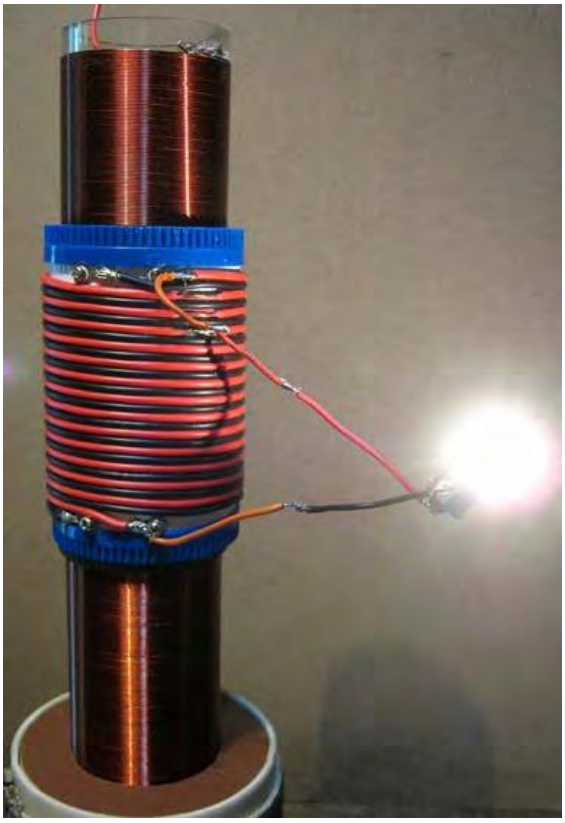

The lamp burnt out again and I introduced a high wattage variable resistor (100 ohms) on the supply line to limit the possible current flow and protect the transistor. I used it mostly set at 50 ohms. I then decided to remove the capacitor to ground and replace it with a spherical aluminium globe. This provides capacitance to the ambient surroundings, which proves to be a considerable improvement as far as the performance of L3 is concerned. It also reduces the corona discharge losses, so that the lamp now burns brightly and the CFL still fluoresces when held near to L2. This indicates that the voltage at L2 is no longer dropping in spite of the load imposed by L3 and the lamp.



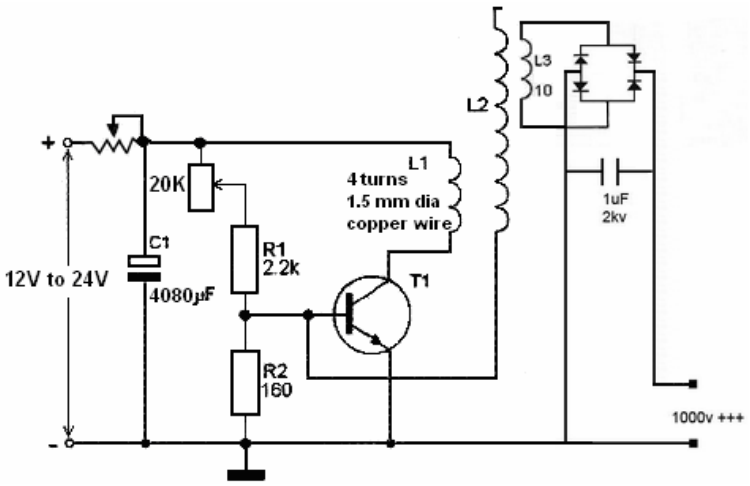
I was also able to dispense with the 100 ohm resistor, as the current draw from the 12V supply battery was now down to 2 amps, which is much more reasonable, but still more than Solovey's 0.3 amps.




Having got thus far I moved on to Don Smith's next stage, which was to replace the lamp with a bridge rectifier on coil 3. The black wires are in this case just spacers:



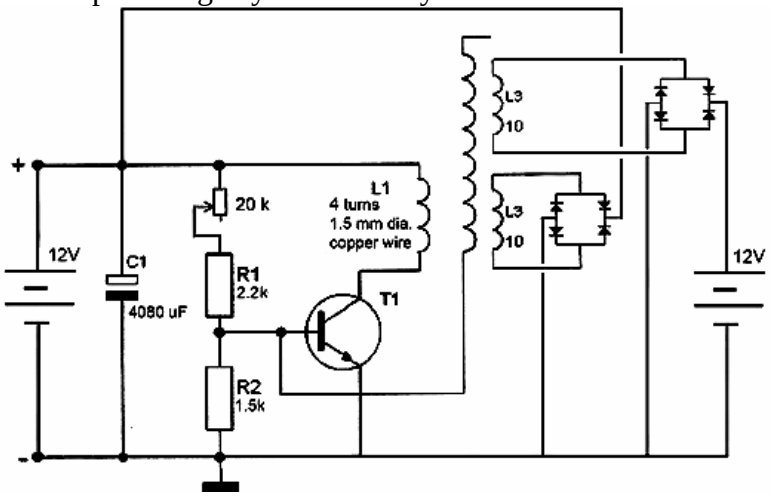
The voltage across the capacitor rose well over 1,000V, so I stopped the experiment as I was afraid it would damage my digital meter. I then thought of trying two extra coils simultaneously, by putting a 2nd bridge rectifier over the black wire which had previously just been used as a spacer:




There are now two simultaneous DC outputs of 1,500V each. (I put a voltage divider across my analogue meter to measure this). Here you can see my meter set to the 1,000V range.

I realise that this is a low power version of Don Smith's circuits and one cannot expect much from it. I know that Don Smith, in order to achieve very high outputs in terms of kilowatts, relied very much on resonance in his circuits. What I am investigating here is simply Solovey's

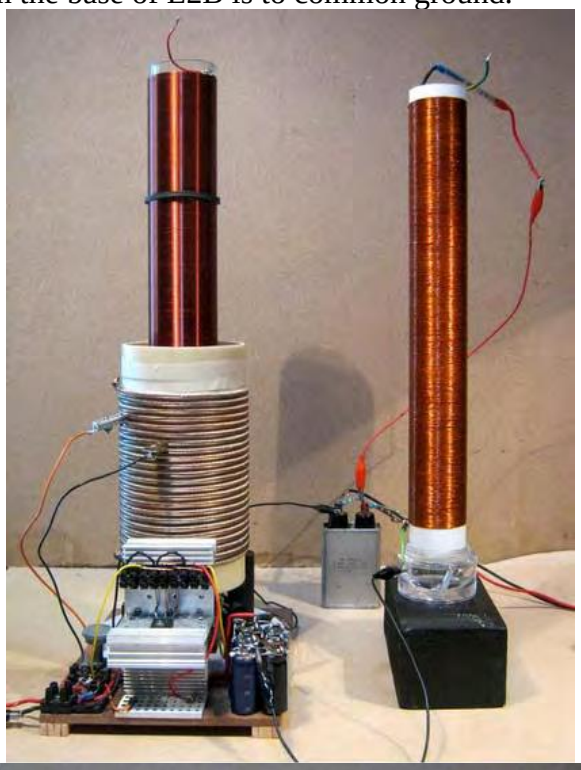
attempt to demonstrate that a greater output than input is possible. He did not seem to carry it any further as he had achieved his objective as part of his university degree attempt. From my experience with these high voltage pulse, or in this case, high frequency AC circuits, is that it is possible to achieve very high voltages from a simple 12V system, but that in general there is not very much power available unless one can achieve the advantage of resonance in some form or another. In a very basic experiment I have tried the following circuit which is just simple battery charging, but not powering any load directly.

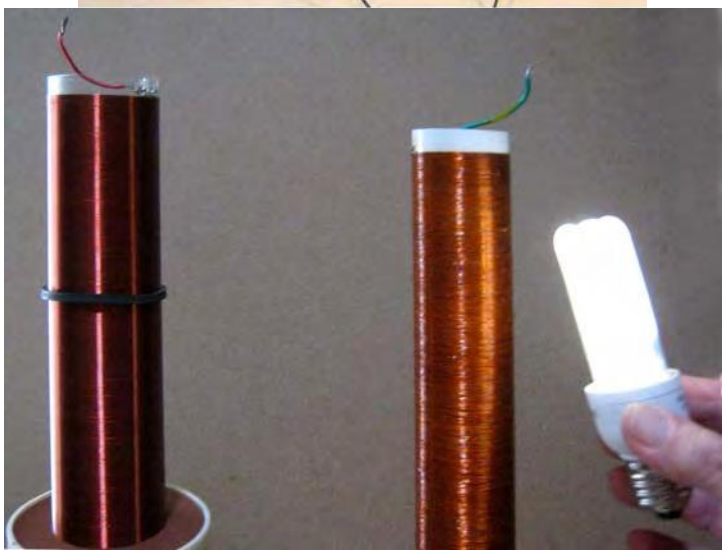



After one hour of operation, the drive battery dropped from 13V to 12.9V, and a *very dead* 12V 7Ahr battery has risen from 3.3V to 6.3V, and is holding that 6.3V. I am sure that a battery in better condition would have charged even better, and I will try it. When a battery charge load is applied to the extra coils, the CFL will no longer fluoresce. I observe that a real earth connection has helped a little. My current draw from the 12V battery supply using both extra coils in this configuration, is only 0.4 amp. (400 mA). This experiment suggests to me that one might make many extra pickup coils like the above, of 10 turns each, placed along the length of L2, with L1 at the very bottom. *This would bear out Don Smith's claim that one can draw multiple sources of energy from an inductive magnetic field without increasing the load on the supply.* There is obviously much more scope for experimentation with this type of lower voltage, solid state Tesla coil. I have re-tested and duplicated my results so far and in the process have discovered something of small significance. Developer 'Ming Cao' has mentioned in his comments (www.free-energyinfo.com/Chapter3.pdf page 186) that he had found an improvement when he placed the primary coil and the pickup coil far apart on opposite ends of his secondary coil. I did this, and found a definite increase in voltage output. What I think is happening is that the section of L2 between L1 and L3 is being increased.

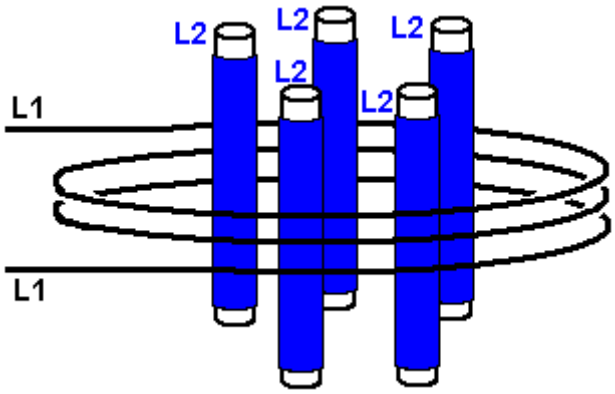
I have vertically flipped coil L1 so that the 3 active windings are now at the bottom, and moved the pickup L3 right to the top of L2. I also noticed that the output in this configuration increased substantially when I removed the aluminium globe and just left the open end of the Perspex tube at the top pf L2. This is good news as these metal spheres are not easy to find. What has taken place as I have experimented, is that I have gradually dispensed with all capacitive components, with improved results. This is important to me, as I seem to have moved from LC resonance, to resonance between the coils winding's only. As LC resonance is very difficult to achieve in complex circuits whereas coil to coil resonance can more easily be achieved by calculation and careful measurement, this discovery is welcome. The last stage is an interesting one. Since I now felt that I was no longer dealing primarily with LC resonance, and therefore the *magnetic field* was more dominant in energy transfer than was the electric field, I thought of Don Smith's multi-coil power source. I wound another coil with materials I had, in order to try coil to coil energy transference. The new coil is 50 mm in diameter and the winding is 400 mm in length. Wound with 0.5 mm diameter enamelled solid copper wire, this has resulted in 800 turns. I will call this coil L2B. I

have it standing as you can see, next to the primary device and the only connection is from the base of L2B is to common ground.





At the top of the second coil in the first picture, is a string of ten 1N4007 diodes in series, and the voltage output to ground of both coils simultaneously, is 2,100V (at each coil.) I have moved the L2B coil up to 70 cm away from L2, (which is as far as my wires would reach) and at that distance the voltage output of L2B remains 2,100V. What this demonstrates to my satisfaction, is that Don Smith's suggestion based on the following drawing, will work in practice:




I have not yet come across any really successful replications of Don Smith's devices, so this is reassuring to me. What is interesting is that as I move L2B away from L2, the voltage drops and rises by increments of around 5-10% at incremental distances of about 20 cm. For convenience, the coils in a real construction would need to be much more closely spaced, but the width of the field is amazing. It also suggests that the arrangement of the coils should be done carefully and empirically. Something I wish to stress in closing, is that I have *in no case* paid any attention to the quarter or halfwavelength issue of the relative lengths of the primary to secondary wires, or ratios. None of my coils have any calculated wave-length ratios or measurements, and yet have achieved for a low power solid state device, quite demonstrable results. I think that Richard Quick's essay on the practical aspects of resonance is most impressive and useful (reproduced below). But an issue I find unresolved is this: if the LC component of resonance is replaced by the magnetic component, then we are dealing with a ***longitudinal*** wave.(which is as I understand, a defining characteristic of cold electricity), and not a transverse wave. A standing wave as determined by wavelength resonance, is essentially a *transverse wave* phenomenon, with clearly defined nodes. A ***longitudinal*** wave will not have nodes. *This is a contradictory issue which is not yet clear to me, and maybe is a field worth investigating by other developers?* Solovey's details are here: www.free-energy-info.com/Solovey.pdf. **"Quarter-Wave" Resonance; Standing Electromagnetic Waves"** One of the two main types is electrical resonance is referred to here as quarter-wave resonance. This type of resonance depends almost entirely on the length of a wire element For reasons described below, if a segment or length of wire is one quarter as long as the "voltage waves" which are travelling through the wire, then a set of "reflected" waves will be added to the emitted waves, in a synchronised alignment which creates stronger "superimposed waves". Accordingly, an understanding of the "quarter-wave" phenomenon will help a reader understand how a straightforward and easily-controlled factor (i.e., the length of a wire ribbon which will be used to form a spiral coil) can help create a "quarter-wave" resonant response, which will create the types of electromagnetic pulses and fields referred to as "standing waves". The speed at which a voltage impulse is transmitted through a metal wire is extremely fast. It is essentially the same as the speed of light, which travels 300 million meters (186,000 miles) in a single second (that distance would circle the earth more than 7 times). If

wavelength (in meters) is multiplied by frequency (cycles per second), the result will be the speed of light, 300 million meters/second. Therefore, the wavelength of an “alternating current” (AC) voltage, at some particular frequency, will be the speed of light, divided by which frequency. Therefore, using simple division, if an alternating voltage operates at a frequency of 1 megahertz (MHz), which is a million cycles per second, then the “wavelength” at that frequency will be 300 meters. If the frequency halves become 500 kilohertz, the wavelength becomes twice as long (600 meters); and, if the frequency were to increase to 2 megahertz, the wavelength drops to 150 meters. It should be noted which the term “cycles” is what scientists call “a dimensionless unit”, which drops out and becomes silent when other physical terms are multiplied or divided.At AC frequencies of 10 kilohertz or greater, the common references to “alternating current” (AC) voltage begin using a different term, which is “radio-frequency” (RF) voltage. Accordingly, RF voltage is a form (or subset) of AC voltage, which operates at frequencies higher than 10 kilohertz. RF power generators are readily available, and are sold by numerous companies which can be easily located by an Internet search, using the term “RF power generator”. For example, Hotek Technologies Inc. (hotektech.com) sells two RF power generators, called the AG 1024 and AG 1012 models, which can provide output power at frequencies ranging from 20 kHz to 1 MHz; the 1012 model has a power output of 1000 watts, while the 1024 model has a power output of 2000 watts. The output frequency of any such RF power supply can be adjusted and “tuned” across the entire range of operating frequencies, merely by turning knobs or manipulating other controls in a power supply of this type. In a wire having a fixed and unchanging length, the easiest way to create a “standing wave” is to adjust the RF frequency emitted by a power supply with an adjustable frequency, until the “tuned” frequency creates a wavelength which is 4 times as long as the wire. This principle is well-known to physicists, and it is commonly referred to as “quarter-wave” behaviour, since the length of the wire segment must be one quarter as long as the wavelength. Since it is important to this invention, the principles behind it are illustrated in a series of drawings provided in Fig.1 to Fig.4, all of which are well-known prior art.

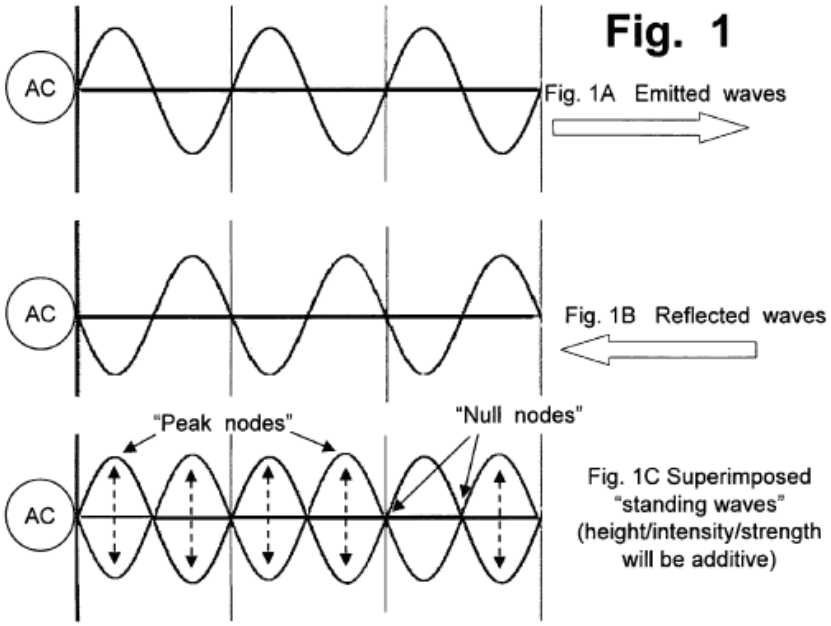



Fig.1A indicates an idealized wavelength of an alternating voltage, depicted by a sine wave which is being sent from an AC power supply (shown by a circle at the left end of a horizontal straight wire) into the "input" end of the wire. The voltage waves travel through the wire towards the right, as indicated by the block arrow in Fig.1A. When the waves reach the end of the wire, they cannot leave the wire (at least, not in a simplified and "ideal" system, which is being assumed and used here to explain the principle of how a simple straight wire can create a standing wave). Therefore, the voltage wave will effectively "bounce" or "reflect" back from the tip of the wire, and the "reflected wave" will begin travelling back through the wire, going in the opposite direction, as indicated by the left-pointing block arrow in Fig.1B. Because of the laws of conservation of energy, the reflection and "return travel" of these types of waves, when they bounce off the tip of a wire, is actually quite good, and rather efficient, as discussed below, provided which the wire tip does not emit sparks, arc discharges, or other forms of "escaping" electrical energy.Accordingly, Fig.1A depicts a set of "emitted waves" travelling towards the right, while Fig.1B depicts an idealised set of "reflected waves" travelling toward the left along the same wire. Fig.1C illustrates what happens when both sets of waves (emitted and reflected) are superimposed on each other. Since the two sets of waves are travelling at exactly the same speed, and since they have exactly the same wavelength, they will create a "standing wave" pattern when they are added together. As can be visualised from Fig.1C, there will be a set of locations, along the length of the wire, which can be referred to as "peak nodes", where the AC voltage reaches it's maximum. At a location halfway between a pair of adjacent "peak nodes", there will be a spot which can be called a "null node", a "zero node", a trough or valley node, or similar terms. At each "null node" location, the AC voltage will appear to be not fluctuating at all. Those are the sites, along the length of the wire, where each "positive" hump (created by a sine wave travelling toward the right) will be counterbalanced and offset by a "negative hump" with exactly the same height, travelling at an identical speed toward the left. As a result, this

type of response within a wire creates a “standing wave”. If the instantaneous voltage is measured at a “null node”, it would appear that nothing is happening, in terms of fluctuating voltage. Furthermore, the “null node” will not be moving, along the length of the wire; instead, it will appear to be standing still. This can be demonstrated, in a coil, by using a “grounded lead” to test for voltages along the length of a coil. If a “grounded lead” coupled to a volt meter is used to touch the surfaces of a series of strands in a non-insulated coil (such as a coil made of thin copper tubing, wrapped around a plastic cylindrical shape, as used in the types of large transformers used by hobbyists to create “Tesla coils” which will emit large and visually impressive electrical arcs), the “test lead” will detect no apparent voltage at a null node, which will occur at some particular strand in the coil. At a different strand of the coil, the “test lead” will detect an alternating voltage which has twice the strength and intensity of the voltage being emitted by the power supply. If voltage is measured at a “peak node”, the voltage will be doing something which can be called, using vernacular or laymen's terms, “the full-tilt boogie”. The AC voltage levels will be moving back and forth, between: (i) a very high and intense positive voltage, to (ii) an equally intense negative voltage. This is indicated by the “bubble” shapes shown along the wire in Fig.1C. The “bubbles” which are shown in Fig.1C can help someone understand how standing waves are created, and how they act in a synchronised manner. However, which drawing fails to show another result which is very important in what actually happens in a standing wave. For purposes of description and analysis at this introductory level, the system can be assumed to be “ideal”, which implies a perfect “mirror-image” reflection of each wave from the right end of the wire. An “ideal” system also implies that no reflections occur at the left hand end of the wire where the power supply is located, and all “reflected” wave activity simply ceases. In real circuits and wires of this type, second and third order reflections do in fact occur, and they are used to further increase the strength and power output of these types of systems; however, those additional factors and “harmonics” should be ignored until after the basic principles of this type of system have been grasped and understood. In an ideal system, when the reflected waves (which are travelling toward the left, in the wire segments illustrated in Fig.1) are “superimposed” on the emitted waves (travelling toward the right), the “peak” positive voltage which will be instantaneously reached, at the highest point of each “bubble” shown in Fig.1C, will occur when the positive peak of an emitted wave crosses a mirror-image positive peak of a reflected wave, travelling in the opposite direction. Accordingly, when those two “positive peak” values are added to each other, the instantaneous positive peak voltage which will occur, in the wire, will actually be twice as intense as the “positive peak” voltage being emitted by the AC power supply. An instant later, at that exact point on that segment of wire, a negative peak voltage will be created, which will be the sum of (i) the negative peak voltage emitted by the power supply, and (ii) the negative peak voltage of a reflected wave also will pass through, travelling toward the left. At which instant, when those two negative peak voltages are added to each other, the instantaneous negative voltage which will occur, in the wire, will be twice as intense as the

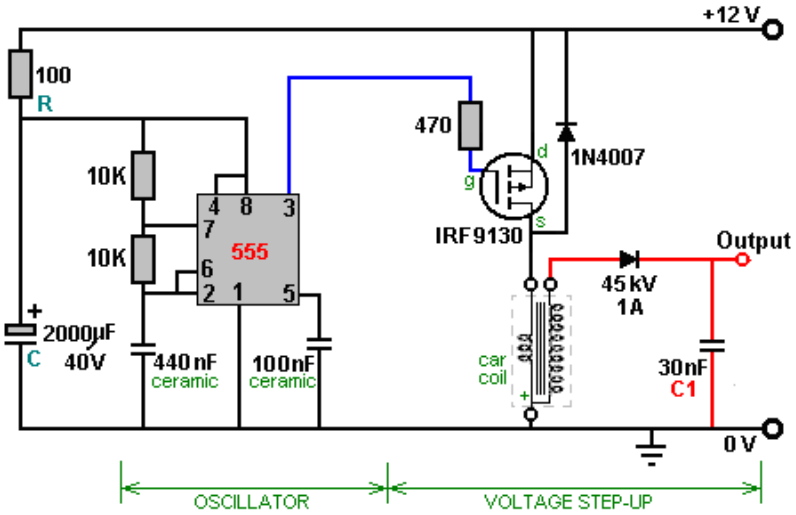
“negative peak” voltage being generated by the AC power supply. A more accurate and representative visual depiction of a “standing wave” in a wire would actually show the heights of the peaks as being twice as tall as the peaks of the emitted voltage waves, and the reflected voltage waves. However, which depiction might confuse people, so it usually is not shown in drawings of “standing waves”. Accordingly, the instantaneous response in the wire, at a location halfway between two “null nodes”, is doing something which can fairly and properly be called “the full-tilt double double boogie”. The “double double” phrase (note which it contains not just one but two “doubles”) was added to that phrase, for two reasons: (i) To emphasise the fact that each and every voltage peak (maximum positive, and maximum negative) will be twice as strong, and twice as intense, as the maximum positive and negative peak voltages emitted by the power supply; and, (ii) to point out that the frequency of the superimposed “bubbles”, shown in Fig.1C, is actually twice as fast as the frequency of the AC cycle which is emitted by the power supply, as discussed below. The “twice the intensity” result is directly comparable to what an observer will see, if a large mirror is placed behind a light bulb in an otherwise dark room. The mirror effectively keeps the room dark, everywhere behind the mirror, so there is no “magical doubling” of the light in the room; which would violate the basic law of conservation of energy. Instead, what the mirror does is to shift light away from the backside of the mirror, and keep that light energy on the reflective side of the mirror. Anyone standing in front of the mirror will see two apparent light bulbs. Both of those light bulbs (the original bulb, and the reflected image) will have the same brightness (if the mirror is perfect). Therefore, the mirror will double the intensity of the light energy reaching the observer. That same effect, in a circuit, will happen if the end of a wire acts like a mirror. If a wire does not have any components which will cause it to become an active “emission source” (which is the behaviour of transmission antennas and certain other components), in a way which efficiently releases voltagecreated energy into the atmosphere, then the basic rules which require conservation of energy will prevent that energy from simply disappearing and ceasing to exist. As a result, even if the end of a wire is not designed to be a perfect reflector, a large portion of the voltage wave will indeed reflect off the wire tip, and travel back through the same wire, in a “second pass”. To understand adequately, the type and amount of “wave reflection” which occurs at a wire tip, consider what happens if a light bulb is shining in a room which has shiny, glossy white paint on all the walls and ceilings; then, consider how it would look if the same light bulb were located in a room with all of the walls and ceilings painted “matt black”. The total amount of light which would be available, to carry out a task such as reading a newspaper, clearly would be much greater in the white room, because light reflects off white paint, even though white paint does not even begin to approach the type of “reflection quality or clarity” which a mirror creates. The difference in what happens, when light intensity in a room painted matt black is compared to a room painted a glossy white, does not arise from the presence or absence of “reflection quality or clarity”; instead, it is governed by the laws of conservation of energy. When light shines on to a surface which is painted

matt black, the light energy is absorbed by the paint, and it literally warms the paint up. In contrast to that, glossy white paint will not absorb light energy, so it reflects the light back out, for a "second pass" through the air which fills a room. Because of the laws of conservation of energy, and without depending on any "quality of reflectance" characteristic of wire tips, electrical energy cannot simply disappear, when it reaches the end of a wire. Instead, there are only two things which can happen to that energy: (i) the electrical energy can be emitted into the surroundings, such as by emitting sparks, arcs, or radiofrequency signals which will carry energy; or (ii) if the energy is not emitted by the tip of the wire, then, by simple necessity and because of the basic law of conservation of energy, it must be reflected back into the wire, and it will be forced to travel back through the wire again. If a wire has a long and tapered tip, then the reflected wave might become somewhat diffused, and it might lose some portion of the "clarity" of the wave. However, since wavelengths in the frequencies of interest here are hundreds of meters long, the type of tip created by a conventional wire cutter will not create any significant diffusion, in a reflected wave. And, unlike the white-painted walls of a room, there is not a large area which is available, at the tip of a wire, which can create scatter, spread, or diffusion. As a result, the tip of a wire will be a relatively efficient mirror-type reflector, when an AC voltage is "pumped" into one end of the wire. The second factor mentioned above, when the "double-double" boogie phrase was mentioned, relates to a doubling of the frequency of a standing wave. When a standing wave is created in a wire by reflection of an emitted AC voltage wave, the frequency of the standing wave is, quite literally, double the frequency of the emitted wave. This can be seen, visually, by noting that in the emitted AC voltage, shown in Fig.1A, a single complete wavelength contains both a "positive hump" and a "negative hump". Accordingly, three complete sine waves, divided into three segments by the imaginary vertical lines, are shown in Fig.1A. By contrast, each and every "bubble" shown in Fig.1C depicts a complete and total "wavelength", in a standing wave. Six of those standing wave "bubbles" fit into exactly the same length of wire which holds only 3 emitted wavelengths from the power supply. The "frequency doubling" effect of standing waves is important, because AC systems can convey and release energy in a manner which increases, as the frequency of the AC voltage supply increases. To some extent, this is analogous to saying that, if a motor can be run at twice the speed (while still generating the same torque), then the work output of that motor can be twice as great, at the higher speed. That analogy is not entirely accurate, since work output from an electric device which uses AC power depends on "area of the curve" functions which occur when sine waves are involved. Nevertheless, as a general principle, if the frequency of the voltage peaks increases, then power output will also increase, in many types of electric circuit components. In the three panels of Fig.1, the wire length is three times as long as the wavelength of the voltage from the power supply. However, to create standing waves, a wire length does not need to be any particular multiple of the wavelength of an AC voltage. As can be seen by considering Fig.1C, the same types of "bubbles" would be created: (i) if the wire length were exactly twice as long as the wavelength; or, (ii) if the

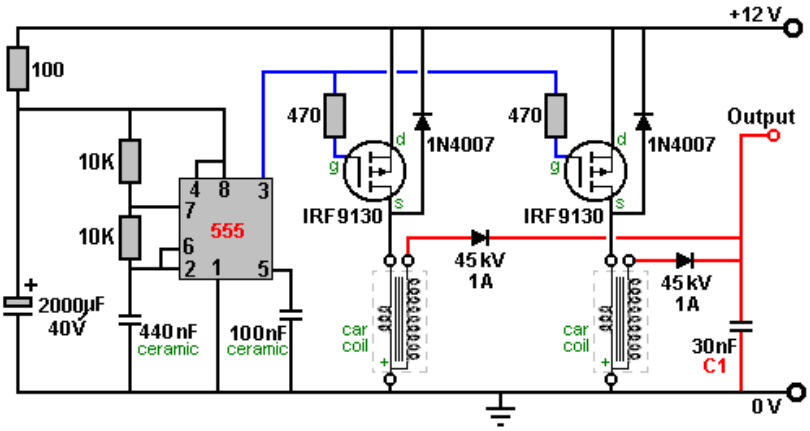
wire length were the same length as the wavelength. Accordingly, Fig.2 (which includes Fig.2A showing an emitted wave, Fig.2B showing a reflected wave, and Fig.2C showing the superimposed “bubbles”) shows what happens in a wire segment which has a length which is equal to a single wavelength from an AC voltage at a fixed frequency. A resonant standing wave will be formed, with a frequency which is double the frequency of the input AC voltage. which same result will apply, in a wire having any length which is an exact (integer) multiple (such as 1x, 2x, 3x, etc.) of the wavelength of the AC voltage being pushed (or forced, driven, pumped, etc.) into the wire segment.

## Making a Solid-State Tesla Coil.

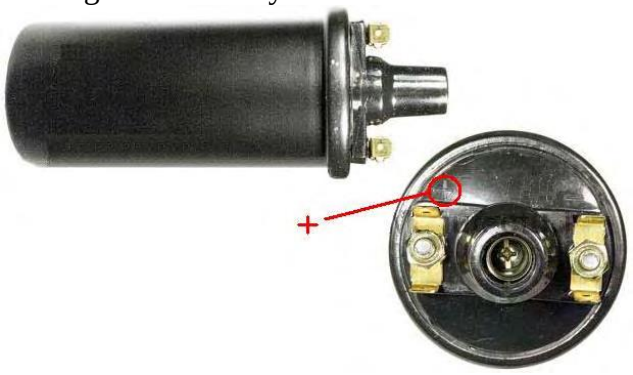
As some readers may feel that there is some "black magic" about the neon-driver circuit used by Don to drive the Tesla Coil section of his circuitry and that if a suitable unit could not be purchased then the circuit could not be reproduced or tested, it seems reasonable to show how it operates and how it can be constructed from scratch: The circuit itself is made up of an oscillator to convert the 12-volt DC supply into a pulsating current which is then stepped up to a high voltage by a transformer. Here is a circuit which has been used for this:



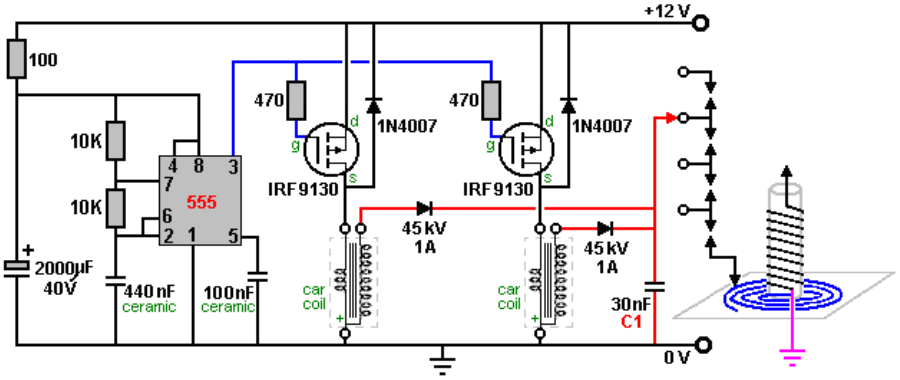

The supply for the 555 timer chip is protected against spikes and dips by the resistor "R" and the capacitor "C". The 555 timer chip acts as an oscillator or "clock" whose speed is governed by the two 10K resistors feeding the 440 nF capacitor. The step-up transformer is an ordinary car coil and the drive power to it is boosted by the IRF9130 FET transistor which is driven by the 555 chip output coming from it's pin 3. The output from the (Ford Model T) car coil is rectified by the diode, which needs to have a very high voltage rating as the voltage at this point is now very high. The rectified voltage pulses are stored in a very high-voltage capacitor before being used to drive a Tesla Coil. As a powerful output is wanted, two car coils are used and their outputs combined as shown here:




You will notice that the car coil has only three terminals and the terminal marked "+" is the one with the connection common to both of the coils inside the housing. The coil may look like this:

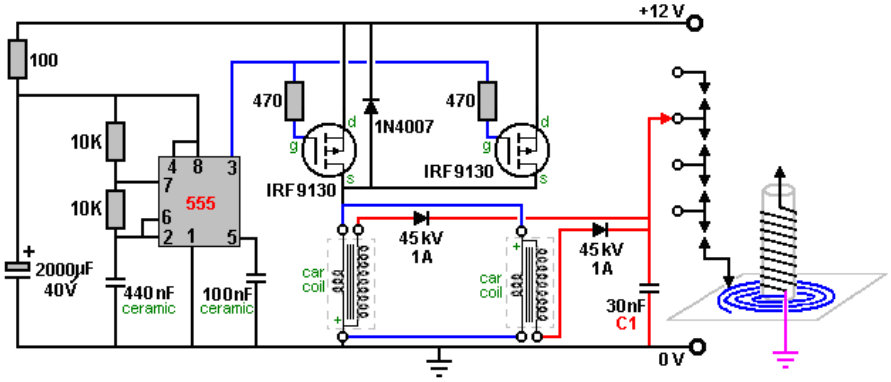



and the "+" is generally marked on the top beside the terminal with the two internal connections running to it. The circuit described so far is very close to that provided by a neon-tube driver circuit and it is certainly capable of driving a Tesla Coil. There are several different way of constructing a Tesla Coil. It is not unusual to have several spark gaps connected in a chain. This arrangement is called a "series spark gap" because the spark gaps are connected "in series" which is just a technical way of saying "connected in a row". In the chapter on aerial systems, you will see that Hermann Plauson uses that style of spark gap with the very high voltages which he gets from his powerful aerial systems. These multiple spark gaps are much quieter in operation than a single spark gap would be. One of the possible Tesla Coil designs uses a pancake coil as the "L1" coil as that gives even higher gain. The circuit is as shown here:

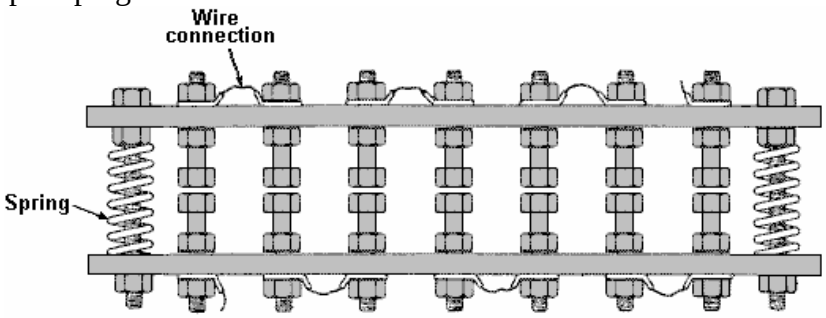



The connection to the pancake coil is by a moveable clamp and the two coils are tuned to resonance by careful and gradual adjustment of that

connection, 10 mm at a time (**after** powering down and discharging the "C1" capacitor). It has been found recently, that connecting two of these (non-ballast resistor) car coils back to back with the plus and minus connections switched over, that the performance is very much improved. It has been suggested that the small self-capacitance of each coil when connected across the other coil, causes a very much higher frequency of operation, giving much sharper voltage spikes which is a very desirable situation in a circuit of this type. This arrangement might be connected like this:

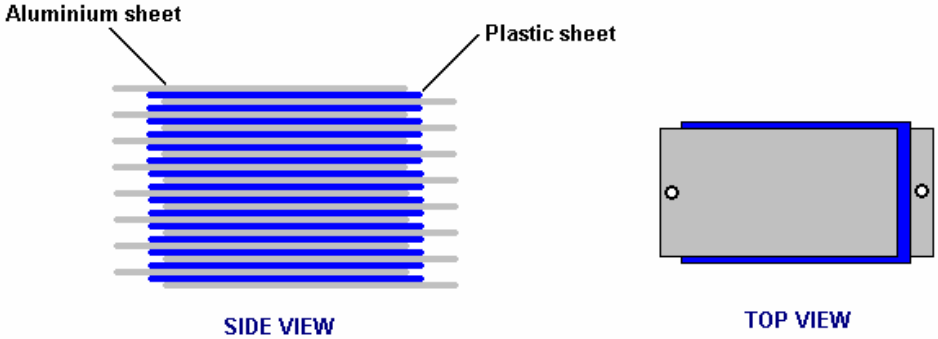



The series spark gap can be constructed in various ways, including using car spark plugs, gasdischarge tubes or neon lamps. The one shown here uses nuts and bolts projecting through two strips of a stiff, non-conducting material, as that is much easier to adjust than the gaps of several spark plugs:




Tightening the bolts which compress the springs moves the bolt heads closer together and reduces all of the spark gaps. The electrical connections can be made to the end tags or to any of the intermediate wire connection straps if fewer spark gaps are required in the chain. Let me remind you again that this is not a toy and very high voltages will be produced. Also, let me stress again that if you decide to construct anything, then you do so entire on your own responsibility. This document is only provided for information purposes and must not be seen as an encouragement to build any such device nor is any guarantee given that any of the devices described in this ebook will work as described should you decide to attempt to construct a replication prototype of your own. Generally, it takes skill and patience to achieve success with any free-energy device and Don Smith's devices are some of the most difficult, especially since he admits quite freely that he does not disclose all of the details. The output capacitor marked "C1" in the circuit diagram above has to be able to handle very high voltages. There are various ways of dealing with this. Don dealt with it by getting very expensive capacitors

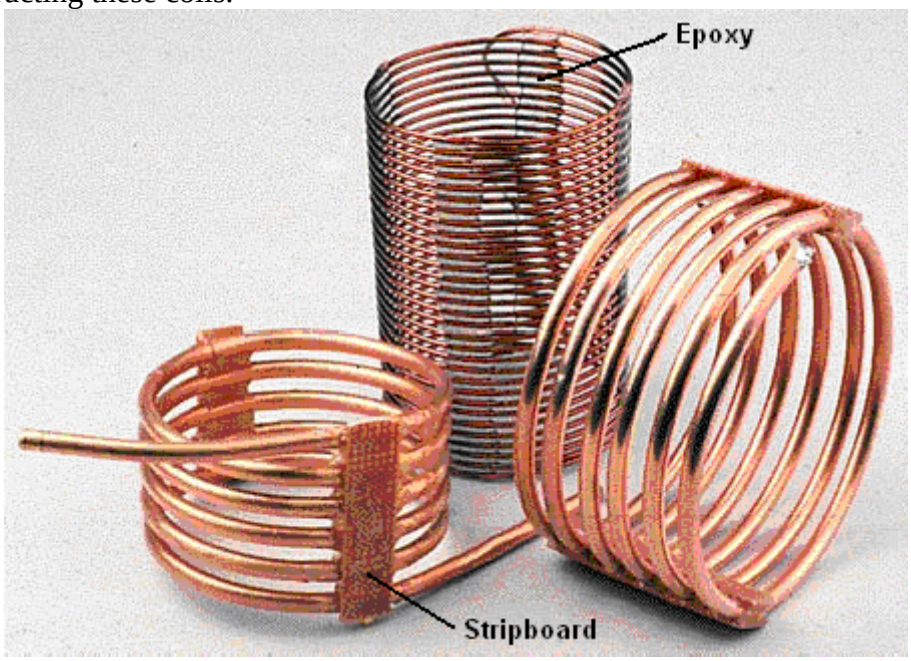
manufactured by a specialist company. Some home-based constructors have had success using glass beer bottles filled with a salt solution. The outside of the bottles are wrapped in aluminium foil to form one of the contacts of the capacitor and bare wires are looped from deep inside each bottle on to the next one, looping from the inside of one bottle to the inside of the next one, and eventually forming the other contact of the capacitor. While that appears to work well, it is not a very convenient thing to carry around. An alternative is just to stand the bare bottles in a container which is lined with foil which forms the second contact of the capacitor. One method which has been popular in the past is to use two complete rolls of aluminium foil, sometimes called "baking foil", laying them one flat, covering it with one or more layers of plastic cling film and laying the second roll of foil on top of the plastic. The three layers are then rolled up to form the capacitor. Obviously, several of these can be connected together in parallel in order to increase the capacitance of the set. The thicker the plastic, the lower the capacitance but the higher the voltage which can be handled. The November 1999 issue of Popular Electronics suggests using 33 sheets of the thin aluminium used as a flashing material by house builders. At that time it was supplied in rolls which were ten inches (250 mm) wide, so their design uses 14" (355 mm) lengths of the aluminium. The plastic chosen to separate the plates was polythene sheet 0.062 inch (1.6 mm) thick which is also available from a builders merchants outlet. The plastic is cut to 11 inch (280 mm) by 13 inch (330 mm) and assembly is as follows:



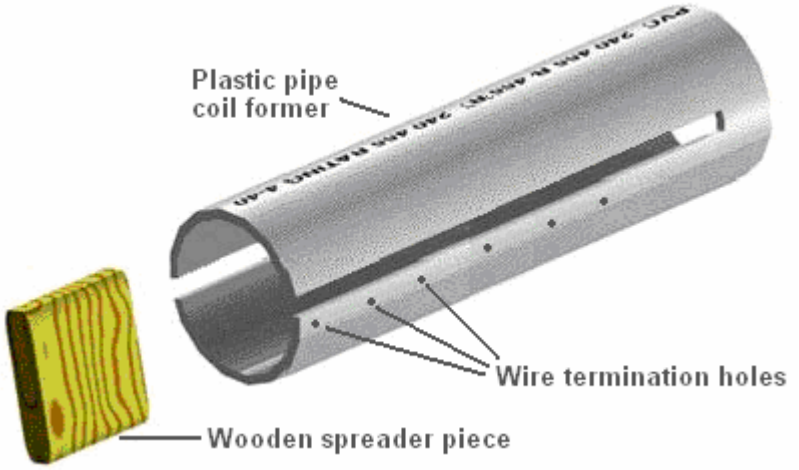

The sandwich stack of sheets is then clamped together between two rigid timber sheets. The tighter that they are clamped, the closer the plates are to each other and the higher the capacitance. The electrical connections are made by running a bolt through the projecting ends of the plates. With two thicknesses of plastic sheet and one of aluminium, there should be room for a washer between each pair of plates at each end and that would improve the clamping and the electrical connection. An alternative is to cut a corner off each plate and position them alternatively so that almost no plate area is ineffective. As Don Smith has demonstrated in one of his video presentations, Nikola Tesla was perfectly correct when he stated that directing the discharge from a Tesla Coil on to a metal plate (or in Don's case, one of the two metal plates of a two-plate capacitor where a plastic sheet separates the plates just as shown above), produces a very powerful current flow onwards through a good earth connection. Obviously, if an electrical load is positioned between the plates and the earth connection, then the load can be powered to a high level of current, giving a very considerable power gain.

**Constructing High-Quality Coils.**

The Barker & Williamson coils used by Don in his constructions are expensive to purchase. Some years ago, in an article in a 1997 issue of the "QST" amateur radio publication, Robert H. Johns shows how similar coils can be constructed without any great difficulty. The Electrodyne Corporation research staff have stated that off-the-shelf solid tinned copper wire produces three times the magnetic field that un-tinned copper does, so perhaps that should be borne in mind when choosing the wire for constructing these coils.




These home-made coils have excellent "Q" Quality factors, some even better than the tinned copper wire coils of Barker & Williamson because the majority of electrical flow is at the surface of the wire and copper is a better conductor of electricity than the silver tinning material. The inductance of a coil increases if the turns are close together. The capacitance of a coil decreases if the turns are spread out. A good compromise is to space the turns so that there is a gap between the turns of one wire thickness. A common construction method with Tesla Coil builders is to use nylon fishing line or plastic strimmer cord between the turns to create the gap. The method used by Mr Johns allows for even spacing without using any additional material. The key feature is to use a collapsible former and wind the coil on the former, space the turns out evenly and then clamp them in position with strips of epoxy resin, removing the former when the resin has set and cured. Mr Johns has difficulty with his epoxy being difficult to keep in place, but when mixed with the West System micro fibres, epoxy can be made any consistency and it can be applied as a stiff paste without any loss of it's properties. The epoxy is kept from sticking to the former by placing a strip of electrical tape on each side of the former.




I suggest that the plastic pipe used as the coil former is twice the length of the coil to be wound as that allows a good degree of flexing in the former when the coil is being removed. Before the two slots are cut in the plastic pipe, a wooden spreader piece is cut and it's ends rounded so that it is a push-fit in the pipe. This spreader piece is used to hold the sides of the cut end exactly in position when the wire is being wrapped tightly around the pipe. Two or more small holes are drilled in the pipe beside where the slots are to be cut. These holes are used to anchor the ends of the wire by passing them through the hole and bending them. Those ends have to be cut off before the finished coil is slid off the former, but they are very useful while the epoxy is being applied and hardening. The pipe slots are cut to a generous width, typically 10 mm or more. The technique is then to wedge the wooden spreader piece in the slotted end of the pipe. Then anchor the end of the solid copper wire using the first of the drilled holes. The wire, which can be bare or insulated, is then wrapped tightly around the former for the required number of turns, and the other end of the wire secured in one of the other drilled holes. It is common practice to make the turns by rotating the former. When the winding is completed, the turns can be spaced out more evenly if necessary, and then a strip of epoxy paste applied all along one side of the coil. When that has hardened, (or immediately if the epoxy paste is stiff enough), the pipe is turned over and a second epoxy strip applied to the opposite side of the coil. A strip of paxolin board or strip-board can be made part of the epoxy strip. Alternatively, an L-shaped plastic mounting bracket or a plastic mounting bolt can be embedded in the epoxy ready for the coil installation later on. When the epoxy has hardened, typically 24 hours later, the coil ends are snipped off, the spreader piece is tapped out with a dowel and the sides of the pipe pressed inwards to make it easy to slide the finished coil off the former. Larger diameter coils can be wound with small-diameter copper pipe. The coil inductance can be calculated from:

Inductance in micro henrys **L** = **d**2**n**2 / (18**d** + 40**l**)

Where:

**d** is the coil diameter in inches measured from wire centre to wire centre

**n** is the number of turns in the coil

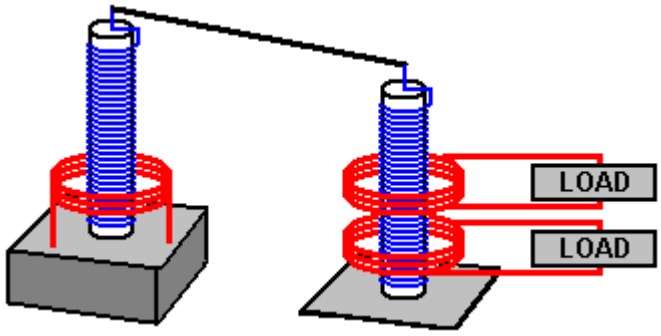
**l** is coil length in inches (1 inch = 25.4 mm)

Using this equation for working out the number of turns for a given inductance in micro henrys:

$$n = \frac{\sqrt{L(18d + 40l)}}{d}$$

## Tesla Coils Back-to-Back

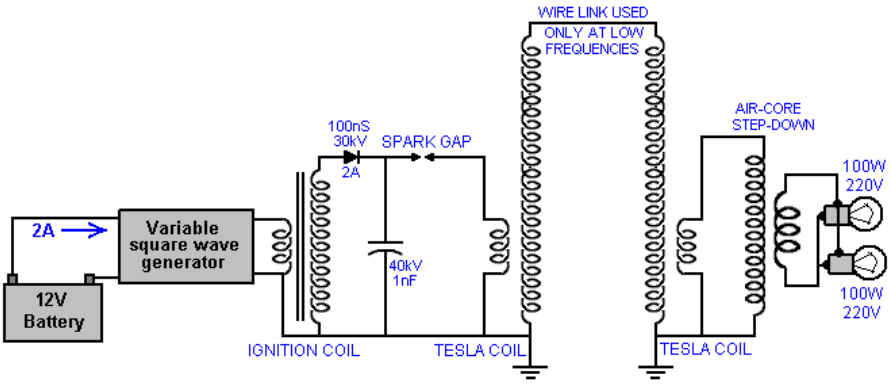
I have been told of one man who used his common sense and produced an impressive result. He used a Tesla Coil as the driving force, and then used a second Tesla Coil back-to-back with the first one, to step the high voltage back down again. Doing that, he was able to light a series of powerful light bulbs from the "L1" output coils. He also confirmed that doubling the voltage, quadrupled the power output, verifying what Don said. He also found that adding additional coils with bulbs to the output Tesla Coil, did not increase the input power at all, did not cause any of the existing light bulbs to shine any less brightly, and yet lit the additional bulbs. That would appear to be confirmation of Don's statement that any number of magnetic copies of the original oscillating magnetic field of the first Tesla Coil, can provide a full-power electrical output without requiring any additional input power. I'm no expert, but my understanding of the arrangement is:




As the large diameter coil is exactly one quarter the length of the smaller diameter coil, there is an automatic resonance of both when the applied frequency is just right. As the first narrow coil is identical to the second narrow coil, they are also automatically resonant together. Again, as the large coils which feed the loads are exactly one quarter the wire length of the narrow coils, they also resonate at the common frequency and at that frequency, the input power is at its minimum while the output power is at its maximum. The spike at the top of each of the narrow coils is connected with a wire to channel the generated power from the first Tesla Coil to the second one. This arrangement may seem too simple to be effective, but with Tesla technology "too simple" just does not apply. This can be seen clearly from the work of **Nikanor "Nick" Giannopoulos**. Before he ever learned anything about electronics, Nick read and understood Nikola Tesla's "Colorado Spring Notes" (http://www.free-energyinfo.tuks.nl/TeslaCSN.pdf 60Mb) and this helped with his present level of understanding. Interestingly, and perhaps not surprisingly, Nick had difficulty with conventional electronics after becoming familiar with Tesla's technology. Nick used a square wave signal generator adjustable from 50 kHz downwards and with a fully adjustable Mark/Space ratio. This was used to drive an oil-filled car ignition coil, which, as he points out is not a Tesla Coil in spite of the frequently held view that it is.

Ignition coils only operate at low frequency due to the limitations of their core material. However, John Stone points out that certain coil designs, such as those for the Fiat 'Punto' car, are built in such a way that replacing the core with ferrite should be possible, and that would allow high frequency operation. Anyway, Nick uses a standard car ignition coil at lower frequency and uses it to feed a spark gap like this which is constructed from two chipboard screws:

His circuit is:




Nick has had very impressive results from his circuit, although it is still very much a work in progress with more development and testing still to be done. The 24 watt input of 12V at 2A is producing two very brightly lit 220V light bulbs. This does not tell us very much about the actual output power as bulbs are notorious for lighting brightly at low power levels, especially if the frequency is high. But, a very important point is the quality of the light which is an unusual, blue-white colour, quite unlike the colour produced when connected to the 220V mains supply. This is generally a sign of the power being 'cold' electricity. While he has not yet had the opportunity to test it, Nick believes that the circuit as it stands now is quite capable of powering much higher loads, and considering the colour of the light, I would be inclined to agree with him, although anything like that has to be tested and proven before any solid conclusions can be drawn from what is already known about the performance. The circuit performance is much improved if two separate physical earth ground connections are made.

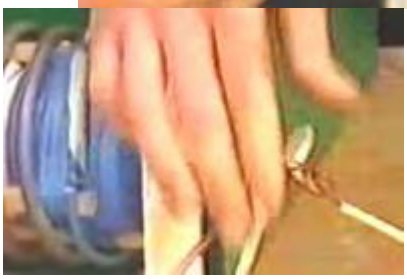
Please don't fall into the trap of thinking that because the sparks are occurring at less than 5 kHz, that the Tesla coils also operate at that frequency. If you strike a bell which vibrates at 400 Hz, does that mean that you have to hit it 400 times every second in order to hear it? Actually, no, you don't, and the same thing applies here where the resonant frequency of the Tesla coils is approximately 650 kHz. The primaries are wound on 100 mm diameter PVC pipe sections and 19 turns of 1.02 mm diameter enamelled copper wire is used for them (19 swg or #18 AWG). The secondary coils are wound on 70 mm diameter PVC pipe using 0.41 mm diameter enamelled copper wire (27 swg or #26 AWG) with a total length of four time the primary winding wire length. As you will see later on in this chapter, resonance in a coil involves a standing wave inside the wire. That standing wave is created by the signal bouncing off the end of the wire and being reflected back. At frequencies other than the resonant frequency, this results in a constantly changing set of many different waves travelling in both directions and at different intensities (what could reasonably be described as a total mess). When the resonant frequency is fed to the coil, then all of that mess disappears and just one waveform remains, and at any point along the wire, that waveform appears to be stationary although, of course, it is not actually stationary, just the effect of the peaks always occurring at exactly the same spot and the troughs occurring at exactly the same spot, making successive waves look exactly the same as the previous one. This feature has one very practical aspect, namely that if you run the same wire away from the coil turns to connect to whatever the next circuit component happens to be, then the wave inside the wire will not bounce back at the end of the coil turns but will continue on to the end of the wire before bouncing back. So, the connecting wire length has to be included when reckoning the wire length in the turns of the coil. On the other hand, if the wire in the coil turns is terminated at the ends of the coil and wire of a very different diameter is used for connecting to the next component in the circuit, then the signal inside the wire will bounce back from the sudden change in wire diameter and so the connecting wire length will not be part of the wire length in the turns of the coil. This is an important feature if you are aiming for an

exact 4:1 wire length ratio (and 4:1 wire weight) between the Tesla Coil windings in order to impose an automatic resonance between the two windings. It should be noted that PVC (especially non-white PVC) has a very restrictive effect on high frequency coils. At low frequencies, PVC is ok, but it drags down the coil performance as the frequency rises, lowering the "Q" (for "Quality") factor of the coil. Using acrylic instead of PVC overcomes this. Alternatively, coating the PVC with a high-voltage insulating material such as shellac or one of the proprietary coating agents, will improve matters considerably. The ideal, of course, is to have no former at all and have the coil standing unaided because of it's own strength.

**Tariel Kapanadze's Self-Powered Generators**

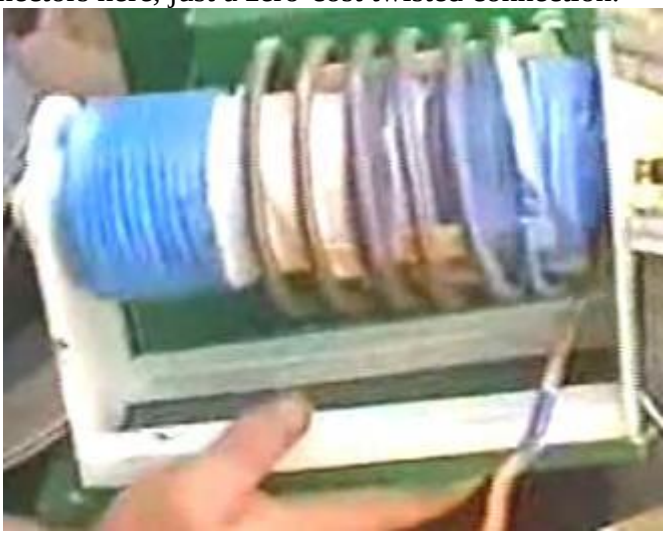
Tariel Kapanadze, like Don Smith, appears to have based his work on that of Nikola Tesla. There has been a video on the web, of one of his devices in operation, but it appears that the video has been removed. However, part of it can be seen here: http://www.youtube.com/watch?v=l3akywcvb9g The video commentary was not in English and so the information gathered from it is not as complete as it might be. However, in spite of that, a number of useful things can be learned from it. Unfortunately, Tariel refuses to share the details of his designs.

The video shows a demonstration being staged in a back garden, I believe, in Turkey. Strong sunshine was casting dense shadows which made video detail less than perfect. Essentially, Tariel demonstrated one of his builds of a Tesla-style free-energy device, powering both itself and a row of five light bulbs. One of the most encouraging things about this video is that the construction and operation was of the most basic kind, with not the slightest suggestion of expensive laboratory work or anything high-precision. This is most definitely a backyard construction within the scope of any knowledgeable person. Electrical connections were made by twisting bare wires together:

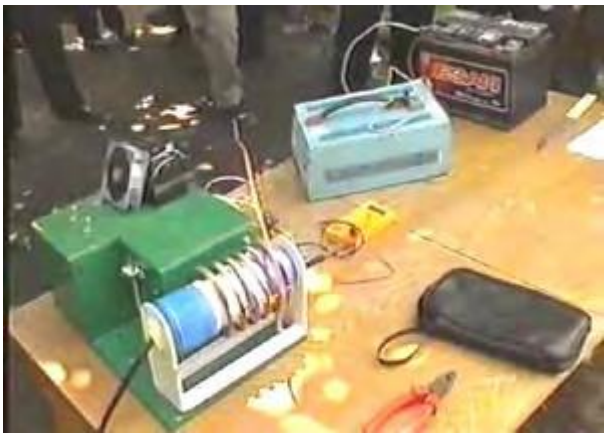


and where necessary, tightening the twist with a pair of pliers:

This shows clearly that a high-power and very useful free-energy device can be made with the most simple of construction methods - no expensive connectors here, just a zero-cost twisted connection.

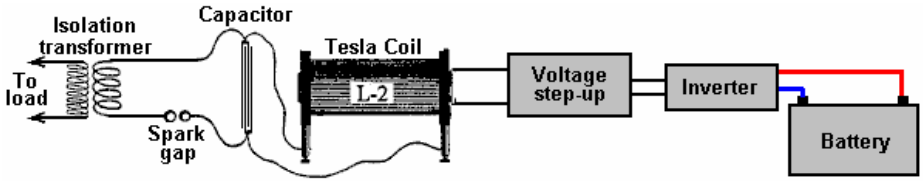


The device being displayed is a Tesla Coil powered, earth-connected system of the type already described. You will notice that the thick primary winding is not placed at one end of the central secondary winding but is much closer to the centre of the coil. Remember that Don Smith states that if the primary coil is placed centrally, then the amount of current which the coil can deliver is very large, in spite of the fact that most people think that a Tesla Coil can only produce trivial currents. Notice also that this Tesla Coil appears to be mounted on a cheap kitchen-roll holder. I have seen it said that Tariel makes a new device for each demonstration and takes it apart afterwards, so if that is correct, then it is likely that there is no great effort or expense involved in making one of these systems.



The main operational components are shown here, placed on one small table. There is a lead-acid battery (which is removed later in the demonstration), what appears to be an inverter to produce mains AC voltage from the battery, a high-voltage step-up system housed in a green box for safety reasons, a Tesla Coil, a spark gap mounted on the box and a fan-cooled component, probably a solid-state oscillator system driving the Tesla Coil. Not seen in this picture, is an item contained in a small box which might well be a high-voltage capacitor. Two earth connections are organised. The first one is an old car radiator buried in the ground:

and the second is a bare wire wrapped around a garden tap's metal pipe and twisted tight as shown above. It is distinctly possible that the circuit is based on this circuit of Tesla's:




Perhaps, the battery powers the inverter which produces mains voltage, which is then stepped up to a high voltage level by the enclosed electronics. This then drives the Tesla Coil, producing both very high

voltage and current with the capacitor storing the energy as a reservoir. The spark gap then pulses this energy, driving the primary winding of the isolation transformer which produces a lower voltage at substantial current (depending on the current-handling capacity of the transformer itself) powering the load, which in this case, is a row of light bulbs. The load is a row of five light bulbs hung from a brush handle placed across the backs of two chairs:

As you can see, this is not exactly high-tech, high-cost construction here, with all of the materials being used for other things afterwards. Initially, the battery is used to power the inverter and it is demonstrated that the current being drawn from the inverter is substantially less than the power entering the load. In conventional terms, this appears impossible, which is an indication that the conventional terms are out of date and need to be updated to include the observed facts from demonstrations such as this. As the system is putting out a good deal more power than is required to drive it, might it not be possible to use part of the output power to provide the input power. This is often called "closing the loop" and it is demonstrated in this video as the next step. First, the circuit is altered so that the input power connection to the inverter is taken from the output. Then the circuit is powered up using the battery as before. The battery is then disconnected and removed altogether, and the people helping with the demonstration pick up all of the active items and hold them up in the air so as to show that there are no hidden wires providing the extra power from some hidden source. The items on the table are not part of the circuit:

There is some additional information on Tariel including videos of some of his more powerful, newer designs at

http://peswiki.com/index.php/Directory:Kapanadze_Free_Energy_Generator#Official_Website although it has to be said that there does not appear to be very much on him or his work available at this time. In December 2009 an anonymous contributor e-mailed to say that Kapanadze returned to the ex-USSR republic of Georgia and that the video soundtrack is in the Georgian language and after the demonstration, the interview is in Russian. He has kindly translated the parts which relate to the device, as follows:

**Question:** What are you showing us today?

**Answer:** This is a device which draws energy from the environment. It draws 40 watts as it starts up, but then it can power itself and provide an output of 5 kilowatts. We don't know how much energy can be drawn from the environment, but in an earlier test, we drew 200 kilowatts of power.

**Question:** Is it possible to solve the energy problems of Georgia?

**Answer:** We consider that they have already been solved.

**Question:** Please tell us in simple terms, how your device works.

**Answer:** (1) Power is drawn from the battery to get the device running

(2) If we want, we can use part of the output power to drive a charger and charge the battery (3) When the device is running, we can remove the battery and it then operates self-powered. This particular unit can deliver 5 kilowatts of power which is enough for a family. We can easily make a version which supplies 10 kilowatts. We don't know what the practical power limit is for a unit like this. With this particular device we have here, we do not draw more than 5 kilowatts as we don't want to burn out the components which we used in this build.

**Question:** Does your invention pick up current from mains wires?

**Answer:** The mains has nothing to do with this device. The energy produced comes directly from the environment.

**Question:** What do you call your device and do you dedicate it to anyone?

**Answer:** I would not dream of claiming this device to be my invention, I just found something which works. This is an invention of

Nikola Tesla and all the credit is his. Tesla has done so much for mankind but today he is just forgotten. This device is his invention, his work.

**Question:** Why are you so sure that this is a design of Nikola Tesla's?

**Answer:** Because I worked from his invention - his design. I discovered how to get automatic resonance between the primary and secondary windings. The most important thing is to achieve resonance. Melnichenko came close to solving this problem. The government of Georgia refuses to take this invention seriously.

**Question:** You said that resonance must be maintained. Which parts resonate?

**Answer:** Here (pointing to the green box) and here (pointing to the Tesla Coil mounted on the top of the green box). The resonator is inside the green box and at present, it is secret until patented.

**Question:** How much would one of these units cost?

**Answer:** When mass produced, it would cost between 300 and 400 US dollars for a unit which has an output of 5 or 6 kilowatts.

**Question:** How much did it cost you to build this demonstration device?

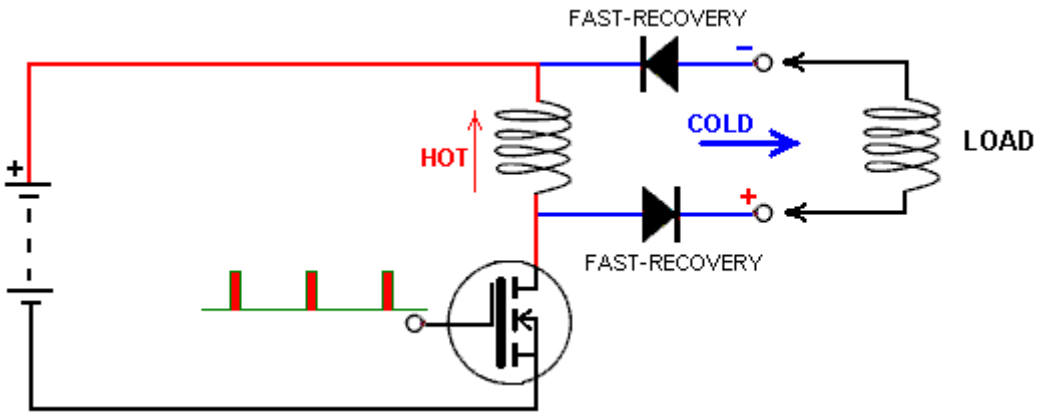
**Answer:** About eight thousand (currency not specified). Parts had to be got in from twenty different places.

**Question:** Is this your house?

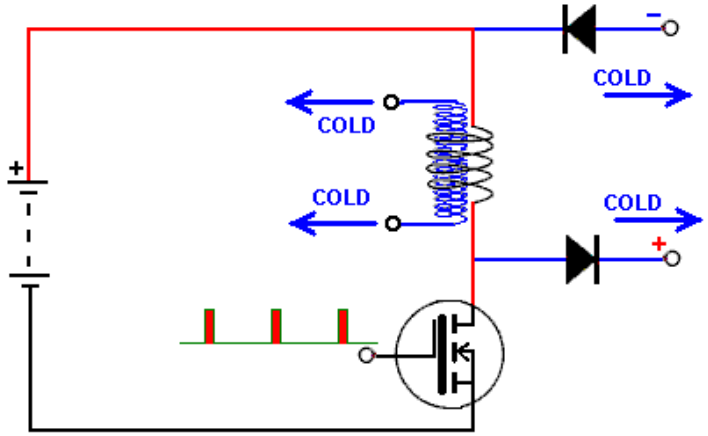
**Answer:** No, I rent this place because we have sold all that we have to make these devices. And, having done it, the government and many scientists say "We are not interested because a device like that is impossible and can't possibly exist!". I have not been allowed to make a presentation to them, but people who understand the Tesla Coil understand how this device works. Kapanadze is an architect by profession and has not had any training in either physics or Electrical Engineering. The information on which this design was based was downloaded free from the internet. One of the most important aspects of this video is the confirmation it gives for the work of Tesla and of Don Smith, in that it shows clearly, yet again, that large amounts of energy can be drawn from the local environment, without the need to burn a fuel. Another video: http://www.youtube.com/watch?v=gErefbcTz-U People frequently ask for construction drawings or alternatively, outlets where they can buy one of his devices. Unfortunately, Tariel is not willing to share the details of his designs and so they will probably never be manufactured. Many people have tried to analyse and replicate his design.

## The Cold Electricity Coil of 'UFOpolitics'

A man who uses the forum ID of 'UFOpolitics' has been sharing his insights and experiences on various different forums, such as the one dealing directly with the production and use of cold electricity in solid-state circuits: http://www.energeticforum.com/renewable-energy/10529-my-motors-got-me-tap-into-radiant-energy-1.html His insights are unusual and very important. His basic statement is that if a coil is pulsed, using a circuit like this:

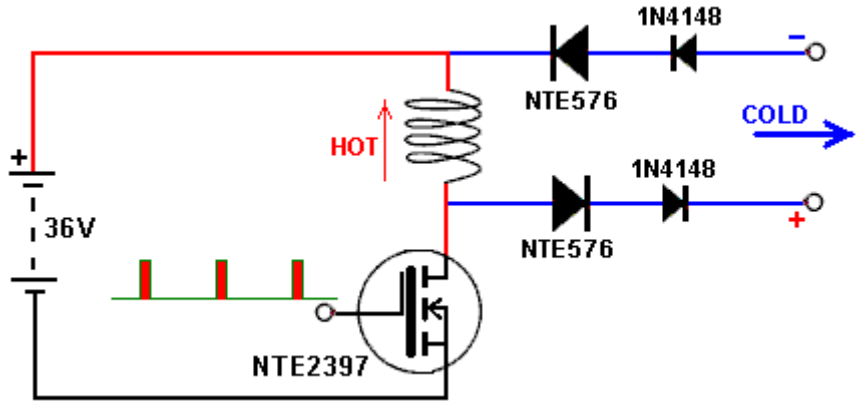



then conventional hot electricity pulses the coil when the transistor is switched ON, but if that current is switched OFF rapidly, then there is an inflow of cold electricity into the coil from the surrounding environment. That inflow of energy can be collected and diverted to power a load through the use of two high-speed diodes which can carry considerable current as the power inflow is substantial. The inflow of energy occurs when the transistor is switched OFF and so it is desirable to have the transistor switched off for most of the time, in other words, a low percentage Duty Cycle for the transistor. There **must** be a significant load on the cold electricity output. If there is not, then the cold electricity will flow back into the hot electricity section of the circuit and it may damage the transistors. Tom Bearden states that resistors boost cold electricity rather than hindering it's flow, so the load should be a coil, a DC motor with brushes or a fluorescent light bulb. It has been observed that the incoming energy tends to flow inwards towards the centre of the coil, so an additional method of collecting this extra energy is to place a second coil inside the main coil, and wound in the same direction as it, like this:

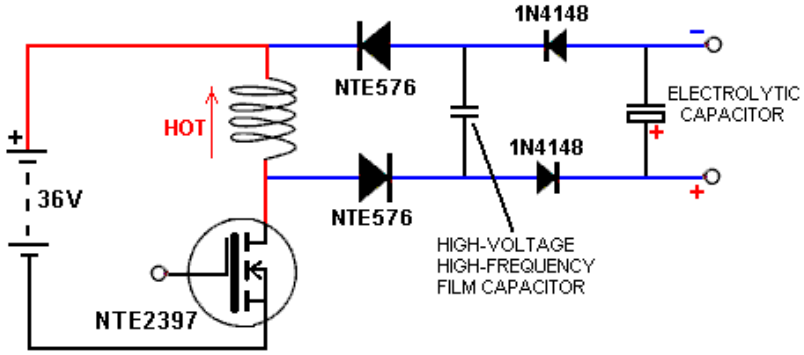



This provides two separate, independent cold electricity power outputs. Diodes are not needed for the inner 'secondary' coil. This inner coil is a pick-up coil and is not related in any way to the number of turns in the hot electricity pulsing coil. Instead, this coil collects inflowing cold electricity during the period when the pulsing coil is switched OFF. The hot electricity pulsing coil can be wound directly on top of the extra pick-up coil or the extra coil can be wound separately and placed inside the main coil spool. Very surprisingly, it is recommended that the powerful high-speed diode used to channel the cold electricity out of the circuit, be followed by a small 1N4148 silicon epitaxial planar high-speed diode

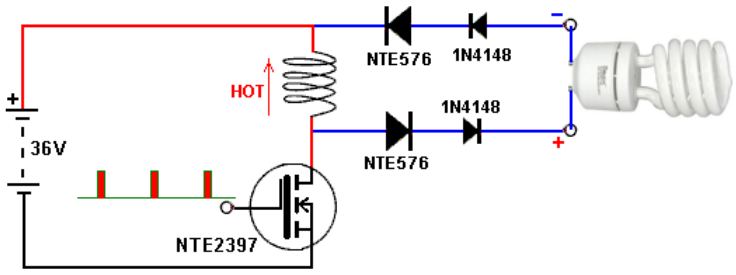
(75V 0.45A) as this is said to clean up the cold electricity output even more. It is important that the cold electricity has to encounter the more powerful silicon diodes before reaching the 1N4148 diodes, so the order of the diodes is very important, and should be as shown here:




Alternative diodes for the NTE576 (6A, 35nS, 400V) are the NTE577 (5A, 70nS, 1000V) and the HFA16PB (16A, 19nS, 600V). The main requirement is high-speed operation, voltage rating of at least 400V and current rating of at least 5 amps.. There is one additional thing to be done with this circuit when a DC output is required and that is to apply filtering to the output. First, when the energy has passed through the NTE576 (or equivalent) power diodes, it encounters a high-frequency (low capacity) high quality film capacitor placed across the output in order to siphon off any highfrequency voltage ripple before it is passed through the small 1N4148 diodes and into a smoothing and storage electrolytic capacitor. Storing the cold electricity in the electrolytic capacitor converts it into conventional hot electricity.



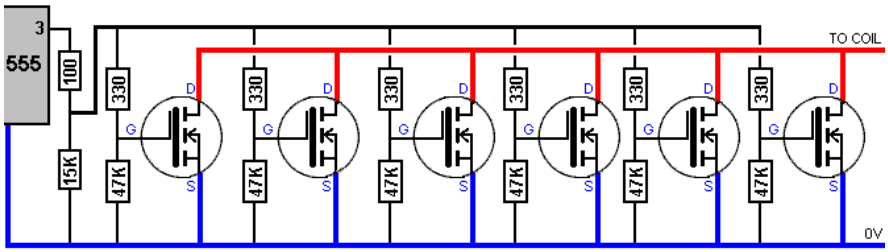

While this circuit looks like something which you just switch on and it works, that is not the case as there is an essential start-up procedure where the signal applied to the transistor is started at just a few cycles per second and 50% duty cycle and that input is then adjusted carefully and slowly while monitoring the voltages and currents produced by the circuit. This is a seriously powerful system with the capability of producing a major power output.



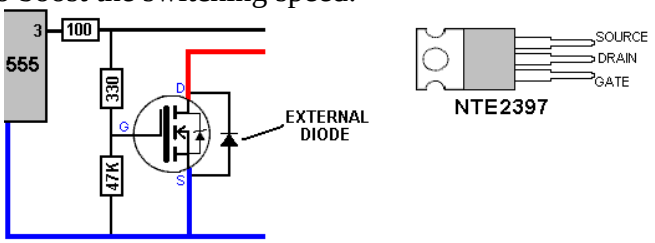

It is very important that the circuit is not powered up without a suitable load on the cold electricity output. A suitable load is a self-ballasted 230-volt fluorescent light. It must be understood that just flipping the power switch to it's ON position is not sufficient to get an inflow of cold electricity. Instead, it is necessary to progress the startup sequence carefully, and a fluorescent light is particularly helpful for doing this although a neon bulb is also a popular choice of temporary load, because these devices allow the current flow in the load to be assessed visually. Before switch-on, the input oscillator is set to 50% duty cycle and minimum frequency. Then the frequency is raised very slowly, causing the lamp to start flashing. As the frequency is raised, the current drawn from the battery needs to be monitored as it is the current flowing through the transistor, and the current is kept down by lowering the duty cycle progressively. This process is continued carefully and if successful, the colour of the light produced will initially be purple or green before reaching continuous bright white light. Videos showing the light produced and the fact that it is not dangerous to life or affected by water can be seen at http://www.youtube.com/watch?v=W1KALMgFscg&list=UUdmFG5BeS0YnD2b5zasXXng&index=1&feature=plcp . The driving force is a series of powerful magnetic pulses, and implementing the physical circuit to achieve that requires careful construction. The battery driving the circuit is a 36 volt combination of cells. The coil is wound as an air-core construction on a 2-inch (50 mm) diameter spool and the DC resistance is arranged to be about 1.4 or 1.5 ohms. This, in turn, requires a substantial drive from the transistor and so it is normal to connect six powerful output transistors in parallel in order to spread the current flow between them as well as dissipating the heat generated across several transistors bolted to a common heat-sink of generous area. How the coil is wound is something to consider. The objective is to have a coil of about 1.5 ohm resistance and which has the maximum magnetic effect for the current passed through it. Copper wire has become very expensive and so it would be very costly to wind the coil with vast lengths of thick wire, not to mention the very large size and great weight which would be produced by doing that. The copper wire options in Europe are typically to work with half-kilogram reels of wire. The details of some of these are as follows:

| Gauge (swg) | Wire length | Total ohms | Amps/strand | Strands | Total amps |
|---|---|---|---|---|---|
| 14 | 17.5 m | 0.09 | 9.3 | None | - |
| 16 | 27 m | 0.22 | 5.9 | None | - |
| 18 | 48 m | 0.71 | 3.7 | None | - |
| 20 | 85 m | 2.23 | 1.8 | 2 | 3.6 |
| 22 | 140 m | 6.07 | 1.2 | 4 | 4.8 |
| 24 | 225 m | 15.81 | 0.73 | 11 | 8.0 |
| 26 | 340 m | 35.70 | 0.45 | 24 | 11.0 |
| 28 | 500 m | 77.50 | 0.29 | 52 | 15.0 |

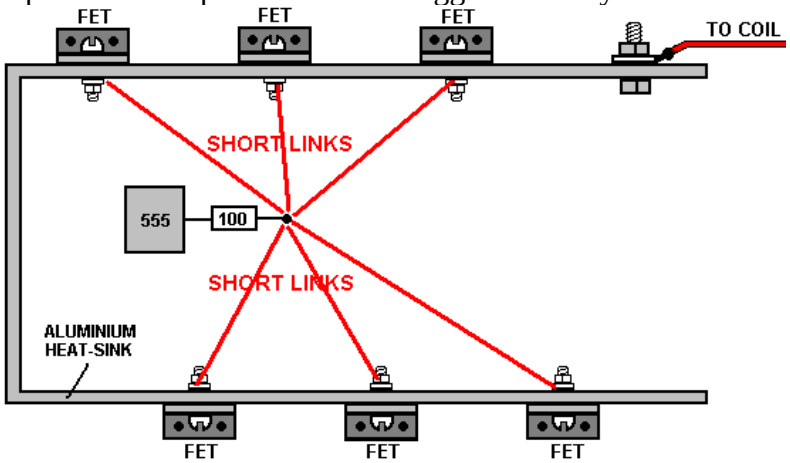
We can see from this that a 500 gram reel of 14 swg wire has a total resistance of just 0.09 ohms and so it would take sixteen reels (weighing 8 kilograms and costing a lot of money) to wind just a one-strand coil using that wire, producing a coil which could carry a current of 9.3 amps. As opposed to that, a single reel of 28 swg could provide 52 separate windings, which when connected in parallel, could carry 15 amps as well as costing and weighing far less. It would be tedious, but not impossible, to wind a 52-strand coil, so a more reasonable number of strands connected in parallel might be used. We are aiming at a DC resistance of about 1.45 ohms in any coil arrangement which we select. The magnetic field produced by a single strand is generally less than the magnetic field produced by two strands carrying the same total current. So, if we were to pick 22 swg wire, then we could measure out four 133.5 metre lengths, join them at the start, and wind the four strands simultaneously, side-by-side to form a coil with a DC resistance of 1.45 ohms. It is important that the strands are exactly the same length so that they carry exactly the same current and no one strand gets overloaded with current due to it having a lower resistance than the other strands. It should be realised that as the maximum current which the wire can carry is 4.8 amps and the resistance is only 1.45 ohms, the maximum continuous DC voltage which can be sustained by the coil is only 7 volts, and so as a 36-volt battery is being used, we **must** adjust the frequency and duty cycle very carefully, especially since we are starting at very low frequencies. If the full battery voltage is applied continuously to the coil, then the coil will be destroyed. Various members of the forum have suggested, built and tested different circuits for feeding a variable-frequency variable-duty-cycle drive signal to the output transistor. However, 'UFOpolitics' recommends a simple 555 timer circuit. If you are not familiar with electronic circuits, then read chapter 12 which explains them in some detail, including the 555 timer family of circuits. The point stressed by 'UFOpolitics' is that the output taken from pin 3 of the 555 chip passes first through a 100 ohm resistor and then, every transistor gets a separate feed via a two resistor voltage divider pair. The 47K Gate-to-Ground resistor is to ensure that the FET turns off properly. It may be possible to increase the value of these resistors but they should never be less than 47K.




The thick lines in this diagram indicate heavy-duty wiring which can carry high currents without generating any real heat when doing so. It is also recommended that although the FET has an internal diode, an extra external high-speed diode (NTE576 or similar), be connected across each FET in order to boost the switching speed:

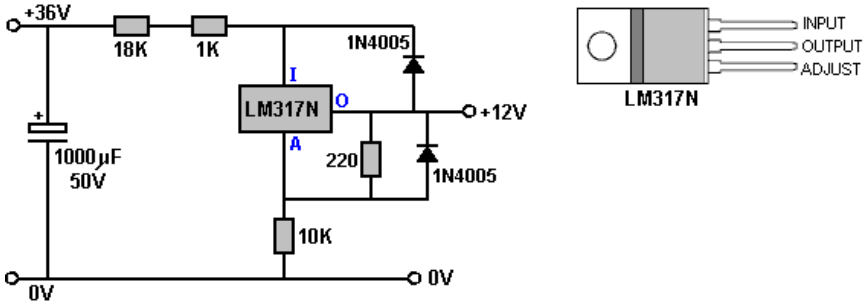



A FET has a gate capacitance of about 1 nF. The faster it can be charged / discharged the faster the FET will switch (and stay cool). What determines the speed of charge / discharge for the gate capacitance is the length of wire from driver to gate or gates is inductance (where one metre of wire produces 0.05µH). In addition to that, different lengths of Gate connection wire will create different switching delays and the different inductances can then initiate High Frequency oscillations with repetitive ON/OFF/ON/OFF switching actions. The result might be burned FETS and lack of cold electricity activities. Another point made by 'UFOpolitics' is that the physical layout should have the connecting wires or tracks kept as short as possible and he suggests this layout:

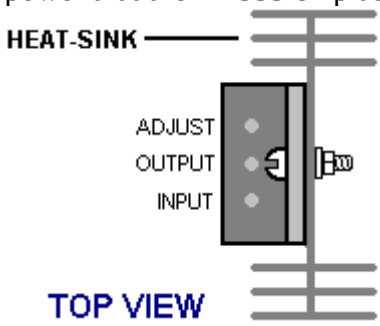



There are two things to note here. Firstly, the 100 ohm resistor coming from pin 3 of the 555 timer IC is positioned centrally between the six FET transistors mounted on the aluminium heat-sink, and that point is carried closer to each FET with a low-resistance conductor to give a good-quality link for the resistors feeding the Gate of each FET. Secondly, the heat-sink itself is also used to provide a low-resistance electrical connection to the coil which the FETs are driving. The connection to the heat-sink is via a nut and bolt clamping a solder tag firmly to a cleaned area of the heat-sink. Each FET is electrically connected to the heat sink

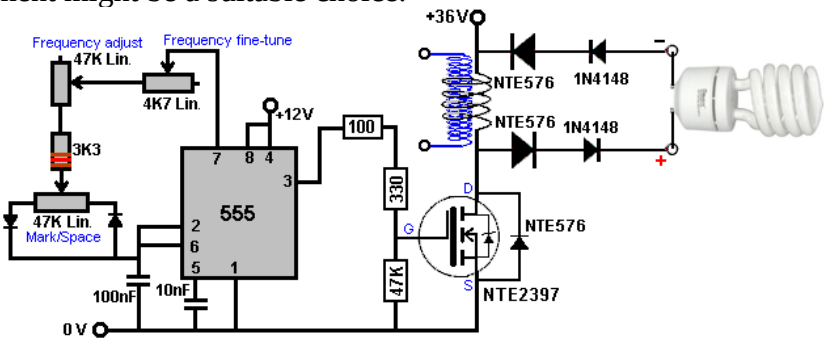
through it's mounting tag which forms it's heat-sink connection as well as connecting to the Drain of the Transistor. However, if the aluminium heat sink is a black anodised type, then, apart from cleaning between each FET and the heat-sink contact area, it is worth running a thick wire also linking the central FET pins to the output wire connection point. The transistors used in the prototype, and recommended for replications are the NTE2397. This is not a very common transistor in Europe at this time and so the popular IRF740 might perhaps be used as it appears to have all of the main characteristics of the NTE2397 transistor. 'UFOpolitics' suggests the 2SK2837 (500V, 20A, 80A pulsed), or the IRFP460 (500V, 0.27 Ohm, 20A and 80A pulsed). As the 555 timer has a maximum supply voltage of 15 volts, an LM317N voltage-stabiliser chip is used to create a 12-volt supply from the 36-volt battery (a 24V battery could be used):




The LM317N integrated circuit should be attached to a good heat sink as it is dropping off 24 of the 36 volts powering the circuit, and so, has to dissipate twice the power that the NE555 chip uses:

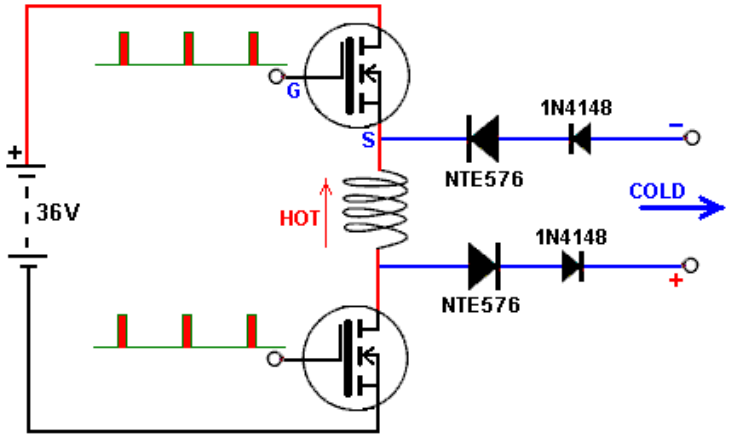



There are various pulsing circuits which have been used successfully with this system. 'UFOpolitics' considers the NE555 chip to be the most straightforward, so perhaps my suggestion for this arrangement might be a suitable choice:



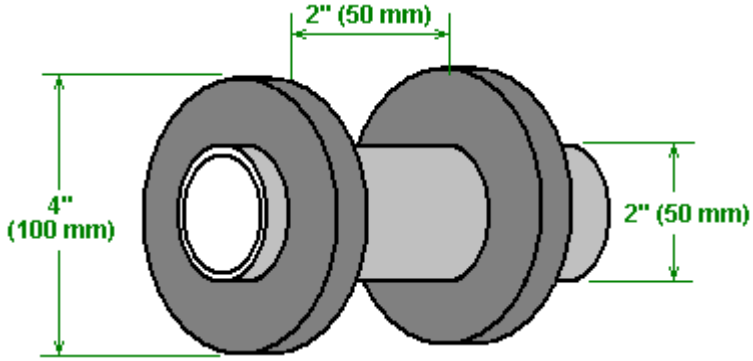

This gives fine control of the frequency and independent adjustment of the Mark/Space ratio or 'Duty Cycle' and it needs only three very cheap components other than the controls. If the expensive multi-turn high quality variable resistors are available, then the 4.7K 'fine-tune' variable

resistor can be omitted as those variable resistors make the adjustments easier to control. The ‘Lin.’ In the diagram stands for ‘Linear’ which means that the resistance varies steadily at a constant rate as the shaft of the variable resistor is rotated. In the ‘UFOpolitics’ circuit, it is important to turn the frequency down to it’s minimum value and set the Mark/Space ratio to 50%, before powering the circuit down. Otherwise it would be easy to power the circuit up with a much higher frequency than is advisable and so, causing damage to some of the circuit components. There are ways to boost the performance over what has already been described. One way is to insert a stainless steel core inside the coil. Stainless steel is supposed to be non-magnetic but in practice, that is not always the case. However, ideally, this steel core is improved by altering it’s crystalline structure by heating it up and then quenching it by submerging it in cold water. Another improvement is to isolate the coil better at switch-off through the use of a second transistor. Having a ‘switched-off’ transistor at each end of the coil certainly blocks the flow of hot electricity, but if Tom Bearden is correct, the resistance of the transistors in their OFF state will actually boost the flow of cold electricity as it reacts in the reverse way to how hot electricity reacts. The arrangement is like this:




While this looks like a very simple circuit to implement, that is not the case. The upper transistor is switched ON by the voltage difference between it’s Gate “G” and it‘s Source “S”. But, the voltage at it’s Source is not fixed but varies rapidly due to the changing current in the coil, and that does not help when solid and reliable switching of the upper transistor is needed. A P-channel FET could be used instead and that would have it’s Source connected to the fixed voltage of the Plus of the 36V battery. That would help the switching enormously, but there would still be timing issues between the two transistors switching ON and OFF at exactly the same time. Other circuits have been suggested for doing that type of switching, but in the early stages, ‘UFOpolitics’ recommends that things be kept as simple as possible, so using just one transistor is the best option. Switching speed is an item of major importance, even to the extent that the reduction in the speed of switching caused by using more than one transistor in parallel has caused the suggestion to be made that it might actually be a better option to use just one FET since these high-performance FETs are capable of carrying the whole of the switching current, and it is mainly to lower the FET operating temperature that

multiple FET use is suggested. Every extra FET used in parallel, slows the switching down. However, it should be realised that there is a somewhat greater risk of burning the FET out if just one is used. The coil dimensions recommended are two-inch (50 mm) diameter and 2-inch length. The wound coil is likely to be about three-inches (75 mm) so making the flange diameter 4-inches (100 mm) is realistic:



The recommended material is fibreglass which has high heat-resisting properties as well as being easy to work, the personal choice of 'UFOpolitics' is Polyester Resin with Methyl Ethyl Kethol (MEK) Hardener. A suggested alternative is acrylic, which is not as heat resistant. Acrylic is excellent for high-frequency applications but this circuitry does not operate at high frequencies. Whatever spool material is chosen, it needs to be non-magnetic. When connected in the circuit, the start of the coil winding wire goes to the battery positive. Here is another coil wound on acrylic tube and with all four diodes connected to the ends of the coil:

It should be understood that cold electricity provides almost unlimited power and it has uses which are not readily understood by many people. 'UFOpolitics' suggests that the hot electricity drive circuitry be tested initially using just a resistive load. If everything checks out correctly, then test with a lesser value resistor in series with the coil, and if that checks out satisfactorily, then testing cautiously with the coil on it's own. Cold electricity can charge batteries rapidly and after a series of charge and discharge cycles, batteries become 'conditioned' to cold electricity and the experiences of Electrodyne Corp. staff show that large conditioned batteries which are fully discharged, can be recharged in under one minute. A member of the present forum has tried this with the 'UFOpolitics' circuit and he reports: Yesterday a friend and I took 6 identical, old, 12V, 115Ah batteries and made two 36V banks. We set up bank "A" (the better three) to power the device to charge bank "B". Bank A was 37.00v at rest and Bank B was 34.94V. My lowest frequency was 133Hz (I need to change my cap and add another 100k pot with the one which is controlling the frequency) and the duty cycle was at 13%. We started at 2A draw on the Primary circuit.As I raised the frequency, the batteries on charge jumped up to 38.4V then dropped evenly to 36.27V and started up again (at about 0.01V every 2 seconds). After two and a half hours, they were up to 39.94V. At this point we stopped the charging and let everything rest for 10 minutes. So far everything seems very normal for this kind of charging, except that the device appears to be very stable and powerful...pushing the batteries right on up continuously. The Primary battery voltage dropped initially to 36.20V and stayed there the whole time, then recovered to 36.98V during the 10 minute rest. Then we switched battery banks A and B and charged the opposite way for about 20 minutes. We stopped and rested things again, swapped the banks back and started charging bank B again for another 20 minutes and stopped. After letting the batteries rest for a few hours in order to get truer readings, bank A was at 37.07V and bank B was at 38.32V. Both battery banks had gained power. These were not very good batteries, either. One

of the bank B batteries was at 10.69V at the start. Another interesting note: The amp draw on the Primary dropped from 2A to 1.5A as the frequency was raised from 133Hz to about 550Hz. This was with the very first use of cold electricity with these low-grade batteries and a major improvement can be expected after many additional charge/discharge cycles. This completely overcomes the factors which make a battery bank unsuitable for household power. If an entire battery bank can be recharged in just minutes, then it opens the way for serious household power using a battery bank. Cold electricity can also run motors very powerfully. Forum member 'Netica' found that putting a capacitor across the motor terminals improved the running very substantially, giving impressive performance. His video of this is at http://www.youtube.com/watch?feature=player_detailpage&v=7uAYKhrPDPc and the motor, running off an aircore coil with no steel insert. His set-up looks like this:

It is also possible to submerge cold electricity circuits in water without causing any harm:

A video of this is located here:

http://www.youtube.com/watch?v=W1KALMgFscg&feature=channel&list=UL

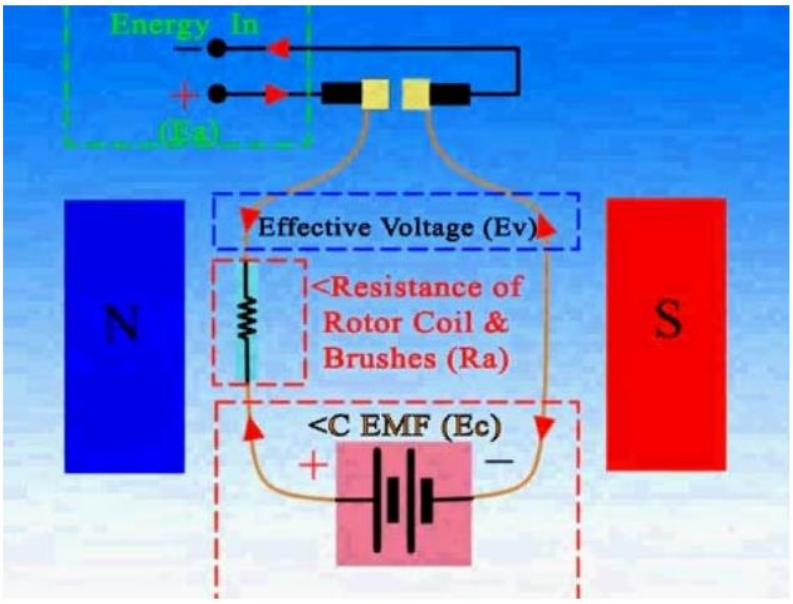
including demonstrating the use of very powerful light bulbs. A general running demonstration is here: http://www.youtube.com/watch?v=yVzhKpEqUgc&feature=player_embedded .

# DC motors

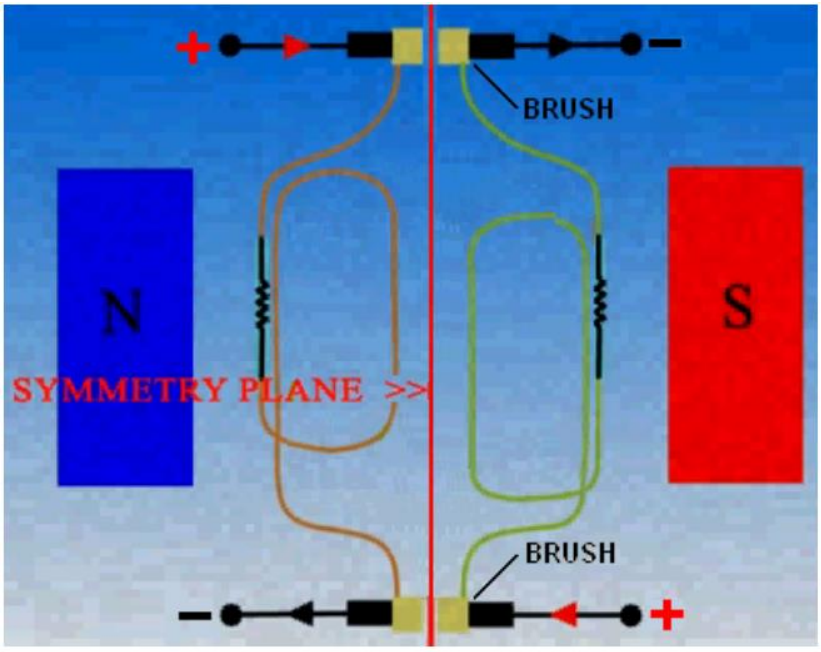
**Personally, I am not much into motors or even mechanical movement. However, there is one motor which does interest me very much indeed and that is a small DC motor which has been rewound and as a result, when it is connected across an old, discharged lead-acid battery in very poor condition, it not only runs powered by the battery, which is supposedly "impossible" but the actually recharges the battery at the same time. Now, that motor does definitely interest me as it is acting as a battery selfcharger, which is very difficult to achieve with electronic circuitry. Commercially available DC motors are deliberately designed and manufactured to have extremely poor performance. In my opinion, the reason for this is that a properly designed electric motor could easily do away with the need for using internal combustion engines in vehicles and that would not suit the oil companies or their owners, the New World Order cartels. Worse still, electric motors with COP>1 open the way to self-powered free-energy systems and that would never do !! Dr Peter Lindemann's video: https://www.youtube.com/watch?v=OSJF3GlYGVc is available on the web and I strongly recommend that you watch all of it. It presents the basic facts very nicely. In brief outline, present day motors act both as a motor and as a generator of electrical power, but they are deliberately wound so that the power generation is used to oppose the input power and so produce a completely crippled output. During World War II, a German Engineer re-wired a standard electric motor and made it self-powered, that is, it ran and produced mechanical output power without the need for any input power once it had been started. That shows the potential of a properly constructed electric motor with the same size and general structure of any commercial electric motor. Presumably, he did that by adding extra brushes and using some of the windings in generator mode with their output powering the drive windings which were arranged asymmetrically. There was also one other man who achieved self-powered re-wiring of a motor, but neither of those men made their information public knowledge. The con job which has been run on us for many decades now is to wind the motor in such as way that the magnetic fields inside the motor oppose each other. When a current is passed through a coil of wire, it stores energy in that coil, and when the current flow is cut off, that energy needs to flow back out of the coil and it will do so in the reverse direction. This is sometimes called back-EMF ("Electro-Motive Force") although many people are not happy with that description. However, no matter what you call it, there is energy stored in the coil and that energy can be used to do useful work. But, the motor manufacturers choose to wind the motor**

**so that instead of extracting that useful power, they use it to oppose a major part of the input power, creating a weak motor which heats up due to the wasted energy. Contributor "UFOpolitics" points out that a deliberate mis-design of electric motors has, for the last 130 years, been presented to us as the only way to make and operate such motors. He states that because the windings are arranged in a symmetrical way, that a braking effect is produced which reduces the output power of the motor by anything from 50% to 90%. That is, a properly wound motor would have anything from twice to ten times the output power for the same input power. This mis-design guarantees that present day motors are always less than 100% efficient and always heat up when run. This mis-design is caused by using symmetrical windings in the motor. Standard motor wiring is quite different and the killer effect is caused by having two windings which face each other, powered simultaneously with currents flowing in opposite directions. This causes a complete conflict between the magnetic fields and that destroys the efficiency of the motor: A very experienced experimenter has started a forum thread on the energetic-forum, both to explain this and to show new and more advanced construction methods and to answer questions and encourage replications and further developments.**

**The forum is at: http://www.energeticforum.com/renewableenergy/11885-my-asymmetric-electrodynamic-machines.html and is definitely worth visiting, especially if you are good with mechanical devices. The experimenter uses the forum ID of "UFOpolitics" and he has produced an animated video in an attempt to explain the basic problems with present day DC . electric motors: http://www.youtube.com/watch?v=Mj4rV0AoI-Q&feature=channel&list=UL. He points out that a problem winding in the standard DC motor looks like this:**



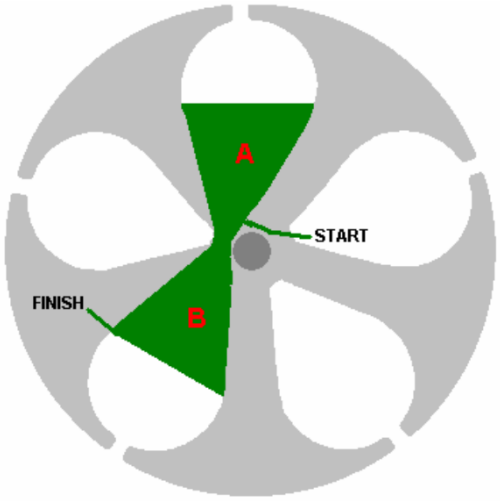

**The input current for any winding is fed in through a single pair of brush contacts. The generated electrical power "Ec" is not extracted and is forced to oppose the input energy "Ea", leaving only a fraction of the input power to actually run the motor. It is likely that a motor of this type will only operate at 25% of it's potential efficiency. "UFOpolitics" has produced and demonstrated a simple way of overcoming this problem while using the existing motor housing, magnets and brush contacts. He does this by extracting the generated electrical power as a useful output and so preventing that useful power being used against the motor's operation. To implement this, he adds one additional pair of brushes and re-winds the motor coils like this:**



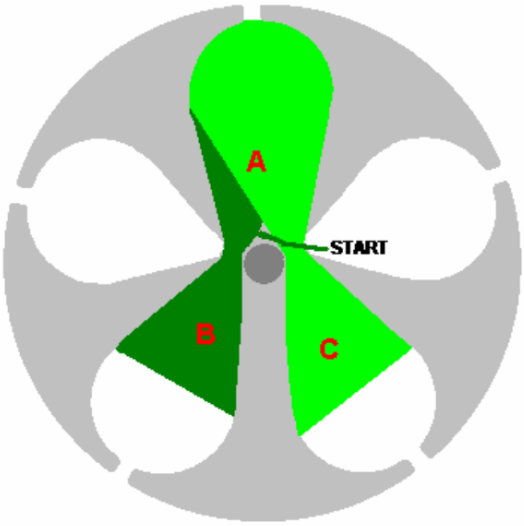
**Here, one pair of brushes is at the top and one pair at the bottom of the 'armature' (the bit that rotates inside the motor housing and provides the mechanical power output). The coils are rewound to form a series of separate vertical coils, connecting to one brush terminal at the top and one brush terminal at the bottom as shown above.**

**The input power is between the terminals on the left and flows through the coil shown in brown. The current flow generates a magnetic field, causing rotation because of the Permanent magnets marked "N" (for a magnet which has it's North pole facing the coils) and "S" (for a magnet which has it's South pole facing the coils). The black zig-zag line represents the resistance to current flow of the wire and brush contacts. The coil shown in green on the right represents that same coil at a later moment when it has been disconnected from the power supply and rotated until it reaches that position, at which point, the energy stored in it is taken off as a useful output via the right hand pair of brushes. However, this is just an explanatory diagram and it does not show the very important fact that the discharging coil** must not **directly face a driving coil, because if it does, then the energy discharge would create a magnetic field which would interfere with the magnetic field of the driving coil and create a major problem. Right, to say that again, any one coil is powered on the left hand side to drive the armature around and provide the output shaft with turning power ("torque"). Then that rotation disconnects that coil from the input power, leaving the coil charged with energy which has nowhere to go. That charged coil continues round until it hits the second set of brushes, which allow it to discharge through a load and do useful work. The really clever part of the adaption of the motor is best seen from above the vertical rotor. If, for example, you were to take a five-pole DC motor apart and remove the windings, the shaft and armature body might look like this:**

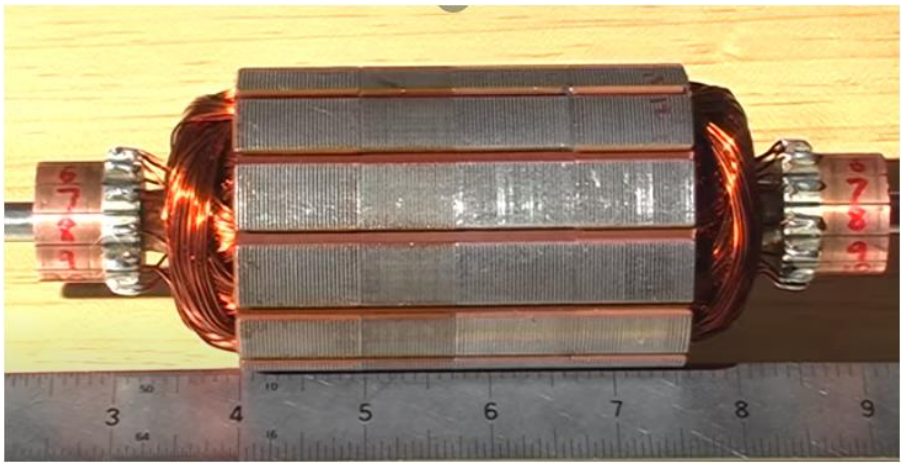
When making an asymmetrical wound rotor, the windings go like this:



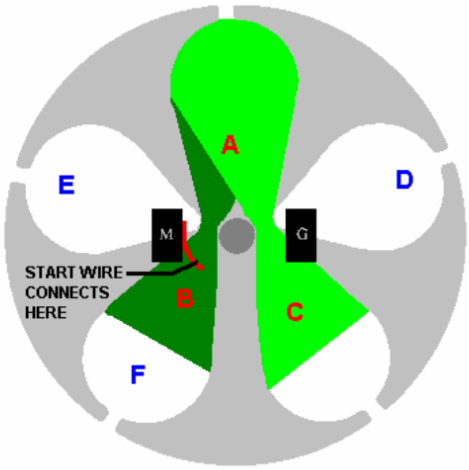

The start of the wire is secured at the top and then fed downwards through the opening “A” and back up through the opening “B”. For the small Radio Shack motor, this winding would be 25 turns of # 30 AWG wire (described as radio Shack ‘red’ wire, with a copper wire diameter of 0.255 mm). If you are rewinding a motor armature, please understand that each wire turn needs to be pulled tight in order to make a tight, solid and robust coil which will not vibrate unduly when the armature is spinning. The end of the wire marked “FINISH” is **not** cut, but is taken down through opening “A” and this time, up through opening “C”. For clarity, these continuing turns are shown in a different colour, but please realise that it is the same single strand of wire being used throughout:




The final wire turn goes down through opening “A” and finishes at the other end of the body of the armature. In these views, the wire runs down into the paper, each turn forming a cylinder. This view may give you a better visual picture of what the coils are wound on:



The next step is to connect the START and FINISH wire ends of this V-shaped double coil to the “commutator” slip rings which allow current to be passed through the coil at just the right moment. Seen again from one end of the armature, the connections are like this:



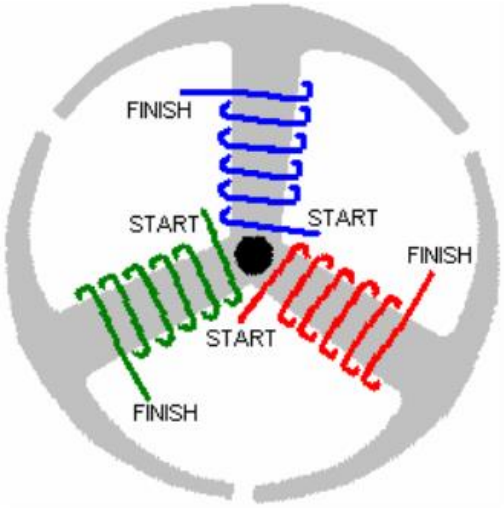

The commutator slip rings are connected further up on the drive shaft and the start of the winding wire (shown previously in dark green) is connected to the top commutator sector in the position shown here. The finishing end of the wire is connected to the corresponding commutator sector at the far end of the shaft – that is, the sector directly in line with the upper sector just connected to the start of the wire. This completes the first of five identical V-shaped coils. The next coil is wound in the same way. The armature is rotated one sector counter-clockwise so that sector “D” replaces “A” at the top and the next coil is wound with the wire starting at the top and going down through opening “D” and up through opening “E”, repeating the same number of turns, and then, without cutting the wire the next set of wires are wound going down through opening “D” and back up through opening “F”. The start of the wire is then connected to the commutator sector which spans between openings “A” and “E” and the end connected to the corresponding commutator

sector at the other end of the shaft.. For each of the remaining three windings, the shaft is rotated one position counter-clockwise and the same winding and connecting procedure carried out. When completed, no matter which opening is placed at the top of the view along the shaft, the windings and commutator sector for the wire connections will be identical.

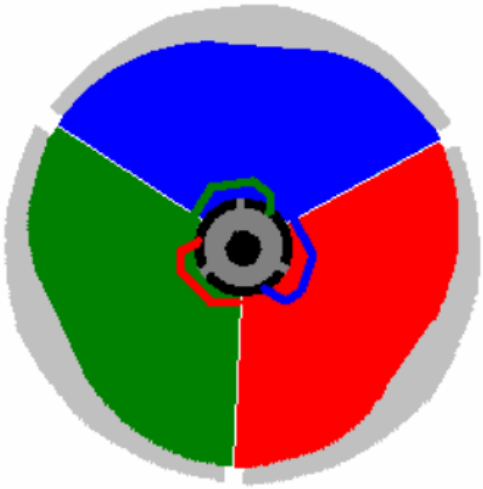
**3-Pole Motors**

The winding arrangement is slightly different for motors which have three poles (or multiples of three poles such as 6, 9, 12, etc poles). For the very simple 3-pole motors, the armature looks like this:

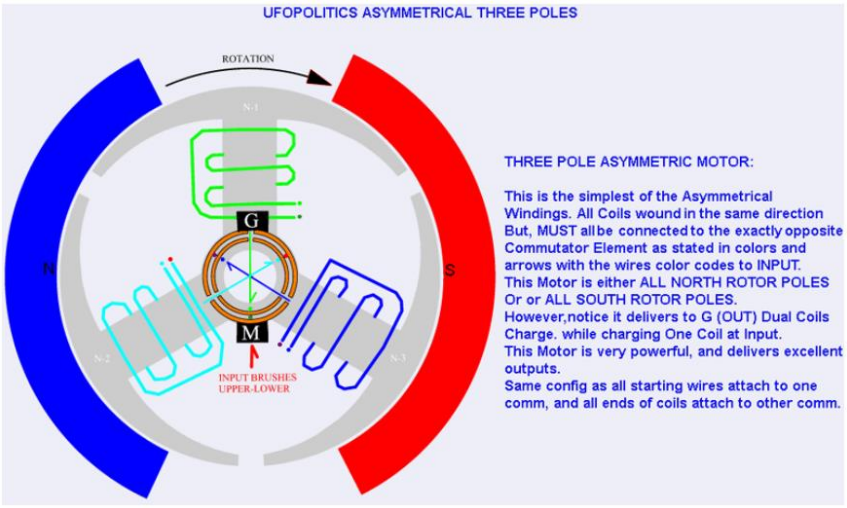
and with this style of armature, the winds are around the three arms, like this:



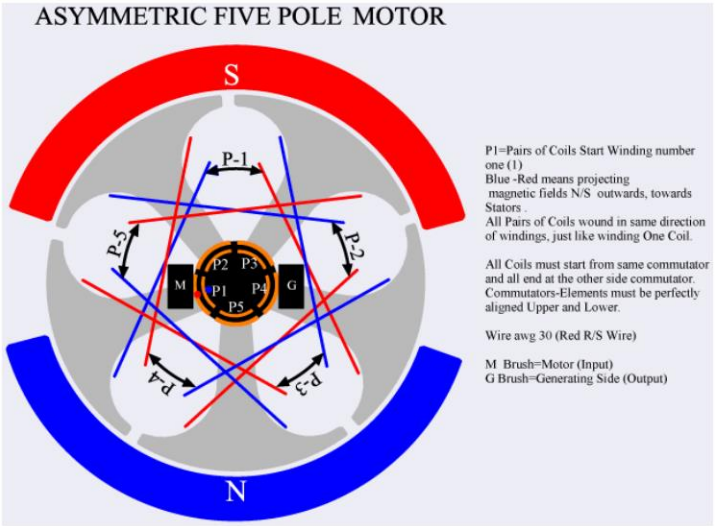

And as before, the commutator sectors at the top are duplicated at the bottom, allowing separate input and output circuits for each of the three coils. The windings have many turns, filling the available space and each winding is connected to the slip ring sector directly opposite it, like this:



The Start of each winding is connected to the commutator slip ring sector at the top of the armature and the Finish is connected to the slip ring sector directly below it, that is, the sector which is at the same angle as the top one where the Start of the wire is connected. This allows the brushes which press against the slip ring sectors to connect to both ends of each coil in turn as the armature rotates. Three pole motors are particularly powerful and motors with six poles can be re-wound with pairs of adjacent sectors amalgamated to give three larger sectors. Nine pole motors can have three adjacent sectors wound as a single coil to provide the same effect as a three pole motor, and twelve pole motors can have four adjacent sectors wound as a single coil. The positioning of the brushes is important. With the three-pole and five-pole arrangements, the brushes are aligned with the gaps between the magnets which surround the armature. However, the re-wound motor can be ‘tuned’ for improved torque and reduced drive current by adapting the motor housing to allow some adjustment of the position of the brush and commutator slip rings relative to the coils. This adjustment need only be slight as the angular movement of the brushes will be small. It is, of course, essential that the upper and lower adjusted positions move by exactly the same angular amount so that every upper commutator slip ring sector remains exactly above it’s corresponding lower slip ring sector. In other words, the commutator slip ring sector at the top and bottom of each coil, must be exactly aligned vertically so that the electrical connections are made and broken at exactly the same instant The commutator and brush arrangement are shown here in UFOpolitics’ diagrams:




The Commutator brush marked “G” (for “Generator”) takes away the energy stored in each coil and passes it to an electrical load. The Commutator brush marked “M” (for “Motor”) feeds energy into the coil from the battery which is driving the motor. The red and blue stripes surrounding the armature are two permanent magnets. The magnet shown in red has it’s South pole facing the armature and the magnet shown in blue has it’s North pole facing the armature. This creates a magnetic field flowing horizontally across the armature. The five-pole arrangement is like this:

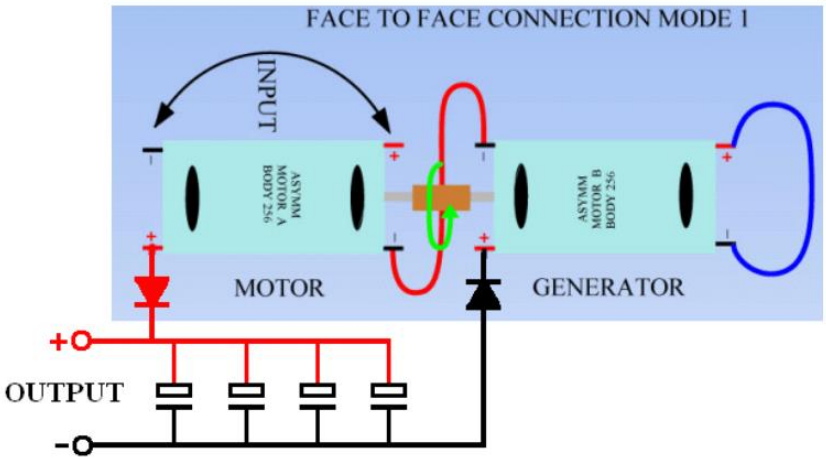



Here, the designation “R/S” stands for “Radio Shack” which is a chain of stores in America. In the forum, that is sometimes changed to “RS” and should not be confused with the large electronics outlet “Radio Spares” whose trademark is “RS”. UFOpolitics has suggested that the cheap 5-pole DC motor available from Radio Shack should be used by experimenters to become familiar with re-winding DC motor coils. Being a cheap product, those motors do not have a particularly high build quality, but they are suitable motors for experiments. Forum members

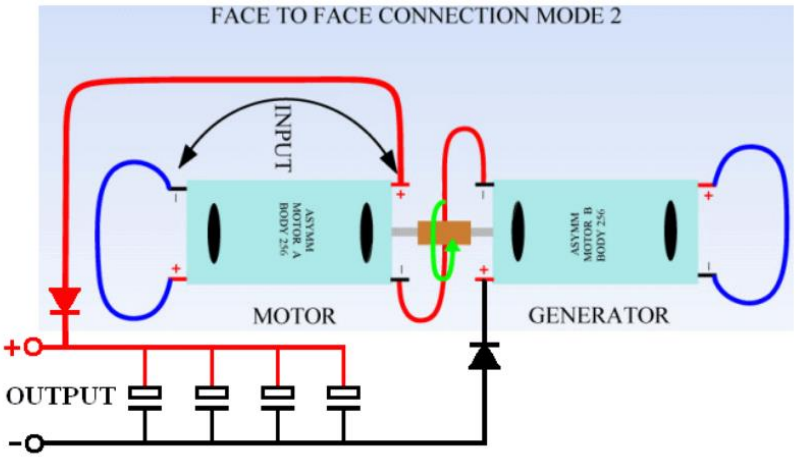
share the details of how they dealt with adapting these and other motors. I have to admit that motor windings and operation tend to confuse me and I sometimes find it difficult to understand what 'UFOpolitics' means when he talks about different winding strategies. However, it seems reasonably clear at this early stage of forum development, that his objective is to produce two things:

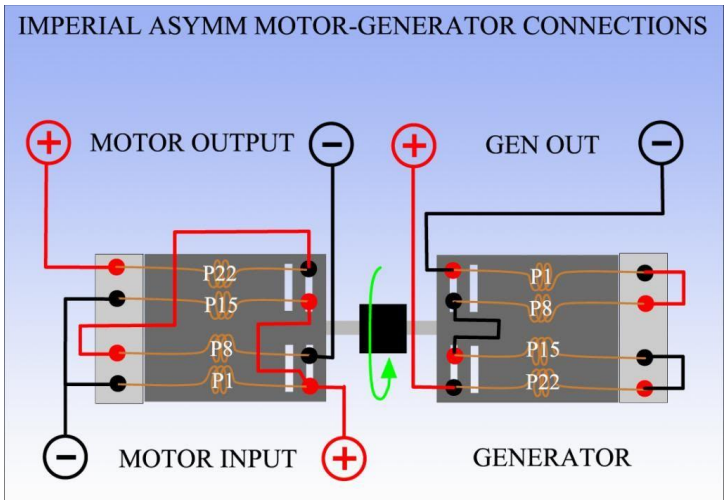
1.) A very powerful electric motor which can be used in serious forms of road transport as well as for other practical applications, and

2.) A powerful motor/generator combination which can produce useful generated electrical power. While 'UFOpolitics' is very patiently going through many of the possible variations on how a DC motor can be wound and connected, and showing various forum members where they have failed to get some of their windings positioned correctly, he has also shown some of the best ways of connecting a rewound motor used as a driver or "Prime Mover" as some people like to call it, and a re-wound motor which is to be used as an electrical generator. He shows two important ways for making a very effective Motor/Generator combination, as shown here:




It needs to be realised that these arrangements are not conventional arrangements and that the rewound motors operate in a different way to motors bought 'off the shelf'. For this reason, it is necessary to isolate the electrical output to prevent current flowing through the load from affecting the operation of the Motor/Generator combination. This can be done by placing a diode in each of the output lines and charging a capacitor bank which is then used to feed whatever load is to powered. If my understanding is correct, then feeding any cold electricity produced into a capacitor causes the current to become conventional hot electricity. It is not clear if that action is part of this arrangement although the circuitry shown should be used. This is the second version:




'UFOpolitics' comments on these arrangements as follows: As we excite the input of the Motor, the Generator will start producing energy and that additional energy will flow through the Motor Output side because they are connected in series here. Two rectifiers must be connected at both output terminals, Positive and Negative, to avoid back flow from closing the circuit through the load. As the Motor accelerates, the Generator boosts the energy flow which then runs through the Motor augmenting the Output Fields and when the output is loaded then an 'Engagement' of both Machines occurs as they start to compensate each other through their output flows. It should be understood that the Output should be Capacitor Banked in a dedicated Reservoir. When designing a Generator for a specific, existing Asymmetric Motor machine, it must be understood that Generator Interactions should be considered to run as "Counter Rotation" to the Motor Machine's originally conceived rotation (which is easily done by just moving brush-lines passing stator bisector angles to the opposite of those needed for a Motor, or alternatively, setting the timing backwards). This will definitively enhance the assisted rotation of both Machines when connected together in this Faceto-Face mode. As I do not find the forum comments easy to understand, I recommend that you visit

the forum and read the posts as you may well understand the conversations easier to follow than I do. **On the forum, 'Sanskara316' states "I have re-wound a small 3-volt 3-pole motor. I used an almost dead, 6-volt sealed lead-acid battery to power the motor. This battery just sits at around 4 volts and if given a load, even a small LED, it's voltage drops to 1 volt. The re-wound motor started very slowly - barely spinning, then after a minute or two it started to spin faster, and I noticed that the voltage on the battery was slowly climbing. I connected a small LED flashlight to the generating side and it lit up. Now the battery voltage under load is around 2+ volts. It's been running for an hour now and the machine squeals a lot. It is conditioning the battery and the meter cannot be showing what really is happening. The motor draws 300 ma?? – That's not possible as the battery just doesn't have that power". To which 'UFOpolitics' remarks: "Well I am glad you have witnessed some of the 'Effects'... these re-wound motors do recondition batteries...remember, Radiant Energy is taking over the Machine...so Radiant Energy comes out through the Input also… which is the reason why we get high Volts-Amps reading on a meter ...these motors use very small amounts of current and volts. Inside the motor, every coil is being 'Self-Electromagnetically-Pulsed' because they auto-disconnect from the power source, then the next coil in the sequence is assisted by the first coil when it has rotated to it's next position, and so on. The commutator switching has become a 'Self-Oscillator' for every independently-energised coil."** Another forum member 'prochiro' says: "I have also replicated the battery-charging events that 'Sanskara316' indicated. I started with a 12-volt 4 Amp-Hour battery which I had been using with another circuit two weeks ago and had not recharged it after using it for hours. It was sitting at 12.40 volts. I took my best-running re-wound motor, plugged it in direct and ran it. The battery voltage dropped to 12.24 volts and stayed at that level for 30 seconds. The battery voltage then started to rise 1/100 of a volt per minute. When it was at 12.27 volts, I disconnected the motor (the total run time was less than 5 minutes). I then let it rest for five minutes. At the end of the five minutes, the battery voltage had risen to 12.43 volts and is still at that voltage now. Just think what a larger motor would do on a big battery bank. Everybody needs to document this test as it proves what 'UFOpolitics' said." New DC motors, and particularly cheap motors, will have brushes which do not mate cleanly with the commutator slip ring sectors and so, when the modification has been made, running the motor for some time allows the brushes to wear in and that raises the efficiency of the electrical connections which in turn, improves the performance of the motor. If you wish to build and test one of these motors, then you can find help and support in the forum with your

questions answered and numerous videos and photographs from different experimenters to help you.

## The symmetry of darkness

For over one hundred and thirty years our planet has been ruled by crippled and dogmatic science, serving „assignments" from their funding corporations: bankers, oil cartels, among other interests. Not to serve and benefit humanity, like science is supposed to . One of the biggest „twists" science ever took, started in 1880. James Clerk Maxwell , the father of magnetism in his very organized work on electromagnetism, classified two main seperate systems, since both , were completely different one from the other:

1) The asymmetrical systems
2) The symmetrical systems

The magnificence of Maxwell equations, a master piece of science, that should have never been modified. However, one year after Maxwell death in 1879, scientist Hendrik Lorentz ( financed by J. P. Morgan and Thomas A. Edison ) founders of general electric co, started the „symmetrization" of all Maxwellian equations . This mutilation to Maxwell's scientific work started in 1880 and lasted more than two decades, resulting in a complete deletion of all asymmetrical systems, including the Heaviside's giant curled EM equations and Poynting energy flow component. No electrical engineer on our planet would ever be taught the asymmetrical systems. Our access will be forever restricted to the closed symmetrical systems, where energy conservation, and the first and second laws of thermodynamics conveniently prevails. For over one hundred and thirty years science has only recognized a model that is based on constant self cancelling electromagnetic interactions, always resulting in „symmetrically balanced equations to zero" or COP ( coefficient of performance ) will never be equal to one, but always , will remain on the minus side (COP < 1 ) . All the existing electrical motors and generators in our planet are based on this symmetrical system technology. None of them will ever deliver an efficiency – at least – equal to 100%, wherein those low efficiency levels, a great amount will be lost energy or „transformed" into undesired and unnecessary heat. This „symmetrically " inefficient system adopted by our crippled sciences, not only wastes energy in heat, but due to this loss, a requirement of very high levels of energy consumption is demanded ( voltage / amperage ) to be able to achieve its duty. Their always high temperature operation, limits the lifespan of its – must of times – „ non replaceable consumables " . But this are not all disadvantages this system brings along. This symmetrical interactions of opposite , but identical magnitude, generates constant heavy front end collisions of electrons and flux, that flows within the

system. This constant electrons and flux head – on collisions generates negative currents and magnetic drag, that reduces even more the overall performance of this already inefficient symmetrical technology. „When you turn science into dogma, is when you „lock-in" on a given model. You assume your model is perfect, and therefore anything that does not agree with that model can not possibly exist in nature. " Tom Bearden .

## A closer look at electrodynamic symmetrical systems

The „symmetry " , when applied to electrodynamics, does not relates to the geometrical or architectural disposition of their components design, but to the methods (interactions) they utilize to achieve rotation ( motors ) , or to obtain electricity based on rotation (generators ) . Therefore, a detailed review of this electromagnetic interactions will help us to understand better the symmetrical systems. A symmetrical system continuously energizes their coils, meaning , no „idle stage " or brake , but instead, at specific degree reverses the input to the coils. By reversing the coils electrical input, rotation is achieved, since magnetic polarity also reverses. A closer look at the vertical plane delimited by the brushes , where the symmetrical reversal occurs. Observing through the input conductors, where at start, a steady – one way – flow, begin entering the system, represented by the blue particles. Encounters an uncoming traffic, randomly traveling , of opposite charged particles (red ) , creating heavy collisions, resistance, friction, delivering heat and high energy losses, neutralizing to zero power. Right here, at the reversing commutation center, all energy is converted or transformed to:

1) Excessively high operating temperatures
2) Creation of reversal flux, generating friction or magnetic drag, that rest power to rotation .
3) Reversed electronic flow ( negative feedback ) generates high reverse spikes, friction, slowing flow.

The residual energy able to survive this battle is used to perform the duty assigned. Then, this crippled science created the „story teller" of blaming all this losses , to the back or counter EMF, and notice EMF means here „Electro Motive Force " Not, counter electro magnetic field! . When all this losses are due to counter electro magnetic fields generated by the symmetrical systems. The counter electro motive forces are just consequences of the main counter magnetic actions . Physics states, that an electric motor can never run an electric generator efficiently, as its „main prime mover", „legally speaking", therefore , never will be able to produce any „over unity systems" or excess of energy over input , or a COP > 1 . It should be completely understood, since science is referring to the only model they have „locked – in – time " , for over one hundred and thirty years. The symmetrical systems, how could they „power " or run another machine , if they can barely handle their assigned job?! Then, the

real purpose of all this crippling comes to its final conclusion. „The only prime movers, as „heaven sent ” that could perform that „herculean job” will be the stinking, oil leakers and farting lethal gases, obsolete dinosaurs .. . The gas diesel engines ”

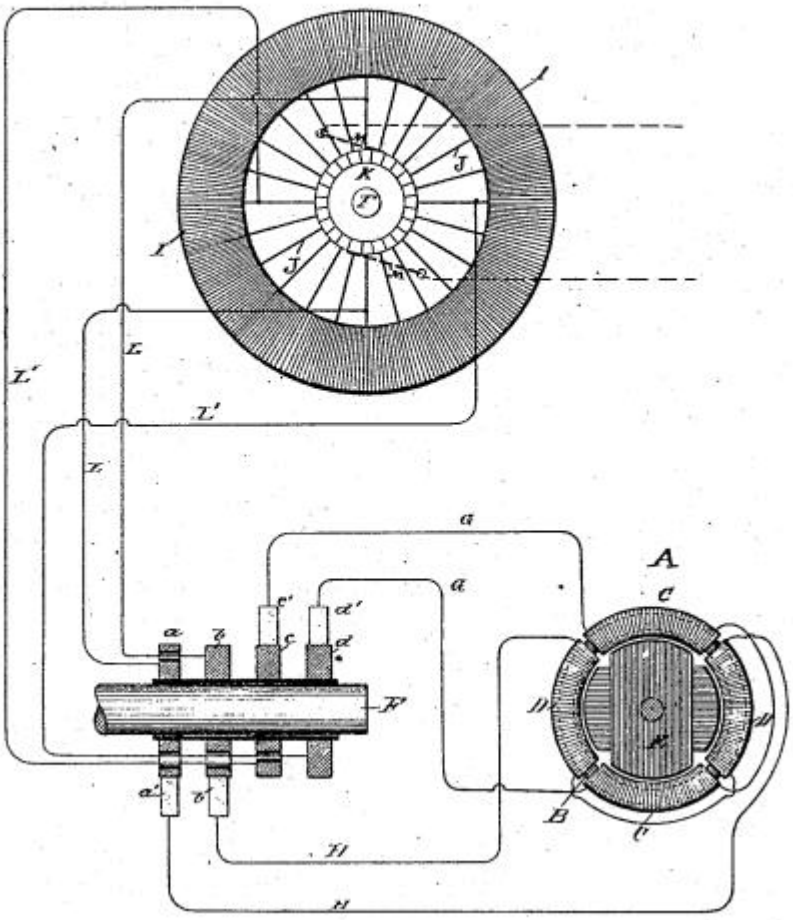
Now you could answer many „pending ” questions

1) Why are we still dependents of oil – gas engines?
2) Why we do not have a self charging, 100% efficient electric vehicle as of now?
3) Why we do not have flying electric crafts ?
4) Why we can not have an independent, off the grid, non pollutant self feeding generator in every home?

The symmetry had been broken before by many bright inventors through decades, but trying to protect their ideas – inventions, they have fallen in the traps of government patent offices around the world, and they were seized. Inventor secrecy laws had sealed their lips and tied their hands.

Nikola Tesla, october 2nd 1888, Patent# 390414 „A dynamo electric machine ”

Fig. 1



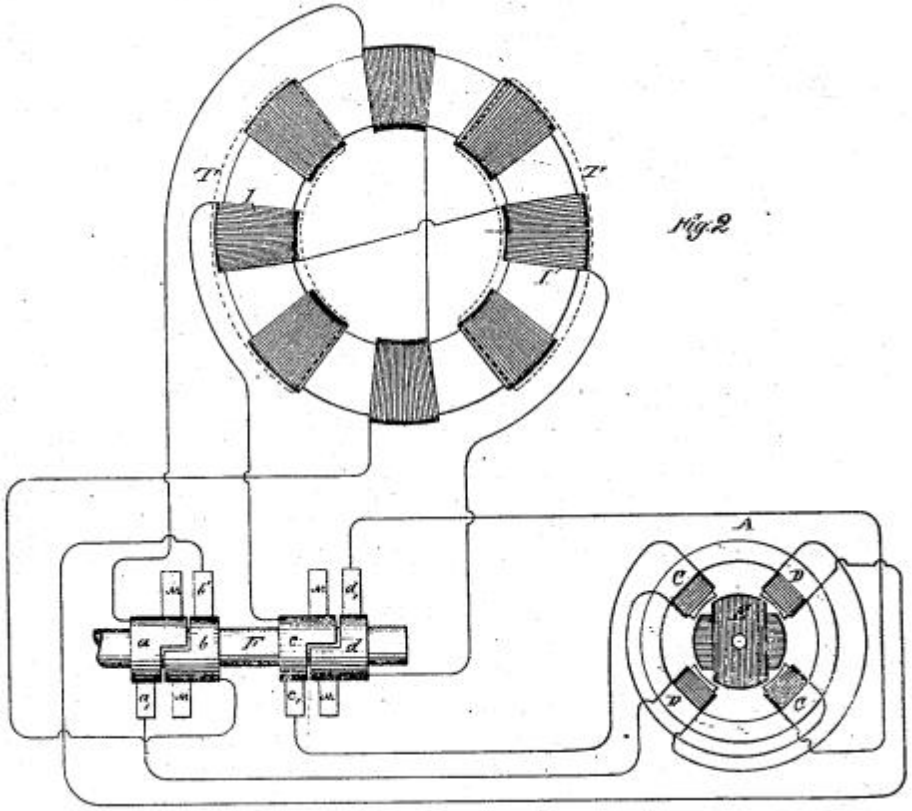


Fig. 2

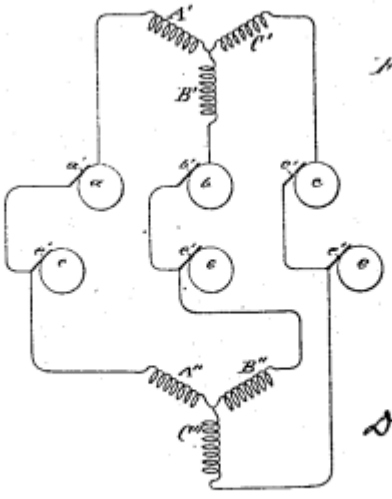
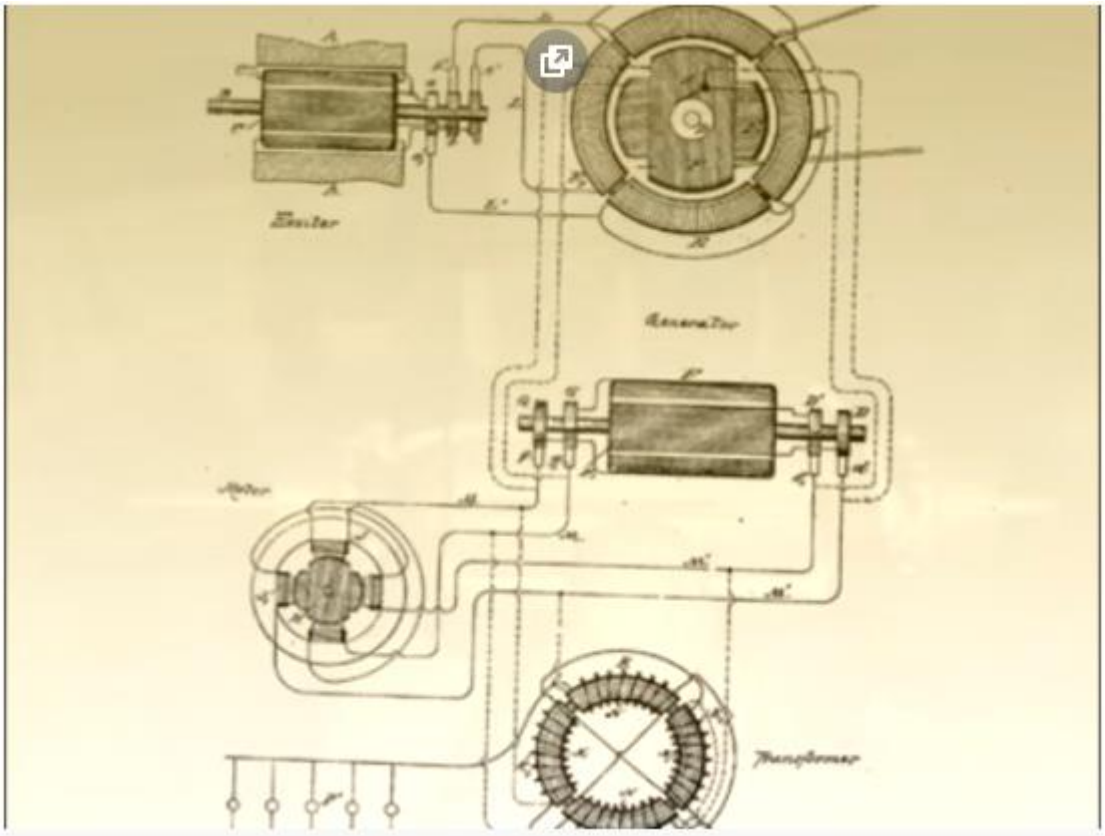


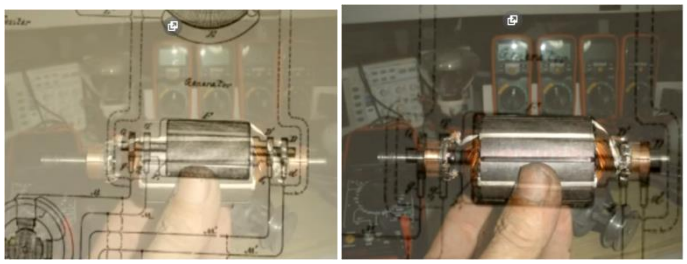
Fig. 3

WITNESSES:
Raphael Netter
Francis R. Hartley

INVENTOR
Nikola Tesla
BY
Duncan, Curtis & Hay
ATTORNEYS

BEST AVAILABLE COP
(No Model.)
DYNAMO ELECTRIC MACHINE.
No. 390,721
Patented Oct. 9, 1888.
WHY DO YOU THINK....
...THIS ANCIENT TECHNOLOGY....
...FIRST PATENTED BY NIKOLA TESLA....
...IN THE 1800'S...
...NEVER MADE IT ...
...TO ANY ELECTRIC ENGINEERING
SCHOOL....IN OUR ENTIRE PLANET?





Be it known that I, Nikola Tesla, a subject of the emperor of Austria, from Smiljan, Lika, border country of Austria – Hungary, now residing at New York, in the county and state of New York, have invented certain new and useful improvements in dynamo electric machines, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

In certain patents granted to Charles F. Peck and myself – notably in Patents No. 381,968 and No. 382280 , May 1, 1888 – I have shown and described a plan of constructing and operating motors, transformers, and the like, by alternating currents conveyed through two or more independent circuits from a generator having such relation to the motors or transformers, as to produce therein a progressive movement of the magnetic poles or lines of force. In the said applications, the description and illustrations of the generators were confused to those types of alternating current machine, in which the current generating coils are independent or seperate, but I have found that the ordinary forms of continous current dynamos now is use may be readily and cheaply adapted to my system, or utilized both as continous and alternating current generators, with but slight changes in their construction. The mode of effecting this forms the substance of my present application.

Generally stated, the plan pursued by me in carrying out this invention is as follows: On the shaft of a given generator, either in place of or in addition to the regular commutator, I secure as many pairs of insulated collecting rings as there are circuits to be formed. Now, it will be understood that in the operation of any dynamo electric generator, the currents in the coils in their movement through the field of force undergo different phases – that is to say, at different position of the coils, the currents have certain directions and certain strengths – and that in my improved motors or transformers it is necessary that the currents in the energizing coils should undergo a certain order of variations in strength and direction. Hence , the further step – viz, the connection between the induced or generating coils of the machine and the contact rings from which the currents are to be taken off – will be determined solely by what order of variations of strength and direction in the currents is desired for producing a given result in the electrical translating device. This may be accomplished in various ways, but in the drawings I have given typical

instances, only of the nest and most practicable ways of applying the invention to three of the best known types of machines , in order to illustrate the principle , and to enable any one skilled in the art to apply the invention in any other case or under any modified conditions, which the circumstances of particular cases may require.

Figure 1 is a diagram illustrative of the mode of applying the invention to the well known type of closed or continous circuit machines. Fig 2 is a similar diagram containing an armature with seperate coils connected diametrically, or what is gnerally called an „open circuit" machine. Fig 3 is a diagram showing the application of the invention to a machine , the armature coils of which have common joint.

Referring to Fig 1, let A represent one of my improved motors or transformers, which , for convenience, I shall designate a „converter" , which consists of an annular core, B, wound with four independent coils, C and D, those diametrically opposite being connected together , so as to cooperate in pairs in establishing free poles in the ring, the tendency of each pair being to fix the poles at ninety degrees from the other. There may be an armature , F, within the ring, which is wound with coils closed upon themselves. The object is to pass through coils C and D currents of such relative strength and direction, as to produce a progressive shifting or movement of the points of maximum magnetic effect around the ring, and to thereby maintain a rotary movement of the armature. I therefore secure to the shaft F of the generator four insulated contact rings , a b c d , upon which I cause to bear the collecting brushes a' b' c' d' , connected by wires G G H H , respectively , with the terminal of coils C and D .

Assume, for sake of illustration, that the coils D D are to receive the maximum and 100 coils CC at the same instant the minimum current, so that the polar line may be midway between the coils D D , the rings a b would therefore be connected to the continous armature coil at its neutral points with respect to the field , or the point corresponding with that of the ordinary commutator brushes, and between which exists the greatest difference of potential, while rings c d would be connected to two points in the coil, between which exists no difference of potential. The best results will be obtained by making these connections at points equidistant from one another, as shown . These connections are easiest made by using wires L between the rings and the loops or wires J, connecting the coil I to the segments of the commutator K. When the converters are made in this manner, it is evident that the phases of the currents in the sections of the generator coil will be reproduced in the converter coils. For example, after turning through an arc of ninety degrees , the conductors L L , which before conveyed the maximum current, will receive the minimum current by reason of the change in the position of their coils, and it is evident , that

for the same reason, the current in said coils has gradually fallen from the maximum to the minimum in passing through the arc of ninety degrees. In this special plan of connections , the rotation of the magnetic poles of the converter will be synchronous with that of the armature coils of the generator, and the result will be the same, wheather the energizing circuits are derivations from a continous armature coil , or from independent coils, as in my previous devices.

I have shown in Fig . 1 , in dotted lines, the brushes M M in their proper normal position. In practice these brushes may be removed from the commutator and the field of the generator excited by an external source of current, or the brushes may be allowed to remain on the commutator and to take off a converted current to excite the field, or to be used for other purposes.

In a certain well known class of machines , the armature contains a number of coils the terminals of which connect to commutator, segments, the coils being connected across the armature pairs. The type of machine is represented in Fig. 2. In this machine, each pair of coils goes through the same phases as the coils in some of the generators I have shown, and it is obviously only necessary to utilize them in pairs or sets to operate one of my converters, by extending the segments of the commutators belonging to each pair of coils , and causing a collecting brush to bear on the continous portion of each segment. In this way, two or more circuits may be taken off from the generator, each including one or more pairs or sets of coils, as may be desired. In Fig. 2. I represent the armature coils, T T the poles of the field magnet, and F the shaft carrying the commutators, which are extended to form continous portions a b c d . The brushes bearing on the continous portions for taking off the alternating currents are represented by a' b' c' d' . The collecting brushes, or those which may be used to take off direct current, are designated by M M . Two pairs of armature – coils and their commutators are shown in the figure as being utilized, but all may be utilized ina similar manner.

There is another well – known type of machine , in which three or more coils, A' B' C' on the armature have a common joint, the free ends being connected to the segments of a commutator. This form of generator is illustrated in Fig. 3. In this case , each terminal of the generator is connected directly or in derivation to a continous ring , a b c , and collecting brushes a' b' c' , bearing thereon , take off the alternating currents that operate the motor. It is preferable in this case to employ a motor or transformer with three energizing coils, A'' , B'' , C'' , placed symmetrically with those of the generator, and the circuits from the latter are connected to the terminals of such coils either directly – as when they are stationary – or by means of brushes e' and contact rings e . In this , as

in the other cases, the ordinary commutator may be used on the generator, and the current taken from it , is utilized for exciting the generator field magnets or for other purposes.

These examples serve to illustrate the primciple of invention. It will be observed that in any case, it is necessary only to add the continous contact or collecting rings , and to establish the connections between them and the appropriate coils. It will be understood that this invention is applicable to other types of machines – as, for example, those by which the induced coils are stationary and the brushes and magnet revolve , but the manner of its application is obvious to one skilled in the art.

Having now described my invention, what I claim is –

1) The combination , with a converter having independent energizing coils, of a continous or direct current dynamo or magneto machine, and intermediate circuits permanently connected at suitable points to the induced or generating coils of the generator, as herein set forth.
2) The combination, with a converter provided with independent energizing – circuits of a continous or direct current generator provided with continous collecting – rings connected in derivation to the armature coils to form the terminals of circuits corresponding to those of the converter, as herein set forth.

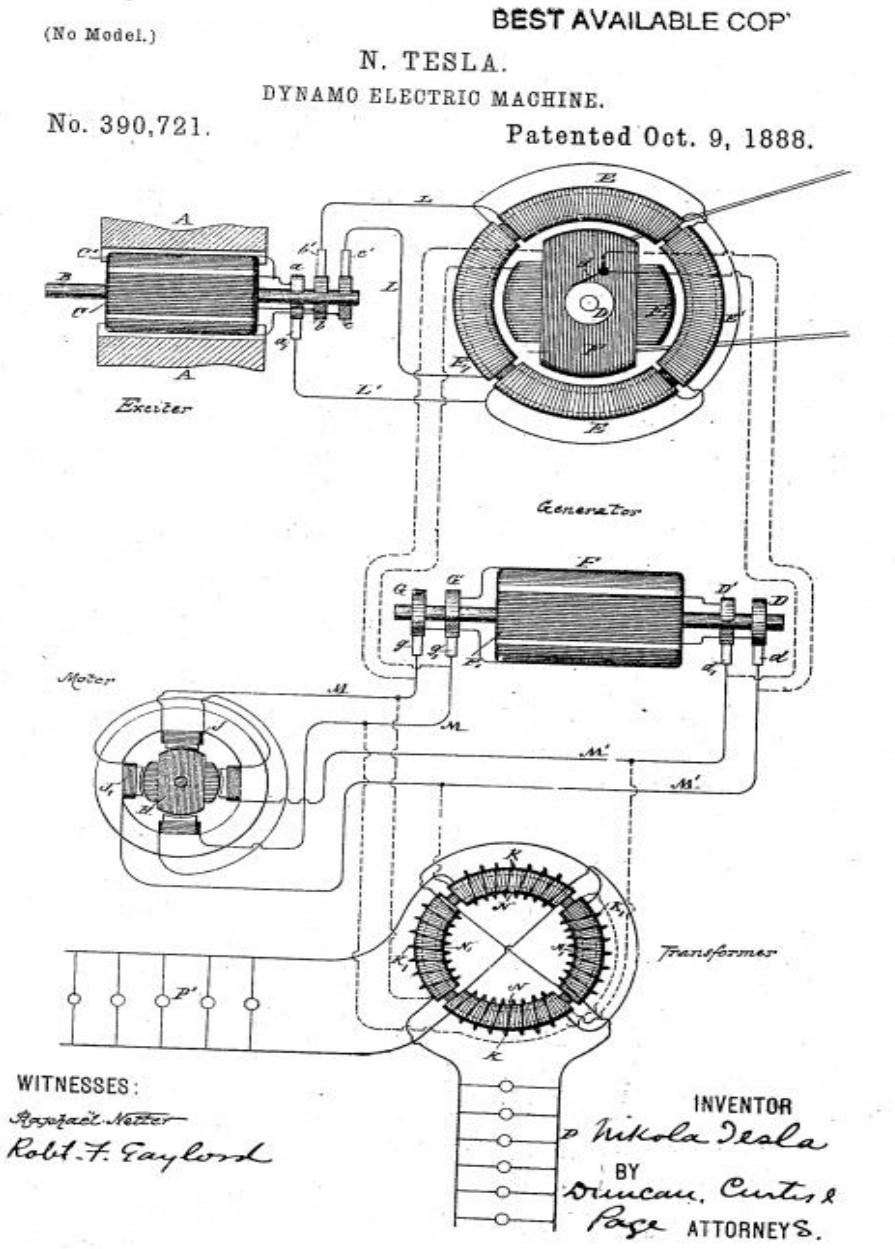
Dr Nikola Tesla patent main embdiment description and legal disclaimer part I . To whom it may concern:

The cited prior art describes the main claims of patent #390414, legally time stamped and available at the official gezzette of the: www.uspto.gov . As most of Nikola Tesla's art, it relates to asymmetrical systems, considered by classic science as „obsolete " , therefore, banned from further material to be taught at universities of the related fields worldwide . To all those knowledgeable in the arts, it will be clearly understood that dr. Nikola Tesla main electrodynamic machines embodiments consist of independently energized coils and circuits, that could be configured in pairs or sets thereof, „independently", understood as of being isolated from the rest.

Dr. Nikola Tesla patent main embodiment description and legal disclaimer part II :

Understanding the extent of such structures, to be employed in any given part of the dynamo electric machine, as stators, armatures or directly related to, as means of controlling or regulating circuits, and others. Further legal scope of the intellectual property of dr. Nikola Tesla could be also found at previous page link – address. It will be completely

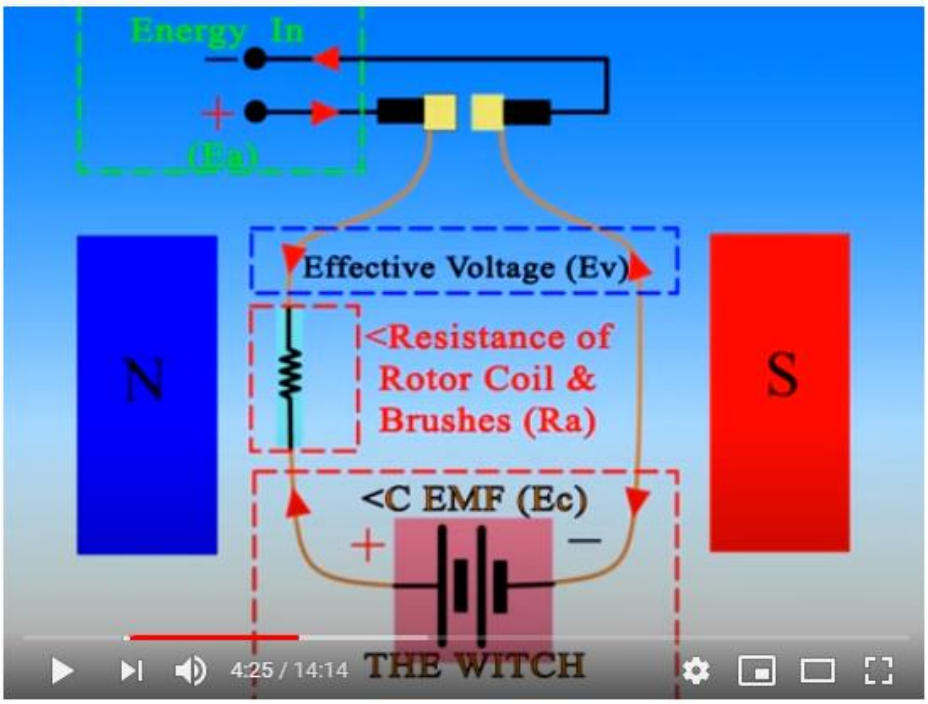
understood that any other means to control, regulate, connect and / or operate, such type of machines configurations, as stated in all dr. Tesla's art. Will be considered as an „Improvement to a prior granted art ", therefore , such material must not be considered of enough grounds to obtain the granting of a „solely and unique art", as is, the granting of a patent, anywhere on the earth globe. Furthermore, an „improvement" based on „newer advanced technology " to run, operate or control such main embodiments, should be calssified also as non patentable intellectual art.



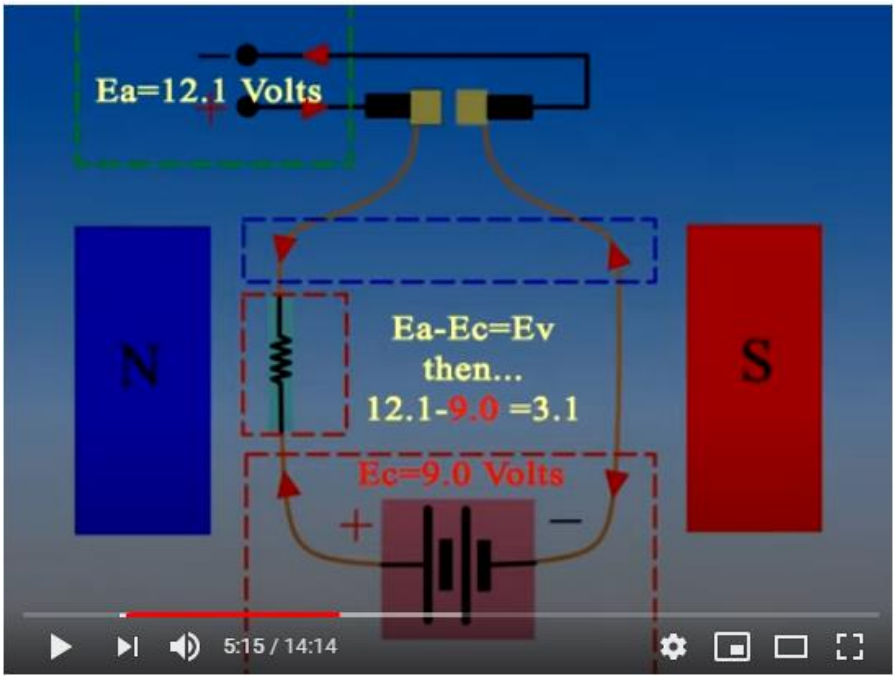

## The symmetry fraud exposed .

The „Symmetry ” relates to the way coils are connected as acontinous closed loop, reversing polarities every certain degrees (here are at 180 ) . Every 180 degree this coil crashes its input currents against our own induced charges from previous turns, as they will always oppose symmetrically to each others. The percentage of this opposed forces ranges from 50 to 90 % to subtract from total power input , depending on the load (assigned job duty ) to motor , where residues of 50/ 10 % is the „left over gain ” Now , it will be absolutely understood that this charges, forced to become opposed by the symmetry, must be subtracted from our

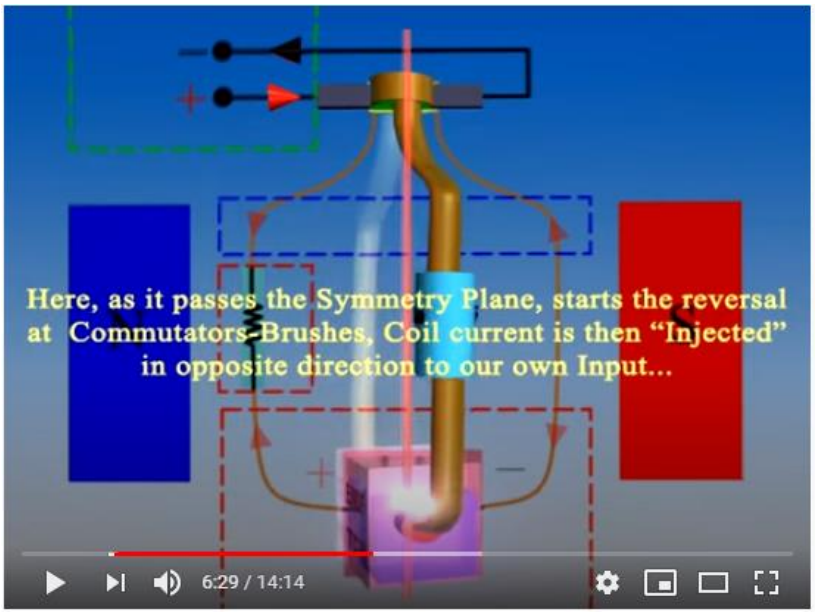
input, leaving the small residue as the rotor total operating force. This opposed currents to energy we put in, science has taught every electrical engineering school in our planet for over 130 years. That is called back or counter EMF ( BEMF or CEMF ) . When in reality this opposed energy flow is forced to be generated, every nano second of rotation, in all motors and generators as a consequence of symmetrical systems. I call this counter electro motive force, or BEMF , or CEMF . A witch that has damned spell on our beautiful planet for over 130 years, but the spell is about to be broken. Let's take a closer look at the witchcraft spell




Now our physics says: (the spell ) „… What actually moves the armature ( rotor ) current through the armature coils is the difference between the voltage applied to the motor (Ea) minus the counter – emf (Ec) " . In other words the witch devours a very high percentage of whatever energy we put in . And the worst part is .. The more we put in, the stronger the witch grows !! . And the witchcraft spell continues. „Thus Ea – Ec is the actual voltage effective in the armature, and it is this effective voltage , which determines the value of the armature current. Since generally I = E/R from ohms law, in the case of the DC motor, Ia = (Ea – Ec)/Ra " Translating into „plain english" : „If we don't kill, or even better, get the witch to work on our favor, we will never, ever get rid of stinking gas – diesel engines … " Let's see real values when motor is on load (at work ) ..

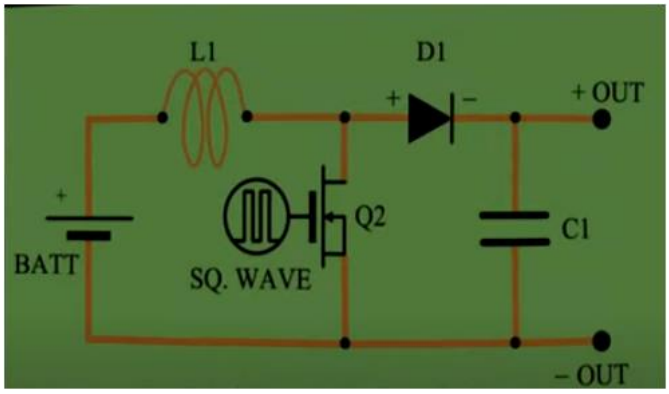



$Ev = Ea - Ec = 12{,}1 - 9{,}0 = 3{,}1$ effective voltage . Wasted energy 9,0 volts . Simple math. We spent 12,1 Volts , the Witch devours 9,0 Volts ( 74,4 %) leaving 3,1 Volts of actual operating power, which means 25% . Wow, what a great deal ? This loss percentage could vary up to 80 – 90 % depending on many differen t factors. Coefficient of performance (COP) of this machines would be : COP = effective voltage divided applied voltage $COP = \frac{3{,}1}{12{,}1} = 0{,}256$ . It is very obvious that we will never reach a COP = 1.. The witch will never allow it !! . Now, we just observed that previous diagram in two dimensional plane, rigid , not dynamically moving, not how really occurs in reality. So, let's see the witch „at work ". In order to have a complete full understanding of symmetrical vs asymmetricla electrodynamics, all this 3D models will contain a virtual symmetry plane, where the coils reversal occurs or don't . The witch (C EMF) represented by battery, have a „live" energy level ( blue liquid ), establishing the „charge – discharge " sequences it follows. All we are doing is charging this battery, in order that when it reverses, „fires back" at our own input, resting power and more losses. Charging time, battery full. Here, as it passes the symmetry plane, starts the reversal at commutators – brushes, coil current is then „injected " in opposite direction to our own input .

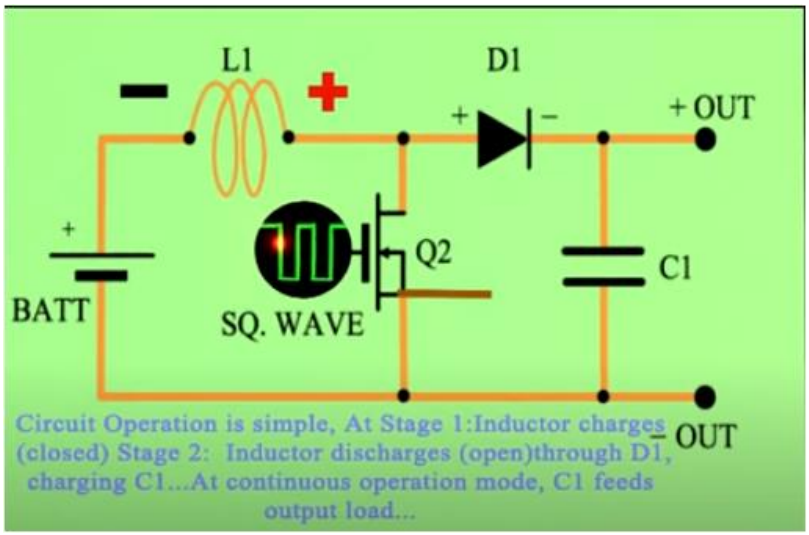


Energy charge at CEMF battery to lowest levels, end of discharging cycle. Time to recharge again, and so on. The witch story teller keeps going on, while we all pay, to keep show running. This „counter effect" occurs every nano second of rotation, the model shown here is based on one coil turn/loop, for simplicity and better understanding. However, in real life, every motor and generator contains hundreds af turns per dozens of coils, therefore, this fake C EMF „battery " have lots more capacity to charge then to fire back at ourselves with even heavier ammunition. This fake counter effect is present in ALL motors and generators. In motor is a „generator effect" and in generators is a motor effect, very symmetrically.

A coil stores its charges similar to a battery, but more likely to non polarized capacitors, for short periods of time . Meaning , they take very well polarity reversals transmitting the charges back at very fast rates. Coils store charges in their magnetic field, ( as physics states ). Then, traveling within magnetic fields, like it occurs in motors and generators, enhances and delays their performance. Attribute, not too good for us in symmetrical systems. Resuming this brief analysis on symmetrical electro – dynamic systems, or „the revelation of secrets from the witchcraft spell, part one ” This machines manage to burn, waste and use most of the energy we put inside of them in matter of seconds. The compensation we get as return are pure losses , resulting in very expensive operation, that only sets them all, as „low level apparatus ” and inferior than the herculean, gas and diesel engines. The second enigma of the witchcraft spell, lies in another component – an exact coil of magnetic wire, but physics keeps it within another „domain” completely far away from electrodynamic machines engineering reach, requirements or needs to employ or study. The part that I did not understood completely well, is that the „particular component” reacts „differently ” than others of exact same material composition, concepts and design, and just because they work in open environment, at least a small portion of time, they manifest very interesting attributes not similar at all to their „twin brothers ”, suffocated working inside the extremely high temperatures of symmetrical motors and generators. The enigmatic electronic component is called „the inductor ” , also known as „choke” and many years bakc as „reactor” . And even though it is the oldest of electronics components , it is still in very active use in most of „state of the art ” electronic equipments. Here we will take a look at a simple, „boost converter ” that belongs to the „switching power supply family ”. Where the inductor still prevails as the main component , even surrounded by the latest electronic technology. The interesting thing is, that all an inductor consists off, is just a plain and simple coil of magnetic wire , wrapped around … not so specific either, piece of material, that could be porcelan, mica, ferrite … or even „air” .

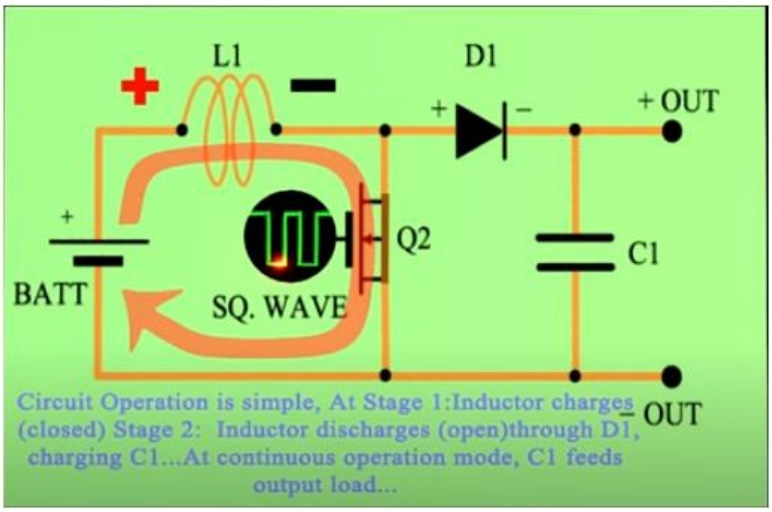


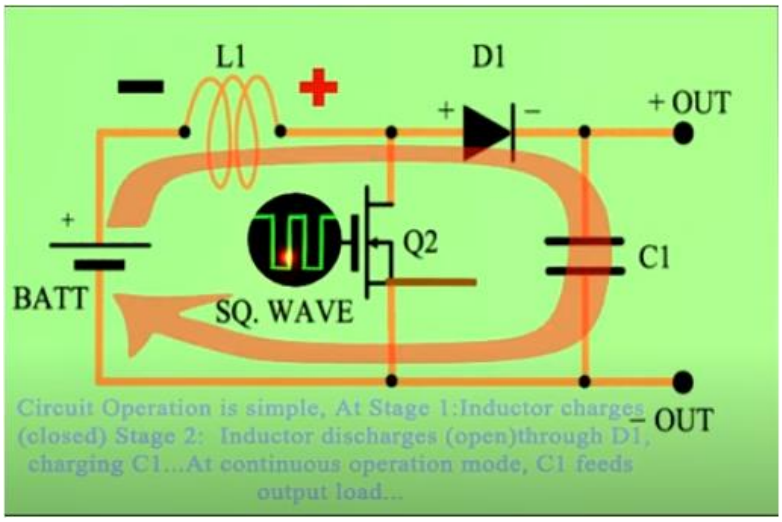
L1 – inductor , D1 – ultrafast diode, C1 – output cap, Q2 , N-MOSFET (Ultrafast switch ), triggered by the oscillator square signal to its gate. When Q2 receives a low flat signal, it closes , charging L1 (inductor ), as signal departs vertically, Q2 opens but, when opened, L1 reverses its voltage polarity, then D1 diode allows the + charge forward, charging C1 .

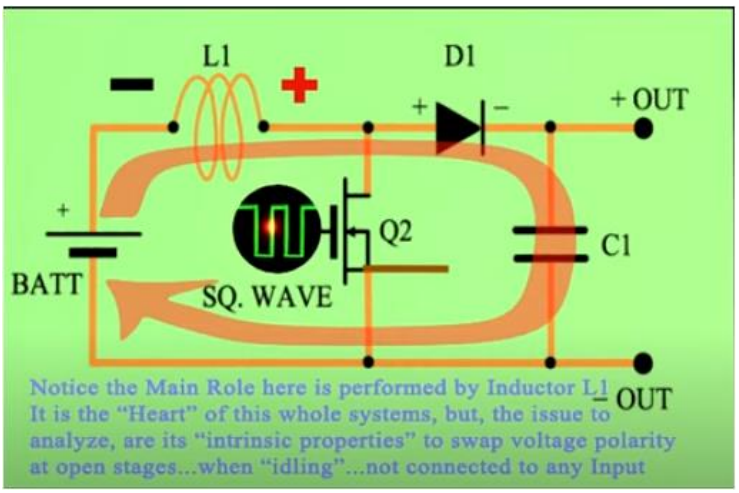



Circuit operation is simple:

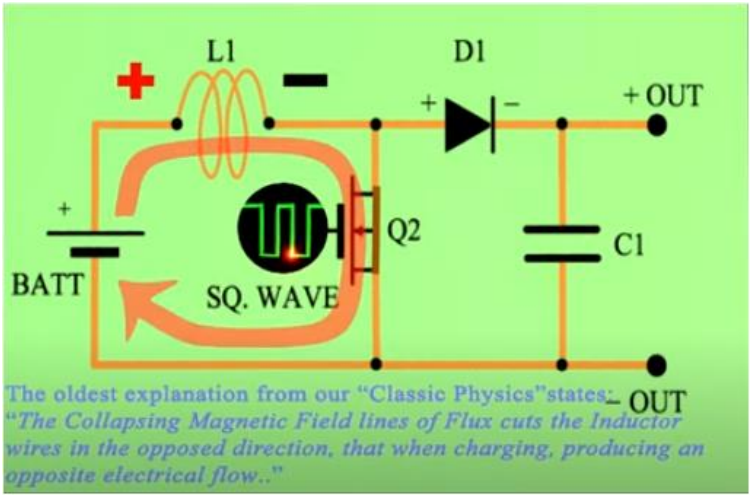
1) At stage 1: Inductor charges (closed )
2) Stage 2: Inductor discharges (open ) through D1, charging C1
3) At continous operation mode, C1 feeds output load.



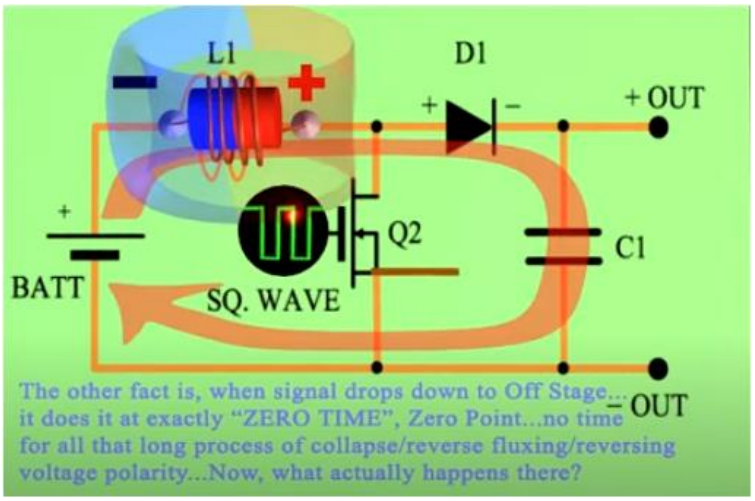


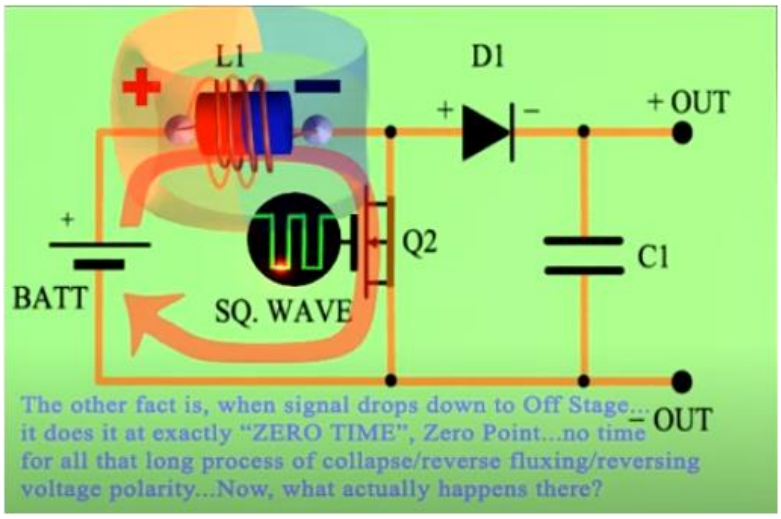

Notice the main role here is performed by inductor L1 . It is the „heart" of this whole system, but, the issue to analyze , are its „intrinsic properties" to swap voltage polarity at open stages… when „idling" … not connected to any input.



The oldest explanation from our „classic physics ” states : „The collapsing magnetic field lines of flux cuts the inductor wires in the opposite direction, that when charging, producing an opposite electrical flow ...”



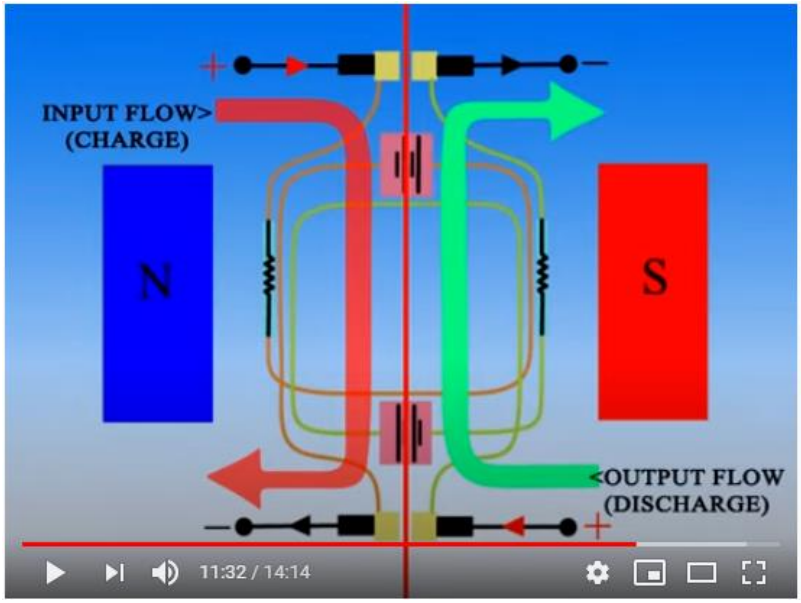

The other fact is, when signal drops down to Off stage … it does it at exactly „zero time” , zero point … no time for all that long process of collapse / reverse fluxing / reversing voltage polarity … Now, what actually happens there ?




As we apply voltage to a coil, it generates a magnetic field, and as we collapse our signal, there is an immediate natural reaction response to our action. An opposite magnetic field is created, developing a reversed current. But we must „collapse” – either by short or by switch off – our input to the coil(s) , not reverse it, like symmetry does . Then nature will respond in a grateful and generous reaction – radiant energy field has been excited, and it will be greater than our input (spent ) energy . Laws of nature. Laws of god.

And finally here is my own concept to brake the symmetry in an existing symmetrical world. I have used Tesla’s „secret” as the main embodiment

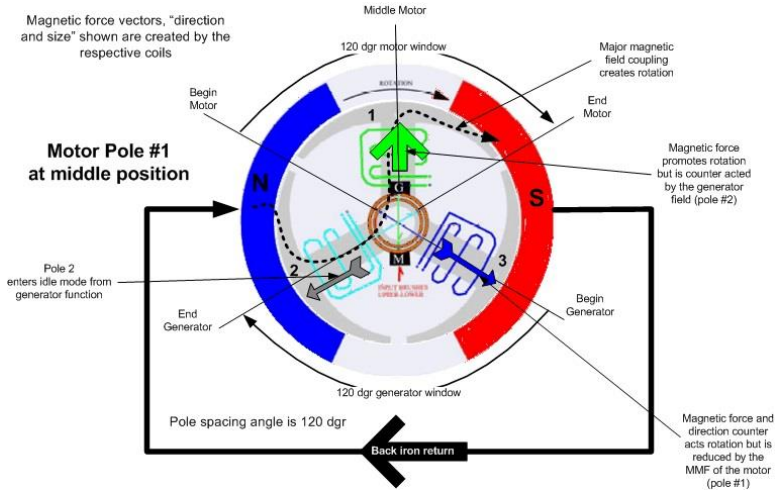
to configure, two independently isolated pairs of coils I supply input to each alternatively, at different times in a „linear" connection, NOT in a symmetrically RADIAL „old fashion" , where positive – negative are facing each others … NO . So we get to maintain each coil always , at one side of the symmetry plane… One to charge, the other to discharge. I have set up the same exact model as before, but in a „duality of independently set structures", where each one has its own „Battery" and resistance . Please watch the batteries reverse, as they fill of blue liquid (energy) at charge stage, to then discharge it at the opposite side of symmetrical plane. When RPM's are higher , and no – load is applied , batteries retains a charge, but in harmony with incoming flow, so the input required is much less.

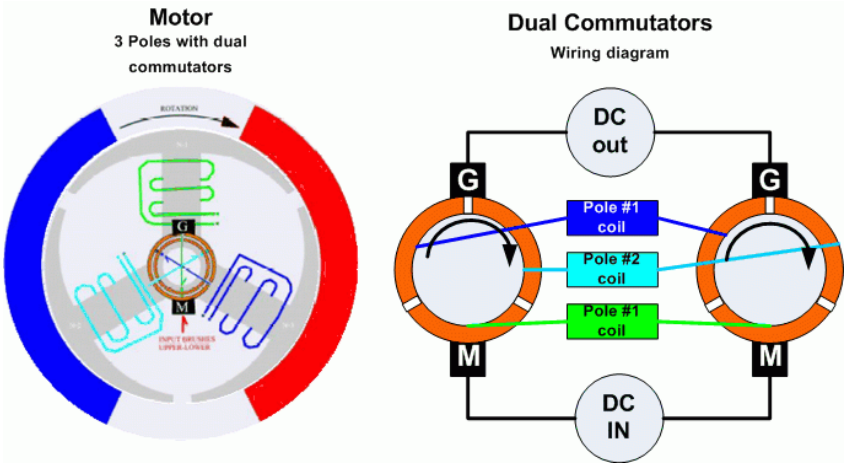


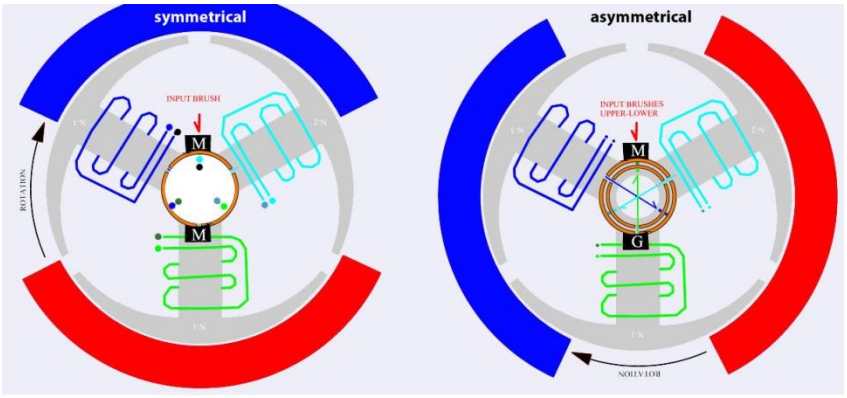

It will be obvious, that if we connect bottom terminals positive – negative, still feeding input at left lower negative. Then take a reading of upper left positive to upper left right negative, we will have an excess of power, than we have put in. Seriously as a heart attack. Just because, the witch , has become a charming princess, and with lot's of „class" still will be for ever assisting us to thrive .

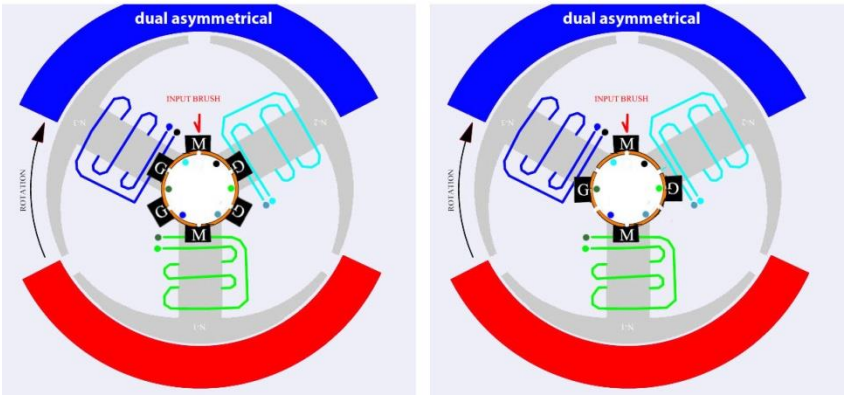
And so, one hundred and thirty two long years of witchcraft spell has been broken, my dear friends, I'am certain you will make better improvements , better applications and state of the art tech systems will do wonders in the field of electronics. I will do posting videos on how to convert witches in princesses , back and forth. There is so much more to this new concepts. This is just the beginning of a golden era.

UFOpolitics three pole asymmetric DC motor

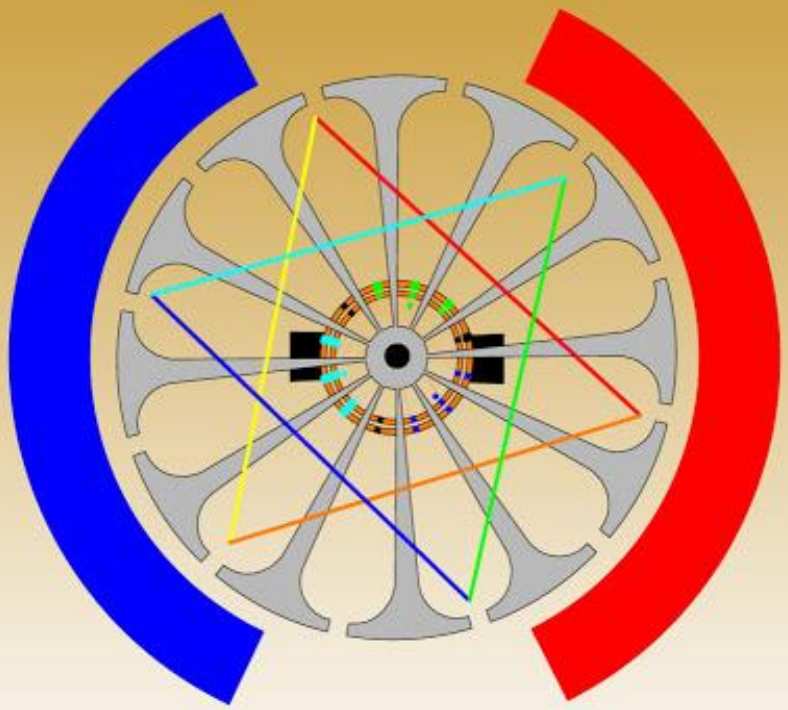

Magnetic force vectors, "direction and size" shown are created by the respective coils
Middle Motor
120 dgr motor window
Major magnetic field coupling creates rotation
Begin Motor
End Motor
Motor Pole #1 at middle position
Magnetic force promotes rotation but is counter acted by the generator field (pole #2)
N
S
G
M
1
2
3
Pole 2 enters idle mode from generator function
End Generator
Begin Generator
120 dgr generator window
Pole spacing angle is 120 dgr
Back iron return
Magnetic force and direction counter acts rotation but is reduced by the MMF of the motor (pole #1)


Motor
3 Poles with dual commutators
G
M
Dual Commutators
Wiring diagram
DC out
G
G
Pole #1 coil
Pole #2 coil
Pole #1 coil
M
M
DC IN

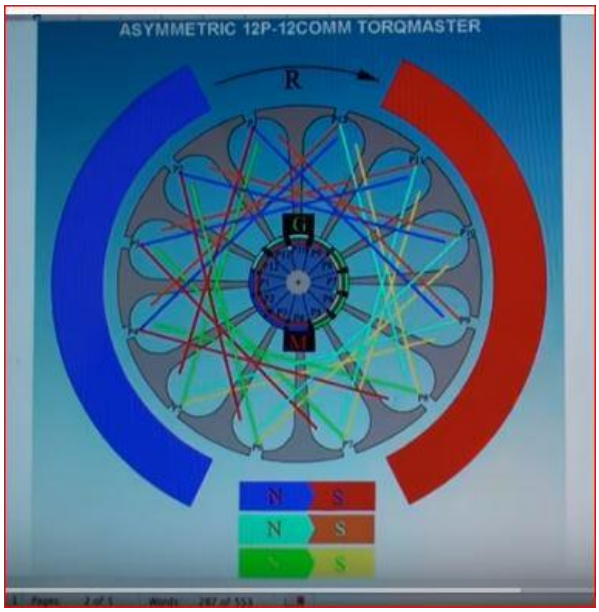

symmetrical
INPUT BRUSH
M
M
ROTATION
asymmetrical
INPUT BRUSHES
UPPER-LOWER
M
G
ROTATION

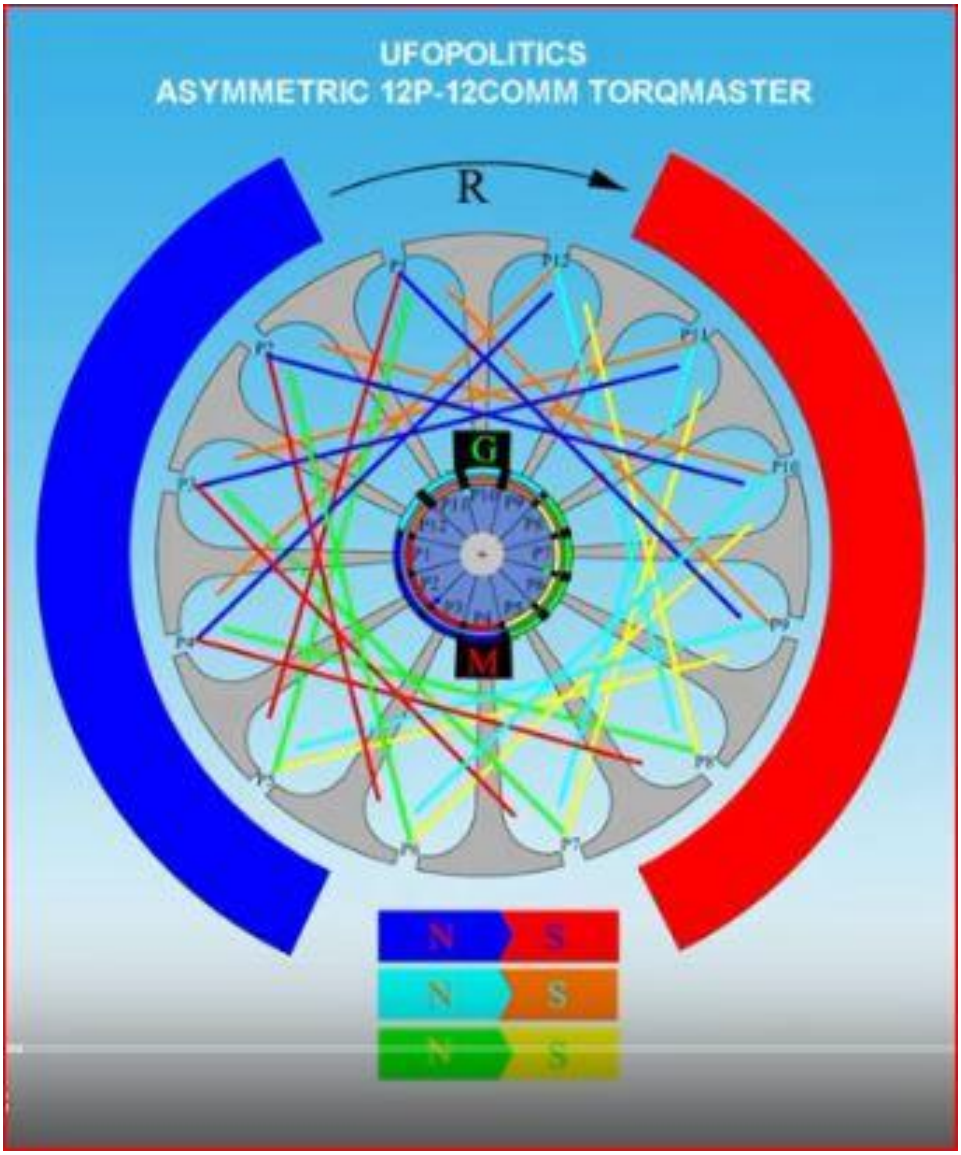

dual asymmetrical
INPUT BRUSH
M
G
G
G
G
M
ROTATION
dual asymmetrical
INPUT BRUSH
M
G
G
M
ROTATION

UFOPOLITICS STAR OF DAVID ASYMMETRICAL MOTOR-GENERATOR

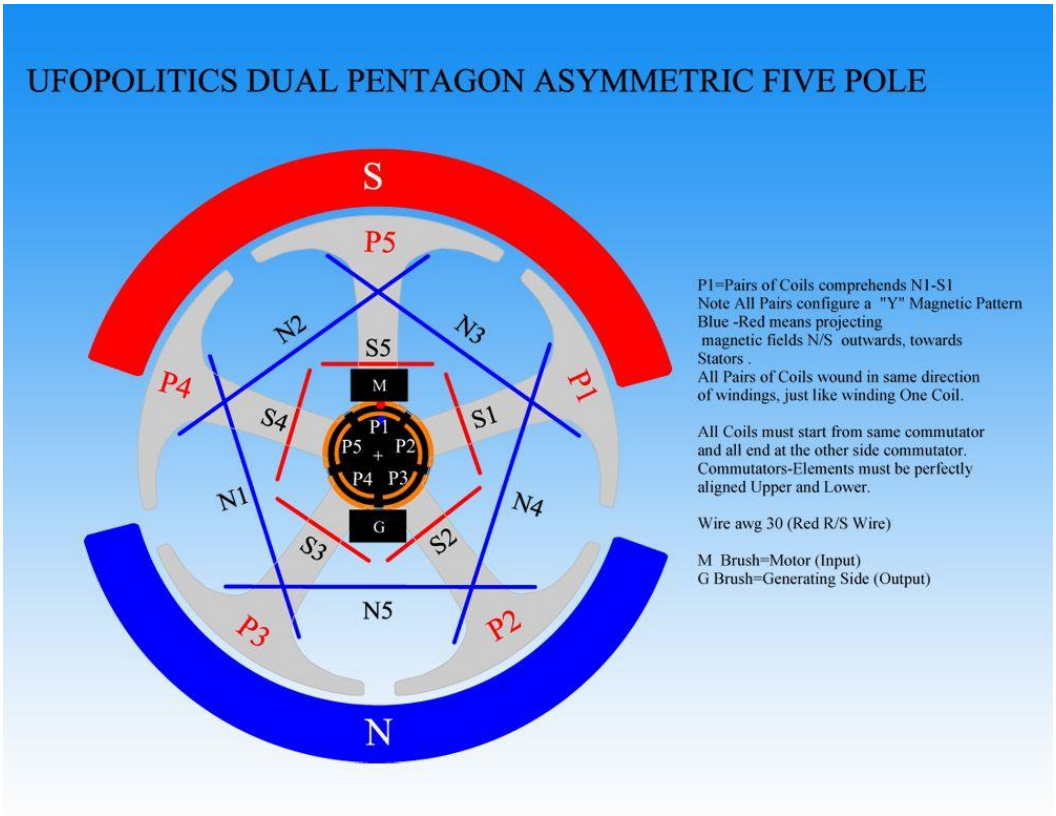


ALL BLUE COLORS ARE ISOLATED NORTH POLES, AND ALL RED,ORANGE AND YELLOW ARE THEIR CORRESPONDING SOUTH POLES
COMMUTATOR ELEMENTS ARE CODED BASED ON NORTH COLORS ONLY,

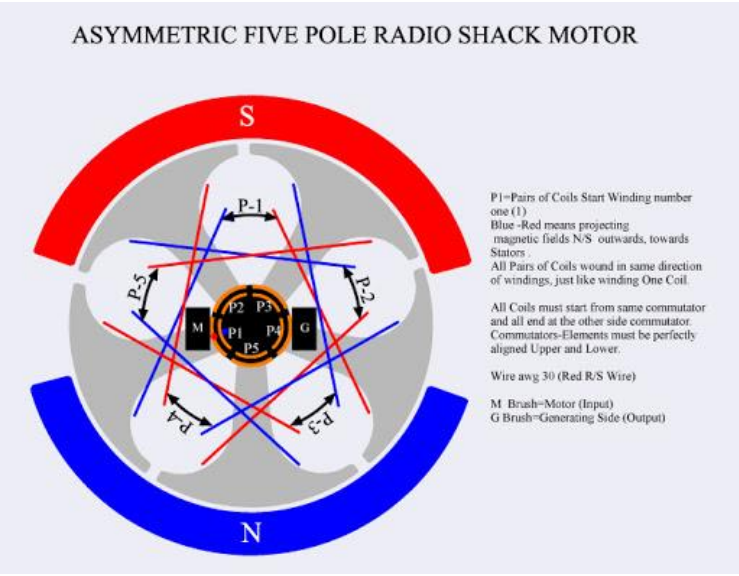



UFOPOLITICS
ASYMMETRIC 12P-12COMM TORQMASTER
R
G
M
N
S
N
S
N
S

UFOpolitics five pole asymmetric motor

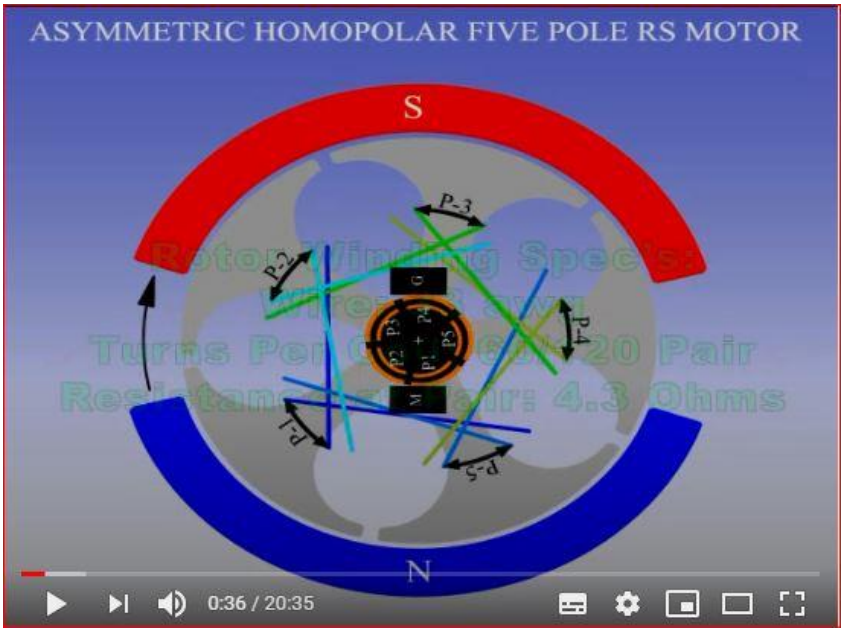



"It is *obviously only necessary* to utilize them in **Pairs or Sets** to operate one of my converters by extending the segments of the commutators belonging to each **Pair of Coils** and causing a collecting brush to bear on the continuous portion of each segment. In this way two or more circuits could be taken off from the generator, each including one or more **Pairs or Sets of Coils**, as may be desired..."



*This is how I understand the windining, correct me when I am wrong:The picture is a topview of the rotor with magnets. Attach wire to the upper commutator at P1 and wrap magnetic wire 25 times through holes marked P4 and P1 in the picture, do not cut the wire, and wind 25 times (same direction as previous coil) through holes marked P1 and P3. Do not cut the wire and attach it to lower commutator at the pole exactly opposite to P1. Cut the wire. Total wireresistance should be between 1.2 or 1.6 ohm. Now start at P2 through holes (25x)P5-P2 attached to holes (25x)P2-P4 attach cable again to lower commutator atthe opposing pole to P2 etc. In total you make five V-shaped (two-pair serial) coils .*

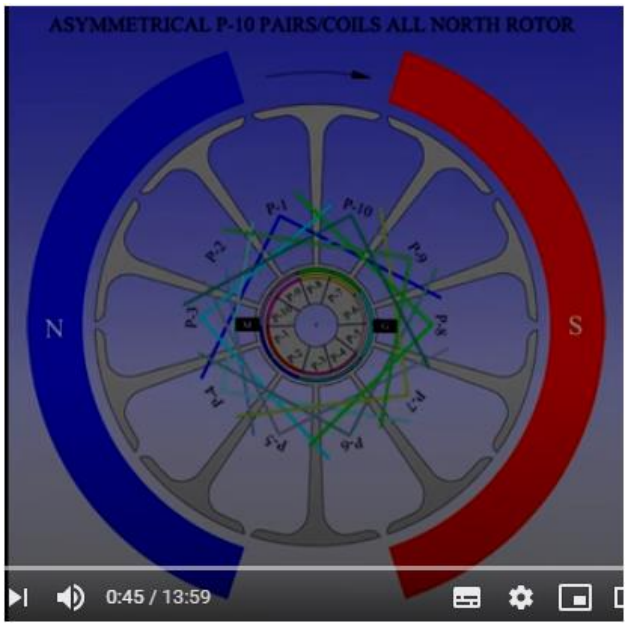
Winding instructionsInitial Marking UpThe end of the rotor with the longer shaft is called the upper-end. At the upper-end, using a permanent marker, number the upper commutators, 1 through to 5 in a clockwise direction. Now number the lower commutators, noting that they will take the number of the marked commutator vertically inline above. Referring to fig 1, and looking at the upper-end of the rotor, locate commutator 1, noting that it is adjacent to a bar. Now move clockwise to the next bar, the slot clockwise from the bar, is Slot A. Mark the entrance to Slot A with a permanent marker, as shown this is a reference point.Winding:At the upper-end attach the wire to commutator 1 tab. Take the wire down through slot A, and bring up through slot D, and take to slot A this is one turn. Repeat for 24 more times, which will give 25 left windings.Once the 25 winding are done, the wire should be at the upper-side of slot A. Take the wire down slot A, and bring upthrough slot C, and take to slot A; repeat 24 more times. After 25 right winding, take wire down slot A and attach wire tolower commutator 1 tab.




Asymmetrical P-10 pairs/coils all north rotor

A ten pole P10 series , all north rotor fields.
Wire: 23 awg
Turns: 30

Total R(Pair): 0,9 ohms

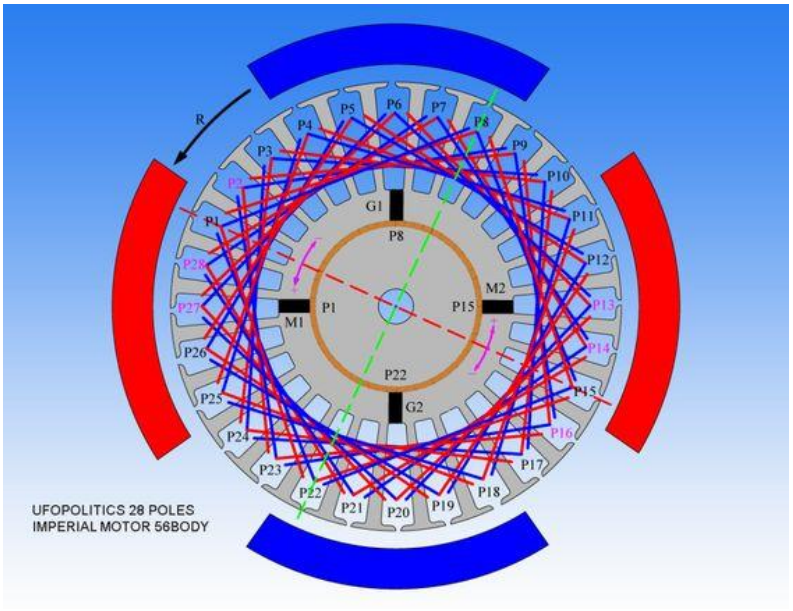


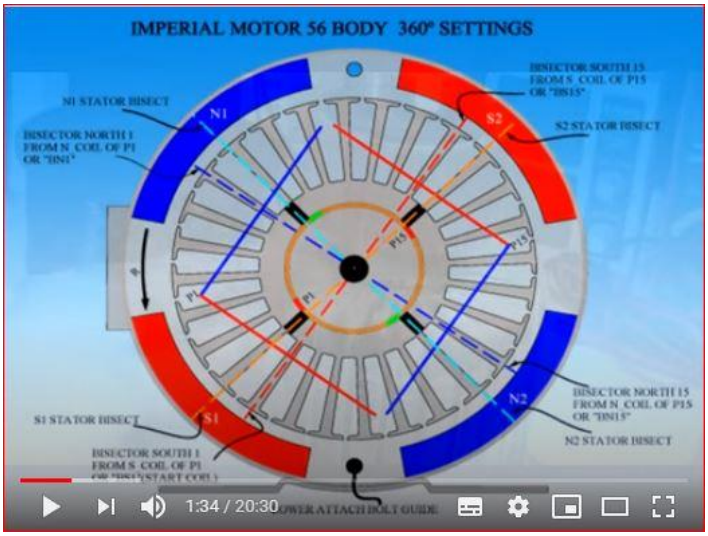

Hello ufopolitics. First of all, let me thank you for what you are doing for all of us, for sharing your truly amazing finding with the world, only good-hearted men do it and you sure are one of them. I've watched all of your videos, and I have two doubts about your motors. Please correct me if I'm wrong. 1. I can clearly see that the motor rpm raises as it goes (and specially in the SELF ACCELERATION/BATTERY REGEN video of yours) and also the voltage on the batteries increase? Does this mean that if you leave it running for a few hours, 8 for example, that it may fully regenerate rechargeable batteries? 2. From your other videos, I understand that in pulsing systems, in the same timeline of energy feeding, if the pulses are shorter (in time) that the output power of the pulse from the coil will be higher? If so, then, the more poles a motor has, the more efficient it will become within the asymmetric domain? Again, I'm a layman when it comes to this, as my area of work is another one. But your fascination with your findings is the same as mine, and I am glad and lucky I've came across your videos. I appreciate your time, and thank you once again for your kindness.

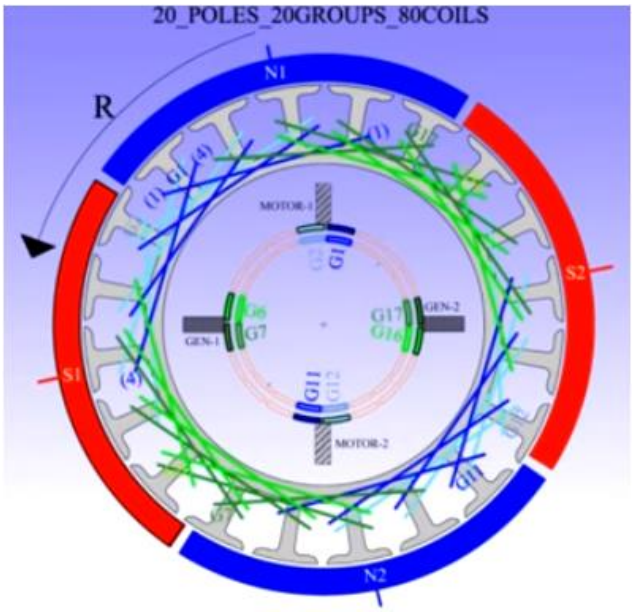
"Acceleration Under Load"...a Statement considered by "Classic Physics" as "Not Possible"...of course, not possible with the OBSOLETE ELECTROMAGNETISM We all have learned on School...or Engineering Universities across this Planet. "Acceleration Under Load, could be a Mechanical or Electrical Load...where NO MACHINE would be able/capable to accelerate under those conditions...but to decrease power to minimal specifications...or to a FULL STOP/STALL "

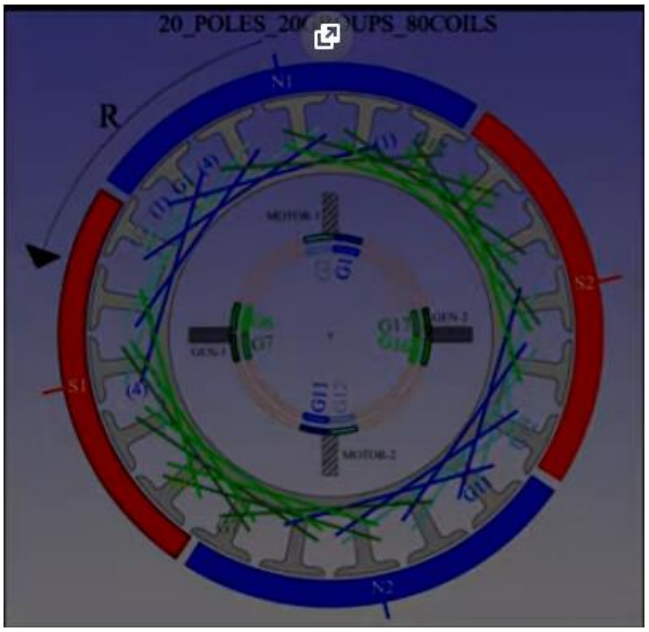
# UFOpolitics imperial asymmetric motors

A mutilated knowledge. Had been kept secret for over 130 years, just to keep us all dependents on only one source of energy: oil . We never needed the stinking, leaking, farting gas/diesel engines, the obsolete dinosaurs. They have lied to us. And the proof is here:

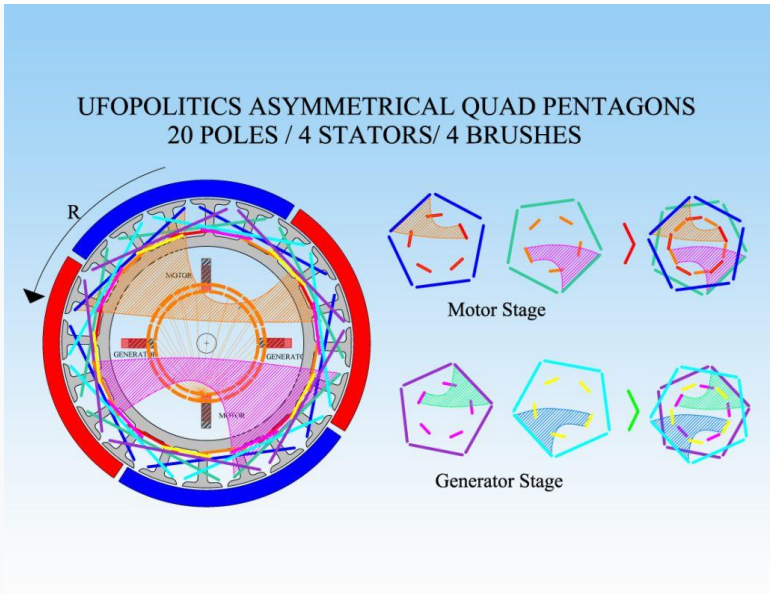


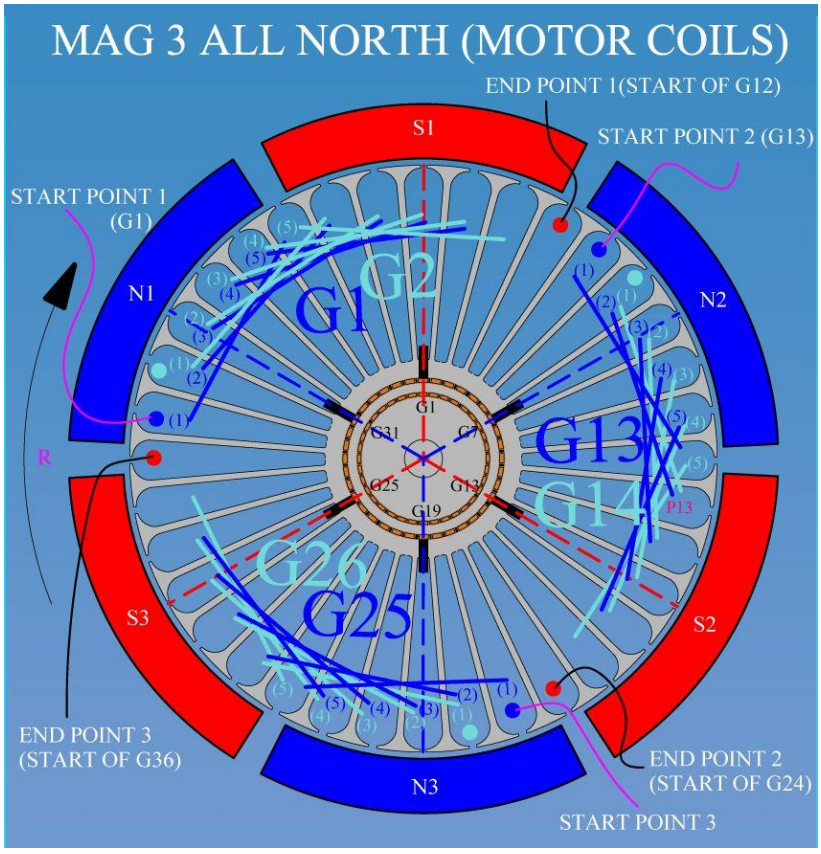





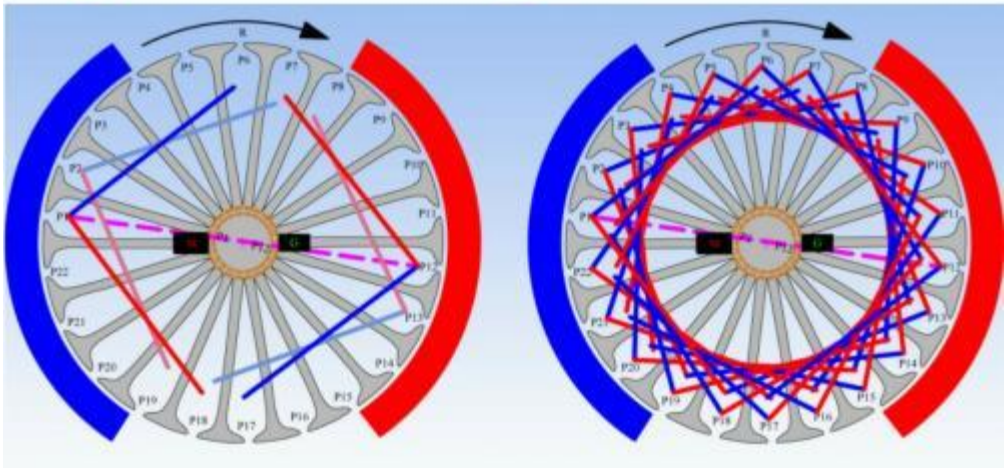



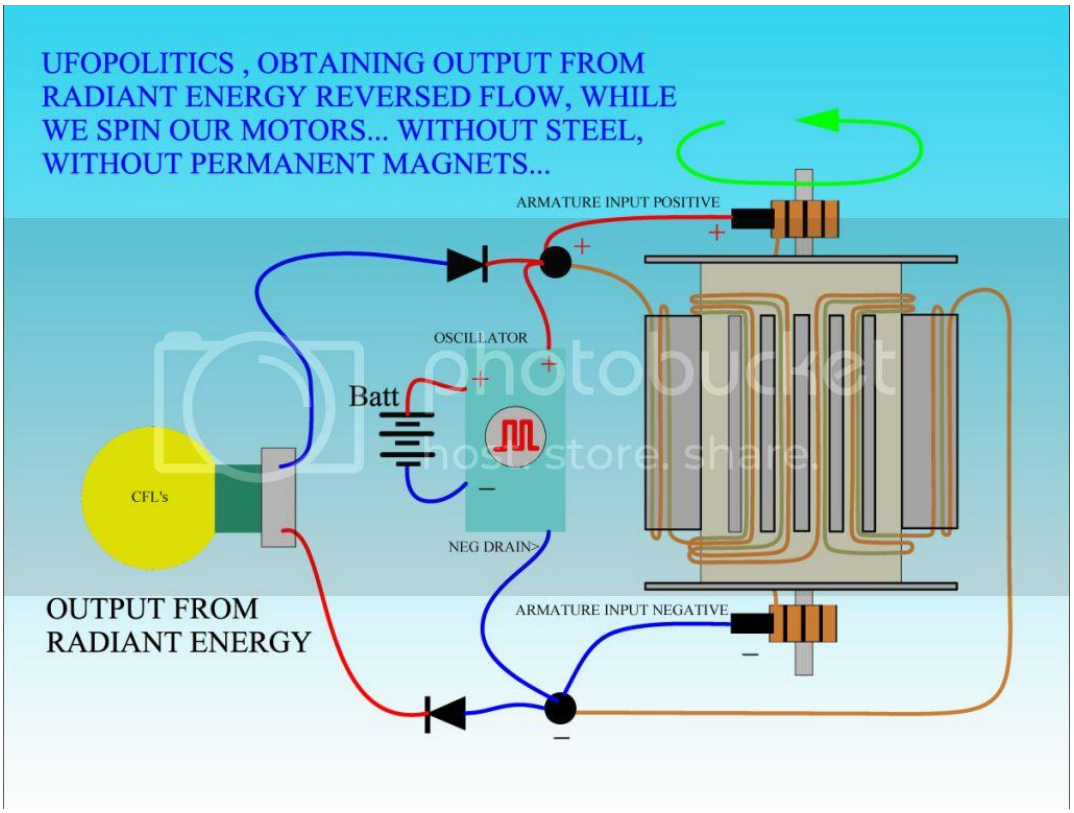

A Wrestling Fight We all have been waiting for...over 130 long years... A Final Battle where Oils/Gas/Diesel Engines would not be required EVER AGAIN... Just clean, pure green and free energy WILL BE powering our Houses....Our Vehicles...Our Industry...Our Planet... The Game, the Dynasty of Oil is OVER... ...Coming Soon to a Theater Near You...

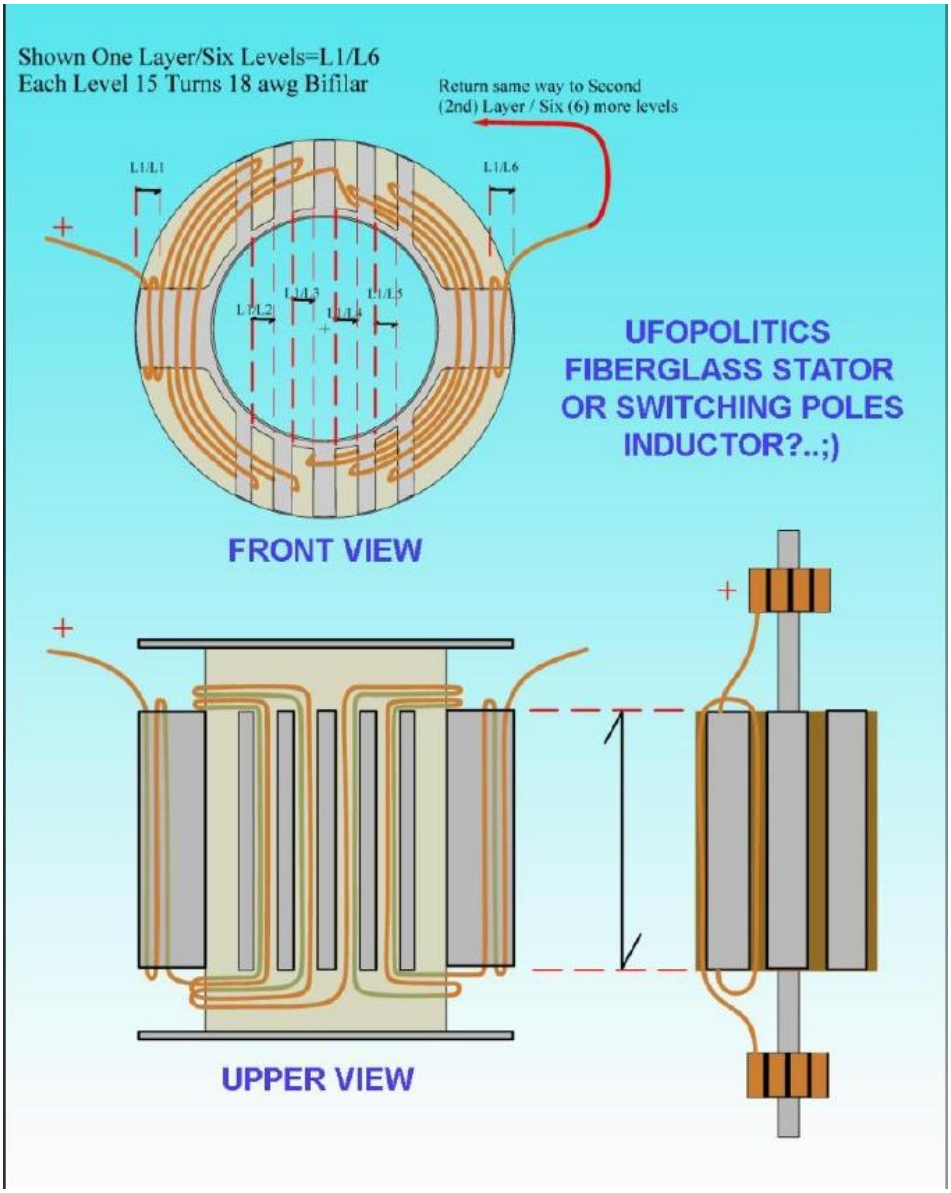

UFOPOLITICS ASYMMETRICAL QUAD PENTAGONS
20 POLES / 4 STATORS/ 4 BRUSHES
R
MOTOR
GENERATI
GENERATI
MOTOR
Motor Stage
Generator Stage


MAG 3 ALL NORTH (MOTOR COILS)
END POINT 1(START OF G12)
START POINT 2 (G13)
START POINT 1
(G1)
S1
N1
N2
S2
S3
N3
R
G1
G2
G13
G14
G26
G25
G31
G7
G19
P13
END POINT 3
(START OF G36)
END POINT 2
(START OF G24)
START POINT 3

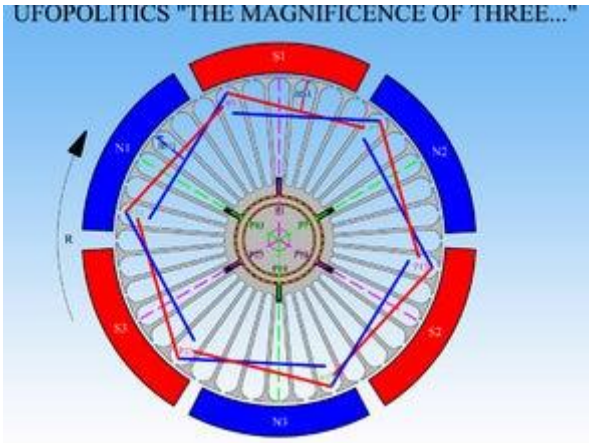
# Asymmetric Winding for 22 Pole Motor





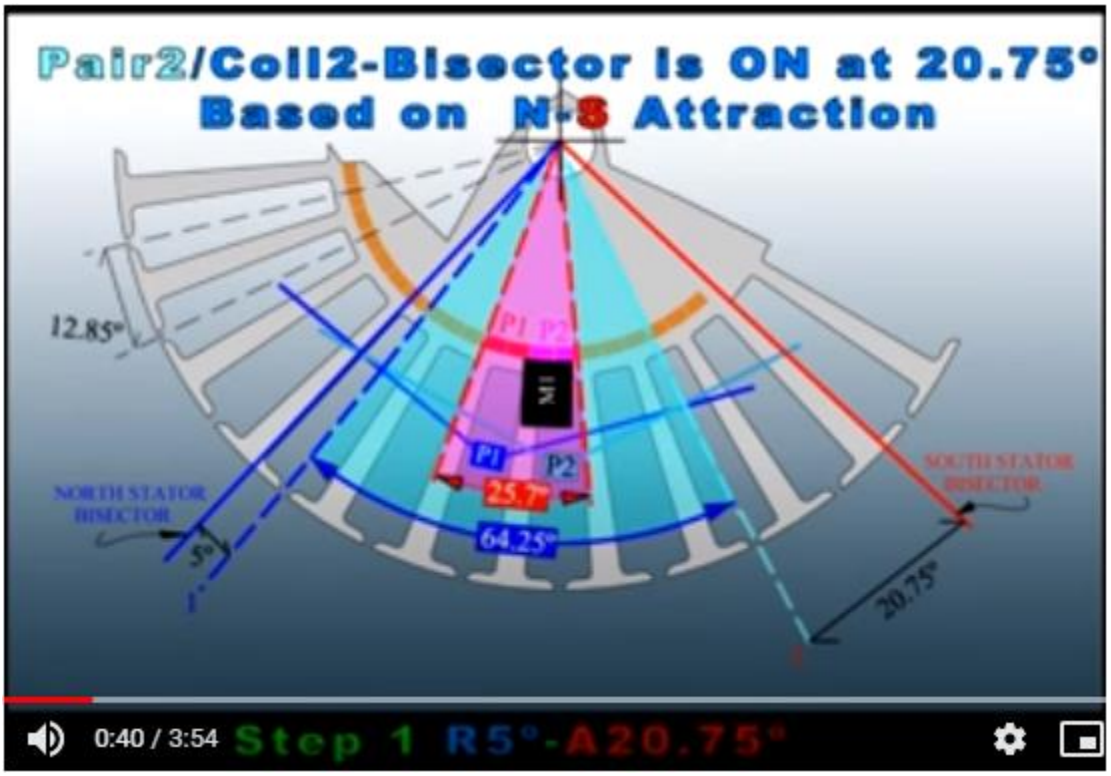


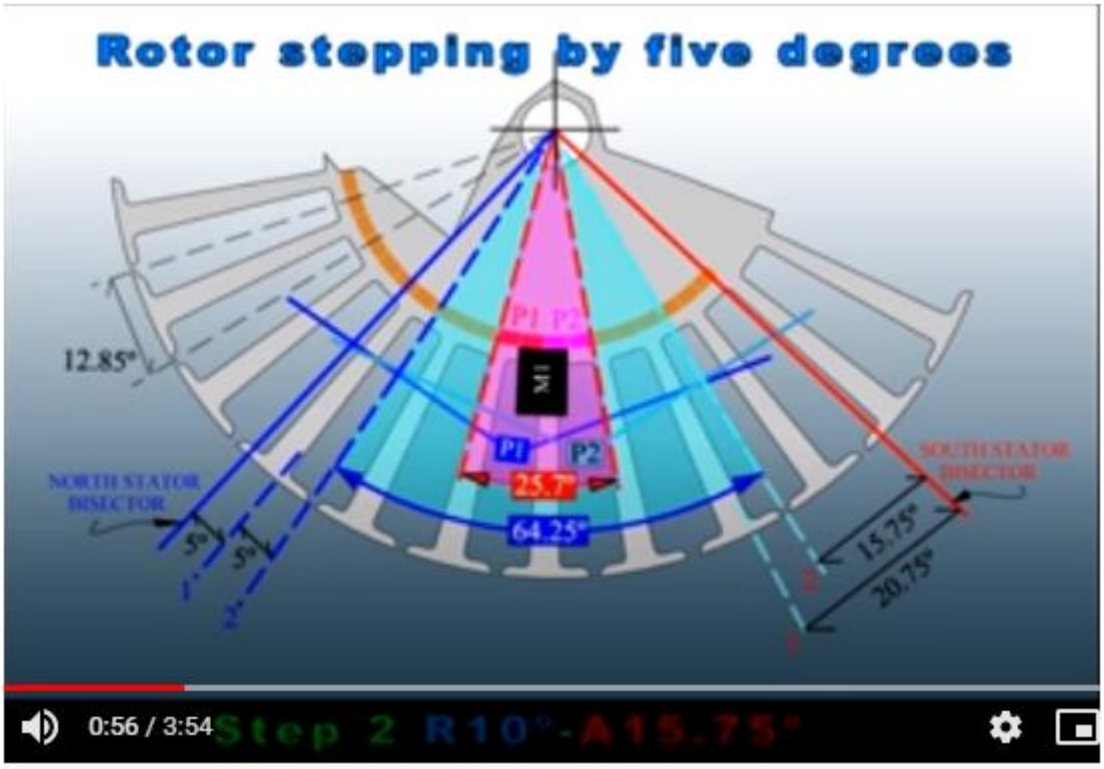

The magnificence of three

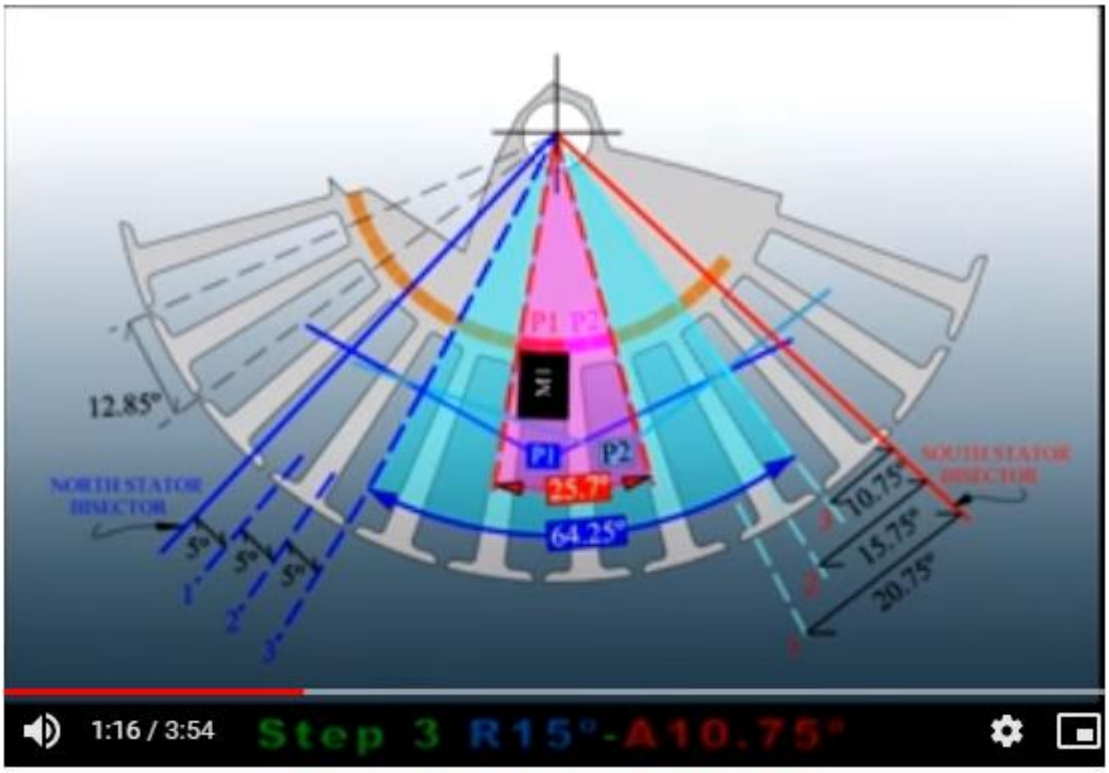


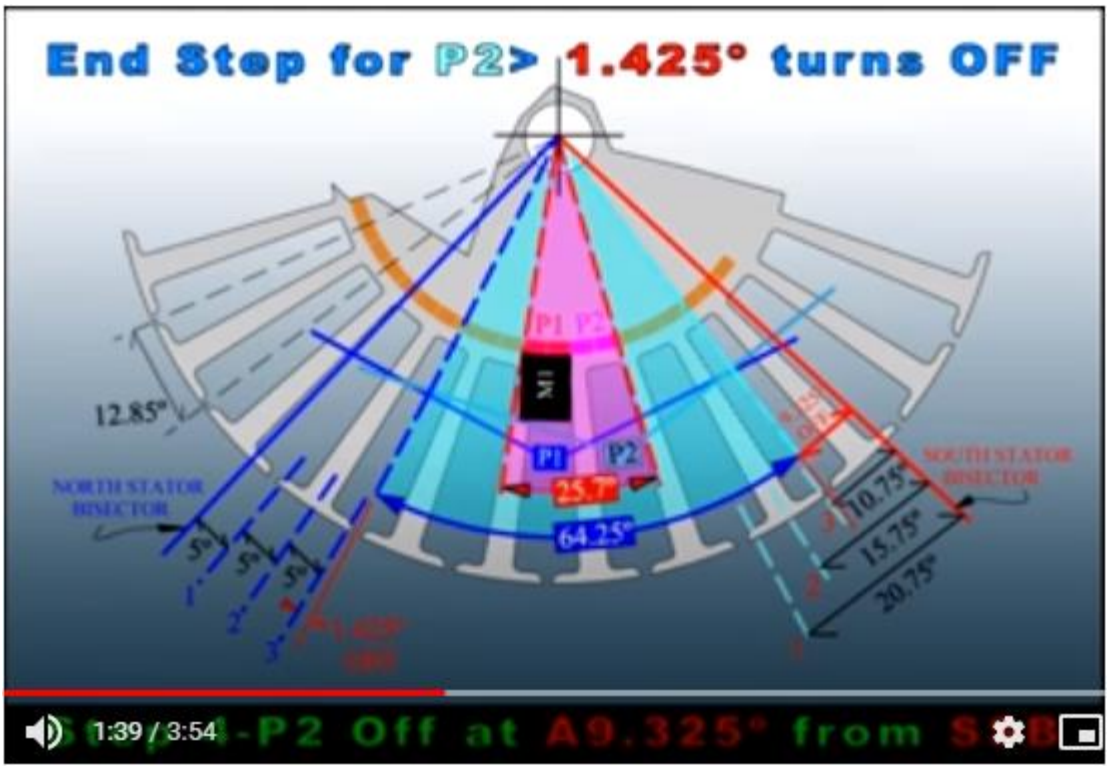

UFOpolitics asymmetric imperial all north pole motor

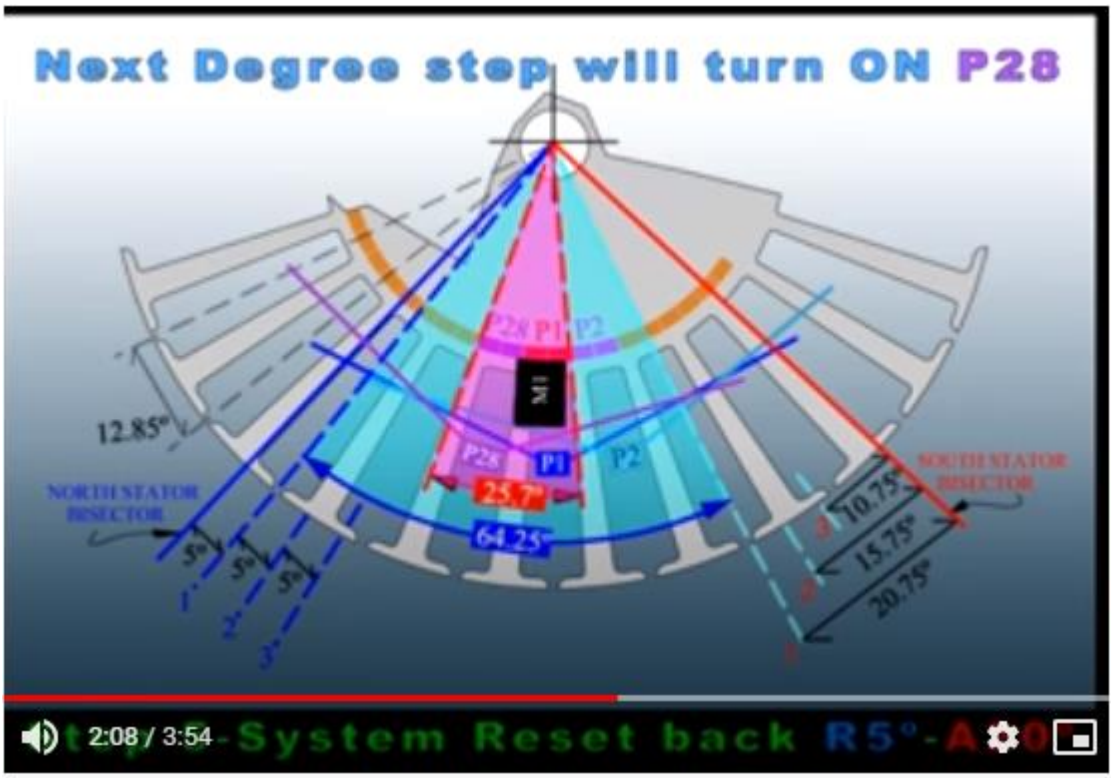
Imperial P56 dual commutator asymmetric wind type: 4 pole – pairs all north generation .

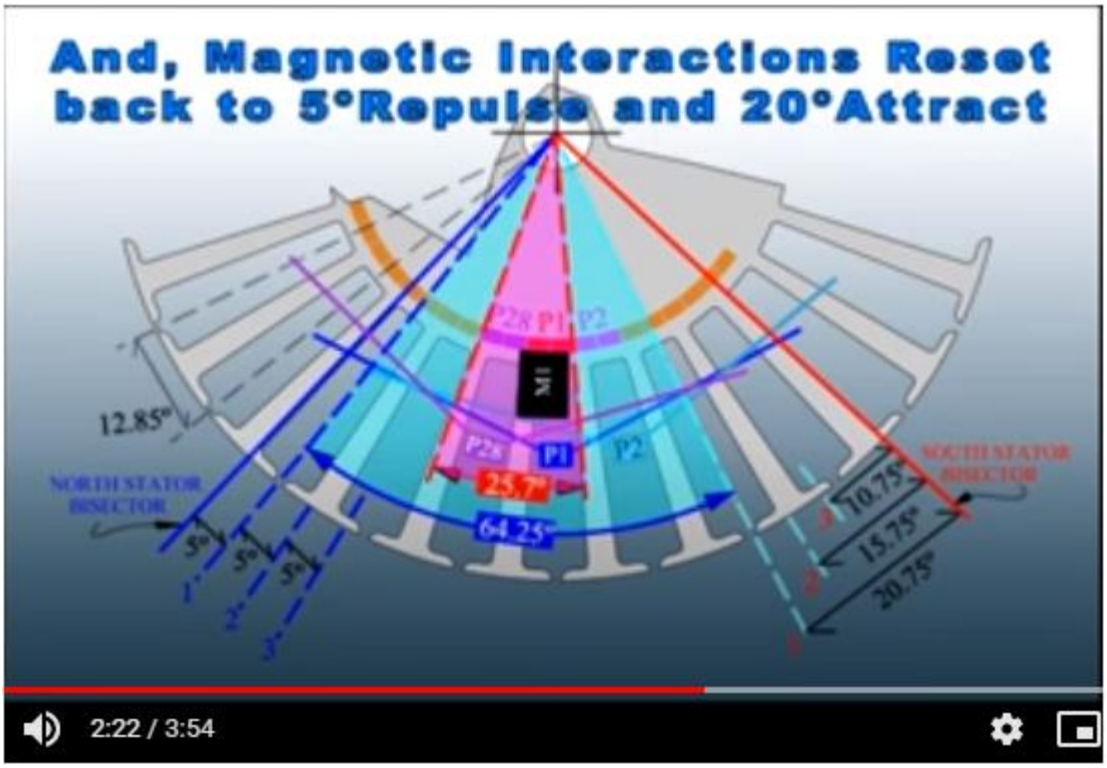



Rotor stopping by five degrees
12.85°
M1
P1
P2
25.7°
64.25°
NORTH STATOR BISECTOR
SOUTH STATOR BISECTOR
5°
5°
15.75°
20.75°
0:56 / 3:54
Step 2 R10°-A15.75°


12.85°
M1
P1
P2
25.7°
64.25°
NORTH STATOR BISECTOR
SOUTH STATOR BISECTOR
5°
5°
5°
10.75°
15.75°
20.75°
1:16 / 3:54
Step 3 R15°-A10.75°


End Step for P2> 1.425° turns OFF
12.85°
NORTH STATOR BISECTOR
5°
5°
5°
P1
P2
25.7°
64.25°
10.75°
15.75°
20.75°
1:39 / 3:54


Next Degree step will turn ON P28
12.85°
NORTH STATOR BISECTOR
5°
5°
5°
P28
P1
P2
25.7°
64.25°
10.75°
15.75°
20.75°
2:08 / 3:54




This motor is a four stators. Therefore, this interactions will „mirror" at 180 degrees apart . These are just three pair sequence switching ON simultaneously by brush contact. These five steps will take place in nano seconds during high RPMs operation . This procedure is done in order to make sure P2 C2 bisector will disconnect before reaching south stator bisector. At high RPMs , magnetic fields in attraction mode tend to „bend" towards the opposite polarized stators… reason why we must disconnect the attract ending coils before reaching alignment between attracting bisectors , which are the higher density magnetic area.

## Symmetric versus Asymmetric Electromagnetic Systems

I wanted to start this thread before I move on to disclose the type of motors and generators that took me to the paths of Radiant Energy in another Thread.As they are based on Asymmetric Technology, I certainly believe it will help understand the concept better, avoiding future comparisons-conflicts between this two completely different systems.It took me a while to put all this material together, it is back up by several tests with many different types of sizes and configuration Models that I have built over more than two decades. Plus all the research and developed work that goes back in our history to more than a Century ago...I will keep this document as simple as possible, in order to be understood easier. The main body of this document is written by me, and please forgive any misspellings or not to well redacted text, whenever I

copy-paste paragraphs, I will insert a reference to a link at the bottom of this thread. I will try to maintain it as brief as possible.

# The History

The Father of Magnetism, James Clerk Maxwell , gave Us an Incredible and great Dynamic Theory of Electromagnetism, his analysis extends to the deepest interactions basically from space , the Vortex Theory of Molecules. The Scientists of his time found his Theory very hard to accept not only because of its complexity, but the way he refers to as an Electromagnetic Field, something intangible and not simple to analyze ..."**Maxwell's Theory becomes simple and intelligible only when you give up thinking in terms of mechanical models. Instead of thinking of mechanical objects as primary and electromagnetic stresses as secondary consequences, You must think of the Electromagnetic field as primary and mechanical forces as secondary**..." (2)

At his final developments He derived into two main fields to calculate-study his Electromagnetic Theory:

1- **The Symmetric Systems**
2- **2- The Asymmetric Systems**

The Symmetrical Systems were the ones adopted by All EE (Electrical Engineering) Universities in the World since the fall of the 19th Century (1880-to late 1890's), right after the death of Maxwell in 1879, the Heaviside Vectorial Equations started to suffer a "Process of Symmetrization" by Nobel Prize Scientist Hendrik Lorentz , financed by J.P Morgan and Thomas A. Edison...Asymmetrical Systems were completely disregarded from further teachings in any Technological Center or Universities of the related fields in the World. Lt. Colonel Thomas Bearden writes: "*H. A. Lorentz was the man who was elicited to do the necessary "symmetrization" with ease, thereby accomplishing exactly what Morgan decreed to his own advisors that must be done: Get rid of those Tesla systems capable of taking and freely using EM energy from the active medium. H. A. Lorentz (with the "t") simply lifted and used what L. V. Lorenz (without the "t") had already done. For the deliberate "fixing" of the already sharply curtailed Heaviside equations, see H. A. Lorentz, "La Théorie électromagnétique de Maxwell et son application aux corps mouvants," [The Electromagnetic Theory of Maxwell and its application to moving bodies], Arch. Néerl. Sci., Vol. 25, 1892, p. 363-552. [Also in H. A. Lorentz, Collected Papers, The Hague: Martinus Nijhoff, vol. 2, pp. 168-238, esp. p. 168.] This is the work that Lorentz cites later (in 1895) for his proof of the symmetrical regauging theorems (the two equations of symmetrical regauging). This is the "symmetrization" (at the direction of J. P. Morgan) of the Heaviside equations that arbitrarily discarded all remaining asymmetrical Maxwellian systems – thus discarding all systems that receive excess EM*

*energy freely from the "active medium" (active vacuum) and could use this free energy to power loads and themselves. With this "fix", Morgan was assured that Tesla's discovery of the active medium – and that EM energy could be extracted from it – would never be taught.* (1) All the Motors that we have access up to now are symmetrical. Symmetrical Systems are Closed Systems that equals Zero in a "Balanced Equation" of Energy Conservation. They balance by canceling and constant reverse electromagnetic interactions.(Motors Related)

## The Main Concept

***The Symmetry or Asymmetry does not necessarily relate to the Geometrical and Structural Disposition of any given Electromagnetic System Components, but to the way they Interact Internally or Externally with each others. Example: We could have a Three Pole Armature Motor, (very asymmetrical) and two stators, but still falling within the Symmetrical Systems Category.***

The Asymmetric Systems are Open Systems, when applying them to Motor Structure Coils configured in a fashion as not to interconnect them as a whole "pack" in a serial or parallel circuit, but disposed Independently Connected by pairs or by Groups of Sequenced Pairs. Asymmetric Systems expands to all Electric-Electromagnetic Systems that includes Transformers and Capacitors. A typical Asymmetrical transformer is the Tesla Core less Coil, and all derivations from different Inventors through decades, like Don Smith or Tariel Kapanadze models. The Typical Symmetrical Motors we are familiar with and mostly used up to now in daily applications, is the Lap or Overlapped Winding, it applies to all PM Brushed Motors and also to Universal Motors, the only difference in the last one is that it uses a Stator as a winded coil or Field versus a PM, Permanent Magnet Stator. This type of winding connected in series all coils in the armature, overlapping between coils, it is also known as a "Short Circuit Motor"...Depending on the design, two or four brushes-stators, the 360 degrees turn will be divided in Two or Four Sections, where sequences of coils change voltage and magnetic polarity as soon as it leaves a section. This cancels all external magnetic resonance or feedback of every coil, electron and flux collision galore generates undesired heat, therefore must of this machines require a fixed fan to the end of shaft. This is the "Symmetrical Obsolete Systems" we use everyday, from an Automobile window, windshield wiper, seats adjustments, Starter, Fan Blowers, etc,etc...all the way to Drills, handheld or AC, hair blowers, Air Conditioning Fans, Vacuum Cleaners, etc,etc...the list is endless. An exception to the brushed motor ,also Symmetrical, would be the lately used BLDC Motor, (Brush Less Direct Current) which uses a DC Three Phase Square Wave, generated by Three

Channels of Heavy Duty MOSFET's, since their windings could be only two types: Star (Y) or Delta. Both connect in series with each others. However, this type of motors does not have yet the powerful starting torque like a Brushed motor. It could be achieved, but by heavy duty and expensive controlling-management circuitry, and not applicable in limited small space like a brushed motor could be installed. Lately is being used in EV and small Utility Recreational transport vehicles, like Golf Carts, Bikes, Scooters, etc. It is understood that all AC Motors, by the nature of its type of sine wave that fluctuates between Negative-Positive every 50-60 Hertz/Second plus the type of windings they utilize, will be also included in the Symmetrical Closed Systems.

Symmetrical Systems explained by Tom Bearden...

*"...It is that Lorentz symmetrical regauging of the equations -- and the ubiquitous use of the well-grounded closed current loop circuit containing both the external (transmission) circuit and load, and the basic source of potential (i.e., the generator) in it -- that is the problem. The closed current loop circuit physically enforces Lorentz symmetrical regauging, which in turn guarantees back emf (or mmf) is equal to forward emf in our EM circuits and systems. Hence it forces half of the free regauging energy (from the vacuum) appearing in the external circuit to be used for nothing but destroying the main source of potential (the main source of dipolarizing the circuitry). The other half of the energy is used to power the loads and losses in the external circuit. So less than half is used to power the load, while a full half is used to destroy the source dipolarity. To RESTORE the dipolarity requires that we then input at least as much as was used to destroy it. Hence we are forced always to input and pay more energy to restore the source dipolarity (that actually extracts the energy from the vacuum) than we get out there as power in the load. I.e., we always have COP<1.0 power systems, unless we ring in some normal natural observable energy from the environment as from a flowing river, blowing wind, solar radiation, etc.*

*"Such a closed current loop circuit and resulting EM system can never produce COP>1.0 from the vacuum, even though all the fields and potentials and energy appearing in the external circuit are extracted directly from the local vacuum by their associated source charges in that circuit, a priori. Simply look into the known polarization of the vacuum that occurs from the presence of any charge, and then examine what "asymmetry of opposite charges -- i.e., asymmetry of that dipolarization -- means. It means that the beast directly absorbs virtual energy from the seething vacuum, coherently integrates it into observable photon energy size, and re-emits the energy as real, observable EM energy emitted in all directions. We have previously shown the solution to that "source charge*

*problem", taken directly from particle physics. We also showed the fundamental coherent integration mechanism that is able to consume positive entropy of the virtual state and produce negative entropy in the observable state..."*(3) Most of Nikola Tesla original Patents of Motors Generators are based on Independent Pairs of Coils, creating "Dipoles", or Groups thereof (Several Dipoles), Independently Connected, open, not connected in series through all the circuit as a huge short...Then We have all other suppressed Motor-Generators technology not easily available and most of times not containing all the spec's to be reproduced...except that We build it ourselves. The Asymmetrical Systems since they are open, they allow to create a series of exchange of Energy Reaction to our Inputs, based on Electromagnetic Resonance or Electromagnetic Feedback in every spin (on a Motor),or in every pulse of input in a Static Coil. One of the first Asymmetrical Motor was Faraday's Unipolar Motor, later modified by Nikola Tesla.

**Asymmetrical Systems does not violates the Energy Conservation Laws, since they are not part of them.**

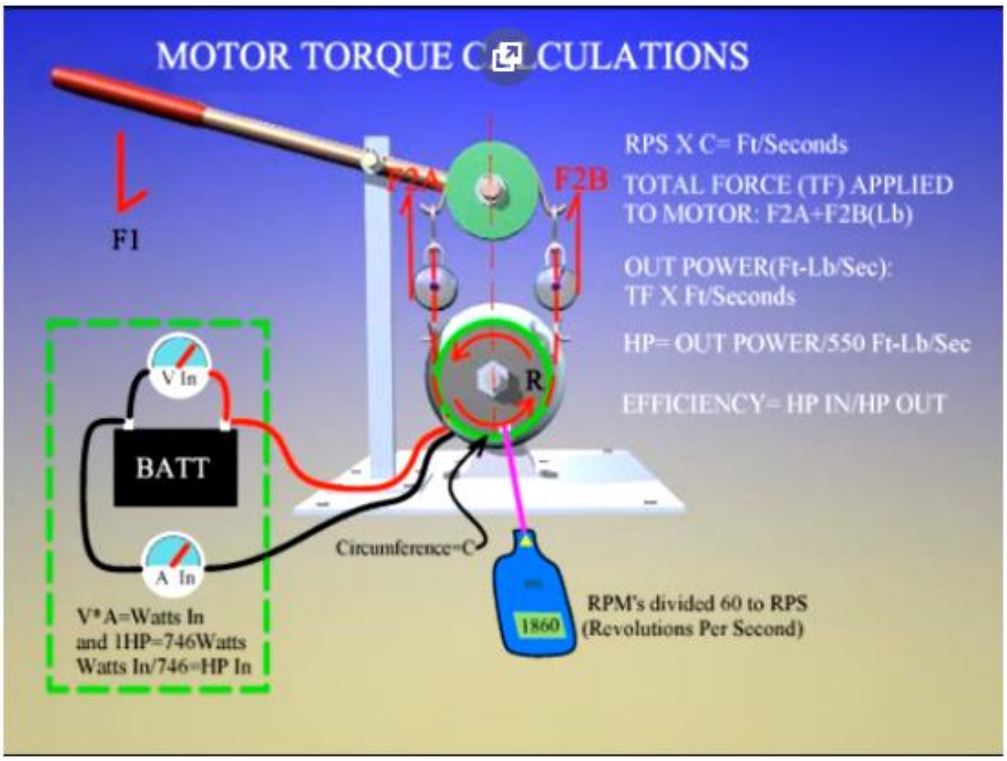
The Asymmetric Electromagnetic Systems expands all the way to Transformers, Capacitors, Inductors, however, my main purpose in this Thread is to focus in Electrodynamic Machines. If someone is interested in reviewing a great article dedicated to Asymmetrical Coils, Transformers and Capacitors, I recommend Vladimir Utkin FREE ENERGY Article pdf that I found posted at the Don Smith Thread. Thanks for reading it, and I hope it defines properly the two Systems differences.

My Regards to All

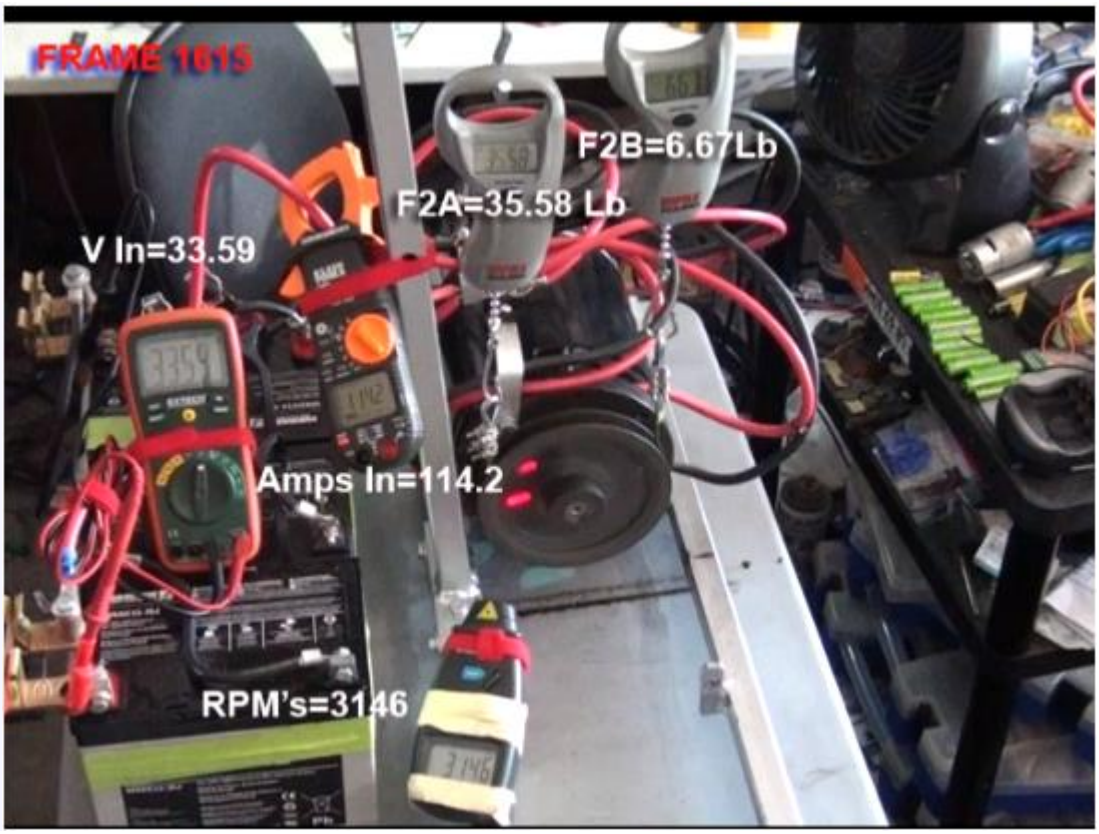
Ufopolitics

The Asymmetrical Electromagnetic Systems, disregarded -so far- by Science and EE, offer the advantages of exchanging components (Coils) from Generator to Motor and viceversa...Like Tesla patented in this case, which is not the only one...Physics states that a Motor is also a Generator, and a Generator is a Motor, however they can NOT perform "Both Duties" at the same time...of course not...IF We are referring to Symmetrical Electromagnetic Systems...but simply, that statement does NOT "Apply" to Asymmetrical Systems...Below is an Image from same Patent 390414, where it is demonstrated the possible fusion between both machines...Motor (Exciter called by Tesla here) and Generator..

Asymmetric imperial motor torque tests and coefficient of performance




Torque calculations based on 4 parameters
1 – HP in : Watts in (V*A)/746 (1 HP = 746 Watts )
2 – Total stress force applied in pounds (Lb ), based on two rapala digital scales readings
3 – RPM's at momentum of force convert to RPS
4 – Given circumference of pulley ( 16 in = 1,33 feets )
Other data:
Power source: three weaker 12V/33 Ah = 36 V
DC clamp meter : klein tools true RMS
DC Voltage : EXTECH True RMS multimeter 430
Digital infrared tachometer




| RPMs | Volts in | Amps in | F2A | F2B | HP in | HP out | COP |
|---|---|---|---|---|---|---|---|
| 3146 | 33,59 | 114,2 | 35,58 lb | 6,67 lb | 5,14 | 5,36 | 1,04 |
| 2857 | 33,42 | 112,1 | 39,26 | 7,88 | 5,02 | 5,43 | 1,08 |
| 2286 | 32,33 | 151,1 | 50,75 | 9,46 | 6,5 | 5,55 | 0,85 |
| 2506 | 32,64 | 134,9 | 52,46 | 11,29 | 5,9 | 6,44 | 1,09 |

$$HP\ in = \frac{W(V * A)}{746} = \frac{33{,}59\ V * 114{,}2\ A}{746} = 5{,}14\ HP\ input$$

$$F\ total\ (Lb) = F2A + F2B = 35{,}58 + 6{,}67 = 42{,}25$$

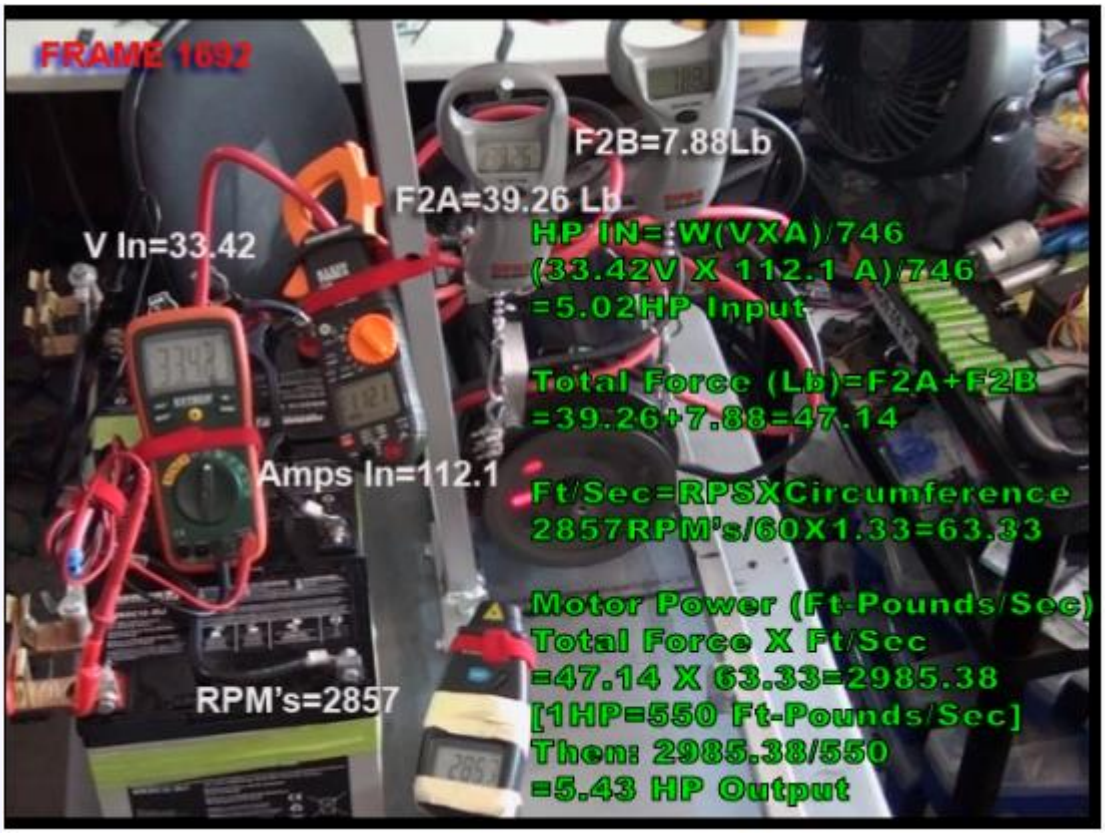
$$\frac{Ft}{sec} = RPS * circumference = \frac{(3146\ RPM's)}{60} * 1{,}33 = 69{,}73$$

$$Motor\ power \frac{ft - pounds}{sec} = (F\ total) * \left(\frac{feet}{sec}\right) = 42{,}25 * 69{,}73 = 2946{,}09$$

$$1HP = 550 * \frac{ft - pounds}{sec}$$

$$\frac{2946{,}09}{550} = 5{,}36\ HP\ output$$

$$COP = \frac{HP\ out}{HP\ in} = \frac{5{,}36}{5{,}14} = 1{,}04$$




$$HP\ in = \frac{W(V * A)}{746} = \frac{33{,}42\ V * 112{,}1\ A}{746} = 5{,}02\ HP\ input$$

$$F\ total\ (Lb) = F2A + F2B = 39{,}26 + 7{,}88 = 47{,}14$$

$$\frac{Ft}{sec} = RPS * circumference = \frac{(2857\ RPM's)}{60} * 1{,}33 = 63{,}33$$

$$Motor\ power \frac{ft - pounds}{sec} = (F\ total) * \left(\frac{feet}{sec}\right) = 47{,}14 * 63{,}33 = 2985{,}38$$

$$1HP = 550 * \frac{ft - pounds}{sec}$$

$$\frac{2985{,}38}{550} = 5{,}43\ HP\ output$$

$$COP = \frac{HP\ out}{HP\ in} = \frac{5{,}43}{5{,}02} = 1{,}08$$

$$HP\ in = \frac{W(V * A)}{746} = \frac{32{,}33\ V * 151{,}1\ A}{746} = 6{,}5\ HP\ input$$

$$F\ total\ (Lb) = F2A + F2B = 50{,}75 + 9{,}46 = 60{,}21$$

$$\frac{Ft}{sec} = RPS * circumference = \frac{RPM's}{60} * 1{,}33 = 50{,}67$$

$$Motor\ power \frac{ft - pounds}{sec} = \frac{F\ total}{s} * ft = 60{,}21 * 50{,}67 = 3050{,}84$$

$$1HP = 550 * \frac{ft - pounds}{sec}$$

$$\frac{3050{,}84}{550} = 5{,}55\ \ HP\ output$$

$$HP\ in = \frac{W(V * A)}{746} = \frac{32{,}64\ V * 134{,}9\ A}{746} = 5{,}9\ HP$$

$$F\ total\ (Lb) = F2A + F2B = 52{,}46 + 11{,}29 = 63{,}75\ [\text{Lbs}]$$

$$\frac{Ft}{sec} = RPS * circumference = \frac{2506\ RPM's}{60} * 1{,}33 = 55{,}55$$

$$Motor\ power\left(Ft - \frac{pounds}{sec}\right) = (F\ total\ ) * \frac{ft}{sec} = 63{,}75 * 55{,}55$$

$$= 3541{,}31$$

$$1HP = 550 * \frac{ft - pounds}{sec}$$

$$\frac{3541{,}31}{550} = 6{,}44\ HP\ output$$

In this Test, Motor is connected in Symmetrical Parallel (Each Pairs facing each others at 180º, at front-rear brush set, just as they come from factory) Battery Bank: Three 12V 33 Ah Werker. Feeding:Straight Linear (Non Pulsed) Reading Volts from Batteries drop and DC Amps Clamped at Positive. Switch 1: Turns on P1/P15 set at 180º Switch 2:Turns On P8/P22 set at 90º from switch-set 1 (Full Quadrant On At stage 1 (SW 1 ON) RPM's reach 7150, consuming 32 Amps At Stage 2 (SW 1 ON) RPM's rises above 7400 at 33 Amps Battery Drop:Less than 2.0 Volts during performance, recuperating almost full at rest (total lost=0.5V). One attribute they all have is the very High Torque from the very small Radio Shack five pole to any other of bigger number of poles as it works "directly proportional" or the more poles,the more torque,so Torque is a Parameter I feel very comfortable with when it comes to my Machines .

However there are other "attributes" you may not be familiar with yet... This Motors will deliver back to Us the unused Energy when we turn off any of their Inputs...they become "Outputs".. Resistance is very low per Pair of Coils, it is 0.6 to 0.8 total ohms in the Pair terminals at commutator elements. Have to realize this Motors turn On each Set of Coils (Pairs here) independently from the rest, since each set is isolated. While Symmetry turns them all at once...and they stay on all times, just swapping polarities, magnetically and voltage polarity, divided by the four brushes, two positive, two negative..

Battery drops less than two (2.0 V) amperage, after coil saturation. Current below 32 Amps . RPM's > 7100 – 7400 after switch 2 on.

Coil windings are not even „Warm" and batteries have lost mili – volts ( 0,05 ).

The original 56 frame permanent magnet motor specs

| Model | Volts | HP | KW | RPM | HZ | Amps | Gear ratio | Output shaft inch | Output shaft mm |
|---|---|---|---|---|---|---|---|---|---|
| P56 LD 009 | 36 | 5,00 | 3,7 | 2450 | DC | 128 | N/A | 0,75 | 19,1 |
| P56 MD | 36 | 4,00 | 3,0 | 2500 | DC | 103 | N/A | 0,75 | 19,1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 003 | | | | | | | | | |

| Model | Rotation | Brush detector | Electric connection | enclosure | mount | Weight lbs | Weight kg |
|---|---|---|---|---|---|---|---|
| P56 LD 009 | Both | N/A | leads | Open - GD | Face | 42 | 19,1 |
| P56 MD 003 | CCW - SE | N/A | leads | Open – GD | F + B | 39 | 17,7 |

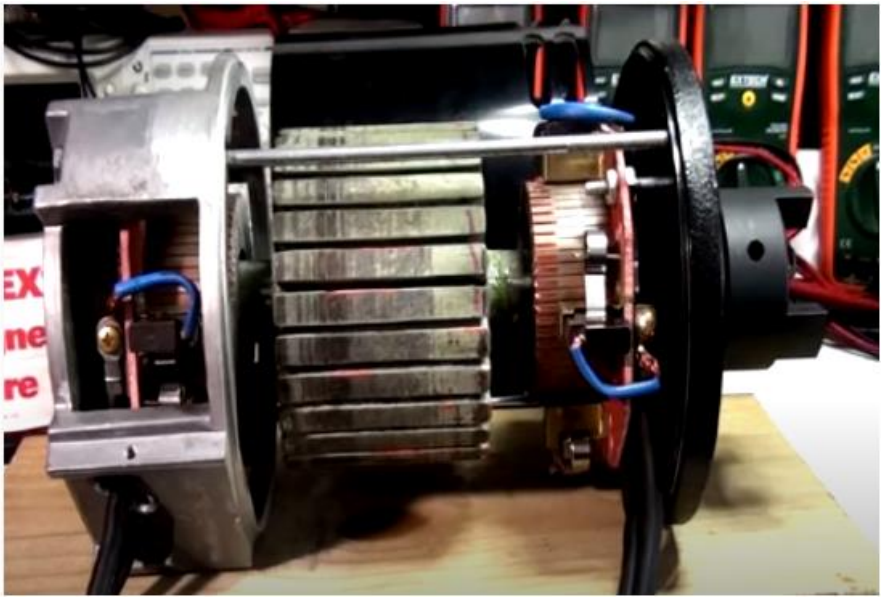
Where coils are wound under the symmetry of darkness , ruled by the 132 year scam. Under this locked in time technology, this „poor thing ” performs as follows. It could barely reach 2500 RPM’s by consuming 103 AMPS and 36 volts. That is 3700 Watts ( 3,7 KVA or 3,7 kW ). This means that it will consume approx in 20 minutes the whole 36 V battery bank at test, since they are rated at 33 Amps/hours Ah . To turn at 2400 RPM’s with four horse power torque. I understand what the Original Motor Spec's means...it will deliver 2400 RPM's @ 4HP Torque Load, and consuming 103 Amps/36Volts or 3.7 KVA to do that job... I have an original, untouched Imperial Motor that I have kept just to make the real (and not by a data sheet) testing of Both Machines...same bank of batteries...same load applied, same reading Meters...

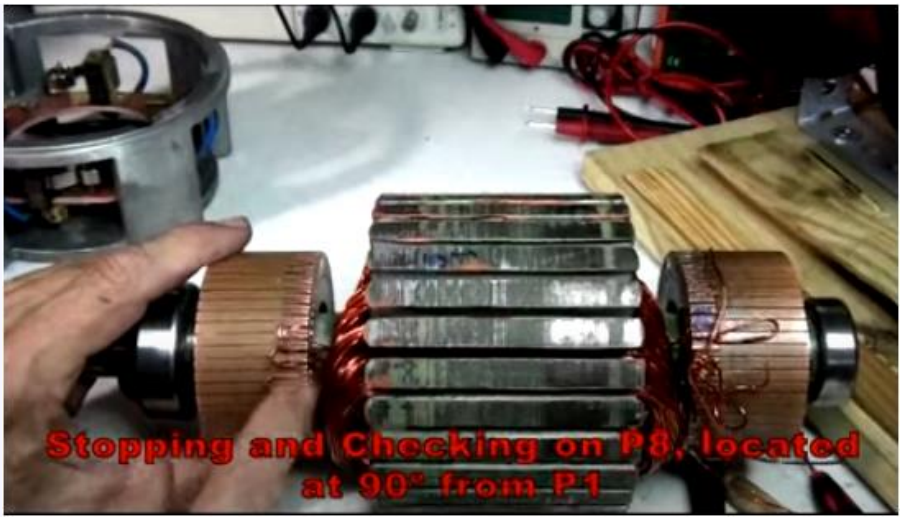
Our asymmetrically modified motor same exact embodiment (P56 body) could keep 7000 RPM’s only using 32 Amps at 36 Volts , meaning , it

will run for an hour before batteries die. So many attempts to create efficiency involve rediculous technology such as hand laid kevlar laminated laminar flow airfoils for wind mills that are useless with no wind. I ment that, with production line changes, these motors could be made with little additional effort, without exotic materials. "Tesla's ministry" has had similar designs for over 100 years. It's safe now. This simple modification, without any exotic materials, mean a Pruis would have 3times the range. This motor coil winding configuration design would in my view do great for electric cars. Possibly increasing the range by three and the torque by a lot.

I want to clarify something very important here. The poor performance of the original electric motor compared here does not represents, at all, it is due to manufacturing / designers fault. It is just the „one and only" methodology that every electrical engineer in our planet have been taught for more than one hundred and thirty two long years under the supremacy of oil, nuclear as our „only choices" . The mechanic life on Gas Engines is "finally" coming to an end... They will be obsolete dinosaurs very soon.

Asymmetrical conversion of the prime mover





First, I would like to say hello to all of you, I am new to this site, so take it "easy" on me... I was referred here to expose about my findings by Mr. Peter Lindeman. Who I admire much, and got to read his articles out there on the web and agree with him in a complete way in his ways of thinking related to Free Energy.To tell you first and briefly about me...I have been involved in Electro Dynamics since 1989, and have developed many different types of Motors and Generators from structural different embodiments, to the fields of electronics controllers and source converters of such machines.In other words, I am not a newbie on this, Therefore, I do not make the typical errors and omissions of readings Parameters Required, or analysis of behaviors of related issues, getting or leading to the Wrong Conclusions... that's not me, I mean, I am not perfect either, We humans all make mistakes. So here I go about this: While developing one of the Types of Motors Generators Designs, I have been recently working on, and building different prototypes sizes (smalls, mediums and large), I was finding certain readings containing abnormal

current behavior. And this type of Motor-Generator do makes more at output than what they get In. However, my point in this thread is not about the discussion of this Motors, but, I will tell you that I use the Counter EMF completely on assistance of the rotation, not against, like Physics says it always must, and that would be "impossible". This Motors are based on permanent magnets(PM) and Brush-Commutator DC types. And this is just as the development move into a higher stage, they will use other type of switching systems.However, I had too intense sparks and got shocked outside its frame when I made contact with my hands and accidentally, touched one of the outputs terminals while in motion...I was working with a 36 volts machine...around 6.3 Amps Lipo Batteries, small prototype...so, NO, it could not be such high shocks from higher currents, even the output been over 80 Volts...still the amperage was remaining around the input parameters...to get that kind of Transients Sparks.So, I started this search on them...trying to correct the problem and also the curiosity to find this wired source of energy...but then I found that I could create very Heavy Sparks and very robust and continuous by getting the two terminals I was shocked with, to short out...Then, I took them apart again, went to my CAD programs, sketches, the 3D Animations...of Coils, Stators to Commutators relations...I mean dissect them in pieces.And I really do not like to keep on going on the research part narration (basically because you will love for me to get to the point... ) and it was a lot of reproductions I made replicating the exact models, but at Static Configurations...When I finally found the "Issue" I could not believe it...My Motors-Generators (meaning 'essentially' their Rotor Coil Structure to Commutator via Brushes) were developing a "Behind my Wires" secondary electricity of a very ,extremely powerful characteristics running through them, at all times. Then I realized and understood, the times when I turned off completely the Oscillations of my Controller (I was using a Drain (Motor Negative) based on an N-Channel MOSFET's arrangement that I had designed and built) so that was impossible!...once that I turned off my oscillator chip from the Regulator side that feeds it, it kills,cuts, every single current coming from Source...and a small Electrolytic Cap was set on Input only, before Voltage Regulator stage. However it "literally" melted a heavy duty Mica-Copper Commutator to almost fuse it with the next ones. Before getting to this discovery, I would have never, figure it out what happened there.This type of motor design have many characteristics that others in the market do not have, one of them is the fact of Never needing to Reverse the Electromagnetic Fields Polarity in order to achieve rotation, the fields just Turn Off or Turn On, according to the Oscillator Signals, and I achieve this, by the Coils Design inside of them. This design allows that at T-Off of the Square Wave (Circuit Opens) Rotor Idles, and keep going for nano seconds by inertia and the last magnetic interaction residues to the other Stator Pole where

then is reversed "naturally" or by what The Physics call Back Electromotive Force, and this is How the C EMF Assist instead of "Oppose" to rotation.This particular design allows the current to flow in a very organized and friendly flow that makes the consumption reduced to minimum values when rotation is constant, and even in higher acceleration times.Not like anything else out there, where currents are in a complete War one against each other inside this Machines, whether being a DC, Brushed or Brushless or any AC Type, that because of the current natural behavior stays constantly colliding into each others at Positive-Negative Cycles.Then I read Mr. Tom Bearden...about the Dipole Open, and all about the Free Energy concepts out there...and Nikola Tesla back in the 1800's tapping into Radiant Energy...and kept going..till I got to the essence of my Discovery...Then I could Not even believe it myself...what was what I was getting there.I know many of you are going to laugh, I laughed myself...I did research the history all, my friends, because I do not like just to get my Lab results naked outside...I went all the way to Maxwell equations...to Lorentz changes of the Asymmetrical fields along with Albert Einstein...where they disregarded the Aether as been part of the Interchange with the Electromagnetic fields...then the Electric Engineering took a wrong course towards building the best way to keep killing this energy...to keep teaching new Engineers this are Parasitical and Transient currents We All have to Kill by "Choke", by Flywheel Diodes and Snubbers, and as many "Patches" (just to cite a few) as they could get their hands on.But I will get here to the very bottom of this...discussion, or may I say 'Disclosure'?... I had found, it has always been 'present' between Us all, in every coil of enameled wire, in every inductor, in every Transformer, Motor, Generator, no matter type, or design...The Main Laws of Electrodynamics were sold to Evil...and we all believe them, we swallowed them...And I really feel I am putting my knowledge and experience of many years at doubt here...with what I am about to reveal, and please, at any time I am trying to minimize, or underestimate the work of so many bright Scientists we have and had, and Engineers, developers, as all of You here, like me, looking for the Fountain of the Radiant Energy, The Cold Electricity or the Divine Force of Nature converted for our use as Energy Source...It is the Counter Electromagnetic Force, the Back EMF, the one who "Opposes" very conveniently to our motors and generators desired motion sense...so we have no other choice than to keep using the Gas or Diesel Engines as Prime Movers to Generators...And Motors that do not have the way to compete to the fast and reliable Gas New Engines.To all of You that are into Lab and practice work...that like to make your own things...solder, cut make weld..make electronic diagrams and form great circuits...that actually you do not need that much knowledge, really...just to make an Oscillator a Coil of wire (Core less [Plastic]is better than solid or

laminated steel, but they will also work) and I will answer the reason why, during the thread on the comments) a couple of Fast Switching diodes...Meters, Digital Oscilloscopes(if you have it, if not some meters reads Hertz, you do need at least Two)...and let's do a very simple test...Hook Up the Diodes to the Coil Inputs (No Secondary for Now, it works great with a secondary, actually even better, but for sake of simplicity, as a test only lets do it Simple) The Diodes will be at BOTH ENDS of Coil, make sure you know which side is North and South at Core, according to turns sense (Right Hand Rule)...Ok, the Diodes are there to Block our Input to get out, so we "Input" our Positive-Negative Oscillating Signal before Both Diodes (DIRECT TO COIL), and we read outputs from outer diodes end...What they do besides blocking our current out, is filter our Radiant Energy from our transients, and parasites (hehe, the other way around right?) Then set readers anywhere to monitor this system, set the Hertz Meters on Your Input Signal (before diodes) and also would be good to monitor your consumption with a Volts meter and Also the same Volts-Hertz at Output (make sure your meters have "Over Load Capabilities" (I melted a few chinese ones) or you will fry them, basically at output. Read Batteries or Power Source, and have ready a Load, I use Fluorescent BULBS (Self Ballasted) 120 Volts...65 Watts or Higher...or less, just be very careful when tuning the oscillations Up, or you will blow them, and they contain Mercury (Hg) not good for Human body...Now , according to the set up each one have..would be different, but I used Batteries, Lipo or Lithium Ion 3 packs would be like 36 volts (I have tons of Chargers and this batteries,...but others are fine too, I also used regular Lead Acid, even better they get charged within the system, since you guys and gals are gonna make "Overunity" here. Below I will post a Rough Diagram I did to show my friends in Facebook and You Tube...I will be here to answer any questions. Thanks for reading me and excuse me for writing such a long post!!...but I wanted to express my knowledge, and how I got to this by complete accident... before dumping this 'Bomb' on you all!! Have a nice evening.

*Originally posted by* ***Ufopolitics*** *View Post*

*Guess it is part of the balancing process to sand-smooth the outer rotor steel laminates, meaning to lathe-cut-rectify the green epoxy so it runs smooth within stators right?*

*Ufopolitics*

I have never seen a double ended rotor commutator. But now that I have it seems like the idea here would be to feed one end power in and the other end or the other commutator would be connected in a way to power something. A sort of rotating input output motor-Gen. I guess I just never saw one before. I'll bet you could have field day running a 3 battery split

pos system on each end Is this design from 2014? Is there a self running machine? Or are you still testing possibilities?

Hi Mike,
If you go back to the beginning of this thread and take a look at the small 9VDC motors being experimented with, you will get the idea about what is going on here. Think Left to Right. Voltage comes in via the Left brush and exits via the Right brush on the same side. See UFO's many fine drawings and it will become clear. Get two small motors and make one dual commutator motor from them. Then, graduate to something like the P56 that Mr. UFO recommends. About any DC motor will do, and commutators aren't expensive. (You need two motors to get end caps and brush rigging.) I used the long shaft so as to be able to get work from both ends, kinda like a bench grinder. Your local trade school is a good place to have a longer shaft fabricated and installed if you don't have the tools to do it yourself. (I often get the work done pretty much for free.)
Enjoy!!
Glen

*Originally posted by* ***Ufopolitics*** *View Post*

*Hello BroMikey and welcome,*
*This is about a New Methodology and not just a different way to wind an existing motor "as is"...I will try to explain as a "Generalization". However, "a simple answer"*
*We build Motors here, where "unused" Energy flows out, back to our sources to be utilized or stored back.*
*We enhance Motor Performance with this new tech, where Torque and Speed Parameters no longer co-exist as Inversely Proportional (meaning we can only have one Parameter at top performance, sacrificing the second one to lower spec's)...but directly proportional, where Speed and Torque are achieved equally in an ascending curve.*
*This type of Motors would "take" higher potentials ranges (Voltages) as higher densities of Currents (Amperage) where Closed Systems could never afford to "process", since they are limited by closed looping of its rotor coils.*
***STRUCTURAL MODIFYING***
*Motors structure must be modified, as* ***adding a second commutator on the other side of rotor*** *shaft, in some cases shaft must be replaced by a longer one, as outer casing/housing also must be "elongated" to fit the dual commutators rotor assembly.*
***COILS WINDING***
*Once structure is modified, then winding process is also different from existing motors.*

*On any existing Motor the winding is a continuous series looping that closes at the end of last wound coil, meaning, all wires are short circuited...or called "Closed Winding".*
*In my Methodology Coils are Isolated or "Open" related to next ones in the Sequence. In order that each coil gets Energized separately when making contact, then by an action of either repulse or attract, or both, it automatically/mechanically, disconnects from contact, pushing or pulling next Coil in line. Disconnected Coils travel to a second Gate-Brush, where it "exhaust" its charge as an output.*
*This way All Coils get a "brake" or an "idling" stage at disconnection, cooling off, plus getting induced by traveling in front of Stators Magnetic Fields, then reaching Output Stage.*
*Did You see my video ASYMMETRY TO ENLIGHTENMENT ?*
*Did You read my ABSTRACT at Introduction First Page of this Thread?:*
*Hope this post will help you to understand it better...*
*Regards*
*Ufopolitics*

*Originally posted by* ***Dwane*** *View Post*

*Hi UFO,*
*Please excuse my comments on your accent, I have a slight hearing impediment and miss bits of speech. The video is excellent!*

Hello Dwane,
Please don't worry about my accent...I know it is terrible!, and believe me...I can make it even worst...so that was kind of

"refined"...

*Originally posted by* ***Dwane*** *View Post*

*I picked up this Baldor armature for another project - now shelved - a couple of years ago. I have no stator for it. It was rescued from a burnt out motor. It has 28 windings and 56 commutator sections, so I am pleased to see the wiring for this configuration has been demonstrated. It is a heavy cow! It might originally been 3HP.at 90 volts or180 volts. I got it from my local motor winders who were given it as a repair job that did not proceed.*

The thing is...could you get another identical commutator from Baldor?
I believe if you had the model number or serial number of motor it

would make the part (comm) search much easier.

*Originally posted by* ***Dwane*** *View Post*

*What has really taken my fancy is your fibre glass stator. Do you think that I would be able to run this armature as you have shown in your videos with a fibre glass stator. I am hoping to utilise it similarly to your combination drive generator page 96.*

I honestly have NOT tested that fiberglass Stator (Air Core) on a Mechanically LOADED Motor...and since it does not have a steel core...IMHO I believe it would not be as strong as with a laminated steel core related to Torque spec's.
*Originally posted by* ***Dwane*** *View Post*

*Also, when rewinding this as asymetric, would I use the same guage of wire that is already on the armature?*
*Many thanks*
*Dwane*

The wire gauge would be dictated by your Source (Power Supply) plus the Application where you would be using it for. A heavy gauge wire (lesser turns per Coil) would have low resistance, therefore, amps would be higher, with lower voltage application, (like Automotive Motors) torque would be higher, since magnetic field would be very strong. A fine wire (many turns per coil) would require higher voltage with lesser amps to build the required field to perform properly with such heavy armature.
Regards
Ufopolitics
*Originally posted by* ***GlenWV*** *View Post*

*Greetings all;*
*At long last, I have the armature ready to go.*
*It has been balanced in a motor shop and I hope to get the motor reassembled next weekend.*
*Next, a suitable mount will have to be constructed....*
*That is, once I figure out what to hook it to.*
*Lot's of testing first though.*
*What an interesting project!! Thank you Mr. UFOPolitics!*
*GlenWV*

My pleasure Glen, looking forward to see that beautiful monster running... Make sure to check continuity-resistance in each coil (or coils groups, if that's the case) contact between comm elements

plus alignment. Also check your stator's magnet polarity orientation (N-S-N-S), related to your desired rotation sense versus the feeding (Input) brushes positioning to fire each coil group. An All North Wound Machine of that kind is unique on its class -at least on this Forum-...and it should run superb, when synchronized-tuned with high precision, thing I know you would do an excellent job on...

!

Regards
Ufopolitics

Yes i remember that entry but never equated it to the machines as shown in this post. The "WITCH" video meant little to me at the time but now that I had time to see and read the entire video, I am realizing more. I am just starting to grasp the UFO message after doing the Matt Jones motor and seeing success. I needed a simple task to help me get my foot in the door. It is becoming so clear. This UFO video is a must, take the time to read and go over the material in it. Otherwise you missed the starting gun firing and you will not understand much of the other video's. I see now that these concepts are all over the standard COP of .25 so it should be easy to go OU. The magic spell of lies, deceit and malice are melting

away like butter. UFO is willing to take it on the chin I see
https://www.youtube.com/watch?v=Mj4rV0AoI-Q
Commutator R&I

*Originally posted by **jazzzyro** View Post*

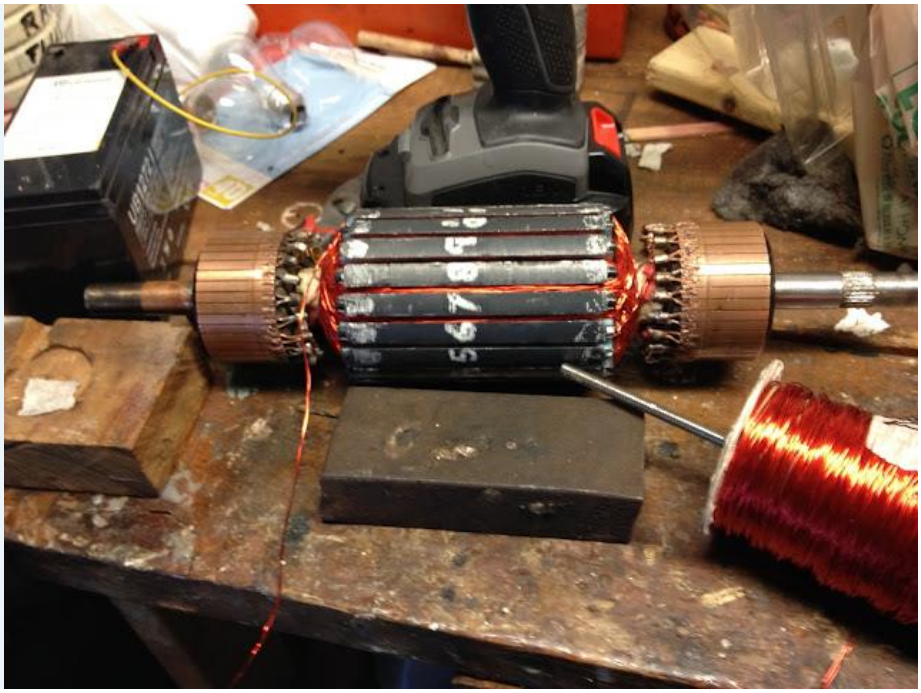
*Hello UFO,*
*can you post a step-by-step tutorial in which we can see how you remove the old commutator, how you mount the second one and how you align them. The list of tools needed is very appreciated for those who are beginners in this area and want to make a prototype.*

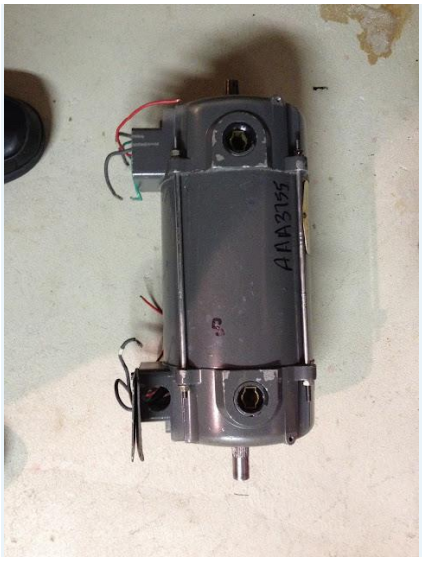
*I tried to remove the commutator and I break it immediately...*
*Thanks a lot!*
*J.*

Hello J,
There are several posts on this thread dedicated to comm removal and re-installation.
Basically the main issue here is that **you can NOT push commutator outwards by pressing on any of its outer elements base area** (bottom)...If you do it so, it will create an uneven force and will definitively brake it. **You must reach its center bottom**

**ring** right next to shaft to make an even push out of armature, and so depending on the size, you could use one of the "Y" type crow bars. Normally this type of Y Crow bars are used in automotive to remove plastic clips off door panels or any other fastener which have a flat head...so, again, depending on your comm-shaft diameter size, you will need that specific size tool. And so, you will need TWO of them, one just to be used as the base and the other to eject commutator from bottom ring base, resting on the first one. It is -even this way- a very careful operation, since commutators are made of bakelite which is very brittle. Sometimes you must remove (cut off) the windings in order to allow full access to the bottom comm ring.
Regards and good luck.
Ufopolitics

My old baldor
Well retired now and a little more time to do things. I have a Baldor industrial DC dual brush 20 pole motor I have been working on and now finished. The commutator design featured reusable spade connectors, whose photos I have posted previously on the thread. Boy did they come in handy as I had to rewire the motor several times. I could not fit enough wire by just lowering it a guage or two from the original 19ga size to get 1ohm of copper wire on it. I calculated the area of the pole gap and the area of the wire plus gaps between round wires, but ended up having to apply a 2.0 correction factor to double the amount of wasted space in a wound coil. I looked into first a quad filar, the a 5-filar 28ga wire to give me the same surface area of the original 19 gauge wire, hoping for more current carrying capacity. As I wound it it looked like it was not going to fill the rotor sufficiently by coil 6. I test wound 24 gauge wire hoping to do a bifilar, but I lost the results. Later I perfected a spread sheet to calculate how many strands of wire were going to be used. If I hadnt lost my test result I would have seen I couldn't get enough wire in again. I got to coil 10 and I could then see it wasn't gonna fit again. So tired of making multifilar wire, and having a better estimate of wasted space, I thought 23 gauge would fit, single strand. But again got to coil 10 and thought it wouldn't fit. So then I did the next 6 coils with my old 5-filar 28ga wire that I saved. At coil 16 it sitll didnt look good and changed to single strand 24 gauge and managed to finish. I always wound in pairs of coils, first coil 1 then coil 11 balancing it with the same wire and wire lay on the coils. Here is my coil winding work sheet and a picture of the rotor.





I explored adding an additional brush set to try to tap the coil disconnect BEMF spark energy (red and green wires), but they did not work and just dragged some emf energy out of the system instead. I should probably play with the timing as it is assemble to run in the normal mode. so pretty much as usual with Ufo Asym motors looks to perform astoundingly better than standard Edison style motors. I have a standard Baldor motor of the same type and hooked them all up and tested both and here is my first results: Using 24 volts
Standard Baldor rpm 400
Asym Baldor rpm 1400
Now my Baldor I built it to have a 1.1 ohm resistance per coil, instead of the standard 1.0 recommended by Ufo, as I was worried about how hot some of my motors were in the past. But I have checked on the motor magnets, and they seem to hold their magnetism until 400 deg Celsius, or

around 700 deg F. So it seems standard magnets will hold and it is no big deal for motors to run at hot to the touch temps, with good wiring and bearings.

*Last edited by sampojo; 03-12-2018, 05:56 AM.*

Up, Up and Away

*Originally posted by **sampojo** View Post*

*I had gotten my hands on another 12v battery when my car needed a new one and got some of my UPS batteries together too. So I have run some more tests on my Baldor up to 48v. I thought I would post the data.*
*Baldor Asymm Performance Data and comparison to OE **
*Test date voltage Baldor Asym RPM OE RPM*
*03/12/18 24 1400 400*
*07/07/18 36 2350 870*
*07/07/18 48 3050 1200*
** Baldor Asym data for both brushsets powered*
*I am getting almost triple the performance from the OE motor!! Built around a 1.1ohm winding, I am sure the amperage consumption is better the the normal asym motor here, as for instance, Ufo's Imperial. there is a Baldor office in the Philadelphia area near me. I would love to show this to someone there! I remember how Ufo's Imperial motor did around 3400 rpm on 48v, but mine is only a dual brushset, while his is a quad.*

Sampojo!!!

Great to see ya around old friend...and kicking...
Best Regards
Ufopolitics

## A 750 W machine run by 2AA batteries

The Machine was modified, re-wounded and constructed based on a "Disregarded", by actual Science, Method of "Open, Asymmetrical Systems" conceived all the way back in the 1800's...and fully developed by Nikola Tesla. Therefore, it is impossible, based on a Closed System, that activates simultaneously, all the looped, closed coils within its rotor/armature, to believe those two tiny batteries could even move that 4.39 lbs Machine rotor/shaft, plus all magnetic drag generated between Rotor Core and Stators, adding all mechanical friction involved (Bearings,Brushes)...Then it will be much less conceivable to run it for over Twenty Five (25) Minutes at steady over 350 Revolutions Per Minute (RPM) without suffering any decay, just because it is an achievement, an operation, those two little batteries could never fulfill. Those Two -small capacity- AA Batteries are "Engineered"-according to our "Dogmatic Science chosen Model"- to run, a much, but much smaller

little motor...and only for "around" Fifteen (15) Minutes Maximum. However, If I would be to engineer an Open System, where Only the actuating/interacting Coils that create motoring propulsion, would be turned on, one at a time, and just for a few nano seconds, and so on, a succession of other independent coils in a sequence, everyone at specific timings...each with low resistance values...then it would be possible within the same exact machine to obtain the results seen on this video. It is not Science Fiction, it is not a hoax...We all have been blinded following one single possibility for too many years, and from generation to generation. It is about time to become Divergent from those obsolete Models, and open our eyes and minds to develop this other hidden side of knowledge.

For conventional science, that have been feeding us all for the past 130 plus years, this type of motor could only be „moved" , „conceived to work " with only the right „engineered" battery, like deep cycle 12 V , 35Ah lead acid batteries. So, it would be completely „irrational", or mentally insane, to even think this two AA 1,2 V , 2280 mAh , Ni-MH batteries will even move those five pounds rotor/shaft , right ? Therefore, I would be considered a seriously ill, mentally insane person, if I tell you that those two little batteries down there, would be running that motor for the next boring, tedious, over twenty five minutes ?
2280 mAh = 2,28 Ah

$$I = \frac{2{,}28\ Ah}{0{,}5\ h\ (30\ minutes)} = 4{,}56\ [\ Amps\ ]$$

**Sk8pkl**: you definitely lost a lot of your credibility here, this motor doesn't do any work, you could stop the rotor from spinning with your dick and it won't even hurt. I don't see any 750 Watt work here at all.
**Ufopolitics**: @Sk8pkl, I would not use mine trying to stop it, just because I know exactly how it works, but just imagine it would be yours. Dick, sorry stick got jammed, still will keep going. Any pain yet sk8pkl? , sure want me to keep going?

Poor stick! , it won't be good anymore !

**Sk8pkl**: your video awnser is absolutely stupid and worths nothing... you changed the power supply. where are those 2 aa batteries from your last video??? of course this looks a bit more like 750 watt work, but still, you changed something to it so it looks a lot more like it... anyways... good try.

**Ufopolitics**: I never said the 2AA little Batteries would output 750Watts...:) Title on Video is: A 750 W MOTOR RAN BY 2 AA BATTERIES. No more no less, they did run it right?...that was the point. The 2 AA Battery Test is just a proof of concept, try same batteries on any original , off the shelf 750W Motor (or even less wattage) and see what it does...then come back and post results. Original Motor Spec's are Nominal Voltage of 24 Volts and Nominal Current of 40 Amps.

**MrSummitville**: So, I watched your first video where you claimed Over-Unity because you measured 20 Volts on the motor when inputting only 7.3 Volts. I told you then that was not Over-Unity. Strike One! Then you tell me to watch this video. Well, there is no Over-Unity here either. Strike Two! Do you even know what Over-Unity is?

Ufopolitics: @MrSummitville I do perfectly know what OU is...I also know that Voltage means nothing without Amperage, resulting in Watts (V x I). I never claimed Over-unity Sir, I said Motor is increasing Voltage Output while still outputting High Torque-Speed. In this case Overunity is not ONLY about V + I = Watts, but also the POWER that Machine is generating, which is Torque and Speed (RPM's)...or are You, disregarding such parameters? You cited a DC-DC Converter, which is a simple concept of Buck-Boost through Inductors, Diodes and Capacitors...but will never output a mechanical power that I know off... Still waiting for your answer MrSummitville...20 Volts Out, 7.3 In...PLUS enormous amount of TORQUE... PLUS HIGH RPM's All TOGETHER in "One Package"...Don't they

add up to OUTPUT Sir? Or don't you measure a Motor's Output based on its Mechanical Performance as is TORQUE+SPEED=POWER ?

@ufopolitics Hi UFO, have you tried outputting this motor into a battery while it runs, using a buck converter to run loop back to the feed from the same batteries you charge with the output coilks? if so, will it run for a long time? If so, will the motor continue to run and not shut off or will it shut down after some time? I'd like to see what type of output amperage the charge portion of the asymmetric motor is capable of. Nobody online seems to try this in a video and I think it is necessary to see if this will work, or, if it will eliminate the additional amperage used to drive the motor compared to a symmetrical motor. I have seen the asymmetrical motor not gaining input amperage while the motor is under massive load, but, the charge terminals voltage rises massively. My question is this.. Does the output wattage rise as well? We could figure this out by taking the voltage and multiplying it times the amperage of the output, and the same with the input. I'd like to see the voltage and the amperage of the output under load so we could determine the output wattage. Then the input amperage and voltage so we could see the input power and compare to the output. This will give a lot more insight as to what the motor is doing to see if it has special function other than the feed not gaining amperage with a load on it (which is incredible so far). I feel that the output would stay the same as the input, meaning if you drove for instance 1 amp at 1 volt into the input and the output was 10 volts, the output should be spitting out .1 amp at 10 volts, correct? If this is under load, i am seeing most of these motors with 1 volt and 1 amp of input is spitting out 20 volts. The amperage I am guessing would be .05 amps at 20 volts if my calculations are correct, right? if this is true, then it means that the output is exactly the same as the input and we would get free rotation with a very powerful torque as a result of building this motor meaning the motor is running for completely free provided we build a circuit to reduce the 20 volts back to the input voltage and loop the motor, which could very easily be done with a buck converter. If this is true, we could runn a generator from the shaft of this motor and gain power out completely free because the battery would still charge from the output of the motor while rotation is happening at a very high rpm with a ton of torque.

The Video above is a simple proof of wrong concepts We all have learned in our Electric Engineer Universities, or even in lower level technical Schools...if We are based on that "rigid", locked in time Model, adopted and considered "the one and only" for over One Hundred and Thirty Years by our Dogmatic Sciences, bought out/Financed, by Families which

Institutions are based mainly, on Oil Investments Capitals...Cartels. Then, the Model above brakes all rules established by those twisted and closed systems concepts acquired for too long by now... Based on those old, dark, locked concepts, this Video then tends to become "unbelievable"...or merely be classified within the "Impossible to be"...A rated Category within the "Science Fiction" ...or could even be accused of being a Hoax, a Fraud...made under some special effect software, or some kind of tricks. But it is not any of the above...it is completely real. The Machine was modified, re-wounded and constructed based on a "Disregarded", by actual Science, Method of "Open, Asymmetrical Systems" conceived all the way back in the 1800's...and fully developed by Nikola Tesla. Therefore, it is impossible, based on a Closed System, that activates simultaneously, all the looped, closed coils within its rotor/armature, to believe those two tiny batteries could even move that 4.39 lbs Machine rotor/shaft, plus all magnetic drag generated between Rotor Core and Stators, adding all mechanical friction involved (Bearings,Brushes)...Then it will be much less conceivable to run it for over Twenty Five (25) Minutes at steady over 350 Revolutions Per Minute (RPM) without suffering any decay, just because it is an achievement, an operation, those two little batteries could never fulfill. Those Two -small capacity- AA Batteries are "Engineered"-according to our "Dogmatic Science chosen Model"- to run, a much, but much smaller little motor...and only for "around" Fifteen (15) Minutes Maximum. However, If I would be to engineer an Open System, where Only the actuating/interacting Coils that create motoring propulsion, would be turned on, one at a time, and just for a few nano seconds, and so on, a succession of other independent coils in a sequence, everyone at specific timings...each with low resistance values...then it would be possible within the same exact machine to obtain the results seen on this video. It is not Science Fiction, it is not a hoax...We all have been blinded following one single possibility for too many years, and from generation to generation. It is about time to become Divergent from those obsolete Models, and open our eyes and minds to develop this other hidden side of knowledge.

**Durchblick**: I am sure your video is not meant as a hoax but it is meaningless. You just assume there is enormous mechanical output power. Why don't you apply a mechanical load near 750 Watt? Since this is the load this motor was constructed for. And then compare it to your electrical input power - two AA batteries won't be sufficient in this case. Such a measurement would give you the efficiency of your construction and I bet your efficiency will not be better than those of the original motor. Electrical engineers are not so dumb as you think.

Ufopolitics: @Durchblick Like I wrote above, this is just a 'proof of concept', I know perfectly well there is not enough mechanical output power...but it ran simply because it is an Open System, if it would have been a Closed System it would have never run for that long, if it was to ever move that shaft with the same batteries.

Durchblick: @ufopolitics With "open system" you imply, that some unexpected form of energy is streaming into this system? You probably can't tell what this mysterious energy could be and why it is sneaking in due to your adaptions. But you are sure this happens because "it runs so long"??? You are wrong. Measure the mechanical output power and you will find that it is less than the electrical input power. Should not be too difficult. Make a thin shaft winding up a string and lift this way some load for some heigth in a certain time. If you can't bring rpm down enough by a heavy load you will have to use a little belt transmission. Do this and if you measure and calculate correctly you will find there is no unknown energy involved.

Ufopolitics: @Durchblick Open System means exactly that, independent circuit of coils, turning on then off, yes, an "unexpected" reversed energy kicks in, some call it Lenz effect, others BEMF, others Radiant Energy...the point is that every coil whenever it is 'suddenly' cut off its energy feed, it generates a "Reactive Energy" a reverse spike seen in a Scope...now, if this coil is facing another magnetic field...well, then other reactions develop, depending on the polarization type. I have measured the mechanical power and compare it with OEM Symmetry...the difference is very interesting...:) Have you ever try it?...If not...I would do it, then reply again. I have mounted this motor where it belongs after modification...a Scooter...and was much faster and lasted much longer running time than OEM... You have no idea what happens when its output energy is collected in Supercaps. Regards.

Durchblick: @ufopolitics You don't seem to be very knowledgeable in electrical engineering. When you turn a coil on, electric energy is spent to build up the magnetic field. When you turn the coil off, the magnetic field collapses and this energy is returned. You don't get anything by BEMF, which you haven't invested before. And I don't try such things. Such experiments were done 150 years ago, it is not necessary to repeat them. And I know exactly what happens when energy is stored in Supercaps. It stays there stored. That's all.

Ufopolitics: @Durchblick That is your opinion, on my end, mine is that you are not very knowledgeable about magnetic fields. The energy is spent to build a magnetic field...energy to coil is cut, field collapses, if the energy was spent in building that field, why does any energy "returns"

except for a very small remnant within the circuit path? But nope, that energy is higher than what we spent...why? Unfortunately you are looking only to the electricity running to copper wires and ending...not looking at a magnetic field that is out in space, interacting with the medium around it. Experimenting never ends in the minds of Scientists...no matter how many years ago it was done...maybe there were missing something, could be? Just a quick question...have you seen the rest of all my work?

Durchblick: @ufopolitics Not knowledgeable? Have you ever heard that there was this guy Maxwell, who gave us equations, which cover *all* electromagnetic effects, including coils of course? His equations and the derived formulas from these equations are used every day and they always prove to be right! A coil is characterized primarily by its resistance R and inductance L. For voltage u and current i you have the formula u = R*i + L (di/dt), and energy is of course the integral of u*i over time. If you use this you will find that whenever a coil is switched on with a final current i, an energy of 0,5*L*i*i is spent to build the magnetic field. Once it is built, no more energy goes in the field. And in whatever way you let the field collapse you get this energy back. I don't know of any energy which is "higher than what we spent". Your sentence *why does any energy "returns" except for a very small remnant within the circuit path?* is not clear to me. Just as no one doubts the law of the lever no scientist doubts Maxwells laws. That's why no experiments are made any more to see if they are correct. But experimenting still goes on in that way, that these formulas are used by scientists and technicians every day. Also there is conservation of energy. Where do you think your excess energy stems from?

Ufopolitics: @Durchblick I am very aware of James Clerk Maxwell sir...as well as Oliver Heaviside who contributed to the Curl Calculus, French Scientist Poincaré and finally Heindrick Lorentz, who "vectorized" and "tensed" all Maxwell equations that were based on High Level Algebra, replacing them by 2D vectors and Tensors. Maxwell equations were and are perfect, you are right...they are based on integrals which is a way to calculate 3D Geometries Surfaces... "Where do I think the "excess energy" comes from?"....What we all have been doing so far in order to generate energy...is to stir and align the Aether, the "Medium" , the "Vacuum" into "spirals" over time/space, which Influence is transmitted to our diamagnetic copper circuits (coils) through magnetic fields Spatial Spiraling which is the Real Dynamic Spectrum. Related to our very old concepts about "Imaging" the Magnetic Field Spectrum, based on iron particles over paper is the completely wrong view, wrong testing, wrong principles. These old methods imply a 2D Field which is wrong, there are

no "Imaginary Lines of Force", those are just "Magnetic Bridges" of the iron particles being magnetized into NSNSNSNS chains...The real EM Spectrum are Curled Dynamic Spirals interacting with our "medium" and with all magnetic reactive materials over time. This real Spectrum could only be seen through polarized light and magnetic sensitive compounds...So, If we get a second parameter, the "Space Displacement" then we complete the "operation formula" of exciting the energy in our Aether. We have built a "Gradient Wave" that pushes like a Pump, the flow outside the circuit(s). Your conclusions/calculations based on those parameters related to a closed Coil being fed are perfect...but what happens when that EM Field collapses?...It generates a reverse voltage right?..I know what your answer would be, I heard it a million times..."The circuit tries to keep current(I) constant, and to do that it reverses voltage (V)..." Really? So the "circuit" has some kind of AI (Artificial Intelligence)?...maybe of even a High IQ?...LOL That is a pathetic answer, but the worst part is that we all have swallowed it...LOL (Laughing about our own ignorance, due to submissive and blind acceptance nature) Fortunately I don't have much of those "natural attributes"...:D The reality and right answer is another one, and has to do with magnetic spatial curled spiraling into the medium...when it ceases, the "unscrewing effect" turns On...Influencing a reverse flow within circuit. If we do a constant PWM, square wave, then the effect will be more alive, revealing much stronger... actually this is the foundation of switched Power Sourcing like the SEPIC or the Buck-Boost Converters...But I know you would not accept that...no matter how much I spend my time writing here..:(. Unfortunately that is human nature, however, if I show you a working model based on this so far "Aether Theories"...then I hope you will give up on the old concepts. That is my hope...

Durchblick: @ufopolitics *but what happens when that EM Field collapses? It generates a reverse voltage right? I know what your answer would be, I heard it a million times: " The circuit tries to keep current(I) constant, and to do that it reverses voltage (V)*" This is the answer of kindergarten, not my one. The correct answer: when the M-field collapses (=decreases), the change of the M-field causes an E-field, due to the "rot E" and "dB/dt"-term in Maxwells equations. And this E-field causes the reverse voltage in the coil. For a coil you can simply hold on to the term u = L*(di/dt), which can be derived from Maxwell. A decrease of current causes a negative U. This explanation is straightforward and does not need "magnetic spatial curled spiraling" and "aether". I think you should have more trust in the equations of old Maxwell. They are quite old by now but they are not "old concepts", they are valid.

Unfortunately, they leave no room for any energy output which was not put in before.

**Ufopolitics:** @Durchblick It is the same explanation as I mentioned before, except yours is backed up by equation parameters . Now there was an E-Field while coil was on, so the magnetic field collapse does not "cause" an E Field, it just reverses its Vector direction. Current (i) stays positive while circuit is closed, when it is opened it decreases, reversing V. But all this is related to materials mass actions reactions within a 'physical circuit' , however, all of it is produced due to a Spatial magnetic field, spiraling into the aether, polarizing all particles around it. You could build a specific coil where both B Fields would be canceling each others (by opposing CW & CCW turns within), so no magnetic field would be generated, then absolutely nothing would occur...no positive, nor reverse flow...conclusions here? Magnetic Field is the main cause of all this readings. Without it nothing takes place. You cite Maxwell a lot, and Maxwell was the first one to talk about a curl dynamic particle displacement within all materials (copper wires and iron core) as well as in the field itself. I have that Maxwell book, and could cite anytime his own words. In my conclusion there is "more" about Electromagnetic Phenomena besides the material, physical math on specific components...it is the virtual field geometries and structuring that has to be studied more than it has been so far, and then maybe we would be able to explain some magnetic reactions which has no math explanation so far. Resuming here, you are not going to change/give up your point of view, and so, I am not going to either, so there is no point on keeping this conversation. When I upload my next video, then you are very welcome to come and render your opinions there. Respectfully Ufopolitics

Durchblick: @ufopolitics You don't want to prolong the discussion, since neither you or me will change the point of view? I am not as stubborn. Give me an example of a magnetic application which is not explained by Maxwell and I will change sides. But this would be a great surprise, since you would expect that science has noted such exceptions long time ago. Up to now you haven't given me any such example. *There was an E-field while coil was on* ... This field component stems from the voltage source applied to the coil. It is independent of the E-field caused by the change of M-field. E-field before and after have a different size, it's not a reversal. Also think of a superconductive coil with zero resistance. Then you have a current and magnetism without any E-field at all. If you move a magnet past a coil the change of the M-field generates an E-field, there wasn't any before. In all these cases formulas work perfect. Also in the case of the bifilar coil with M-fields cancelling out. No resultant M-field

means no change of M-field and no E-field is generated. Such a coil behaves just like a resistor.

@ufopolitics I am totally agree Mr ufopolitics. Electrical engineers follow the deception of "business minded" investor to manipulate the so cold "electricity". I am follower of NIKOLA TESLA using radiant and RF energy and no more paying tons of electric bills. Now i am doing my research and expirements like you.

The point on this video is very simple, this 2 AA batteries add less than 3V, actually 2.54 Volts, that motor in a Symmetrical winding type will not even move its shaft, period! Why?...because symmetry requires a full energizing of ALL Coils within Rotor while Asymmetry ONLY requires the specific coils at Interactions while others are disconnected. That means only TWO Circuits will be ON, out of TWENTY Total (20 Poles Rotor) It is very obvious that the more V we add, the higher the performance as I demonstrated in other video (750WATTS MOTOR TEST 2)...this motor could work with up to 36-48 V Plus. In that second video is only 11.5 V. You make your own conclusions out of this two videos...

@ufopolitics Hello UFO, this video of yours is one of the great tributes to the advantages of ASYMMETRIC MOTOR TECHNOLOGY. Good luck. See you soon on the "My Asymmetric Electrodynamic Machines thread" – light.

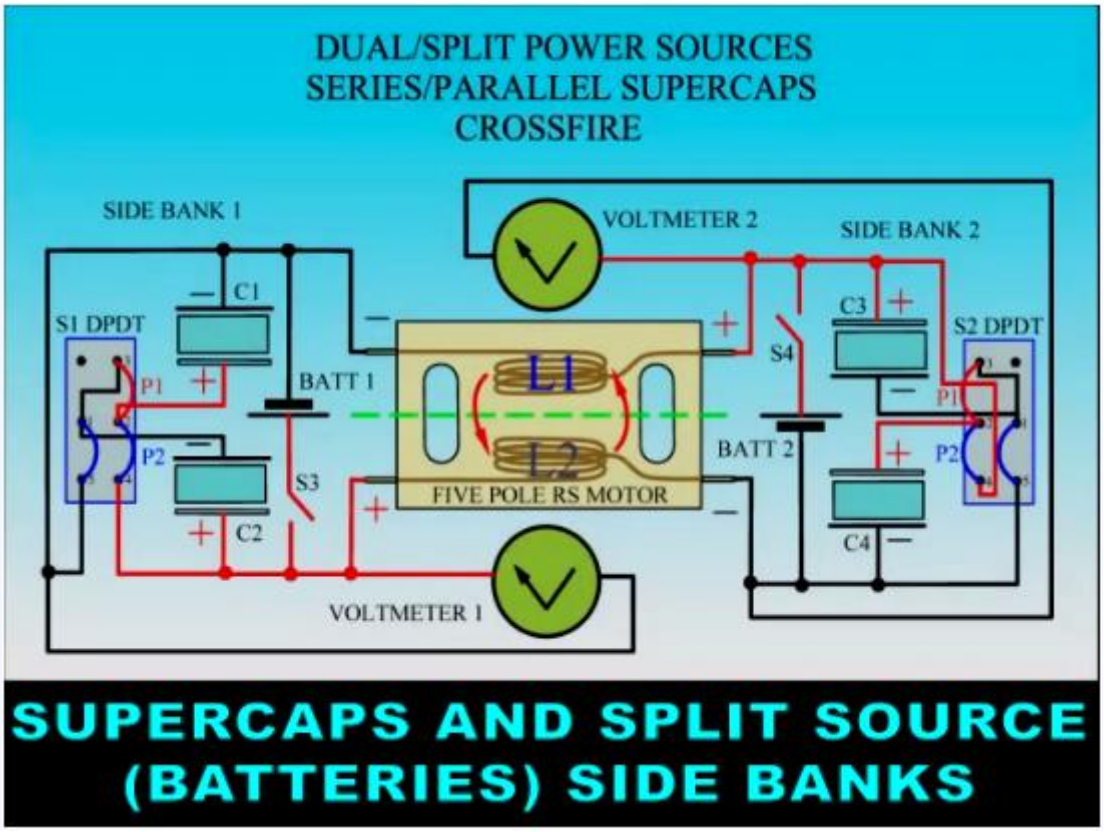
**TerboBlitz:** What is the DC current being drawn by the motor in the video?

**Ufopolitics:** It don't matter...just try same experiment with any similar Motor but the ones you could buy anywhere...then see if it does same thing... This is the main point of this video...simple. Original Motor Amp draw was 40 Amps at 24V...and 3300 RPM's...now it does 4800 RPM's at 24 Volts and 3.5 Amps draw....:)

The Video above is a simple proof of wrong concepts We all have learned in our Electric Engineer Universities, or even in lower level technical Schools...if We are based on that "rigid", locked in time Model, adopted and considered "the one and only" for over One Hundred and Thirty Years by our Dogmatic Sciences, bought out/Financed, by Families which Institutions are based mainly, on Oil Investments Capitals...Cartels. Then, the Model above brakes all rules established by those twisted and closed systems concepts acquired for too long by now... Based on those old, dark, locked concepts, this Video then tends to become "unbelievable"...or merely be classified within the "Impossible to be"...A rated Category within the "Science Fiction" ...or could even be accused of being a Hoax, a Fraud...made under some special effect software, or some kind of tricks. But it is not any of the above...it is completely real. The Machine was modified, re-wounded and constructed based on a "Disregarded", by

actual Science, Method of "Open, Asymmetrical Systems" conceived all the way back in the 1800's...and fully developed by Nikola Tesla. Therefore, it is impossible, based on a Closed System, that activates simultaneously, all the looped, closed coils within its rotor/armature, to believe those two tiny batteries could even move that 4.39 lbs Machine rotor/shaft, plus all magnetic drag generated between Rotor Core and Stators, adding all mechanical friction involved (Bearings,Brushes)...Then it will be much less conceivable to run it for over Twenty Five (25) Minutes at steady over 350 Revolutions Per Minute (RPM) without suffering any decay, just because it is an achievement, an operation, those two little batteries could never fulfill. Those Two -small capacity- AA Batteries are "Engineered"-according to our "Dogmatic Science chosen Model"- to run, a much, but much smaller little motor...and only for "around" Fifteen (15) Minutes Maximum. However, If I would be to engineer an Open System, where Only the actuating/interacting Coils that create motoring propulsion, would be turned on, one at a time, and just for a few nano seconds, and so on, a succession of other independent coils in a sequence, everyone at specific timings...each with low resistance values...then it would be possible within the same exact machine to obtain the results seen on this video. It is not Science Fiction, it is not a hoax...We all have been blinded following one single possibility for too many years, and from generation to generation. It is about time to become Divergent from those obsolete Models, and open our eyes and minds to develop this other hidden side of knowledge.

Asymmetric motor fed by split banks




TESTING POWER SOURCE/STORAGE SIDE BANKS WITH ASYMMETRIC FIVE POLE ALL NORTH RS MACHINE FIRST: Drain Super Caps Banks until Rotor reaches a complete stop. I considered this part very important to do it front of Cam, making sure Caps are drained to Max Values where rotor will not spin in BOTH Positions SECOND: Measure Top Speed running Motor just on side Battery Banks. It is interesting to observe here not only the Max Speed obtained, but also the TIME it took to reach on "fresh" battery banks, in order to compare to SEVENTH test. THIRD: Start Charging/Balancing Supercaps by Parallel connection (P2) till we reach about same RPM's as we obtained with Batteries. Important to observe the "Price" we pay by draining Caps to Max previously...as RPM's dropped to 2300...but mainly is done to notice how the flow of charges travels from one bank to the other through our Motor until reaching very close values at both ends. FOURTH: Stop System, measure Supercaps Stored Voltage by the Generation of Asymmetric Machine in Series connection, Batteries must be OFF. Here we notice Cap Banks have almost doubled the Battery Initial Voltage... FIFTH: Run Motor just on Supercaps Series connect, measure RPM's Motor reaches over 13,000 RPM's...that is almost double the value than Batteries Max Speed originally measured. SIXTH: Stop System, measure independently both Battery Banks, read lost power compared to starting V. Batteries lost around 0.100 mV per each bank. SEVENTH: Run Motor just on Batteries, Supercaps OFF, compare RPM's time to reach Max

initial speed. Important here is to notice the TIME it took to reach over 7000 RPM's versus prior test with fresh batteries. EIGHTH:Running Motor on charged Supercaps AND Batteries...notice when batteries are turned off (first one bank, then the other) we observe a considerable increase of speed/voltage at a "per bank" occurrence... CONCLUSIONS. We have a "raw" and simple switching system that is very flexible for manipulating energy control...with very small battery cells we obtain "High Performance" only expected from more clever and expensive set up...Supercaps are very light in weight. The number of combinations alternating between Batteries and Supercap Banks, as well as having a simple BMS built within, in order to balance out "per cell" while charging our storing banks give Us a very wide range of options...all of this while Machine running...:) I have performed on this video CRITICAL TESTING, by draining Supercaps to MIN Values where rotor would not spin, by doing this, I set a super heavy LOAD on our small machine...let's realize this never occur in reality on a typical running system, Supercaps retain charges for very long periods of time...and it is understood that reasonably charged supercaps will not offer such high resistance values like they do at low voltage rates. Supercaps, once charged up and connected in series, deliver/dump charges back to our Machine "randomly and too fast"...to the point of reaching almost double the Batteries running speed...so, if we could disburse/adjust this flow "more conservatively" (through Electronics, NOT RESISTORS) in order to maintain the same running speed as batteries did,we could have much longer periods of running time... In larger number of Coils, and Four System Stators/Brushes Machines, we will obtain superb results with the same set up, EXCEPT that in this type of Machines we could dedicate Two Inputs for Battery Banks, while Supercaps would be set at the Output Gates, this way, being completely isolated from one to the other.

The limitations on this small machine are obvious, compared to four stators – four brushes systems, where we could have source ( batteries ) running on independent circuits from capacitor banks. Then we will have a real isolated in – out system, where both will be assisting power and speed while regenerating. However, testing on small scale models first, is the right way to go .

With the switches, it was easier to understand the important aspect of this configuration. It's obvious to anyone that can think for self that this is a step in the right direction. This motor battery, super-caps, topology has the capability to make the e-car super efficient. I seems like it would increase range from the current 200 - 300 km to possibly 400 - 600 KM ! With more tweaking it could further be improved substantially. It's exciting, let's go to bigger rigs !

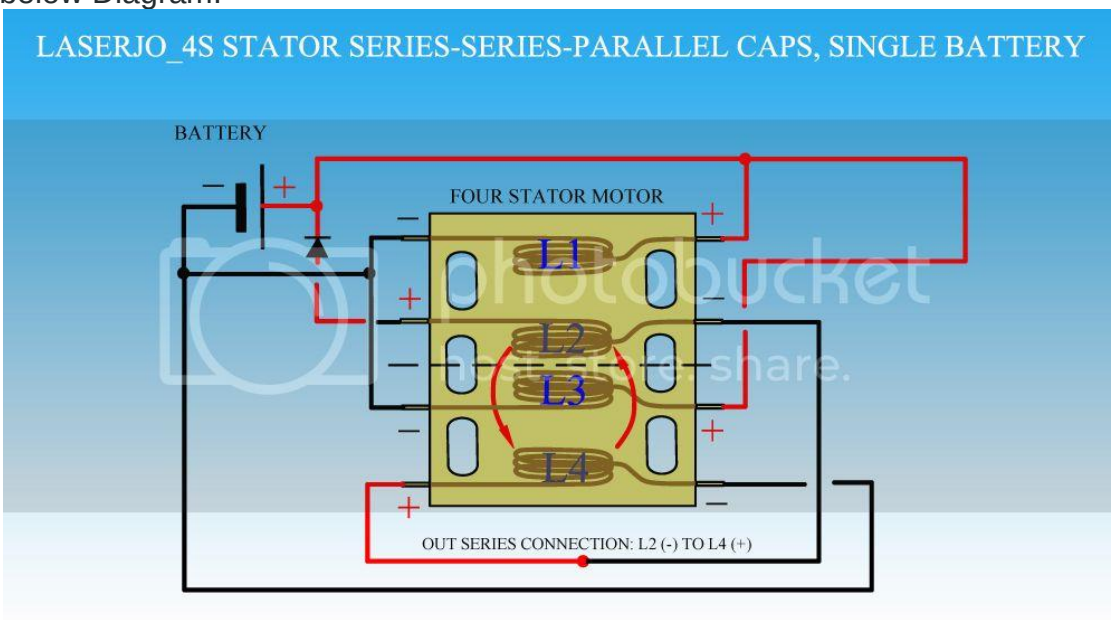
Laserjo Set Up

*Originally posted by **laserjo** View Post*

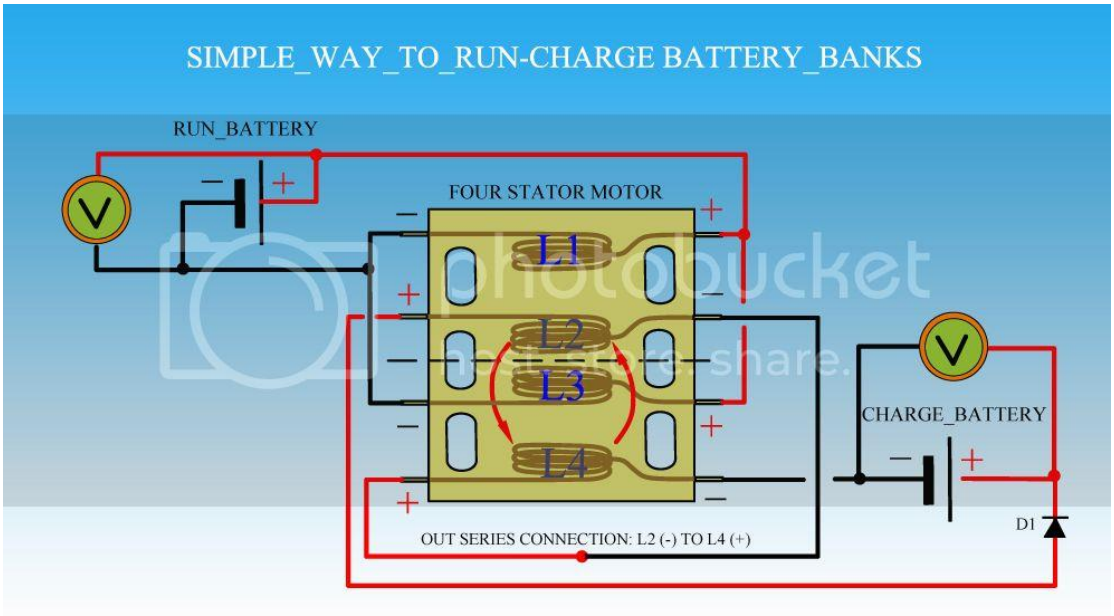
*hi all ufo this is a up date i have wound my motor 16 pole 3 pole 10 winds each thats max about .5 .6 ohms wire is .75 the motor is my1020 but has the inside of 2 my1025 motors becouse they are 12 mm shaft ok it works 12.7 in 17.3 out becouse i dont have a proper diagram on how to wire it up. i did this join 2 red wires from front com together and join to bat + join one black wire from front com to 1 red wire back com one black wire from front com through amp meter to bat - take other red wire from back com put diode on it back to bat + wooo it not only runs it charges its self i like it.*

Hello Laserjo,
First, many thanks for coming back here to post your results, I have done dozens of Diagrams for people I never heard off ever, again...but is Ok, am glad We still have Members like You that do

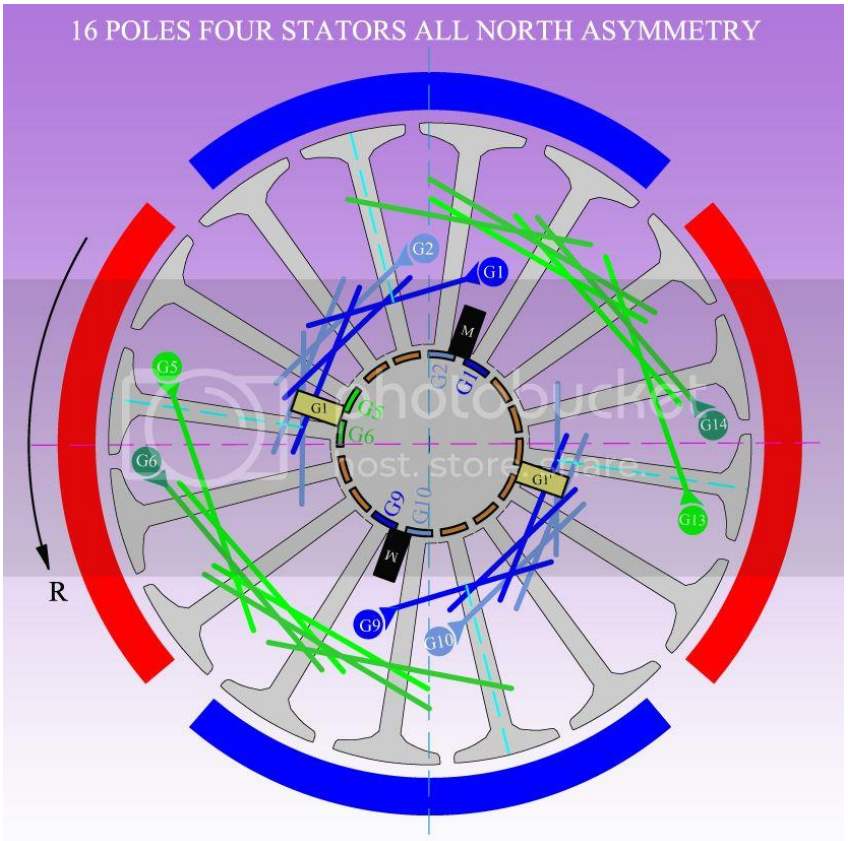
come back... If all the ones I have rendered so many, several diagrams, have done what you have done, not wasted so much time in BLA,BLA,BLA...and get TO BUILD...and so fast response, like You...We would be very ahead of where we all are standing right now.
Many Thanks, and am glad about your test results. Below, is a Diagram of what I understood you did as connections...based on your explanation above plus the Main Picture you have posted below Diagram.



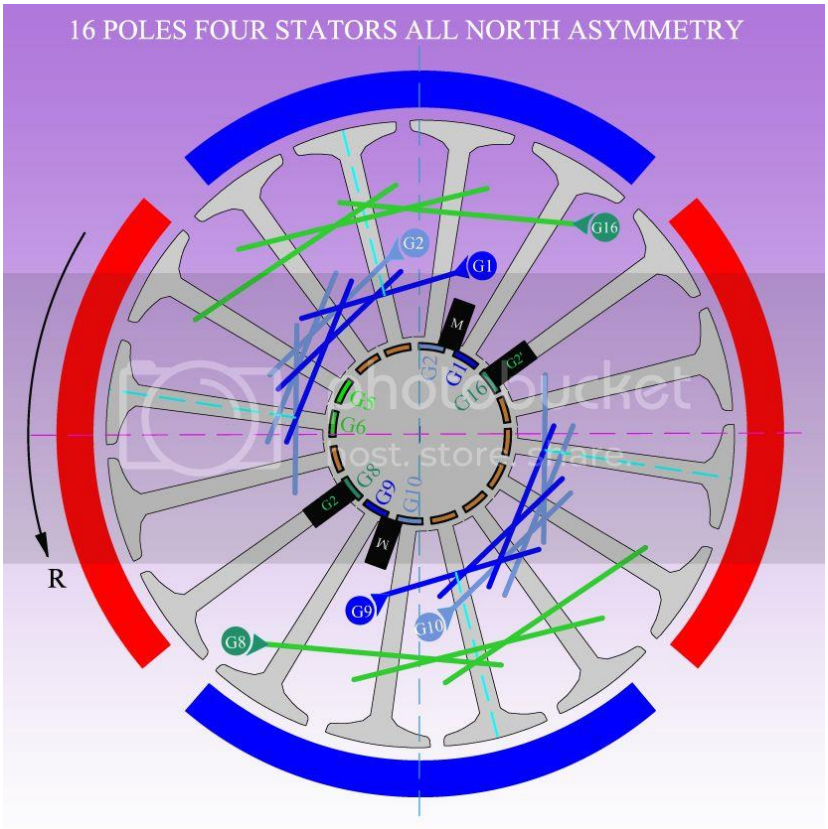
The only thing you forgot to mention in your above text description...were the Two Bottom, Rear Black wires joint together and back to Battery Negative. ..but no sweat, I found them on picture...
Great work Laserjo, and many thanks.
I have some tips on adjusting properly the Output Brushes on this type of windings...so We get even more Energy on the Output...be next.
Regards
Ufopolitics
About Running and Charging...Part 1
Hello to All,
What Laserjo did was a great idea, and I have been suggesting and showing this connections since our previous N-S Pairs...and it is to connect in SERIES our Output...while Input is connected in PARALLEL...and, of course, I am referring to Four Stator Eight Wires Out, Machines.
The Diode is preventing from Battery to Energize L2-L4 Outputs...so Outward Energy Flow is just running INTO Battery.
The only problem is that We are using/stressing same battery for two functions (Run+Charge)...and as it has been written here before...it is not recommended. The proper way is to have Two separated Battery Banks:




Now, here We can set two meters (as shown above) that would verify -clearly and Independently- Voltages at running, plus Voltages at Charging Banks. We could add Amp Meters on both independent circuits, plus Loads at the charging side and observe the decrease of RPM's would be minimal, only a couple to a hundred RPM's...depending on the load type (I have done it with Incandescent Bulbs, as very critical short circuit for heavy duty testing) And Yes, as Midaz mentioned, adding Supercaps as Hybrids...to both Battery Banks will do enhance performance. And Yes, of course, We could also design a circuit where We could switch Battery Banks, While Not Stopping Machine at all. by using two simple DPDT/CenterOff Switch, could do just this operation(s)...The "Center Off" attribute is to stop Charging when Batteries are fully replenished...
I will do that Circuit and upload it soon...
Regards to All
Ufopolitics
All North Machines Generator Settings
Hello to All,  Ok, like I mentioned before, I believe that if we play with the Generating Brushes in this type of Machines We could get better results  ...(and all of this is just "Theory" up to now, cause I have NOT done it yet...BUT, I will for sure next week)
1-First, let's analyze the way Generator Brushes comes from Symmetric Factory (***ORIGINAL SET UP:G1***)...(And Model shown is a 16 Pole , just like the one Laserjo have modified):



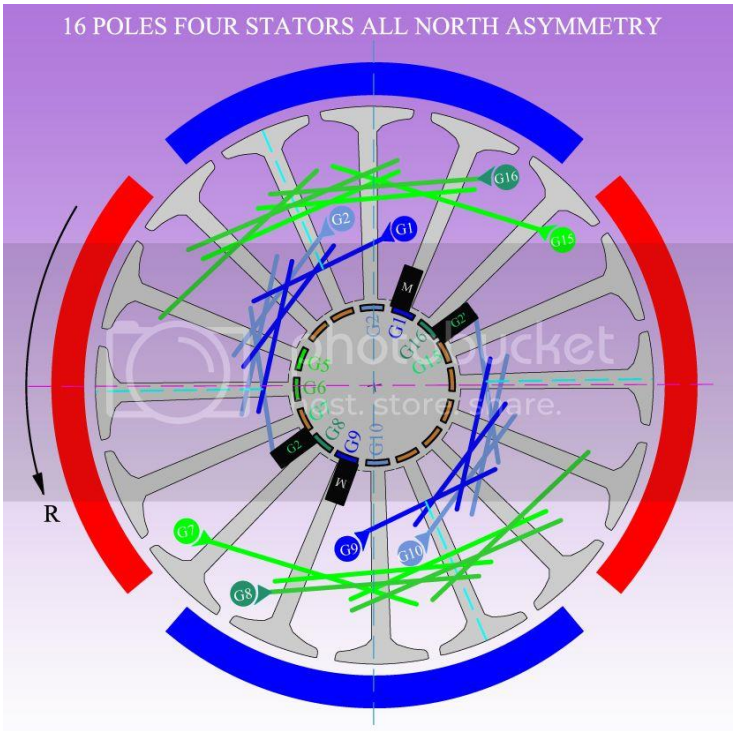

Ok, so I have defined G1 and G1' as the way they come from factory, meaning at 90º related to Motor Brushes... And if we take a closer look at the Coil Groups they will be "sucking" Energy from,... are G5-G6 on one side and at 180º apart, from G13-G14. Now, we must realize this Coil Groups are ***ALWAYS NORTH***...even when collapsing, they are collapsing North Coils...meaning Weaker Norths than the ones that are being energized like G1-G2 & G9-G10...so what happens when we apply a load to Generator?...even a Battery to be charged and even connecting Gen Coils in SERIES? When We apply a Load we get a similar, not too strong as a typical Symmetric Generator...but we do still get a reduction of RPM's...plus an increase in Amp Draw at Input (I am getting from 4.0 increase to 8.0 amps approx)...in order to disburse more amps at Output. I believe when we short this Generating Coils with any load, they become "STRONGER" NORTHS than when collapsing without shorting them by loads. And If You look again at the POSITIONS of G5-G6 & G13-G14, related to the FOUR STATORS...and make them Energized Norths...You will realize they are counter rotating the normal rotation R ...Meaning, OPPOSING to R...they are being pulled backwards by South Stators attraction...and ALSO, being repelled by Norths Stators...on both sides. If They would energize South with Load on...Motor RPM's should increase...or acceleration under load, like we observed on previous smaller five poles. Now here is the proposal I want to test:




I will move GEN Brushes like seen above with G2 and G2'...according to Rotation R, from where they were originally...and as close as I could, towards Input Brushes, as shown above. Now, if You guys notice...We are pulling from G8 and G16 at other end...now make them stronger North...and then see what happens? Two out of three of those Groups Coils are passing North Stator Bisectors...PLUS getting closer to South Bisectors...right?...right.

**NOW, One main thing to have in mind is that We can NOT allow contact simultaneously between Motor Brush contacting SAME Commutator Element as Generator Brushes...SO, this would be our LIMITS when bringing them closer to each others.**

Now, I have rotated Armature, according to Rotation R...in order to see Generator Brushes Touching Two (2) Elements at same time...and seen what happens with Motor Brushes and effects against Stators...in Diagram below:




We see that still, IF BOTH Generating Coils enhance, strengthen North Polarity by loading them...is still perfectly assisting rotation. Now, on a SECOND NOTE: By moving, displacing Generator Brushes this way, we will be allowing all Coil Groups to SWEEP A MUCH WIDER ANGLE through Stators...meaning, they will charge/induce more this way. All this is Theory -so far- until proven otherwise... ...and like I said before...only making it happen We will all know if it works or not.
Regards to All
Ufopolitics

UFO, It sounds like a good Theory to me. It's evolving. By adjusting the gen brushes adjacent to the the motor brushes without overlapping comms. Do you think that the motor north fields will combine with gen north fields, creating larger and stronger north fields?.... Or will they repel one another, keeping their same strength?

Keep it Clean and Green
Midaz
Midaztouch
They should strengthen as in two magnets together will be stronger than one, I believe. Only a test will prove how much dynamic effect there will be.
Dana
UFO
Looking at my commutators, I see that making a new set of brush holders is going to be reeeeeeeeeel fun. Keeping that much power seperate by what looks like one and one/quarter commutator strips

is also going to be soooooo important.
Dana
Update  Ufo and ALL, Just quick update on the old generator modification. Got the two commutators installed on shaft wound G1 to see how it would fit. The 18 awg will be 4 winds per slot and seems Will be ok. Still this is exciting and anticipate the results, wantomake
Hey Guys,
Just wanted to post this before any of you do this Brush widening Angle...
**IT DOES NOT WORK!!**
I only did One Brush Matching Pair, altering the sweeping angle, so I could compare with the other one still at 90º...and nope, it don't work, I am getting through the 90º over 9.0V and the one I altered is outputting only 4.5 to 5 Volts, with 12V Battery Source...and the reading is coming out negative!?...so NOT GOOD. I will upload video later on...a short one to show results and how I did it...
Again **DO NOT DO THIS BRUSH RE-SETTING, IT DOES NOT WORK!!**
Regards
Ufopolitics
UFO
Ok, the gen brushes being set directly after the motor brushes didn't work..... Was the results the same, if/when you reverse the Gen brushes setting to directly INFRONT of the motor brushes?

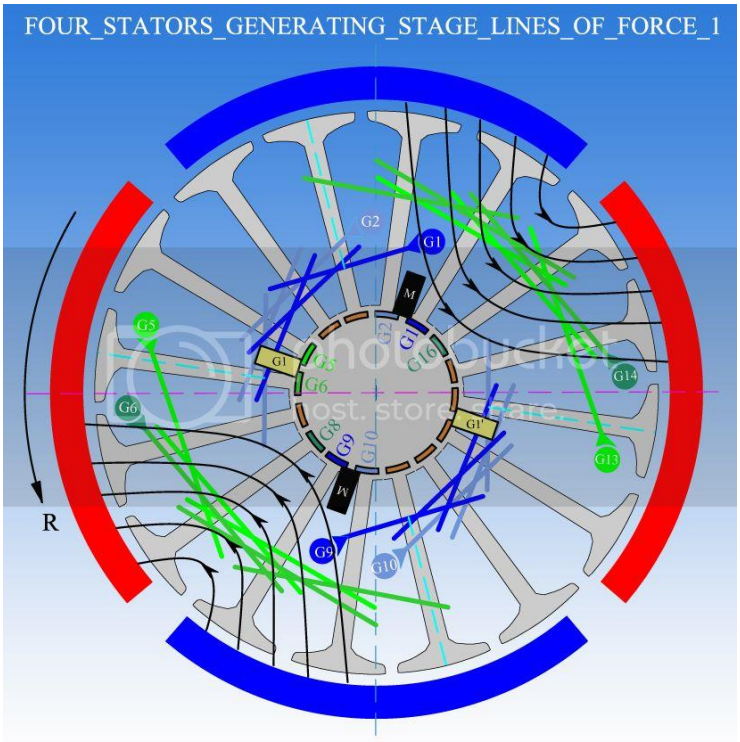
Keep it Clean and Green
Midaz
Generation Lines Of Force...

*Originally posted by **Midaztouch** View Post*

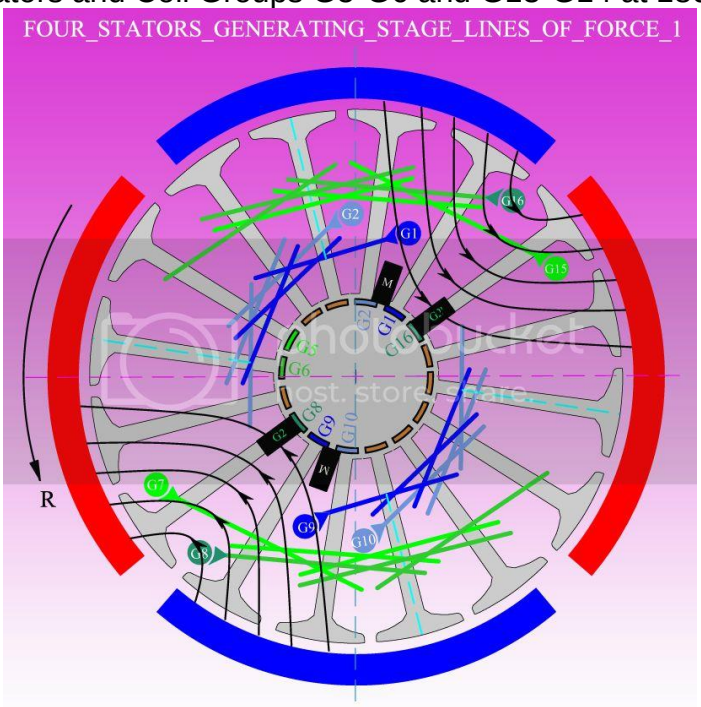
*UFO*
*Ok, the gen brushes being set directly after the motor brushes didn't work..... Was the results the same, if/when you reverse the Gen brushes setting to directly INFRONT of the motor brushes?*

*Keep it Clean and Green*
*Midaz*

Hello Midaz,
The Gen Brushes were set 'before' (not after) the coming Motor Brushes...I was allowing a wider angle to sweep -after the first Brushes 'M1'- plus 'supposedly' gain more...but nope...and let's take a look at both Diagrams below:

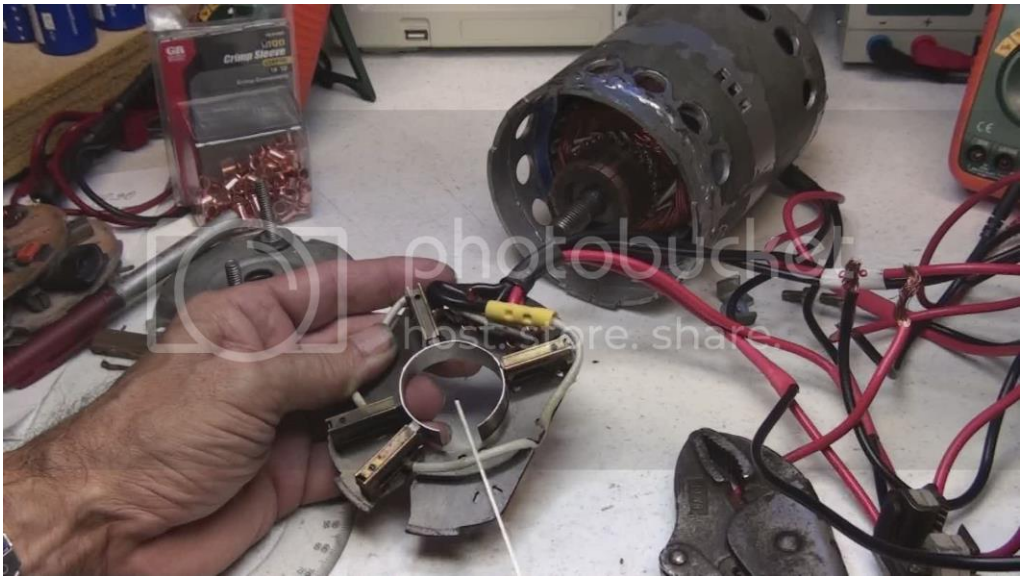



Notice that at 90º Brushes G1 and G1', are sweeping the "Perfect Momentum" or the PEAK...between lines of force from North to South Stators and Coil Groups G5-G6 and G13-G14 at 180º.




Now take a look at the way I proposed and tried above... It don't work, simply because the Coils at contact are completely OFF the Magnetic Field Lines of Force Peak Angle (not cutting them) but already passed them. And We must realize this is seen in TOP VIEW, but in reality this lines of force configure a complete "Half Cylinder" between both Stators, so all Vertical wires at Groups are cutting them. This is just one side to see this...but there is more...The previously Energized Coil-Groups at Motor Brushes

have been disconnected, so their magnetic fields start to collapse...and when passing by, this lines of force they "re-strengthen", rising potential...and this the EXACT POINT where We want to collect Energy...after this 90º plane of brushes, they start collapsing again...suffering another decay...a secondary decay. I already re-set brushes back to 90º and yes, they are outputting exactly same higher peak voltages...meaning, when I input 12.2 Volts, I get from each around 9.56-9.65 Volts, so, in series they output over 20 Volts...and that is the ratio we will get out...and of course, magnifying the Input will increase Output.



With the Brushes set at around 150º (actually and exactly 149º) away from M1...I was collecting only 4.5 Volts...and that was the "Residual", left over Potential after passing through the Peak Lines...reason why, at next Motor Stage we will NOT need the full 12Volts Input...so, we do need this residual traveling back to motor brushes. I also tried adding a load (incandescent bulb) and nope, it does not accelerate...but decay in speed is greater than at 90º...which is actually minimal. And like I said before..."there is still more"...if we look at the Motor side Lines of Force from the other two Stators (not seen on diagrams above) from North to South, we will notice they are cutting the "other half" of coils when collecting from 150º Brushes, in the **Opposite Direction**...and that would cancel/subtract the coming flow in generation... I wanted to do this test, to learn more about this Machines possibilities...is part of research and development, my friend... At the same token, I realized we should not "suck dry" this Coils before getting to the next Motor Stage...as this would create more drawing of juices (amps) to re-start from zero, filling them up in every turn...not good.
Regards
Ufopolitics
UFO,
What happens if we use 1 input and 1 output set at 180°, total of 4 brushes? Since its a 4 stator, wouldn't the output be 100% isolated!? Would the output assist rotation/regenerative acceleration? Could you pulse the input with a simple 555 PWM and still capture energy from the output? ... I asked these questions because they pertain to the Mag-3 . The current set up with the eight brush system, is it possible for you to explain how our system works -vs- regenerative braking? Weight saving, energy storage, range, pros, cons, etc.... If possible, I would like for us to key in on this topic for overall system performance info... For example, regenerative braking is over 90% dead weight on the highway;

heavy, extra complicated electronics, wiring, generator, capacitor battery pack, cooling system, etc...

Keep it Clean and Green
Midaz

*Originally posted by **Midaztouch** View Post*

*UFO, What happens if we use 1 input and 1 output set at 180°, total of 4 brushes? Since its a 4 stator, wouldn't the output be 100% isolated!?*

Hello Midaz, The "Isolation" in this kind of Machines between coils or groups works even at 10º apart from each others, and **I am referring to ELECTRICAL Isolation**...when we speak about "Magnetic Isolation", it is just impossible for an ENCLOSED Machine Rotor, within Four Magnetic Stators interacting between each others through their magnetic Spatial fields...to be Magnetically Isolated. We could Input through One (1) Gate only, then collect through the other three, and of course, the output would be higher if we do that...BUT, We would be sacrificing Torque and Speed (Remember in this Machines both parameters work "Directly Proportional"). A much better "Mechanically Balanced" Machine, would be if We use Motor -Input- Gates apart at equal distances from each others, meaning at 180º. *Would the output assist rotation/regenerative acceleration?*

If You have a "Non Mechanically Balanced Rotation" by using just one input, exciting STRONGER just one section of the Rotor Mass, then the Assistance would not be of much help.

*Could you pulse the input with a simple 555 PWM and still capture energy from the output?*

Yes, We could pulse Input and still get output. But one thing that we must realize is that "Naturally" this Machines Output Pulsed DC, and the higher the speed it will become like a Ripple Effect, since the OFF Times would be reduced to minimal fractions of time...Therefore, a GOOD SYNC between the Electronic Pulsing Controller AND the operating speed/machine pulses out, should be established for a more robust Output Signal. ... *I asked these questions because they pertain to the Mag-3*

Are You building a MAG3?...Or Cornboy sent it for you to finish

it?... MAG3 uses Three Input Gates at 120º apart, to obtain Full Mechanical Balance.

*The current set up with the eight brush system, is it possible for you to explain how our system works -vs- regenerative braking?*

Braking or Decelerating Regeneration works based on the same principle, **Machine must stop from Motoring stage** in order to become a Generator, and still, the percentage is very, very low...where Maximum would be less than 20%. Our Machines do

not need to stop Motor Action in order to keep regenerating our Source(s).

*Weight saving,*

Light Weight as non Steel Housings required for its manufacture, allows the use of Carbon Fibers, Composites, HSLA (High Strength Light Alloys) or simple Aluminum Housings will reduce overall weight.

*energy storage, range,*

One very important attribute of our Machines, is that we are able to capture our Ultra-Fast Pulsed Outputs through the use of Super Capacitors. Therefore, when we add Super Caps to our Alternative Banks, there is a point where they "take over" majority of running percentage of Supply, so our Batteries draw reduces considerably on long runs...this fact increases our range. The All North Machines uses much less amp draw than any other Machine available as of now, this expands the running times based on Amps/Hour Rating of Battery Supply....And at the same token, this allow Us to use much smaller Battery Banks than ordinary EV carry normally...reducing weight plus allowing for "Secondary Alternative Banks that could be recharged while we keep operating Motor...(We are driving)

*pros, cons, etc.... If possible, I would like for us to key in on this topic for overall system performance info... For example, regenerative braking is over 90% dead weight on the highway; heavy, extra complicated electronics, wiring, generator, capacitor battery pack, cooling system, etc...*

*Keep it Clean and Green*

*Midaz*

We are NOT ready to go deeper into this topics Midaz, **We need to use Monster Drivers with our All North Machines**...in order to be able to deeply evaluate this Machines Top Attributes... We need MORE REPLICATIONS to be shown HERE...where they demonstrate all I have said, written and shown on my Videos is completely REAL. THEN, We need to move this already tested Machines in Lab Bench to the WORKING PROTOTYPES...like Scooters, Bicycles, Motorcycles...or even Golf Cars...or small EV Applications...even building small R/C Crafts would be fine...proving Air Time tests...versus other ones...etc,etc. ONLY THEN...We could discuss for real results about all our Machines advantages. I hate JUST Theory Man!...it is just smoke, air...I LIKE FACTS, REAL TESTS, REAL VIDEOS, REAL MODELS, REAL APPLICATIONS without that much Theorizing...and bla,bla,bla...it will NOT get Us anywhere. If I have an Idea...or a modification...I go and get it DONE...ONLY THEN, I know if it works or not. Screw Mathematical Theories...Equations and Laws...TO ME, REAL TESTING proves MUCH beyond anything else. Hope this post get

your questionnaire answered completely... Now, I will give you a very simple example... Take a look at the Video below... NINJA CONVERSION INTO ELECTRIC it is only a FIVE MINUTE AND FIFTEEN SECONDS VIDEO (05:15)...and in that very small amount of time...this guy shows all the work He did, plus ALL the money he spent...Converting his Ninja Motor Bike into an Electric one...PLUS restoring it to a brand new look...sandblasted/painted frame from scratch...new suspension, new upholstery, new paint job, etc,etc. Now, the point am getting at: This Guy uses this Motor below (Shown at the end video all spec's and equipment

utilized)...and yes, I already researched all this work.. : Motor AMD 6.7" #A00-4009 36-72VDC 6HP Single Shaft See the cost?...over $850.00 Legal Tender Notes...and guess what?...it don't even have Permanent Magnet Stators!...but S1-S2 Input that means Stator 1, Stator 2 Connect...this is a Golf Cart and small utility vehicle Motor. Saw the Spec's? Fastest it would go is 2300

RPM's at 80 AMPS CONTINUOUS DRAW... Don't You think this kind of "GO AND GET IT DONE" Guy would buy a 276.00 USD PM Imperial Kit...and rewind it in order to make drastic and radical improvement to that beautiful Bike?! Don't You think He will buy Supercaps Cells plus Lithium Batteries and BMS...and the "Works"? Of course He will...there is absolutely no doubt he will go for it... And this type of Guys is what I need here....and You know how many Electrical Converting Guys Channels are... like this guy, in You Tube?...check them out my friend...thousands of thousands. And, this is the "Audience" I need here...or elsewhere.
Regards
Ufopolitics
*Originally posted by* ***wantomake*** *View Post*

*Wow Midaz and Ufo those are great videos you posted and thanks. I feel I'm so far behind in this world of supercaps and what others are doing. In the process of studying this area and now see advantages for this Asymmetric motor/generator. Not sure about the discussion of balancing the charge/discharge of each cap. But I do plan to have different independent banks of caps to switch between as the Ufo motor operates. It may not be a self runner, which I've obsessed over for TOO many years, but will get many miles and amp hours way past anything we can imagine. Sorry to be emotional about this and we must be, but I think we live now and are watching with this infant of next generation technology is in our own hands. Wantomake PS: Waiting for more parts(tuesday) to continue this build.*

For me it's all about Overall System Performance (O.S.P)! I'm not here for Over Unity. If we get OU then we have been blessed. Every time OU is mentioned, it causes a major commotion and tempers run high. I like that we have met and/or exceeded the off

the shelf "Amp Monsters" motors in:
1.) efficiency,
2.) better than regenerative braking,
3.) raises the voltage without needing cooling (within reason)
Just those 3 claims above, should be more than enough to get the attention from the EV World. I believe that we have reached the point that we have grown to near our limits in this pot(energetic forum). Our roots need to spread or growth will be stunted. What I've noticed is that the EV forums are going silent from the builders. Two things come into mind:
1.) The mid range builder$$$ are selling out for manufactured vehicles. The price is almost the same if the project is done properly. Also the resale value is terrible for home builders. From an investors prospective, it would be advantageous to buy an OEM EV from a dealer. Parts are simple to replace, reliability and overall headaches are reduced/piece of mind.
2.) Most people have "been there and done that" all ready! The excitement has dwindled. They are watching the big /don't worry about money crowd do insanely expensive projects.
The people on Energetic Forum are wayyyy more tech savvyyy and innovative than the off the shelf specs builders on the EV Forums. The creativity will come from this forum. And the excitement will come from the EV forums. Together we can shift from lab testing to real world testing builds. And possibly lead to manufacturing.
UFO's machines can level the playing field and bring back the fun in home building.
The possibilities are endless

Keep it Clean and Green
Midaz

*Originally posted by* ***wantomake*** *View Post*

*To Ufo and All,*
*Thanks Ufo, I will check the ohms between commutator and shaft.*

Hello Wantomake, It is NOT between shaft (ground) and one wire what you have to check...***BUT, between EACH Commutator Element of each Group that is grounded.*** Why this difference?...because if you have zero resistance between both mating commutator elements, then every time brushes go through them...you are gonna be shorting your source. So, it depends on what part of the whole Group of coils you ground one wire...or two, in which case if they are both grounds closer to end-beginning of Coils Group, it will give a zero or very below the other Groups resistance. If you have anyone at zero resistance, then it is better to disconnect -at least one- from commutator elements.

*It may not be a self runner, which I've obsessed over for TOO many years...*

You mean, you are obsessed trying to reach a self runner?...You know just by that way of thinking...you could be condemned to be

burnt in the "Purifying" Fires from the Heavens??!!... Don't worry about it...We will get there, I promise, and very soon... A "Self Runner" contains everything within...it MUST BE OU, of course...but, even worst...it is the closest "thing" to a Motion Perpetual Machine (MPM)...This to become a reality could be leading to a World Crisis, a Caos...Skeptics will commit suicide by masses...plus the ones with Cardiac problems...rivers of tears...Oh

no!!...I can see it!! Simplifying this in real terms...We need a VERY LOW consuming Prime Mover (and if the Prime Mover could send back to source the "unused energy, even better...)...as well as a Zero Drag effects from Lenz Law...as that it outputs MUCH MORE Energy than Prime Mover... Actually, you know on this specific Forum...We have all the Ingredients to make such devices...and now with the great Theories and many proven facts about the reality on Magnetic Fields Vortexes, and Dielectric Fields by Theoria Apophasis...We are on ball bearings here, my friend!! It is just a matter of time...to come up with a "Resumee" and make a Build, from all Theory, Open Source and Old patents exposed here...I can see it coming very soon...

*Sorry to be emotional about this and we must be, but I think we live now and are watching with this infant of next generation technology is in our own hands. I want to help it grow if I can...waa...waa..oh sorry my baby is in the shop crying for my attention.*
*Busy parent,*
*wantomake*
*PS: Waiting for more parts(tuesday) to continue this build.*

It is ok to be emotional...We are all humans here...Positive emotions are a required spice in order to reach success, my

friend...
Regards
Ufopolitics

Trying to do a Miniature Imperial-Mecce-Alte setup using my unipolar GM window motor and random AC induction motors trying to convert them to run in a generator mode. Had a little 1/40th HP

motor I could not get to run over 50v, with little power strength. Got another 1/8 hp going crazy just finding caps laying around to run tests, but got it up to about 70v once, but my unipolar was topped out on 24v even. That link on the conversion, the guy is pretty clear that I just need to get the cap values high. I used his electro cap hookup recommendation to substitute for run caps to double up the MFs. Its the same manufacturer and similar design as the 1/40 HP motor, though, and it just did not behave well as a AC generator. But the last motor available at my motor goldmine is very similar to the first but at least 1/20th HP so maybe thats just the ticket for it to work. There is a smaller 220-240v motor (2 settings?) would seem to have less rotational mass, I think it was saying 1hp, but much smaller than normal 1 HP motors. Had extra sets of wires though.
**Question for Ufo:** Can you give me a point to your video where you made the connecting shaft between the Imperial and the Mecce-Alta generator? Or did you buy it somewhere? can't recall... As you may remember my back burner baldor has a 3KW Mecce-Alta companion. I want to build a new rotor for my quad Pentagon GM motor first, and use a bifilar winding. To get the right resistance I calculate I need 2 strands of 32ga wire for that. I want to see how a multifilar works. Planned out a 30ga quad-filar for the Baldor...

Sampojo
We all used a shaft two part clamp. Not a universal as too much movement. Just a two halves connector and four bolts. You can get them on ebay with different sizes ends.
Dana

Dana, My Mecce Alte generator does not have a shaft protruding but rather a hole to accept the standard shaft from a gas engine I think. I remember Ufo holding the component he made or bought to adapt this style of gen head.
Am I off-base?
thanks
Mecc Alte Shaft...

*Originally posted by* ***sampojo*** *View Post*

*does not have a shaft protruding but rather a hole to accept the standard shaft from a gas engine I think. I remember Ufo holding the component he made or bought to adapt this style of gen head. Am I off-base?*
*thanks*

Hello Sampojo,
You are right friend, below is the video where I made the shaft...
MECC ALTE SYMMETRIC GENERATOR HEAD ADAPT
However, after all this work I believe Machine Alive found out they sell a 'Front Mount Head Kit'...that includes the whole thing, including a new face plate...

It is written somewhere here...back when We were doing this tests...a good hint is to look up for the dates on video(s), then search here by those dates posts.
Regards
Ufopolitics
Imperial Ufo Rotor Kit arrived...
Hello Guys,
For all the Imperial Owners, interested in building the All North set up...the UFO ROTOR KIT Commutators arrived by now (they were on back order as I previously posted)...and I've got mines as well as a brand new shaft-rotor...as shown below...

Note:
1-Commutators come with the "pre-winded" wiring for the Symmetrical design...and it must be removed before assembling/pressing it onto shaft.
2-Do not expect that Commutators will slide in easily by just sanding it with a 400 grit paper...they need to be worked on, but shaft comes already with the splines built in on both ends...thanks that this rotor have a cooling fan at back end...grreat.
@Dana (Prochiro) call Dyann...but please, don't you dare to tell her

I told you that commutators arrived... So, Guys...let's Rock

and Roll!!
Regards
Ufopolitics
Eyes on the sky
UFO,
That's a great looking machine!!
Hope the next flying saucer I see is yours. Been chasing ufos for long time now and this one is about to move away. Do want to buy one in near future, but need to finish this old delco first. My eyes on the sky and hands on the work bench,
wantomake
Uh-oh Ufo got a new ufo motor!
How did Ray Bradbury put it "Something wicked this way comes..."
Ufo, thanks for the info on the gen head, time to go diving &

digging.... Need that kit!!!
I've been trying to get an induction motor to work as generator on a smaller scale to test some unipolar winding asym motor output. I could not get much out of a 1/40hp motor, lose its power of about 40v without getting to its suposed 110v rpm as a motor. my little GM unipolar asym motor drove a 1/8 hp motor up to about 70v once, but seems a little short on power. That little motor is a worker though. Can't figure out how much caps to use or if I have enough on hand for what it needs. When you overdrive them or overload them, they lose the magnetic fields and just drop off line. A lot of people on youtube are putting magnets into AC induction motor rotor. Not sure if they generate variable AC voltage, or whether they are now DC alternators. I'd like to get about a couple-three amps at 110v out of the generator.
Ufo, do you know if its still an AC generator when you drop neo's into an induction motor rotor?
PS, just picked up a nice 1/20 hp Imotor, see how that works...
Induction Motors to Generators...

*Originally posted by* ***sampojo*** *View Post*

*How did Ray Bradbury put it "Something wicked this way comes..." Ufo, thanks for the info on the gen head, time to go diving & digging.... Need that kit!!! I've been trying to get an induction motor to work as generator on a smaller scale to test some unipolar winding asym motor output. I could not get much out of a 1/40hp motor, lose its power of about 40v without getting to its suposed 110v rpm as a motor. my little GM unipolar asym motor drove a 1/8 hp motor up to about 70v once, but seems a little short on power. That little motor is a worker though. Can't figure out how much caps to use or if I have enough on hand for what it needs. When you overdrive them or overload them, they lose the magnetic fields and just drop off line. A lot of people on youtube are putting magnets into AC induction motor rotor. Not sure if they generate variable AC voltage, or whether they are now DC alternators. I'd like to get about a couple-three amps at 110v out of the generator.*

Hello Sam, The success of an Induction Motor converted into Generator depends basically on the Steel Rotor magnetic Reminiscence, but not only that attribute,...but how magnetic polarity is 'distributed' related to the existing windings in what would be now the "Induced Fields". Normally the magnetic reminiscence is not strong enough to stand higher loads at higher RPM's...then it drops down. In a typical Generator Head the magnetic reminiscence is just used as a STARTER low power induction TRANSFER, to PRIME the "Network" between spinning Stator Fields and Static Exciter Fields through a running Capacitor. After a few minutes of running time, the Exciters become stronger and

keep gaining magnetic strength to stand higher loads, then magnetic reminiscence is NOT needed anymore. Unfortunately, You do not have those "evolving" Exciting Circuits on a typical Induction Motor, so it is just dependable upon magnetic residual that it is NOT getting stronger, but weaker as you load it. You could add magnets at Rotor, but first You have to count how many poles comprehend each overlapped coil, to know the Arc Size (Width) of the magnets you will need, the height is given by the rotor vertical measure. This arc value is essential to see how many magnets rotor could take, Two or Four...Four Magnets require less speed than Two Rotary Stators as magnets. Some Induction Motors (1 Phase) have many coil layers as they are different speeds, and they are distributed differently at poles wrapping...so make sure to identify which is which...and where is the start and end of each speed (hot and neutral wires).

*Ufo, do you know if its still an AC generator when you drop neo's into an induction motor rotor? PS, just picked up a nice 1/20 hp Imotor, see how that works...*

If you set at rotor Two Norths...or Two South separated at 180º...then you would have DC. If you set a North and a South at each end (180º) then it would be AC. Still, my friend...we are all dealing here with "Toxic" Generators given they are ALL, based on ***Symmetrical Induction***...face to face, mirrored B Fields...Encountering Frontal and opposed Vectors of the Inducer/Exciters and Induced Fields...so, even if you get a "State of the Art" Brushless Meccalte Generator...when it is time to disburse power to a High Load...they get stiff...very hard to turn, requiring-demanding super strong power from prime mover...this the "Game" we are all have been playing here for the last 130 plus years. I have been working on this for a while now...I found exactly where is the "essence" of this "details" that would allow Us all to UNDERSTAND first...then to design better generators, but I would have to go back to my Faraday Thread...to explain that...then open a new thread where We will be constructing this completely different designed Machines. It would be soon...stay tuned.
Regards
Ufopolitics
What are U talking about?

*Originally posted by* ***esesenergy*** *View Post*

*decades of working on your assym motors and you still cant close the loop? what will be your excuse when the all north setup doesnt work? are you going to reimburse everyone for their time after crying to people to rewind their motors to your new specs over n over? why dont you finish a motor n have it third party validated THEN CRY*

What is your frustration now Eses? Decades?...Decades exposing My Machines?...how do you count time? Better ask all the ones that have replicated my motors, EVEN THE N-S PAIRS...and see what would they say... Your problem is simply that you are not capable of building even a Radio Shack 3.99 USD Little Motor...main reason why you are the one always crying for people to sell them to you... Sorry about that guy!
Esesenergy
You know what you and several others remind me of? When a large group of people get together, all like mind, happy with life and what they are doing, someone comes in and tries to tell them how bad life and there efforts are. The fact is, that person is actually telling how he sees life and is miserable with it, not being able to find the life he wants so much. I feel sorry for you and those like you. Actually, if you looked thru this forum, you will see that threads are started, many people making copies and then adding to the advances in that thread. Most threads live just a few months and go dead. Others plod along but where have they gotten to at this point.....I do not see anyone making a house full of power starting with no energy. Even those who have been able to loop back to primary source have vary limited additional run time. Those here on UFO's threads are free to work on other threads but choose not to as we are where we see the most potential. The money we choose to spend is no different than I see spent in many other threads on machining and such. *Do not worry about us as it sounds that you already have enough problems of your own.*
Prochiro
Esesenergy,
We all have to wait and see the range and performance of our **handmade** $400 A1 Mo-Gen during usage in an EV. If it's not better then an off the shelf AMP Monster of comparable size, then come back here and talk your talk. Your impatience have been

noted but not needed at this time. Relax! Keep it Clean and

Green
Midac
It does work , UFO, Hey the old delco generator has been a challenge and I got it assembled today. The brush sets, one at each end, is from the hitachi started generator. The case and armature is delco remy. The field coils and shoes are from 1918 Ford Model T. But it does run and has generator output. Bad on

amp draw, around 35 amps!! Yes, I have a LOT of tweaking to do. I hope I have it wired correctly. If anyone could tell me the page or post number that shows the circuit of the four stator machines.
Thanks for the help and listening,
wantomake
*Originally posted by* ***DadHav*** *View Post*

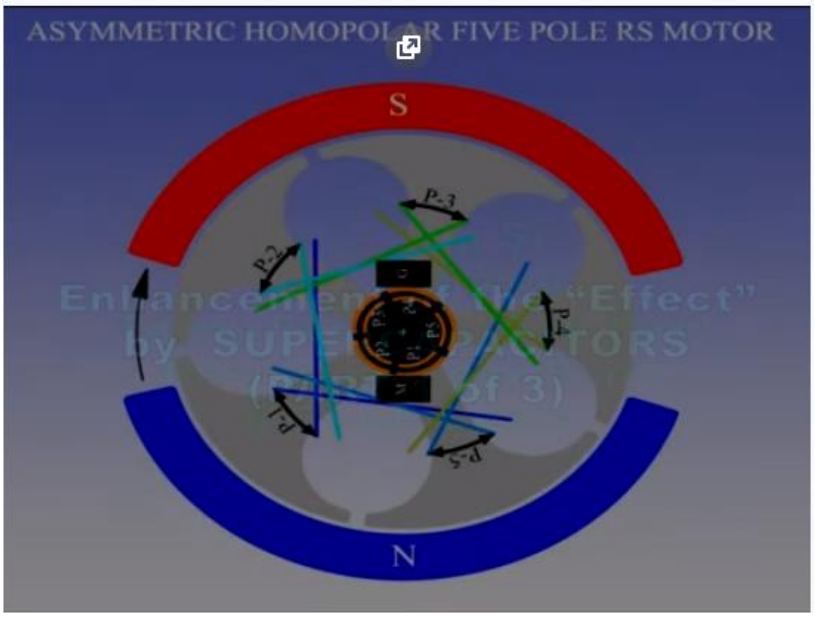
*I always believed if a person tries hard enough and long enough he might eventually die trying.*
*John*

Hello John,
I do not believe "the end" has always to be so "dramatic and sad"...come on!, there is light at the end of that tunnel...just follow its shine and reflections... So what I believe in is: "If a person tries hard enough and long enough he will have more chances, probabilities to reach success..." Success is full of controversy, critics, failures, achievements, as "in-between" stages...then again it repeats itself...same cycle, maybe different order...different colors...till you hit it. Although I do have to agree with you...you could die in the process...but I believe it is much better than still dying without even trying...and I am absolutely sure, if it happens to me...it would feel very sad, and full of anger and rage against myself...I don't want to go like that John...so I will always keep trying...

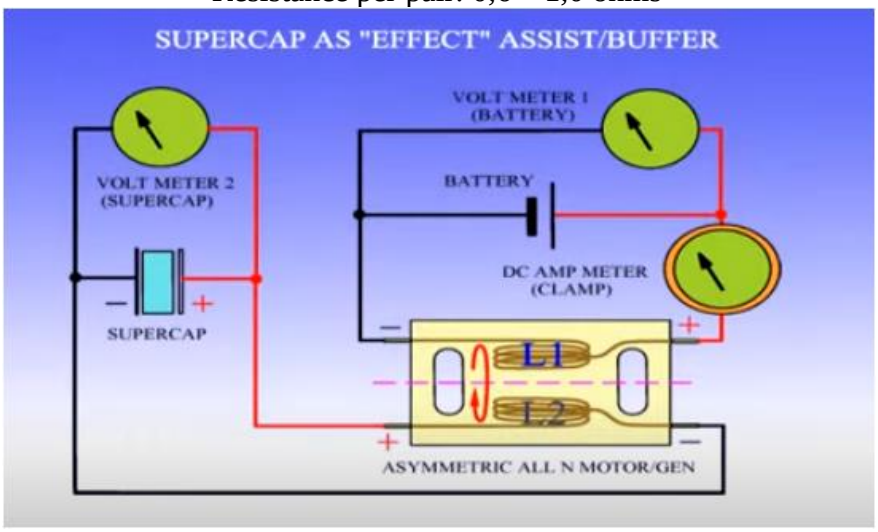
Cheers, we are almost there, so hang on...
Ufopolitics
Hello John, Regarding
Post #7023: …Personally I don't believe I'll see a self running machine in my lifetime but I would like to see a vehicle travel further for less than a conventional EV. Much further for much less hopefully.
Post #7033: …Good luck with your Goldmine motors. Has anyone used this particular one, or know anything about it like how many poles? It also looks like it might have real bearings in it. (I assume you direct this one to Dana)
**John your statement, "  Personally I don't believe I'll see a self running machine in my lifetime "**
First, we wish you happy and long life of 100+ and second, each person has a divine freedom to plan one's life in anyway they wish. What one thinks so one becomes. One path leads to success while other to failure. Personally I joined this UFO Forum when I found he has that burning desire, action plan and know how to go where no man has gone before. Not because it is easy. Most of the hard working members here identify with UFO on these traits. Most of us are not rich either but we want to change the world for the better.
As far my vision, WE WILL see self-runner sooner. It may take one of the two forms:
1. UFO Motor itself might be a self-runner or
2. Additional unit harnessing the concepts of Tesla's zero-point space energy to run our motors. I am already beginning to visualize something like prius like car running with our motor and some small battery for the control circuits. All electric car capable of 100+ mph. The energy will come from the energy unit.
Furthermore, I have been absent from the forum for some time (although I did let UFO know the reasons). Here are the reasons

but were they enough to stop my quest and send me into despair? The answer is NO (or as UFO says, “ NO SWEAT” ).
1. My oscilloscope and function generator became non-functional.
2. Just about as I was to start running my results for the GOLDMINE motor the Power-Supply 2-36V under the control of Ardunio died. I have addressed this failure with the design of the control power-supply that will go from 2-100V (110V if pushed) under the control of Arduino. This time the control power-supply will also run my next project of IMPERIAL MOTOR too. This time I also decided not to use perf boards but decided to learn and start design using double-sided PCBs using UV exposure (hot iron method gives poor resolution pcbs). The idea being that in the case of simpler boards I will etch them myself. In the case of more advanced project send the job to the BOARD HOUSE. All this comes under investment (lot of time) and it goes without saying that most the members wear many of the similar hats to get their projects accomplished. I know you too have a good machine shop.
Now the following Goldmine Motor information might be useful to you and all.
Side 1 of the original Goldmine Motor
Side 2 of the original Goldmine Motor
Original Goldmine Motor unassembled with a new longer shaft alongside and another goldmine motor for reference (as I bought 5 pieces)
GOLDMINE MOTOR - UFO 5 Pole Dual Pentagon Asymmetric Y Wind Motor armature with 5 Capacitors with different views
Test Rig for the completed Dual Pentagon Asymmetric Motor with the so called Y-wind
Now here is the small video of the completed Dual Pentagon Asymmetric Motor with the so called Y-wind
UFOPOLITICS 5 Pole Dual Pentagon Asymmetric Y Wind Motor - YouTube
Warm regards and Namaste
lightworker1

Enhancement of the „effect” by supercapacitors




Rotor winding specs:
Wire : 26 awg
Turns per coil : 8/16 pair
Resistance per pair: 0,6 – 1,0 ohms

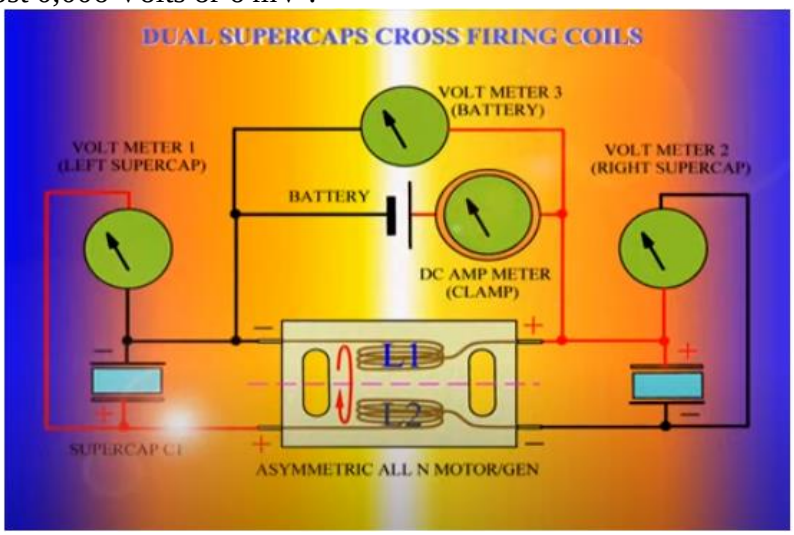



Notice that supercap is not directly connected to battery, but to output of asymmetric motor / generator or L2 on diagram. Remember also this „inductors" or machine rotor coils L1 – L2 are in constant swapping, rotating around red line rotor axis. So, L1 gets charged by battery, then „becomes " L2, dumping its reverse charges (radiant energy ) or collapse currents to supercap . Supercapacitor starts charging, but spending some of that charge into energizing L2 , assisting acceleration of machine. This acceleration result in faster charging of supercapacitor . The residual energy from L2 to L1 goes back to battery bank. This way battery and capacitor charge while acceleration increases . Batteries start on first run on 2,572 volts. After short rest batteries are now at 2,567 volts. We lost only 0,005V or 5 mV .

| | Super | Vi | Motor | Amperag |
|---|---|---|---|---|

| | ca<br>p<br>vo<br>lta<br>ge | n | R<br>P<br>M<br>’s | e |
|---|---|---|---|---|
| First<br>exper<br>iment | 1,<br>28 | 1<br>,<br>4<br>2<br>1 | 55<br>39 | 5,35 |
| Seco<br>nd<br>exper<br>iment | 1,<br>27 | 1<br>,<br>4<br>5<br>2 | 59<br>89 | 5,27 |

Motor speed started 450 RPM’s above first test , or ( 5539 versus 5989 compared frames. 2-Batteries (V in ) raised from Vin first run = 1,421 to Vin from second run = 1,452 . This means motor consumption decreased. As amps decreased from 5,35 to 5,27 on respective tests . ) . Resuming… : After a first „full throat” run, motor reached 12622 RPM’s . Vin raised from 1,426 to 1,710 ( deducing battery voltage minus Vin ) started using 1,246 volts ( 2,672 – 1,426 ) ended using 0,962 volts (2,672 – 1,710 ). Supercap charged from zero to 0,905 V , and after a short rest, batteries only lost 0,006 Volts or 6 mV .




Notice that supercaps are not directly connected to battery. Instead, supercaps are on each side, connected in series LC , related to L1 – L2 coils. However, connected this way, still assist rotation, as they will also receive a charge from generating side. Supercaps will receive a „half” charge from L1/battery and the other „half” charge will be from L2 collapse discharge. Supercaps start charging, and „series energizing” L1/L2 .. , therefore, assisting rotation as they become more charged up. To

a point supercaps will be taking over a higher % of the system, while battery bank keeps the regeneration process. Batter bank and caps charge up, while acceleration increases.

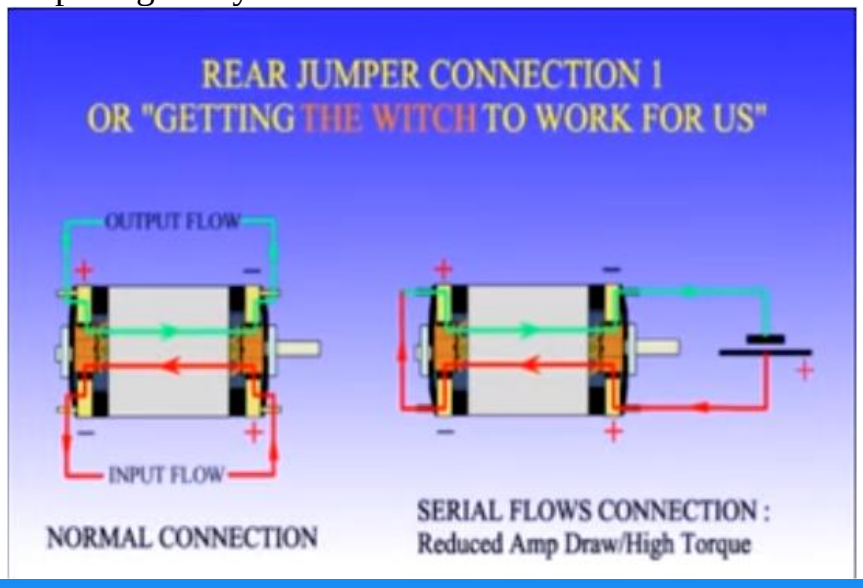
Supercap side banks started at 248,3 mV ( left) and 238,9 mV (right) battery was at 2,705 V

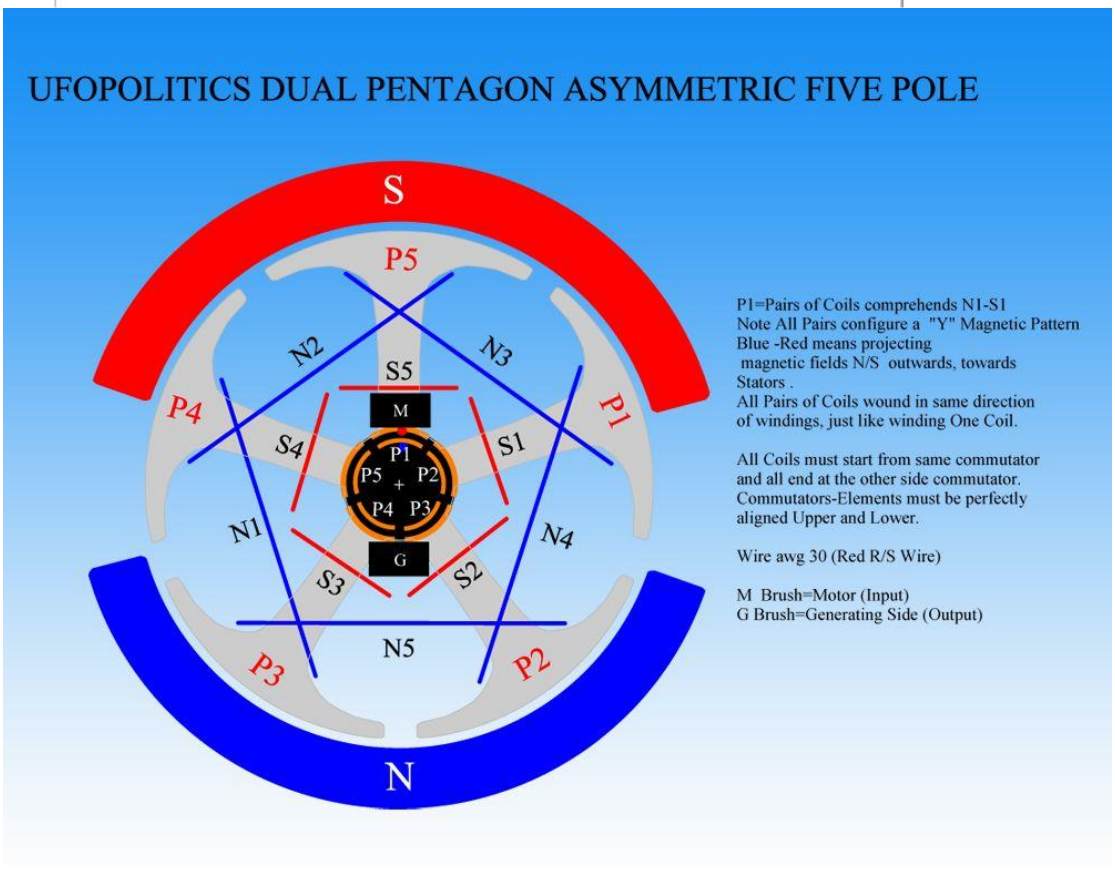
Supercap side banks achieved 1,600 V (left ) and 1,570 V ( right ) . Battery V in is at 2,146 V , meaning , motor usage is at 0,559 . If we add supercap values, we will get 3,17 volts total. Starting battery V was 2,705 , but , we pre-charged ( nickel and dimes ) the caps. Two capacitors precharge milivolts mV = 487,2 deduct 3,17 – 0,4872 = 2,683 real capacitor charge – 2,705V ( start V ) = 0,022 below .

Motor reached over 13000 RPM's on it's own generated charge ( remember motor did not move on supercaps precharge ) . Motor consumed from caps a total of: 2,886 ( added values above ) minus 2,683 ( precharge not included) = 0,203 mVolts to reach those revolutions per

minute. Batteries „lost” ( according to frame ) 0,246 milivolts , however, they kept increasing value after video finished . So far we witnessed two different LC (Inductor/cap) connections parallel on first part , and series on this video. Both connections enhance machine performance as motor as also generator without „directly” being connected to source. We could use both connection at once , since they are completely independent from each other.

Dual pentagon asymmetrical serial flows external connection

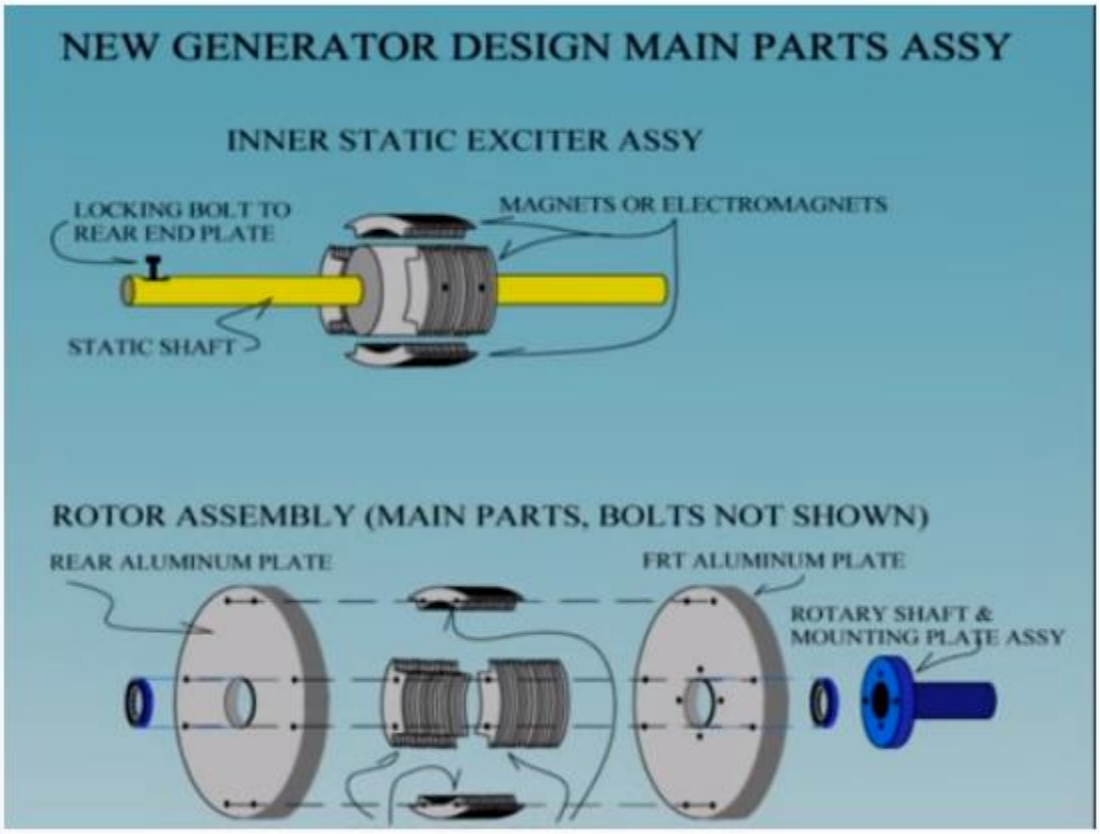


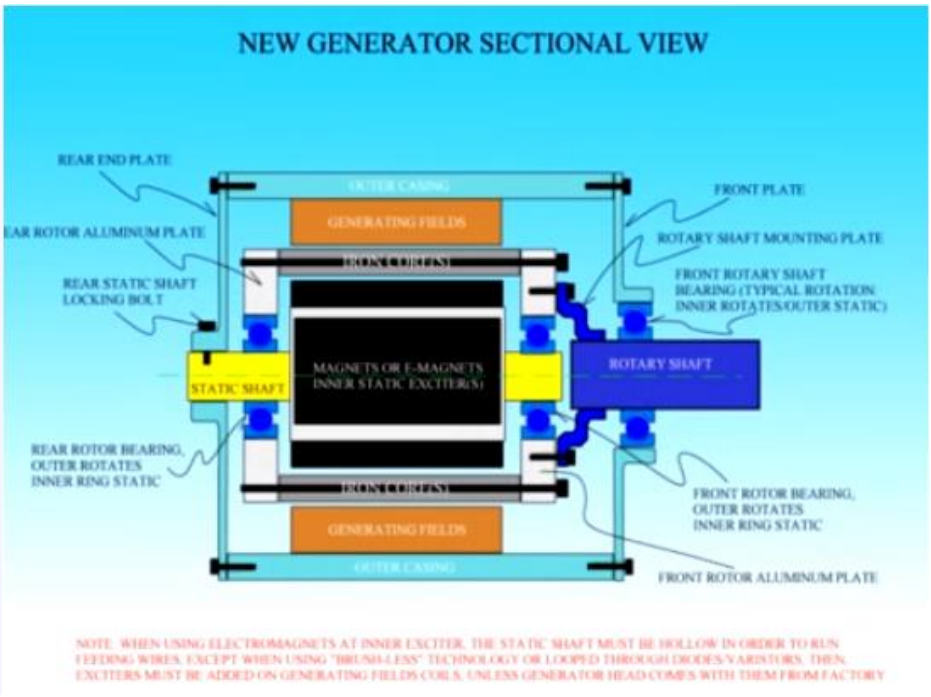




## New generator concept

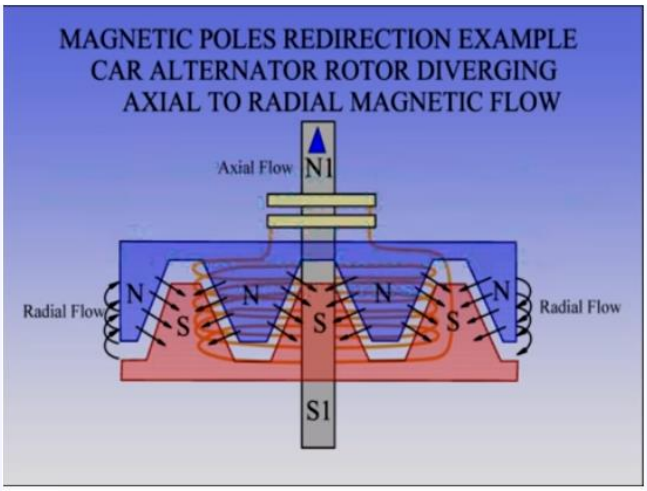
Ramadan invented a „three part ” generator, where the typical two parts ( inductor / induced ) from the conventional generator are static in his design , and the only moving / rotating part are just iron cores. This improved design reduces Lenz effect considerably, and increases the output power at lower RPM’s than normally required. I put together some

CAD’s from his nice 3D models, in order to understand this new concept generator better. The only withdraw that Syairchairun honestly admitted, was a very high cogging torque at rotating iron. This effect increases the mechanical load at the prime mover. It is result of swapping iron between different polarities. And so, cogging was verified by many members replicating in small scale at several forums , where this new generator is being discussed. I proposed a way to avoid cogging without altering Syairchairun main concept of rotating just the iron cores, and leaving static inductor and induced.

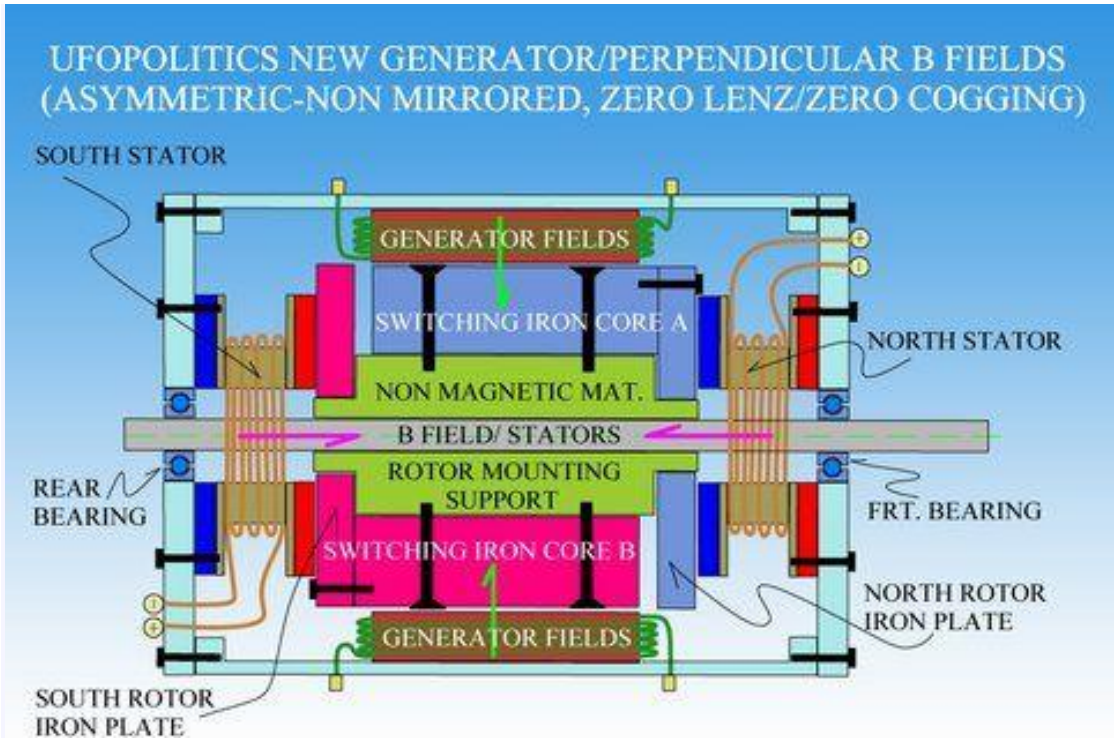


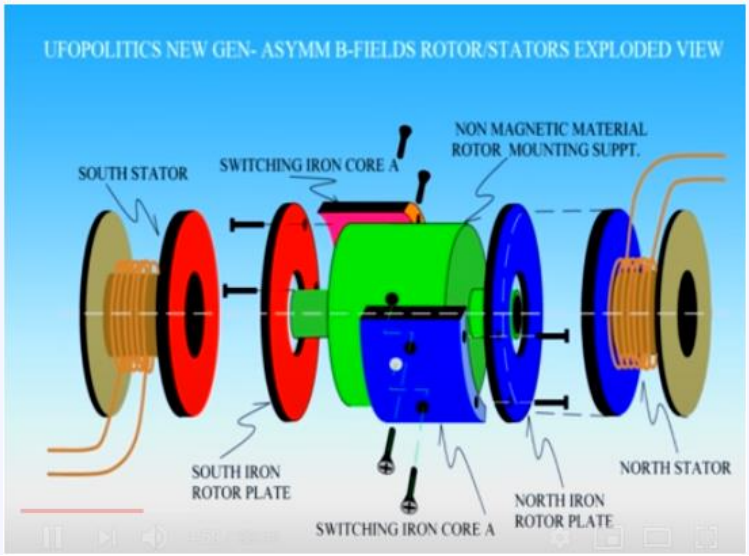


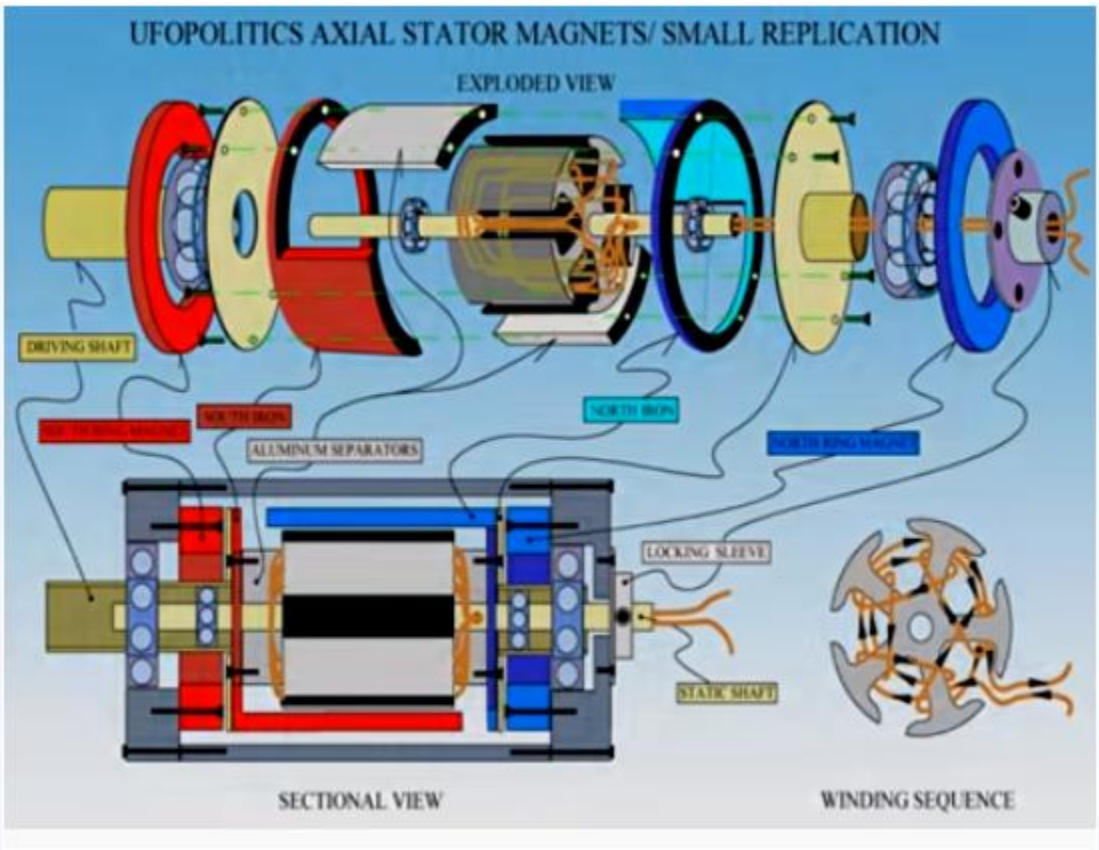

It was not my own idea, it is based from the way a car alternator exciter or inductor rotor coil, redirects the flux, from axial to radial geometries.




And applying it to perpendicularly redirect the flux from exciters, magnets / inductors / stators to non switching polarity iron cores. This way, the cogging is „history", gone.

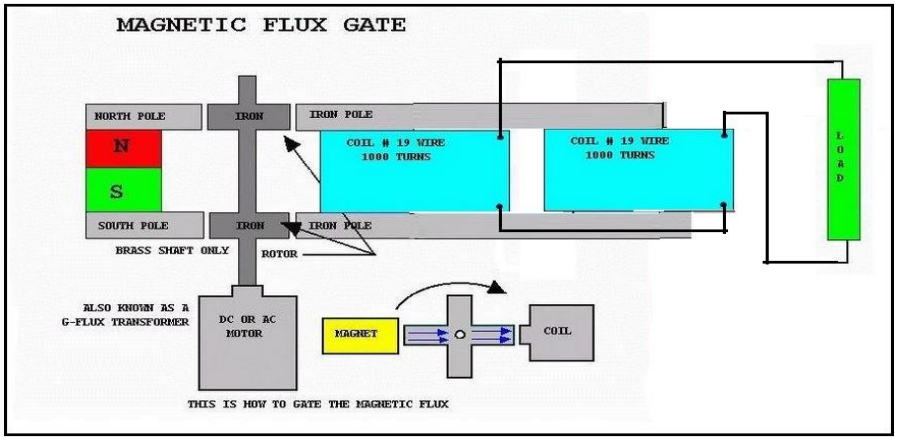

UFOPOLITICS NEW GENERATOR/PERPENDICULAR B FIELDS
(ASYMMETRIC-NON MIRRORED, ZERO LENZ/ZERO COGGING)
SOUTH STATOR
GENERATOR FIELDS
SWITCHING IRON CORE A
NORTH STATOR
NON MAGNETIC MAT.
B FIELD/ STATORS
ROTOR MOUNTING SUPPORT
REAR BEARING
FRT. BEARING
SWITCHING IRON CORE B
NORTH ROTOR IRON PLATE
GENERATOR FIELDS
SOUTH ROTOR IRON PLATE

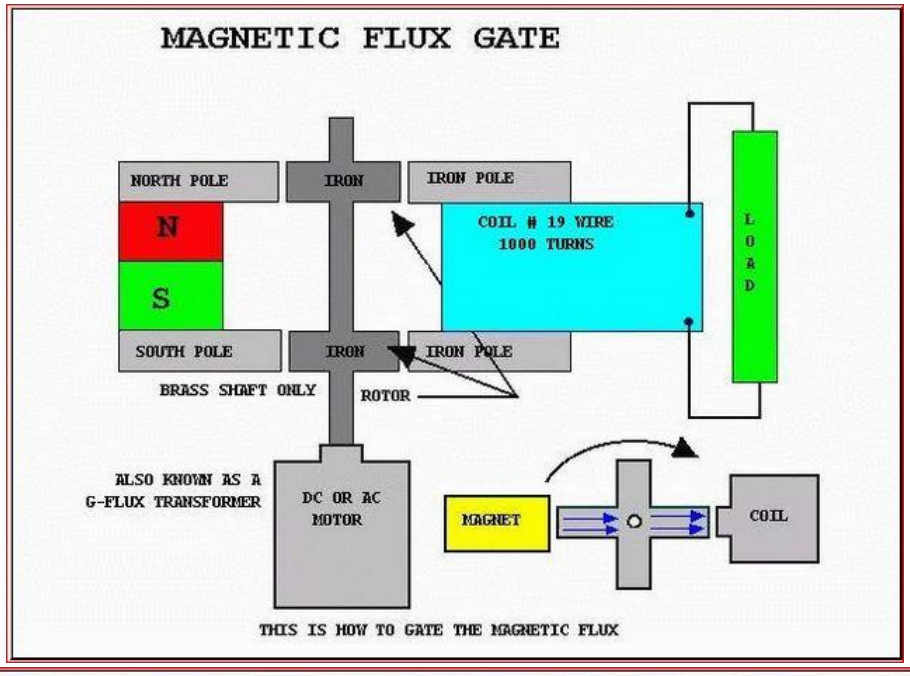

UFOPOLITICS NEW GEN- ASYMM B-FIELDS ROTOR/STATORS EXPLODED VIEW
SOUTH STATOR
SWITCHING IRON CORE A
NON MAGNETIC MATERIAL ROTOR MOUNTING SUPPT.
SOUTH IRON ROTOR PLATE
SWITCHING IRON CORE A
NORTH IRON ROTOR PLATE
NORTH STATOR

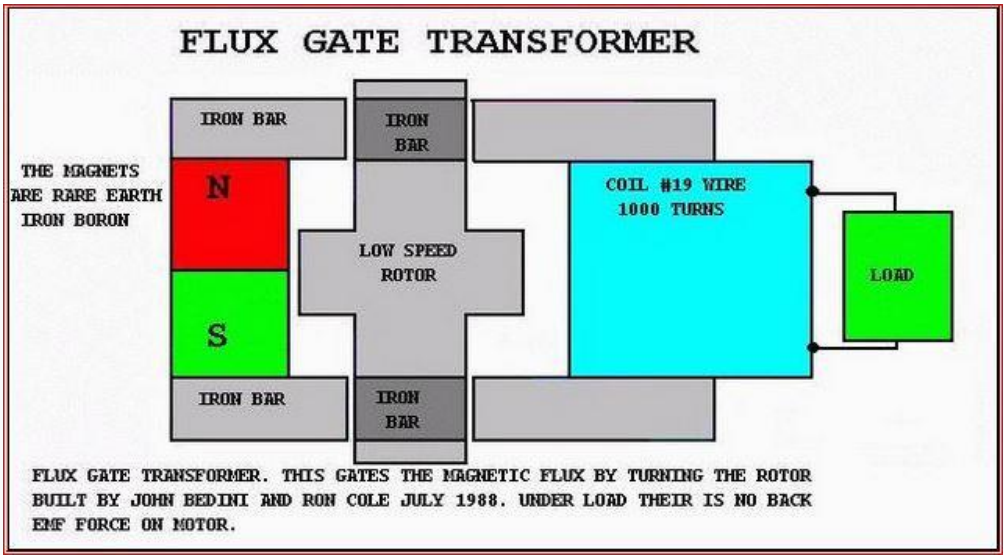


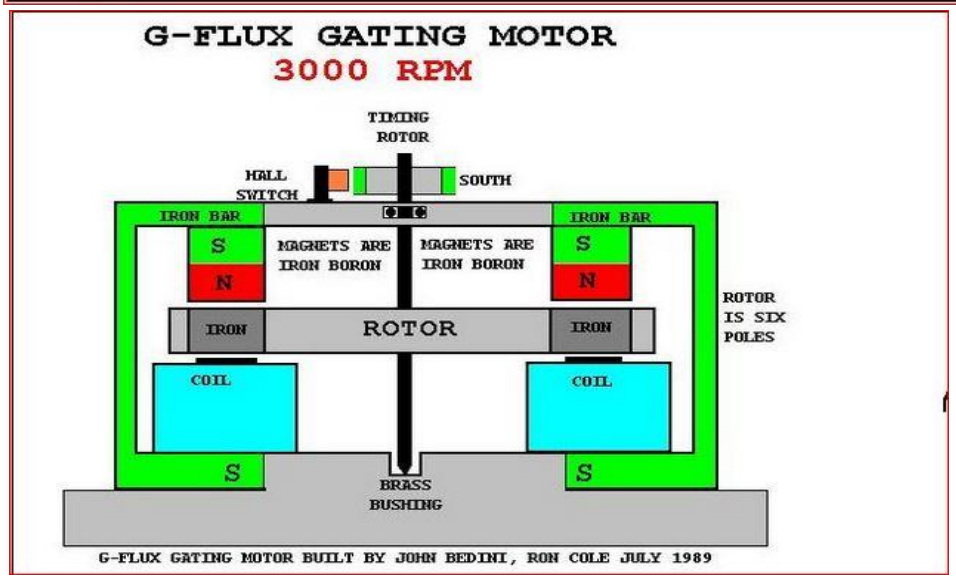

I am not looking here for overunity, nor a self runner, the generating coils are very small, a five pole does not allow to brake generating windings in – at least – two even spliced coils at 180 degrees for a normal two pole stator generator. Although, this design allows the room for a second generating field winding / core utilizing the same rotating iron cores.

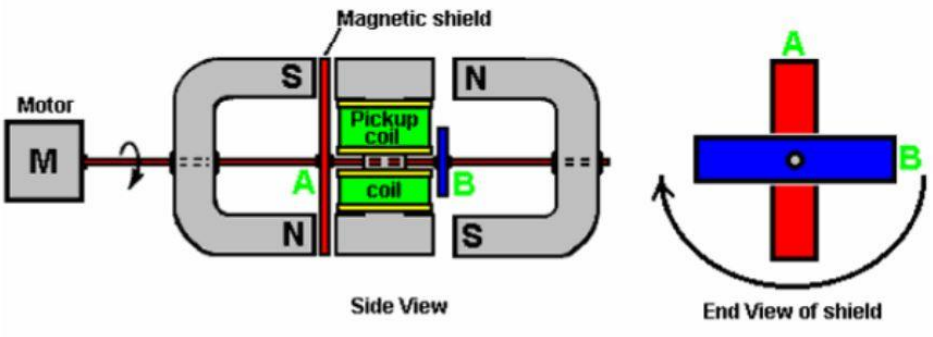
UFO, My hat is off to you for this achievement, Shorting the output coil only caused an approximate 10% additional load to the motor at all voltages tested, yet it drove all loads and you could also have additional field coils around the entire 360 body of the system. Your design might not have completely nullified Lenz's Law, but it has definitely beaten it into submission. ;)



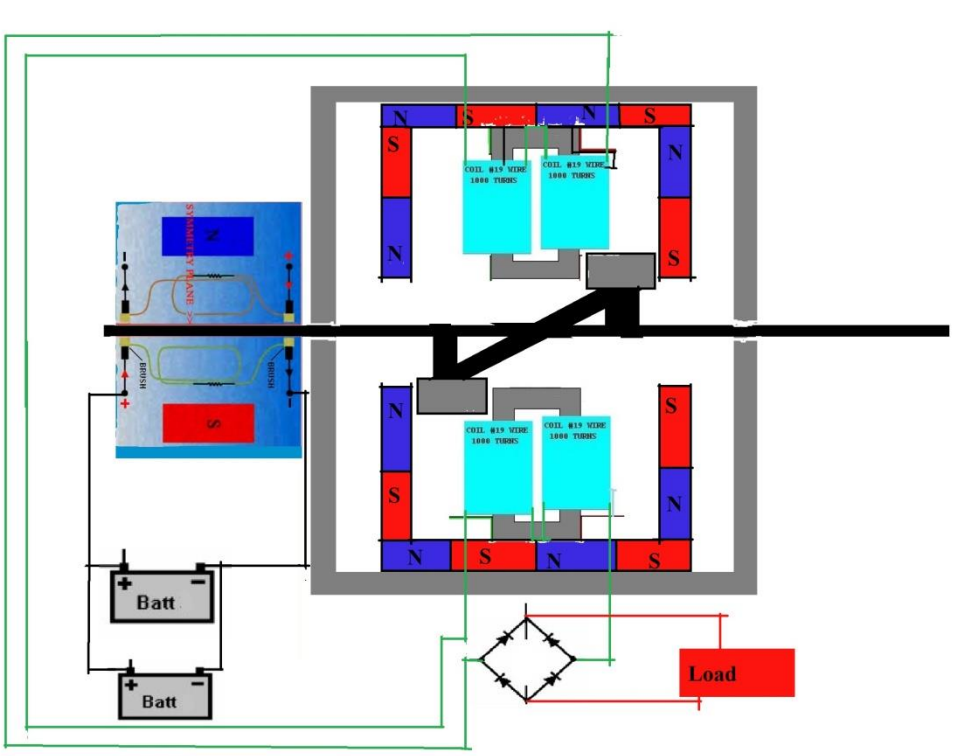

MAGNETIC FLUX GATE
NORTH POLE
IRON
IRON POLE
N
S
COIL # 19 WIRE
1000 TURNS
L
O
A
D
SOUTH POLE
IRON
IRON POLE
BRASS SHAFT ONLY
ROTOR
ALSO KNOWN AS A
G-FLUX TRANSFORMER
DC OR AC
MOTOR
MAGNET
COIL
THIS IS HOW TO GATE THE MAGNETIC FLUX


FLUX GATE TRANSFORMER
IRON BAR
IRON
BAR
THE MAGNETS
ARE RARE EARTH
IRON BORON
N
S
LOW SPEED
ROTOR
COIL #19 WIRE
1000 TURNS
LOAD
IRON BAR
IRON
BAR
FLUX GATE TRANSFORMER. THIS GATES THE MAGNETIC FLUX BY TURNING THE ROTOR
BUILT BY JOHN BEDINI AND RON COLE JULY 1988. UNDER LOAD THEIR IS NO BACK
EMF FORCE ON MOTOR.


G-FLUX GATING MOTOR
3000 RPM
TIMING
ROTOR
HALL
SWITCH
SOUTH
IRON BAR
IRON BAR
S
N
MAGNETS ARE
IRON BORON
MAGNETS ARE
IRON BORON
S
N
ROTOR
IS SIX
POLES
IRON
ROTOR
IRON
COIL
COIL
S
S
BRASS
BUSHING
G-FLUX GATING MOTOR BUILT BY JOHN BEDINI, RON COLE JULY 1989


Magnetic shield
Motor
M
S
N
Pickup coil
A
coil
B
N
S
Side View
A
B
End View of shield

*Picture 14*




# United States Patent [19]

**Ecklin**

[54] **BIASED UNITIZED MOTOR ALTERNATOR WITH STATIONARY ARMATURE AND FIELD**


[76] Inventor: John W. Ecklin, 6143K Edsall Rd., Alexandria, Va. 22304



[21] Appl. No.: 392,102

[22] Filed: Jun. 25, 1982

[51] Int. Cl.³ ..... H02P 7/66; H02K 47/04

[52] U.S. Cl. ..... 318/140; 318/138; 318/149; 318/153; 310/113; 310/155

[58] Field of Search ..... 318/140, 141, 142, 144, 318/148, 149, 151, 152, 153, 138; 310/159, 102 R, 103, 113, 158, 159, 152, 154, 156, 168, 171, 177, 179, 46, 181, 155; 322/39, 90, 100, 13



[57] **ABSTRACT**

A unitized (single unit) motor and flux switch alternator having stationary field, armature and motor windings which provides a magnetic path for some of the motor input power to feed through and increase the alternating current (AC) generator output. A rotor formed from a material having a high magnetic permeability (solid or laminated soft steel) is controlled in speed by controlling the magnitude and timing of the pulsed direct current (DC) supplied to the motor windings which may be wound on the stationary legs or the rotor. The current flow in the motor windings can be controlled by a mechanical commutator if the motor windings are on the rotor or by a solid-state converter if the motor windings are on the legs in a manner normally associated with brushless DC motors. The DC windings of the flux switch alternator can be replaced by permanent magnets since the reversing field in the AC output windings are predominantly time stationary.


FIG. 1

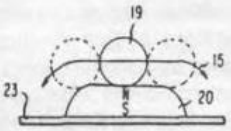



FIG 2

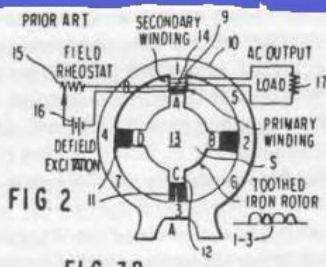



FIG 3A

PRIOR ART

FIG 3B

PRIOR ART

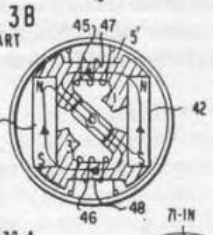



FIG 4

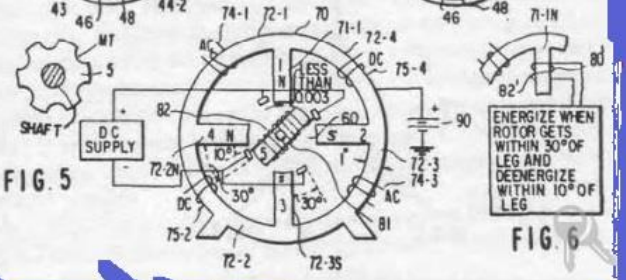
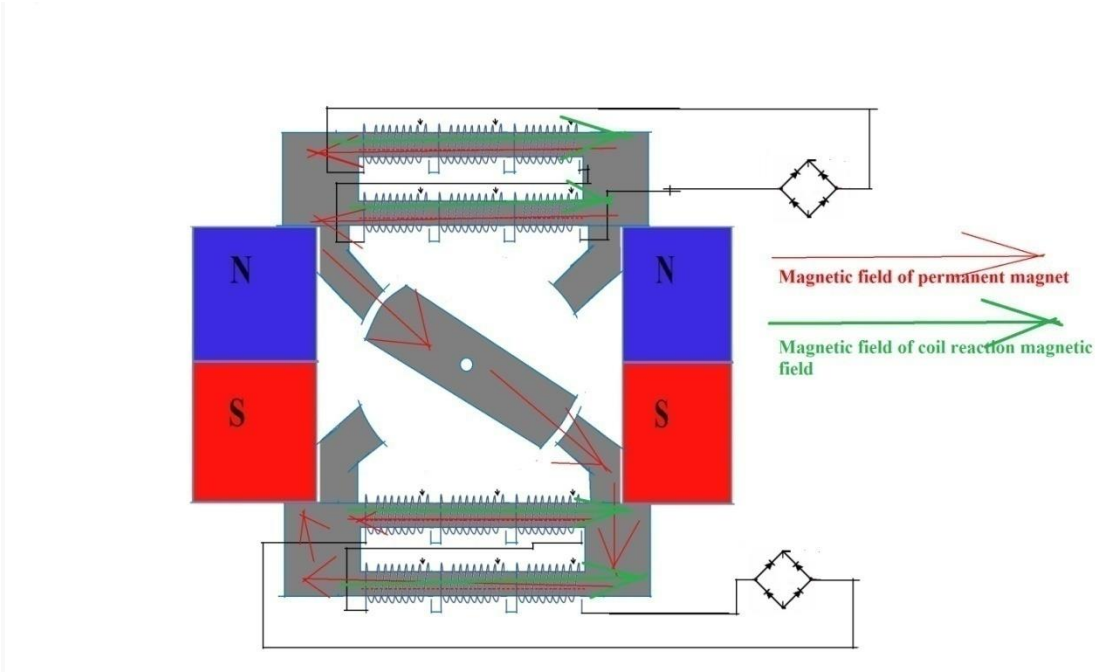
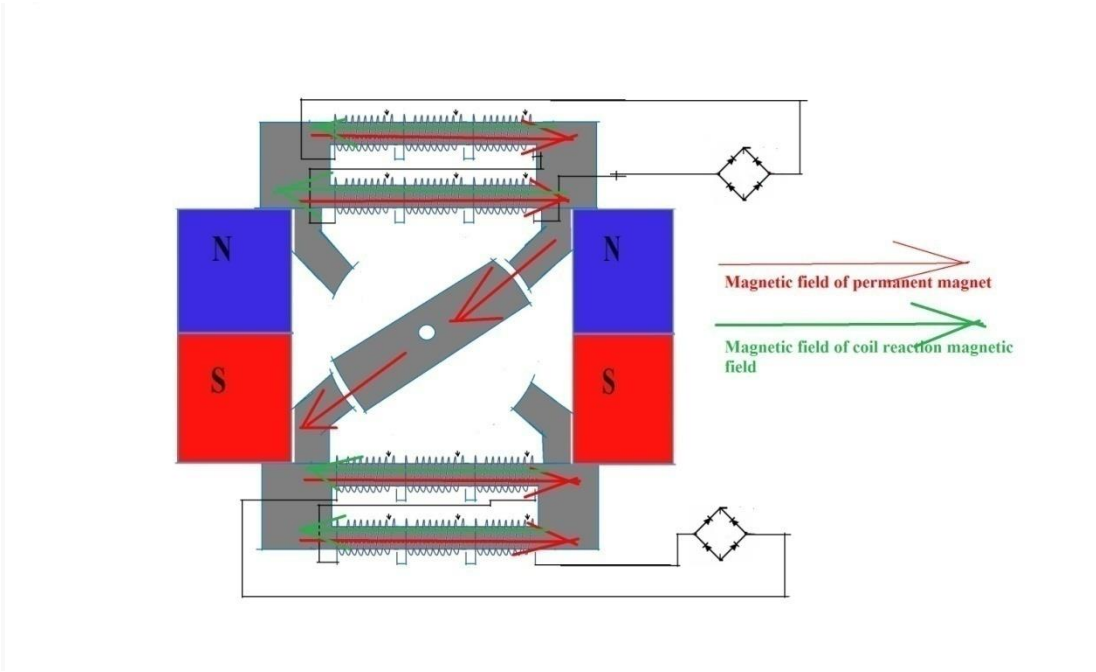



FIG. 5

FIG. 6

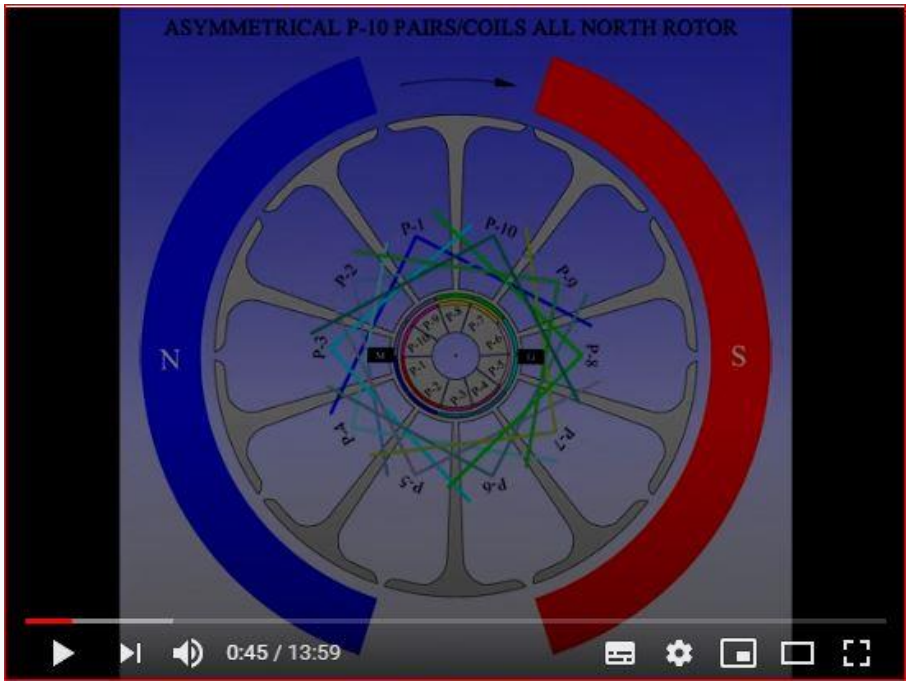


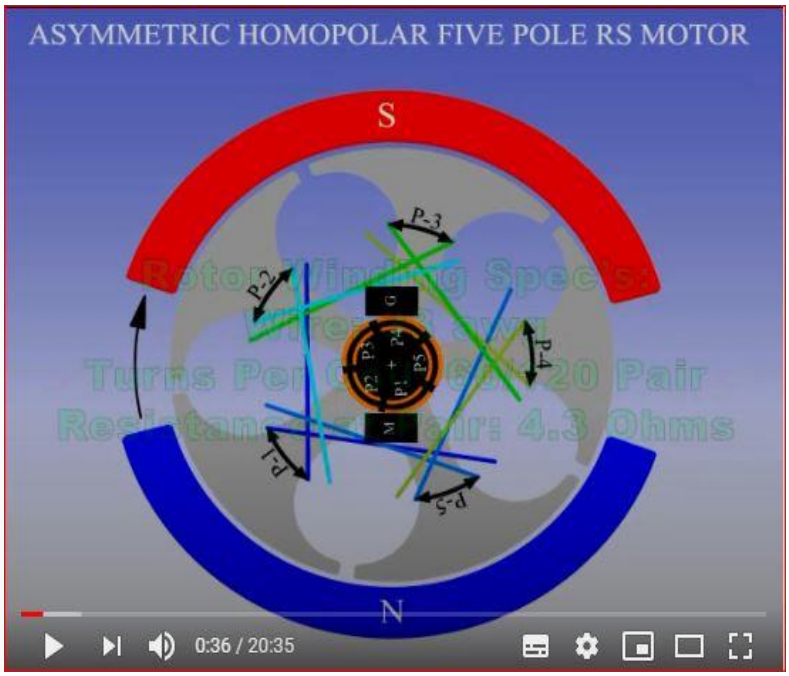




## Self acceleration and battery regeneration

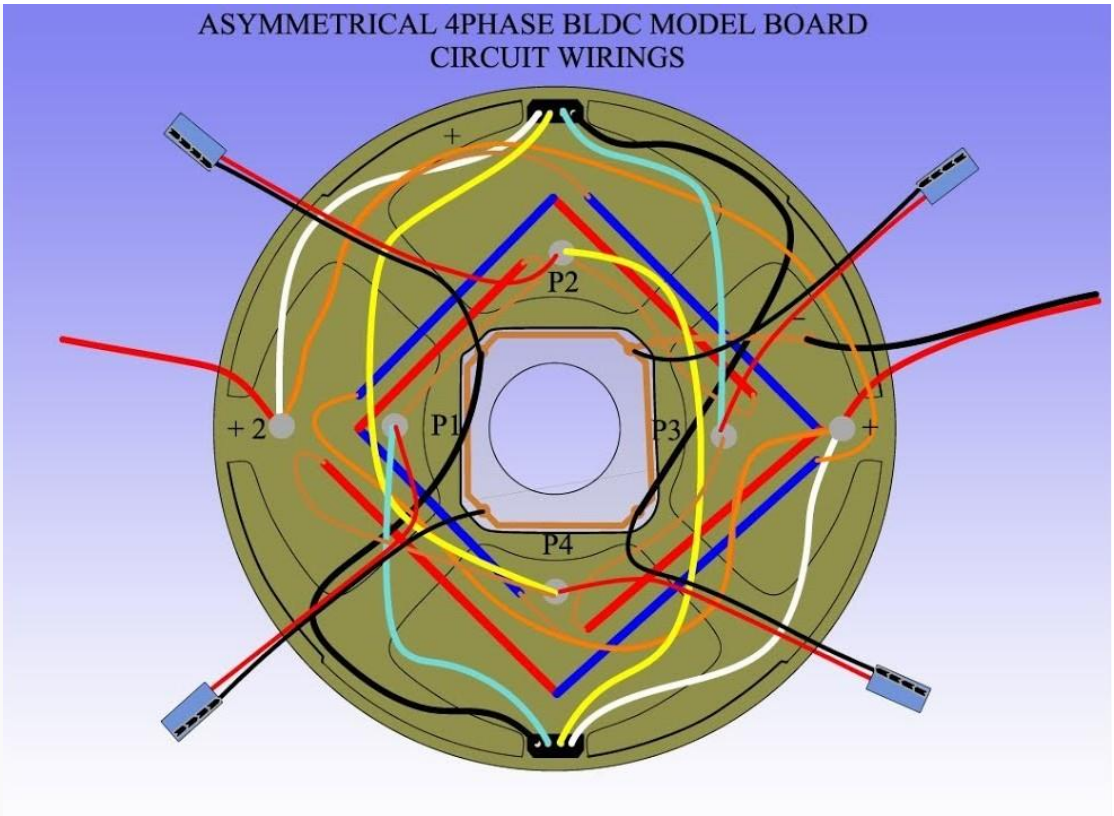
We have reached a point in Development...where our Machines -once connected- start a "Self Accelerating Process" due to the high currents being generated and spinning within their cores, strengthening their interacting magnetic fields...Batteries are being "Regenerated" through a single wire loop that also feeds/runs machine... Those above two Facts shown further on this video, are "not possible" for Classic Physics...where They taught Us ...that every machine and their "limited" energy source (batteries) are "expected" to suffer a Decay over Operating/Running Time...therefore, never, ever showing a Self Gain... They also taught Us

that electricity runs "one way only" per conductor... None of those "Classic Statements" are true. Otherwise Battery will never keep gaining voltage instead of decaying... while running Machine very strongly, through a single wire loop... And this is just the beginning... where we are "playing" with small little toys, like asymmetrical 10 pairs/coils all north rotor .



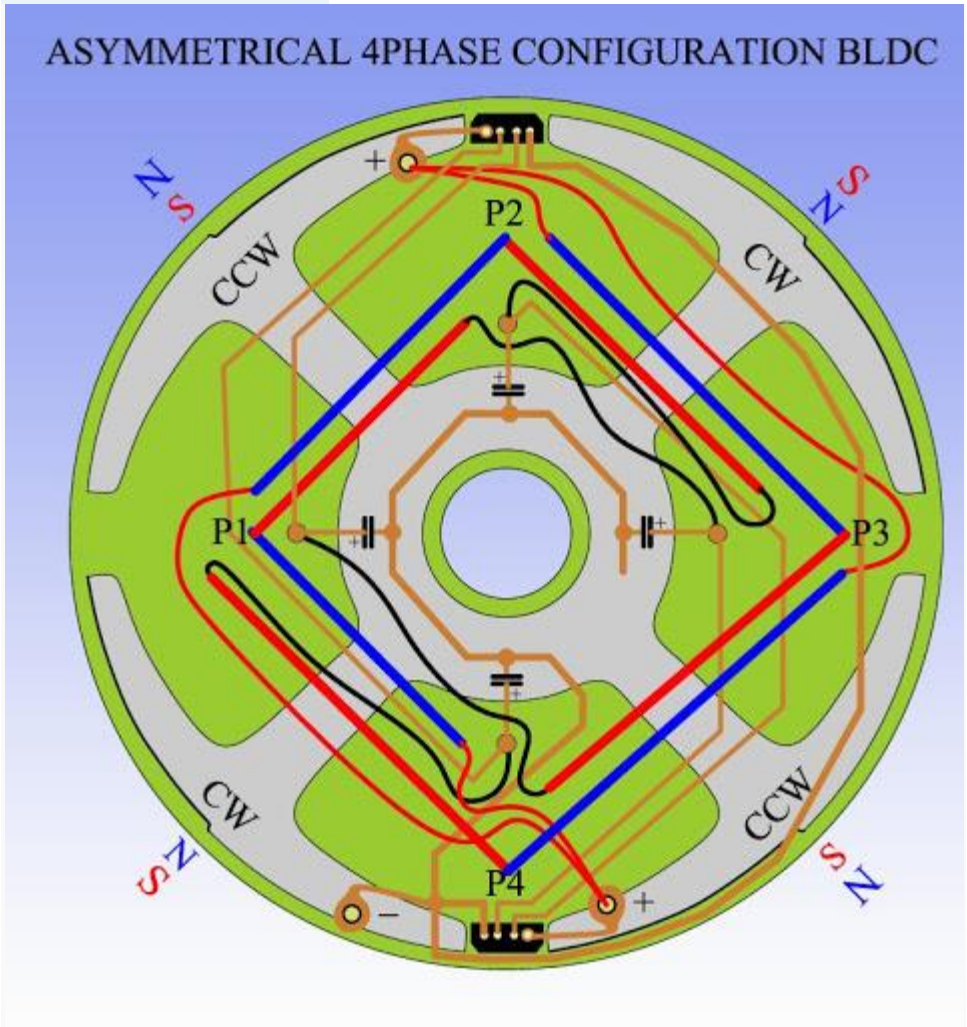



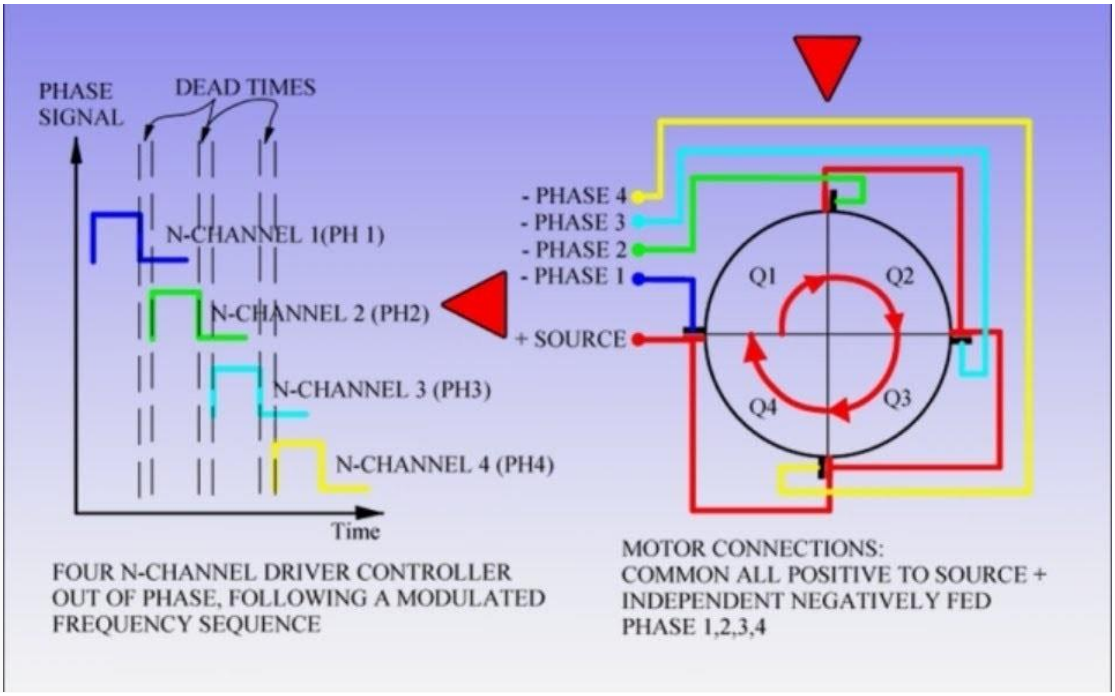
# Asymmetrical brushless motors




A new concept to the Art of Electromagnetic Rotation Methodology, that includes new structuring of the Mechanical Architecture of an Electric Motor and/or Generator or combination thereof, extending to the methods for processing their Input-Output governing data. Static and rotational components, particularly individual isolated groups of coil elements performing dual functions as a Motor and as a Generator at specific angles within the 360 degrees of rotation. An specific and unique feature of this methodology is the non reversal of the input current-voltage polarity within the actuating individual isolated coils during the motor stages, causing a non changing magnetic field pole projection due to a one sense or direction magnetic flux in their respective cores, rotation occurs by switching intervals of On and Off Times at specific positioning, such that a repulsion and/or attraction is constantly obtained at T-On, of individually orderly sequenced North-South poles. This particular switching times On and Off creates a one direction, non colliding electronic flow within the isolated conductive coil elements deriving into a pulsating current dropping to zero (at T Off) to Max V in (at T On), equivalent switching codes as to the electronically controlled Pulse Width Modulation (PWM) utilized to control the current feeding input in Electric Motors and the Input-Output parameters of Power Source Converters, this identical Data-Transfer, based on Pulsed Signals, establishes a common language of operation between machine and input-output control commands, leading into a robust communication protocol. The advantages that comprises a Motor and/or a Generator driven directly from the core by pulsed signals, extend to the incorporation of Optoelectronic s as to replace the Old Fashion, brush-commutator switching systems by an emitting pulsed width modulated (Infrared PWM

as an example) or linear optical signal (Signaling steadily where On Off occurs by mechanical-magnetic loosing angle of interaction) to an Optoelectronic receiver connected to the Power Switching Executing circuits, delivering a less friction, low noise, more accurate and precise communication Network.






*Originally posted by* ***Ufopolitics*** *View Post*

*Hello to All,*
*Well, finally the second part video is here...*
*ASYMMETRIC BRUSHLESS PART 2 - YouTube*
*I did the board wiring with just small color coded insulated wires, for easier replacement of the small caps as well as taking on-off the whole laminated core...swapping rotation direction, etc.*

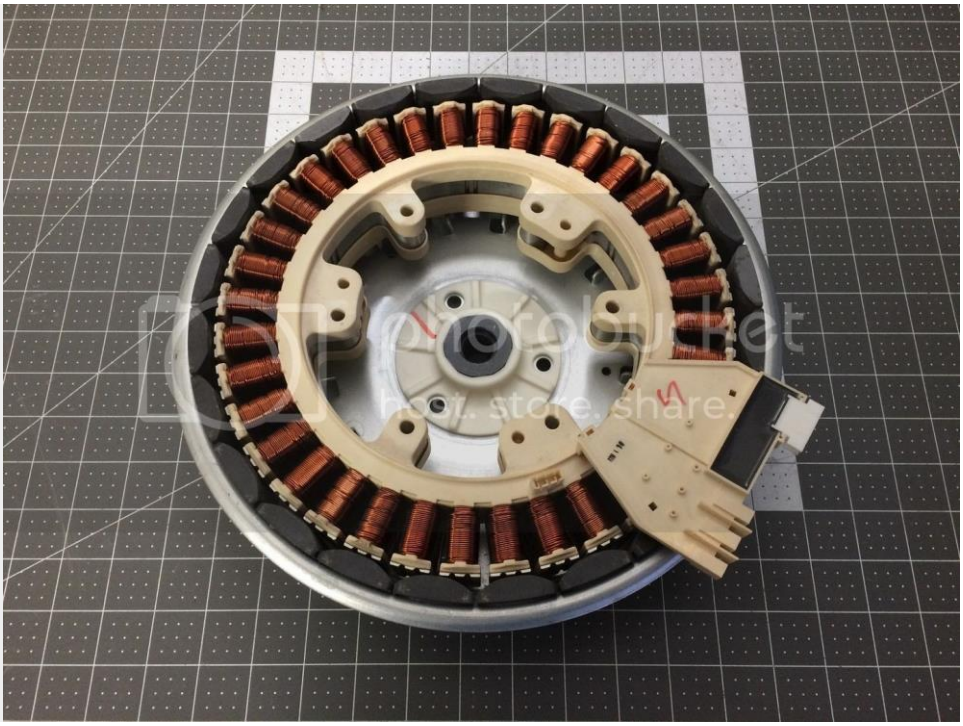
*I had problems with one of the sensors...one of its outputs (blue)started to show a small resistance value (20 ohms) with positive Vcc, not good, that pair was pulsing too weak, had to replace IC... I also had problems with small original caps retaining some Milli Voltage steadily, and not discharging to zero or close to like supposed to...due to higher radiant,*

*higher BEMF Spikes because of more copper on same steel volume...I will eventually measure this exact running values when I connect all four outputs to Scope...The Solution was higher Voltage rated caps, same value, or 2.2 uF but 100V...then retention of voltage went to 0.04 to 0.02...or nothing...we have more voltage in our fingers...*
*In future tests...I am looking at adding some small Non Polarized Caps Parallel to each Pair, about same timing capacitance or 2.2 uF...creating "Momentary" LC Tank circuits for each...in order to "flash" store Radiant in each Off Time Pulse, reversing magnetic polarity...and use it more robust to assist motor Pairs while being turned On by Hot Pulses...same deal we had before on our Brush Type Asymmetric Machines, except that here we have plenty of space to do it externally and stationary...*
***The Basic Results were:***
***Two Symmetric Fans in Parallel running at :***
***11.5 Volts** drew **0.47 Amps**, each outputting around **2000 RPM's***
***One Asymmetric Fan, connecting All Pairs:***
***11.5 Volts** drew **0.39 Amps**, outputting around **2700 RPM's***
*At **13.8 Volts** drew **0.46 Amps** reaching around **3000 RPM's***
*The idea of building this type of small Four Poles ...is to be able to "modulate" sections like this structure and spread them along bigger circumference machines...in series, to add resistance values, decreasing amp draw...every 90º, 120º...etc,etc. I am currently working on a bigger 24 Teeth Laminated Core for future Asymmetric BLDC model...maybe a Six Phase Circuit...a P24, 48 Coil Spiral...*

*Comparing Diameters... :*

*Regards to All*
*Ufopolitics*

Looking at this from page 198, kind of a loose end. Still looking at the BLDC fan motor demo you did to understand how to introduce the extra hall sensor. Also wondering what a homopolar design would look like on it. Washing machine motors look like great candidates! Look at this standard type BLDC motor!



Real easy to work with, cheap used too.
Definitely on my agenda, will try the fan motor conversion!
Up, Up and Away

*Originally posted by* ***Bob Smith*** *View Post*

*Hey UFO*
*Blast from the past post here... I've often thought over the years that we really didn't get everything we could out of this new design you developed for this simple 5 pole motor.*
*You termed these rewound motors "asymetric machines", and rightly so. They are not a completely closed system, and I believe that was your original intent - keeping the dipole open, in order to allow the aether to interact with the apparatus with each pulse it produces.*
*I can't help but wonder what it would take to get your 5 pole motors to function in a way similar to the way EV Gray's motors did. While there were design differences (e.g., the Gray motor used stator coils, rather than magnets, I believe), perhaps some of the principles from Gray's work could be applied.*
*I believe Gray's motor design used pulsed charge to stress the dielectric in an exaggerated way, forcing it to essentially "push back" charge into the motor. Consider (and I'm sure you have) Don Smith's understanding of how capacitors work - that a charge supplied to one plate draws a charge from the aether to its opposite plate. Seen this way, the capacitor essentially stresses the dielectric, and the dielectric/aether responds with a charge to the opposite plate.*
*My question for you and others is:*
*How can we take your rewound 5 pole 2 commutator motor and integrate this concept of increased dielectric stress into it, to increase its interaction with the aether through greater capacitive dielectric stress?*
*Regards,*
*Bob*

I think the way to do it is to go to high voltage pulsed power controller, and shift to BLDC motors...

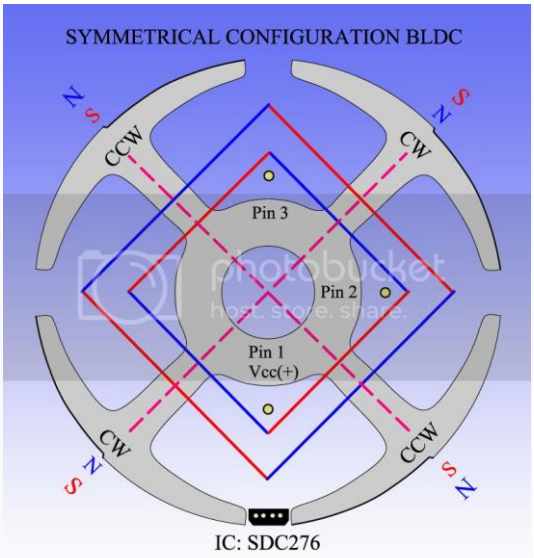
*Last edited by sampojo; 05-07-2019, 08:10 PM. Reason: sp*

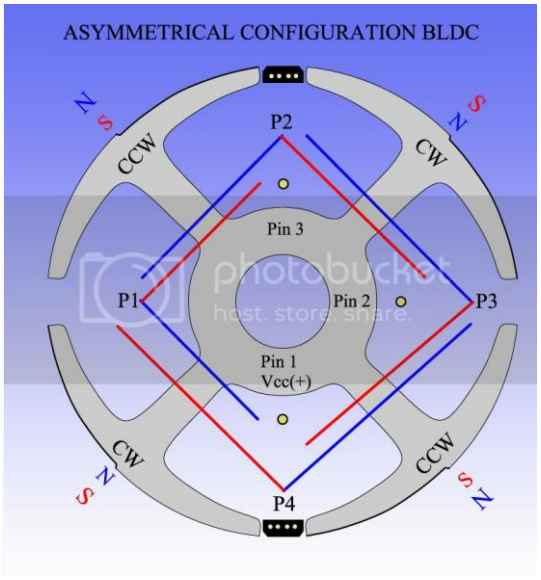
## Up, Up and Away

## Trying to improve upon the BLDC design

*Originally posted by* ***Ufopolitics*** *View Post*

*Well...if the Symmetrical looks like this, then our Asymmetrical Spiral would be like this:*




*I only have wound P1 and P2...half a Machine, just one sensor...and it does less Amp draw...and more RPM's and Torque than Original Symmetric...*

*The Complete Model will have two IC Commutators, like represented above (same thing we did with our mechanical Dual Brush-commutator system)...each IC would handle (turn On-Turn Off) Two Pairs, in order*

*not to overload just one side of the circuit...as also to maintain rotation compensated at 180º.*
*It would be understood this concept is completely "Modular" as it occurred in all previous P Series Asymmetrical Winding Machines...being expandable to many other number of poles configurations.*
*We are just Pulsing/Collapsing Stationary Coils here like we did in my First Thread...so, it is also understood, we could derive Radiant Output from each Pair-Coil in their Off Times.*
*Positive is common for all Coils.*
*Regards to All*
*Ufopolitics*

So this winding seems flawed. Here is the part 1 video:
ASYMMETRIC BRUSHLESS PART 1 - YouTube
If you look at the video at ~13m by steping it thru, the fan is rotating BACKWARDS. This will leave the fan blades less loaded, being be unable to scoop the same amount of air as the original motors. And the design is the old style coils with N and S subcoils, instead of the newer concept of homopolar winding. I haven't been able to conceive how to do it that way myself so far. It may not be possible... I notice that the design on the larger BLDC motors, the coils alternate N and S to run. This will alow a magnet to get twice the torque opportunities. This will mean forcing a polarity shift in the coils and losing the advantage of using less energy to realign. This video at about 4m shows the coils alternating in polarity.
[VIDEO]https://www.youtube.com/watch?v=8LXPcJD6hEA[/VIDEO]
Also it seems that the unused set of coils in any stroke operation gets isolated, thus confining any CEMF force? Thus could BLDC motors be incorporating features of Ufo's Asymmetric Motors somewhat?

*Last edited by sampojo; 06-01-2019, 07:43 PM.*

Up, Up and Away

*Originally posted by **SkyWatcher** View Post*

*Hi folks, Hi ufopolitics, thank you very much for sharing your work.I comprehend how you have the 5 pole armature coil wound with the 2 stator magnets. So this arrangement allows more of our input voltage to charge the armature coil to create a magnetic field, instead of the usual symmetrical counter emf loss plus commutator loss, which destroys at least 75% of our input voltage. What is the percentage of input voltage loss due to counter emf with this pyramid-V coil pair style geometry, or is it more a case that it aids rotation.I'm still trying to fully comprehend how*

*it either prevents much of the typical clashing of induced counter emf or aids our input voltage.*
*Gotta go to a birthday party, though later, I am going to draw this on CAD, so I can rotate it and see things better.I seem to recall, Robert Adams designed an asymmetric design like this also. Thanks again.peace*

*love light tyson*

Hello Tyson,

Yes you got it right basically...but let me clear some small clouds... We provide Source to Input, energized Pair of Coils build a "per-conceived" magnetic field that would be immediately attracted repulsed away from original positioning, **Coil will disconnect from source, and will travel free...separated from original brush contact**...here, in this nano seconds...it will build an opposed magnetic field, therefore an opposed voltage potential (just like the Inductor does at the Booster-SEPIC-Buck Converters, that is why I spent hours building the 3D Graphics of the Inductor part at my video...lol)...Inductors, as my Coil in my first Thread...build an opposed magnetic field provided by Radiant....The "Princess"... . I have much better proof of that fact, coming soon...well not too soon...but coming. When Coil reverses magnetic polarity, it happens exactly at a point where it will assist rotation...(And here you guys could understand Joe Newman statements, as well as many Free Energy Inventors...that their motors used the C EMF to "assist rotation" which did not make sense to anyone..but I did understand what they meant... You have to realize that Symmetry creates the Counter Effect, by providing an inverse Input to Source...that is NOT the normal reversing that occurs when Coil is interrupted... or Inductor in a booster circuit board...Symmetry KILLS the Natural Counter Effect, by creating a fake one with Hot electricity...The Natural Radiant Counter Effect will never get out ever...unless we FREE those Coils at least a small portion of the time... Resuming, We are using the Commutator Switching, just as an Electronic Oscillator Switcher, but mechanically operated...So, Charged Inversely Inductor will travel to "Delivery Brushes"(Output) where We collect it... You Guys need to get "Familiar" with The way SEPIC Converters work...I could not do it on video because of time... But a SEPIC is a Dual Inductor Converter...it performs a Charge-Discharge Alternatively of both Inductors...through a Non Polarized Cap between the two Inductor legs connected to output...I have done exactly same connections with my motors...except the Inductors are also performing a Mechanical Rotation (using their swapping magnetic fields) A CUK Converter is more complicated function and it "inverts the output",so it is NOT a good example for this understanding... And Yes, We do "Add" and not subtract the Input to Output Values...they are not opposed anymore,

but on our side...therefore: **Ea (Input) and (-Ec) (Counter?)..NO MORE**, it should be written as Ef (E forward), and have a + sign in front...then it will be: Ea+Ef=Ev (Effective Armature Voltage)...disregarding R to One Ohm (1.0) I hope this explanation made

it a bit clear...hope so...

Regards

Ufopolitics

Hi ufopolitics, thanks very much for clarifying.I think I comprehend better now. This sounds similar to what garry stanley was claiming with his dual rotor air core motor, though the method of reducing induced counter emf briefly was a little different and similar at the same time. So it is the collapsing magnetic field of the coil that is neutralizing the induced counter emf upon entry into next commutator segment, which allows most of our voltage input to remain intact, for charging of coil to create magnetic field for motor purposes. And the pyramid-V coil geometry with proper armature/stator geometry allows for this collapsing coil pulse to be in a position to not only naturally neutralize the induced counter emf, but in this case, causes an additive motoring force, whereas without armature/stator magnet geometry, we would only be partially neutralizing the induced counter emf and not have the added motoring effect from the collapsing coil pulse. Hope my comprehension is closer to the true function, if not, take your time with a response, as I know you are working to share more practical replication information, which is probably more important. Thanks again for all your sharing.

peace love light tyson

Hello Tyson,Yes exactly as I said, and you said now...they DO reverse magnetic polarity, and assist rotation big time...whilereturning our Input magnified... Now the turns here would be as much of a decent gauge it will allow...You could "pack them" as you finish Coils, basically at sides to allow for the other Coils to fit, and also the furthest away from core the commutator would be...the more space you would have...packing could be with a plastic (not sharp, but very soft piece, rounded smooth, or could be also a Paint Wood stick...Well if you look at it...there are two Coils against just one (N-1)...it is not "supposed" to move at all right?This is "THE REAL" Counter effect, Tyson...the Symmetry produces a "Fake" a False one...is forced to be createdthrough reversal of polarities, killing the real one...That is "The Story Teller" proven here, my friend.Regards and much peace,love and light for you too my dear friend

The thing with this Asymm motors is that Coils at Motor-Gen can not be facing each others at 180 degrees...or will cancelelectrical flow...because of opposed Magnetic Fields...

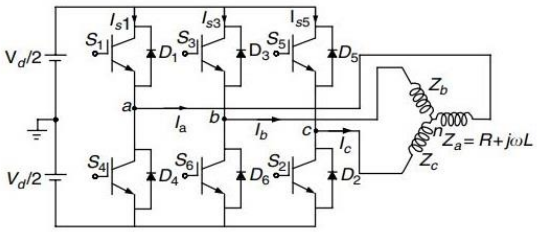
**The Secret for this windings (ALL) is the fact that**

**They could NEVER be Opposed to each others as Pairs of Input and Pairs ofOutput touching both the same Commutator Elements at same time at 180 Degrees.**

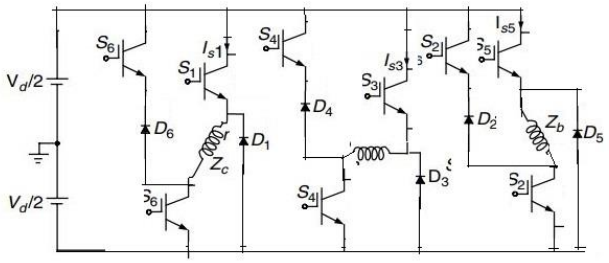
**This will cause Two OpposedMagnetic Fields Interlaced will CANCEL to Zero...So Your Outputs will be very LOW.**

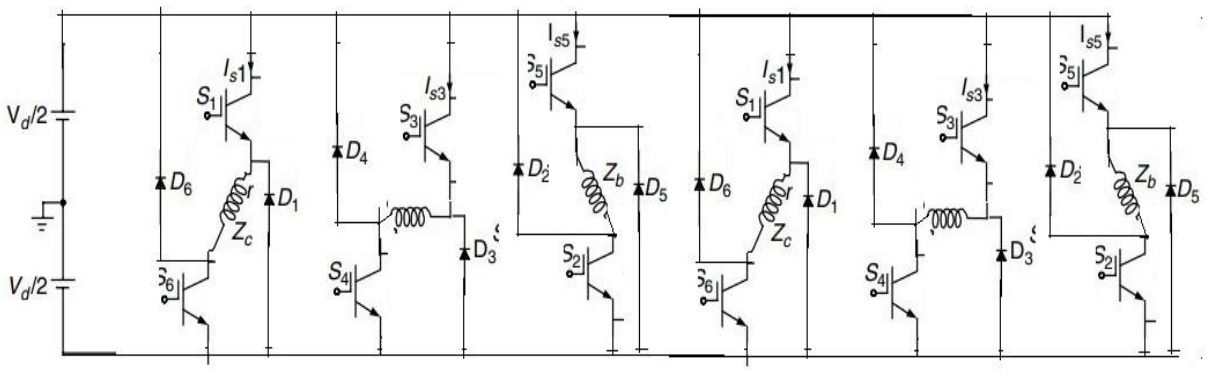
You just wind it as winding a straight through Coil...no matter what paths over the core you have to follow...Understand me? Meaning that a continuous Wire wound will render at start , let's say an N projected toward Stators, and the other side ITSSouth projected also outwards...I think that getting distracted from Cores-Poles Config's get you guys confused, so FOCUS on your wires first, and theirdirection to follow.The other thing is to MARK YOUR START WIND PRE-CHOSEN COMMUTATOR . Because once you start turning it, it could be atendency to confusion...

**Symmetric motor driver circuit**




**Asymmetrical motor driver circuit**




$$\tau = B * I * N * S * \cos(\omega * t + \Phi)$$

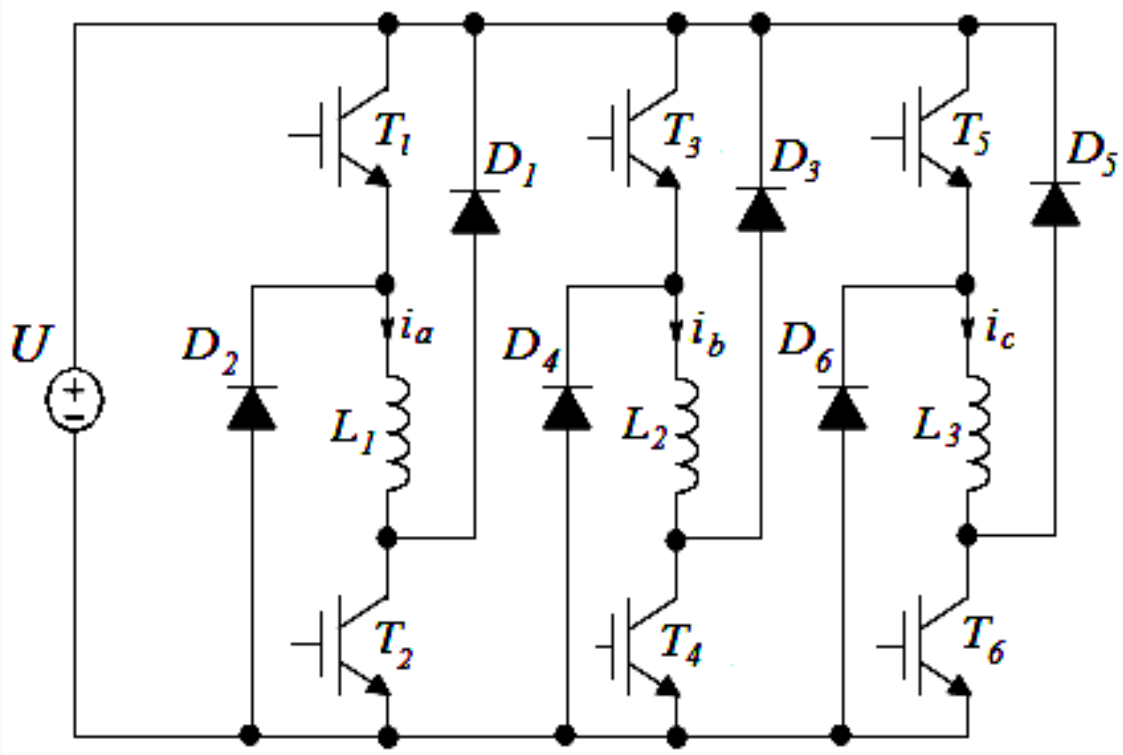
$$P = \tau * \omega = \omega * B * I * N * S * \cos(\omega * t + \Phi)$$

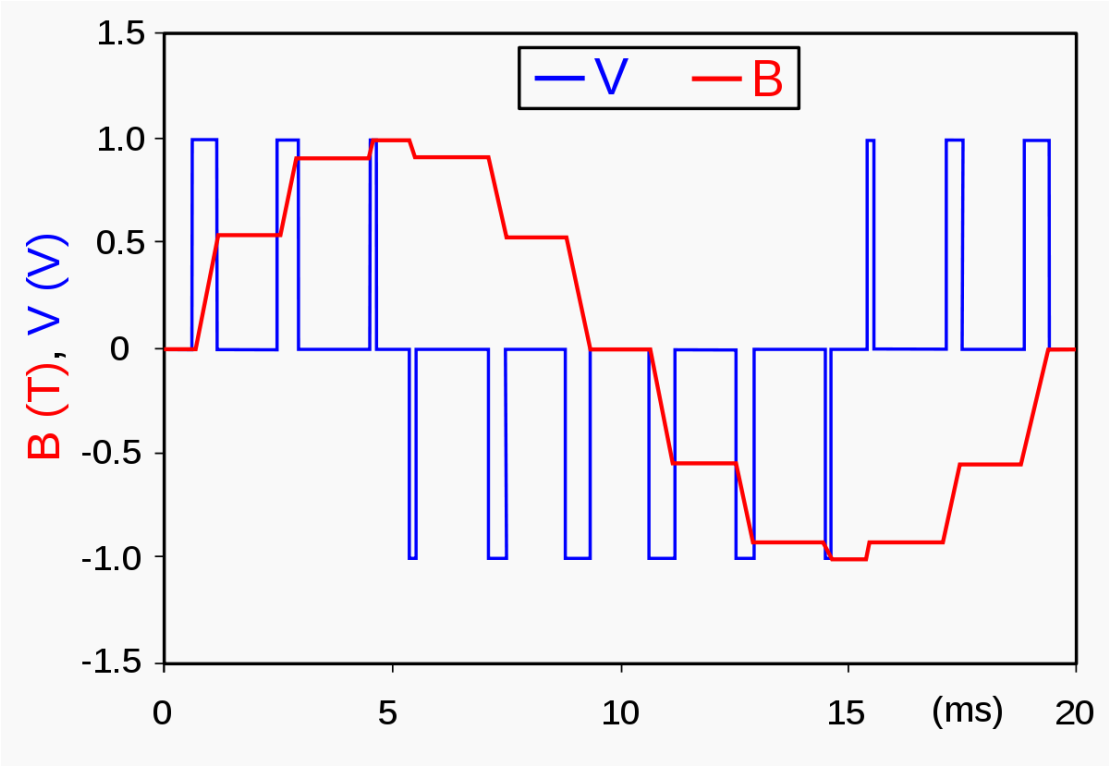
$$H = \frac{\partial D}{\partial t} + I$$

$$\tau = B * \left(\frac{\partial D}{\partial t} + I\right) * N * S * \cos(\omega * t + \Phi)$$

$$P = \tau * \omega = \omega * B * \left(\frac{\partial D}{\partial t} + I\right) * N * S * \cos(\omega * t + \Phi)$$

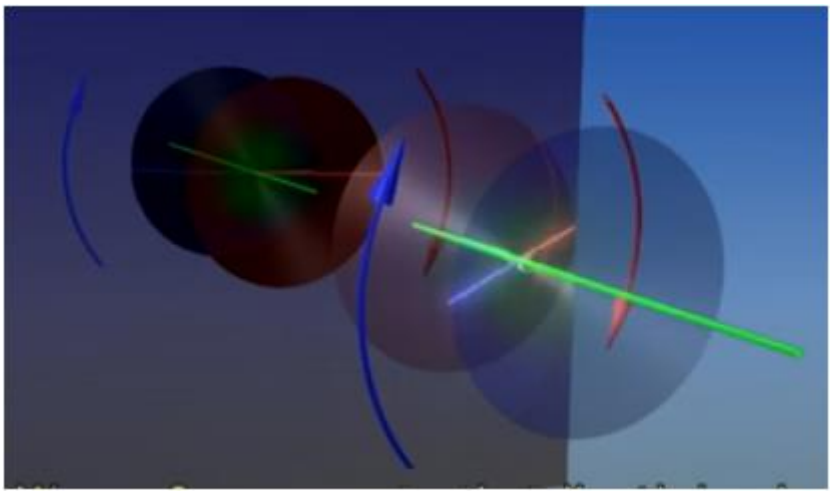
$$P = \tau * \omega = \omega * B * \left(\frac{\partial(\varepsilon 0 * \varepsilon * E)}{\partial t} + \frac{E - CEMF}{R}\right) * N * S * \cos(\omega * t + \Phi)$$



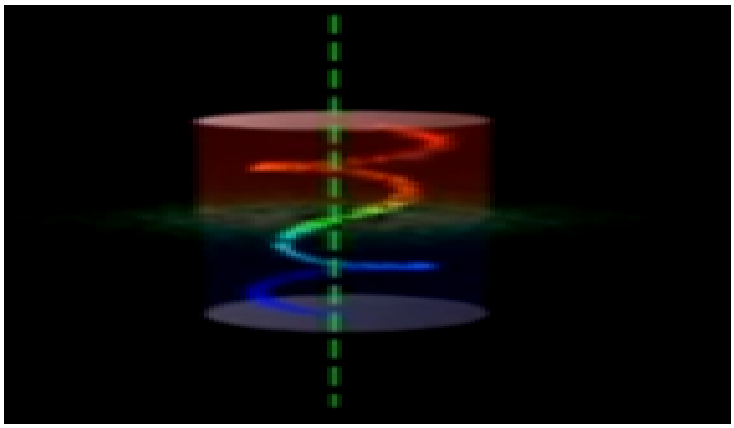
# Magnetism particle dynamics

The basic dynamic concept is simple. Each polarization, known typically as north & south poles resumes on two spiral spins, emanating exactly from the center of the magnetic field carrier, weather permanent magnet or electromagnetic core. Therefore, the resulting magnetic end forces projects as two „apparently" opposite spins. Quote marks on „Apparent" because, related to the main, imaginary axis, both spirals actually spin in the same direction. However, when the south spiral is projected in a mirror geometry, it shows a clockwise turn. On the mirror screen, note that north is also turning same way.

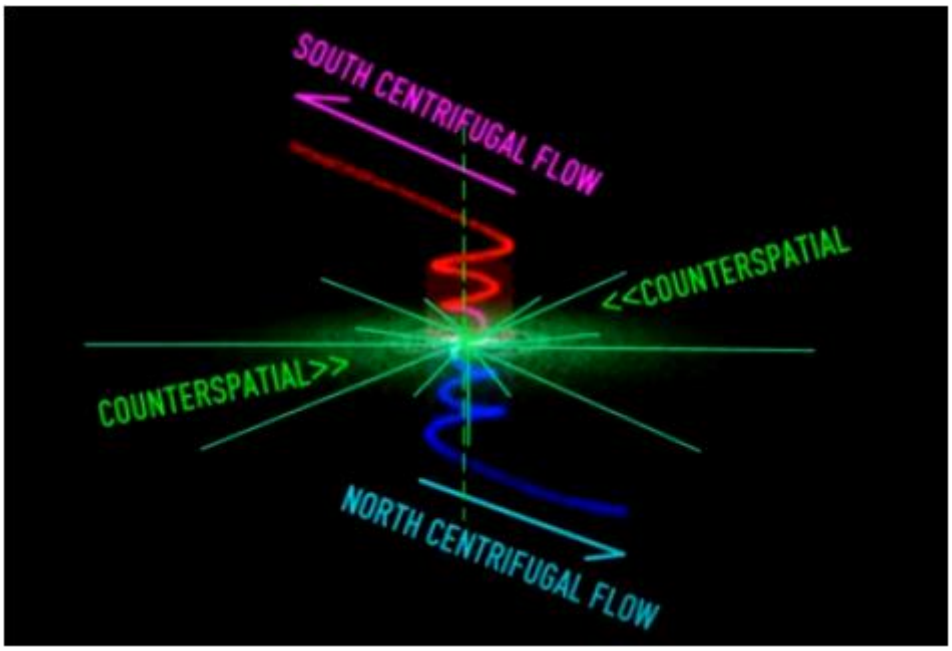


While when the north pole is projected towards the mirror, it rotates counter clockwise (CCW) on the screen. Same spinning direction based on main axis for the two different projections. This mirror screen projections opposed spinnings for north (CCW ) and south (CW) poles would be utilized in further analysis , when magnetic fields north – south poles are projected against cathode ray tube (CRT) screen . In speaking of „magnetism", the immediate connotation is that of (N and S ) polarity . However, this spatial abstraction does not exist. Magnetism is but one force itself, however, as magnetism is purely spatial in denotation , it is polarized , but as one moving ether sink and bubble. Magnetism has but one movement , not two, nor two poles. CW and CCW are spatial abstractions of a singular movement of the magnetic field itself. There are no static fields. The polarized conception of magnetic polarity is a long held intellectual defect in electro – magnetic geometric understanding. Any spatial distention is naturally polarized definitionally by distention. A spinning object of any variety appears to be moving clockwise from one end, and counterclockwise from the other. However, the object is moving in ( only ) one direction, it has no concept of poles or polarity. Only the ignorant humans scratching their heads have this perceptual defect. The

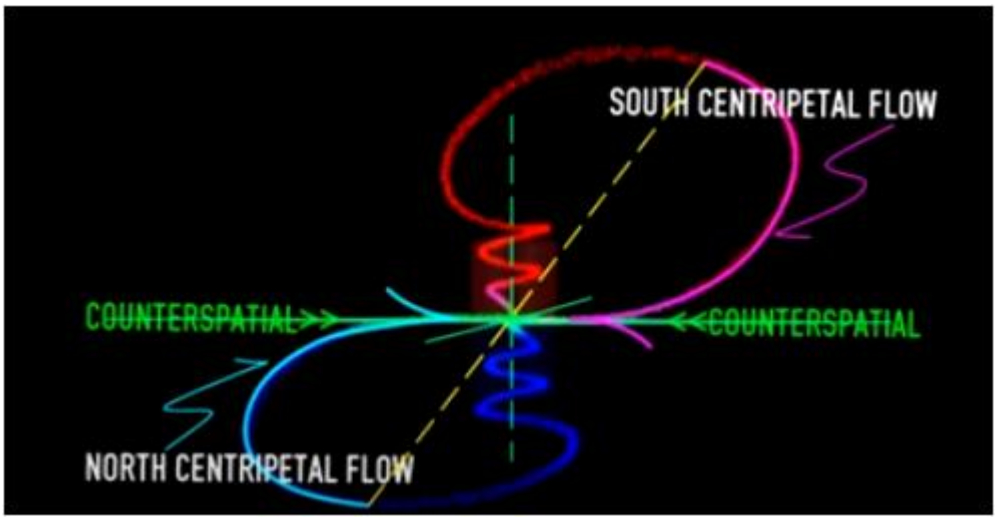
two opposite magnetic spins spatial flow emanate exactly from the center of magnetic field embodiment, 180 degrees apart of virtual axis.



This dynamic flow consists on mass – less, weight – less and invisible particles. Based on the different spatial pressures (force levels ), the lower strength flow, die around poles top, like represented on above picture particle dynamics CGI flow. Mid pressure vectors flow:

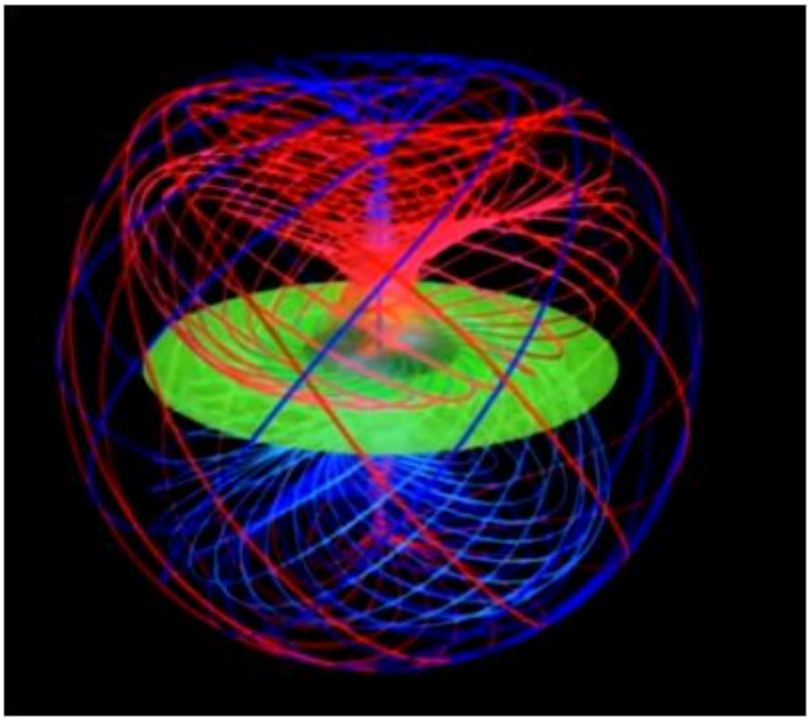



Middle presure levels travel further away from magnetic field carrier ambodiment… Curving outwards in opposed directions and returning back to center embodiment equator.

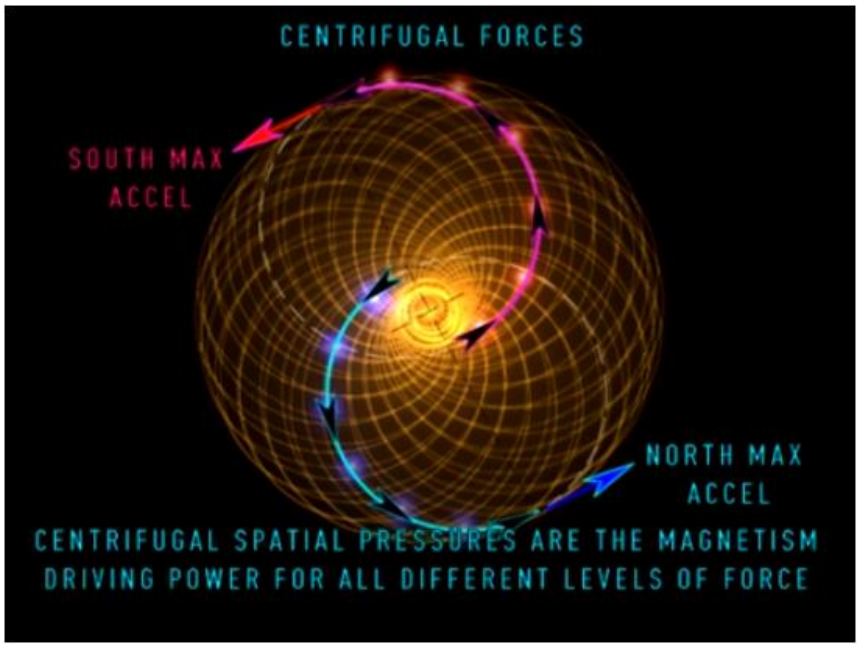



The middle pressure flows do not have the enough strength to bypass center accretion disk counterspatial ( inward / suction ) forces from the dielectric field, so they return back to center origin through equator plane. High pressure vectors flow up to this point, same as Mid – Pressure directions, except stronger in spatial out force. Higher pressure levels follow same spiralling parallel to virtual axis as flowing at opposite direction to balance out forces, same as mid level, except , by being of stronger pressures they can overcome accretion disk forces.

Returning to the center of origin through both opposed center spirals ( poles ) , following main center virtual axis path. These are the two high pressure gates to the counterspatial dielectric field, inverted cones geometries. All pressure levels shown previously were only based on single opposed polarized events for sake of simplicity and easier understanding. However, opposed spirals of force radiate all along the 360 degrees around center axis of magnetic embodiment, configuring the full geo – bubble. All different pressure level geometries single – opposite events, spiral out, while revolving 360 degree around embodiment virtual axis.



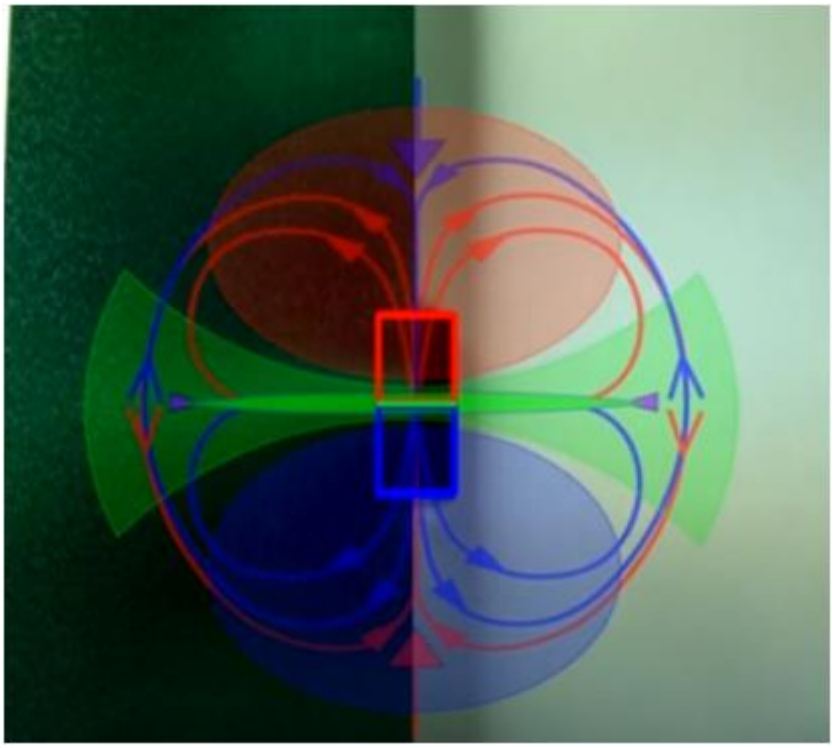
All mid pressure levels revolve equally distant from each other to configure a full geometry volume vortex . Magnetic particles flowing outwards ( centrifugal ) , then centripetally ( inwards to center ), where dielectric accretion disk will drive particles flow to the center of the magnetic core. The high pressure levels have enough strength to pass the center dielectric accretion disk. While keeping same rotating direction, this higher flow will be driven back to counterspace center plane through north center gate cone . This is the full south structure configuration & circuit flow, where this polarization constantly keeps regenerating from the dielectric field. To keep generating its spatially polarized field. North field develops identical as south, a kind of mirror geometry from the center dielectric plane following the virtual center axis.



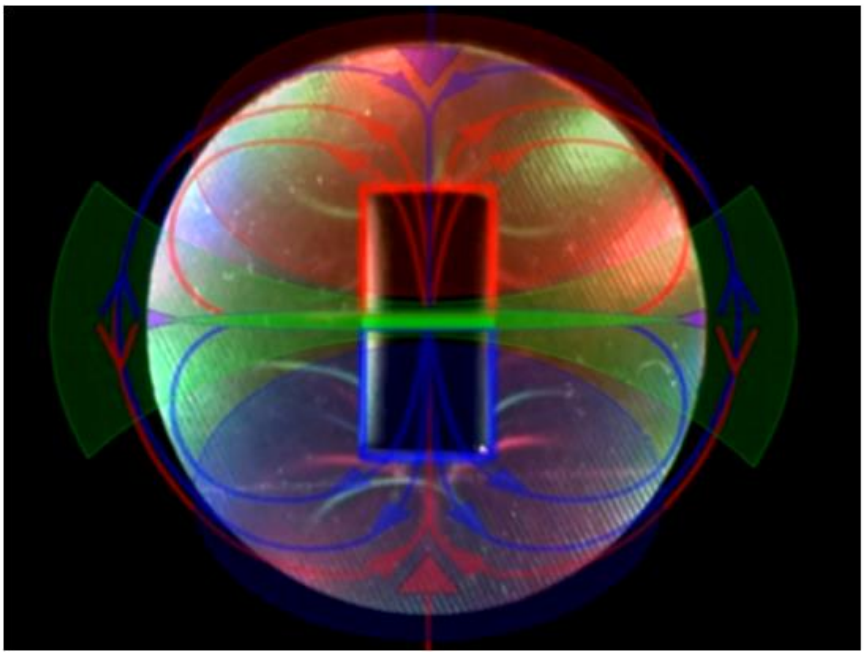

Flowing magnetic mass less particles travel at very high speeds through spatial volume, continuously following the same paths, forming channels that could be seen through ferrosell lens. The real displacement could not be observed by the naked human eye. In reality there is no such gap between cycles, but a constant flow , that leaves this channel curves, as just a trace seen with ferrocell polarized lens. This constant contractions and expansions from counterspace to space generates what is referred as sink and bubble effect. The senter of this geometry is where less magnetic forces are concentrated, while the spatial areas at both polarized ends is where stronger magnetic forces manifests.

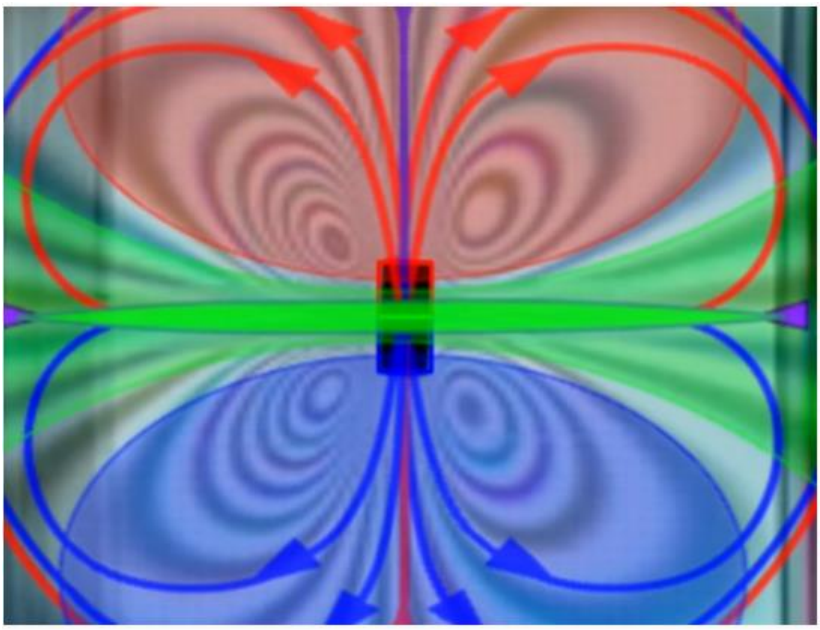
Imaging attraction – repulsion spatial magnetic interactions utilizing different screening methods. Spatial magnetic interactions meaning that takes place at a distance / air gap / seperation , between two or more independent interacting poles / polarized sources. For over two hundred „plus" years , the true and real magnetic field model has been placed under arrest. By constrainment, attempting to visualize it using the iron filings ancient method model, which consists on sprinkling ferromagnetic loose particles right at the very close & main field domains of strongest magnetic forces. This is basically , like tightly fastening with iron chains , this dynamic , flexible, expandable and extremely strong magnetic field volume. Nothing have ever been further away from the real magnetic field model, as this primitive old method, based on dumping iron particles over this dynamic field, just like dumping liquid concrete on the finest and more accurately engineered machine ever conceived by nature. The fast cured concrete will reflect the outer looks, but will never get to reveal how it works inside.

Now , let’s take a look at iron filings reflecting both spatial interactions: magnetism attraction and repulsion. Two patterns would be created , based on the end results from following loose iron particles tests for spatial attract & repulse interactions, in order to be compared to the new age screening methods. Both iron particle and ferrocell methods are based on ferromagnetic particles. However, suspended – floating, inside viscous liquid solutions or gels, in a colloidal state, encapsulated within film layers ( for the magnetic viewing film ) or between glass lenses ( for ferrocell technology ) . Ferromagnetic particles for both methodologies are constrained within either translucent or clear materials in order to allow light to pass through , defining reflected images , that are formed by the magnetic influence from the field being screened , which aligns ferromagnetic particles based on the curvilinear spatial flow disposition and strength. A completely different approach as is the method to sprinkle loose iron filings directly to the field . Loose particles are not uniformly dispersed, nor encapsulated, therefore, attracted and absorbed in a 100% by the stronger exterior field 3D layers. By having particles contained within a translucent film or glass lenses, we can adjust distance from the screened fields, being able to focus properly , the capturing image, as graduating the amounts of light illuminating our displayed set up . Another advantage from being able to regulate the distance between our sensitive capturing devices ( film or lens ) and magnetic fields, is to prevent from stronger outer 3D layers to be predominant at the captured image of the spectrum, allowing inner componetns to be displayed properly. Absolutely none, zero of all those adjustments could be ever done , when using loose iron filings directly sprinkled over the magnetic field(s).



A magnet counter layer is set for field tracking under the viewing film, which defies both poles red / blue squares and a center dividing green line. Magnet is wrapped with black heat shrink tubing in order to avoid any light reflections on film. View film reveals the stronger magnetic areas at each ends of magnet by forming two darker spots seperated by a lighter green area ( weaker field ) covering center space of cylinder magnet.





Neo magnets are very hard to keep them from flying together… must keep a lot of pressure , while holding them in your fingers. Analyzing attract reactions: divergent curved lines (centrifugal ) from both polarization maintain their spatial configuration no matter how close the attracting air gap is. As like polarizations reduce their spatial counter spinning repulse pressure gap … the compressed sphere becomes more elliptical . Two like polarizations effect a center spatial pressure, which compress the sphere into an elliptical shape.

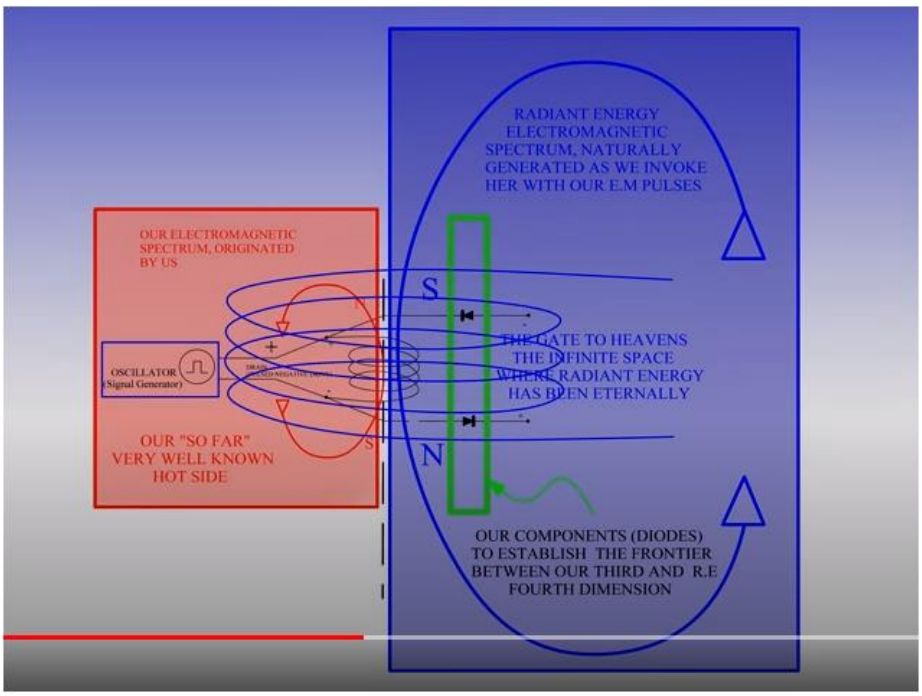
# The Radiations

Tesla has used the term radiations for more than 40 years. From different statements and interviews with Tesla always some piece of information can be found about that, what has kept him busy for the whole second part of his life. From the publications listed in the appendix, the following summary about the nature of the radiations can be given:

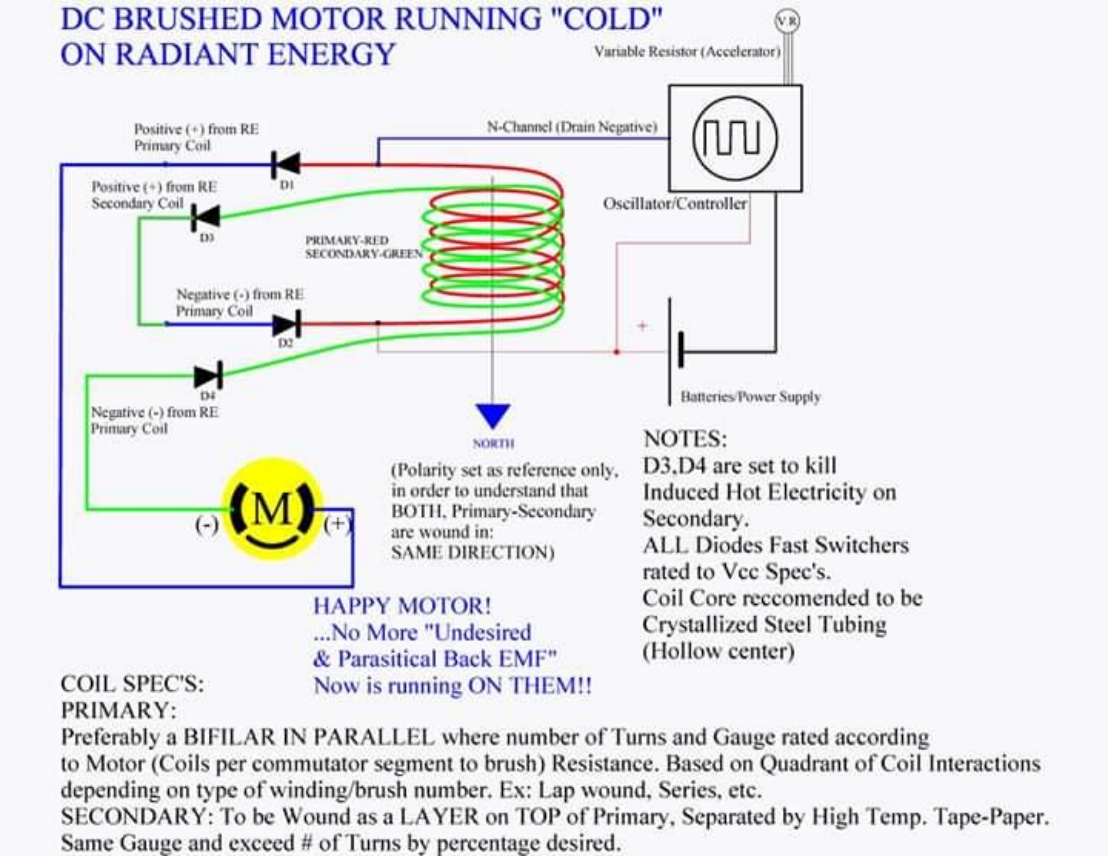
1. They are small particles of infinite small size
2. They carry a small positive charge , which is only a fragment of the elementary charge
3. They penetrate through substances almost without interactions
4. They could achieve a speed far above of speed of light
5. They are the cause of radioactivity, because they are bombarding and destabilizing the nucleaus of the atoms.
6. They arrive the Earth from all directions
7. They are emitted from all stars, therefore also from the sun. This is why this radiation during day is a little bit higher than during night.
8. A small fraction of this radiation is absorbed by celestial bodies, which causes them to increase in mass and volume continiously
9. They can be proved with vacuum tube experiments.

Later Tesla himself has mentioned 1897 as the year of discovery of the radiations. When exactly Tesla was convenced to measure this radiations is not precisely known, but should be between the years 1896 – 1897. What can be said for sure is that Tesla has filed two patents, where he describes the utilizations of this radiations in a crude way.

## Radiant energy

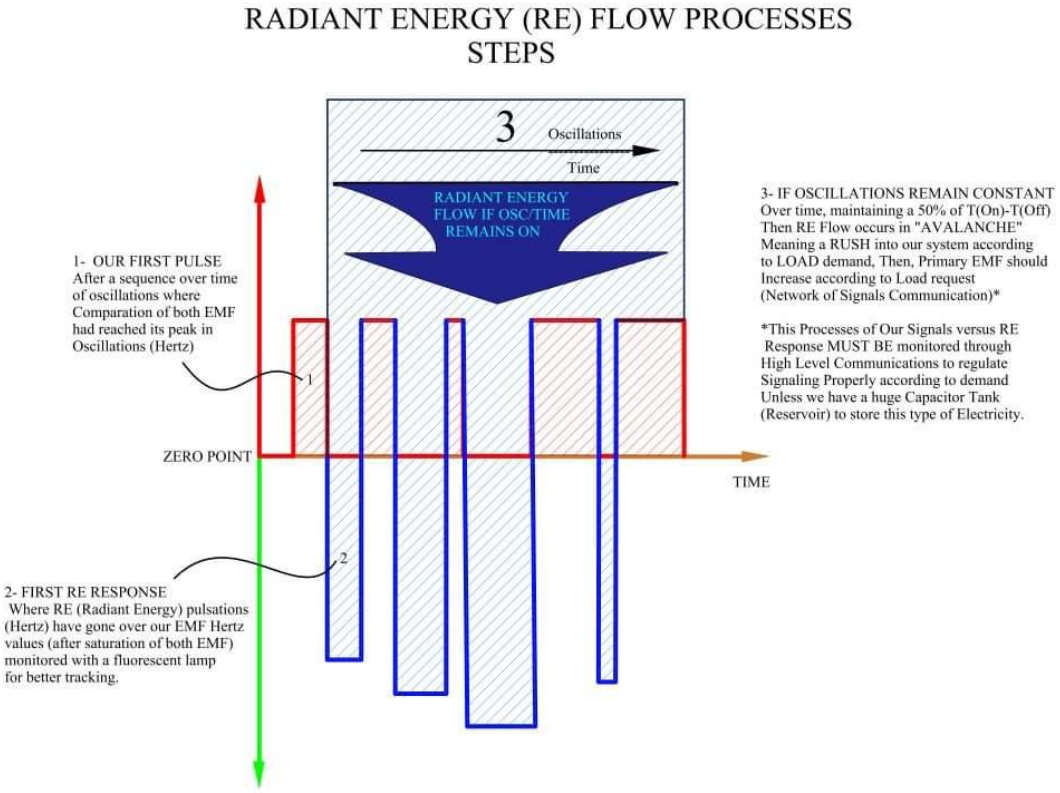


Radiant energy electromagnetic spectrum, naturally generated as we invoke her with our EM pulses. The gate to heavens the infinite space where radiant energy has been eternally. Our components (diodes) to establish the frontier between our third and R.E. fourth dimension.

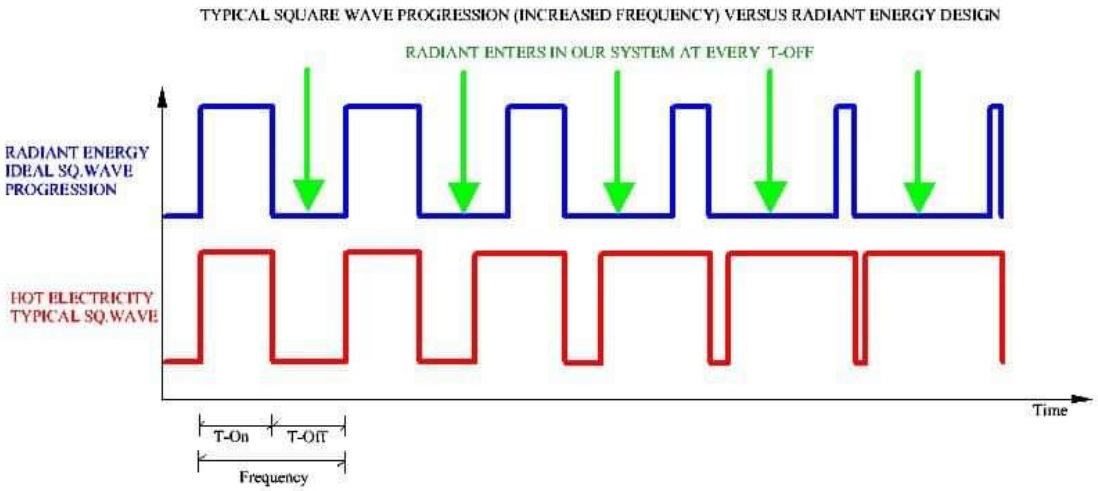


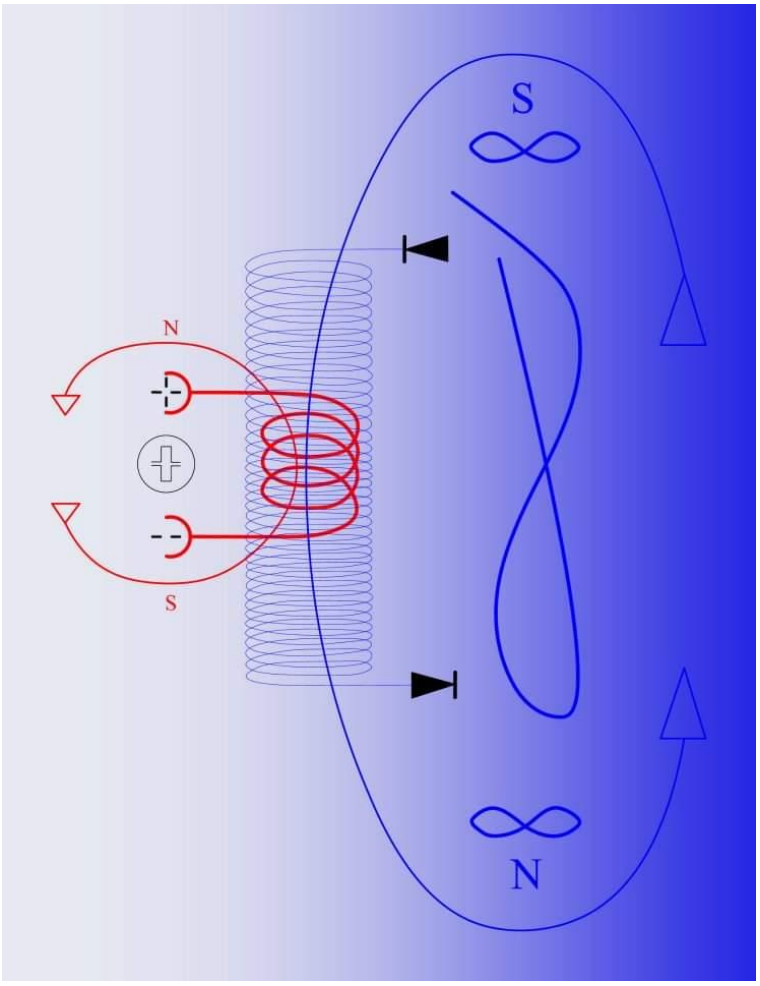

D3 and D4 are set to kill induced hot electricity on secondary. All diodes fast switchers rated to Vee Specs. Coil core recomended to be crystallized steel tubing (hollow center) . Coil specs primary: Preferably a bifilar in parallel, where number of turns and gauge rated according to motor (coils per commutator segment to brush) . Resistance based on quadrant of coil interactions depending on type of winding/brush number. Secondary: To be wound as a layer on top of primary, seperated by high temperature tape paper. Same gauge and exceed # of turns by percentage desired.

Happy motor! No more undesired, parasitic back EMF. Now is running on them!




1.Our first pule. After a sequence over time of oscillations, where comparation of both EMF had reached its peak in oscillations (Hertz) .
2.First response. Where RE (radiant energy ) pulsations (Hertz) have gone over our EMF Hertz values ( after saturation of both EMF ) monitored with a fluorescent lamp for better tracking.
3. If oscillations remain constant over time, maintaining a 50% of time on – time off , then RE flow occurs in „avalanche” , meaning a rush into our system according to load demand, then, primary EMF should increase according to load request (Network of signals communication ). This process of our signals versus RE response must be monitored through high level communication to regulate signaling properly according to demand unless we have huge capacitor tank (reservior) to store this type of electricity.


TYPICAL SQUARE WAVE PROGRESSION (INCREASED FREQUENCY) VERSUS RADIANT ENERGY DESIGN
RADIANT ENTERS IN OUR SYSTEM AT EVERY T-OFF
RADIANT ENERGY
IDEAL SQ.WAVE
PROGRESSION
HOT ELECTRICITY
TYPICAL SQ.WAVE
Time
T-On
T-Off
Frequency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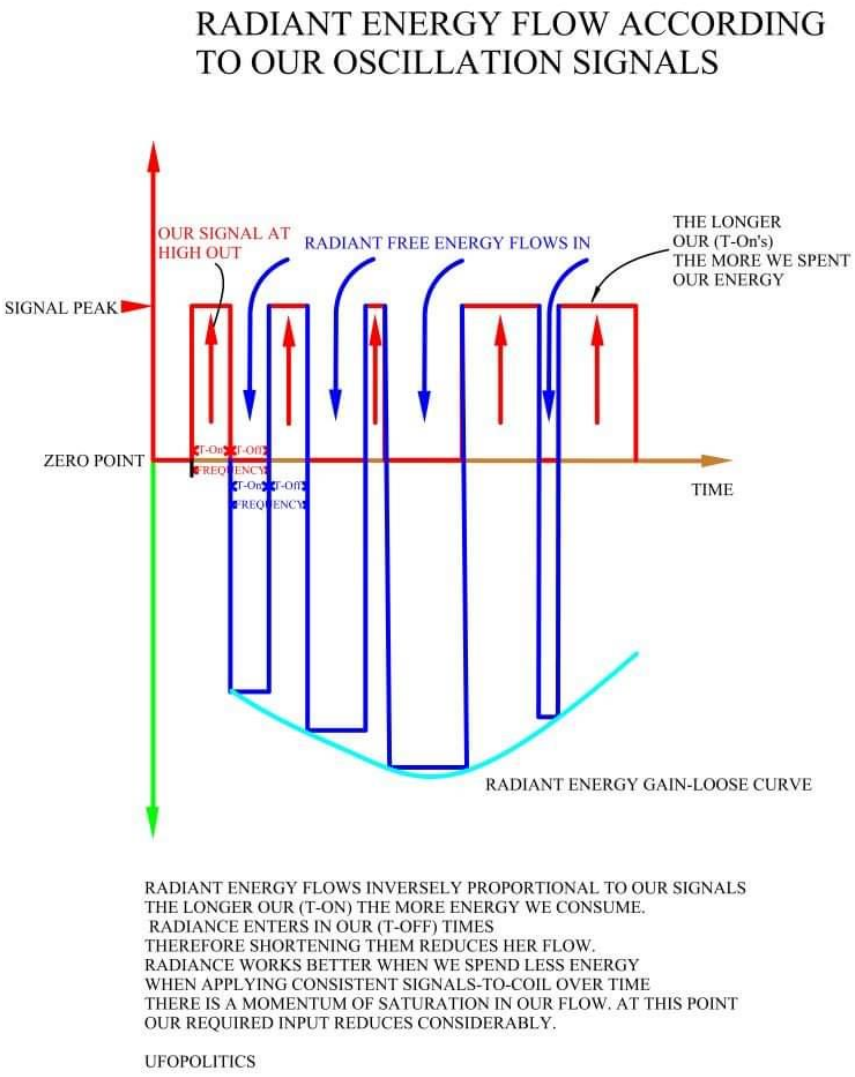
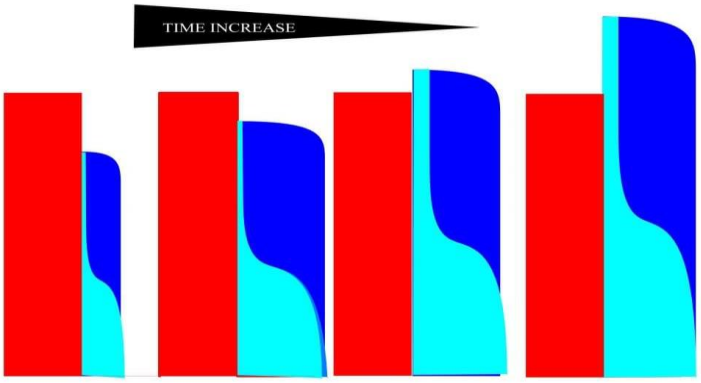
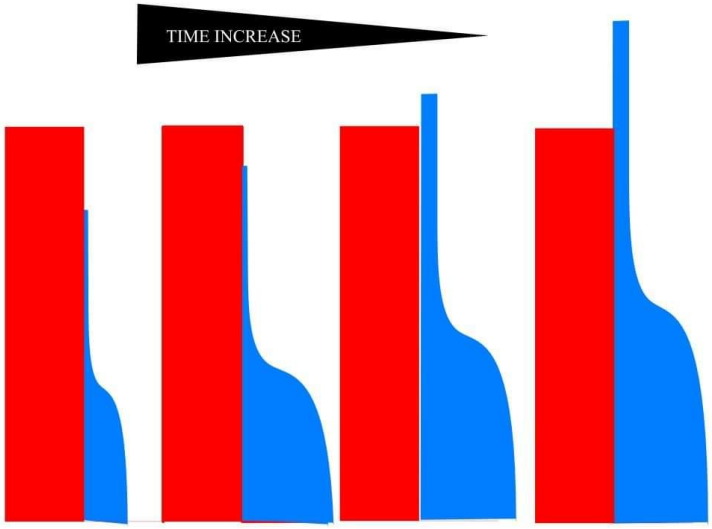
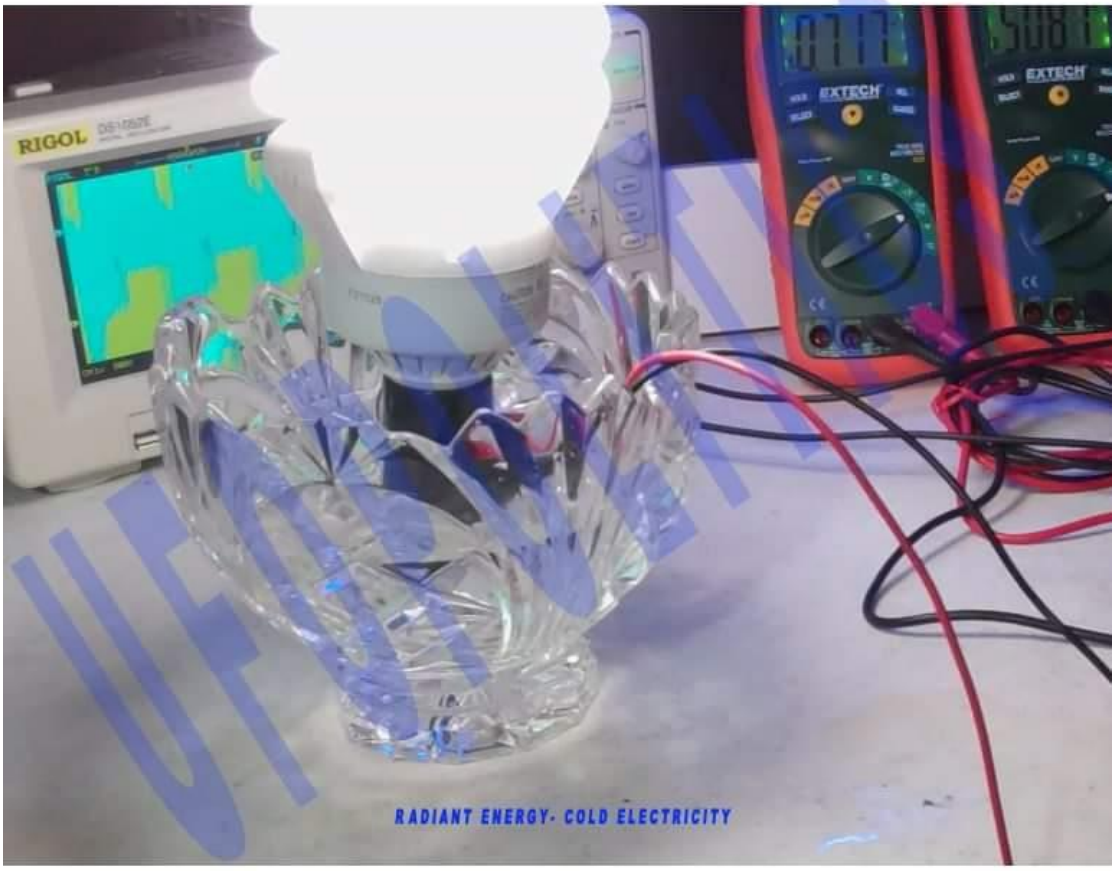



Radiant energy flows inversely proportional to our signals, the longer our (T-on), the more energy we consume, radiance enters in our (T-off) times, therefore shortening them reduces her flow. Radiance works better when we spend less energy, when applying consistent signals to coil over time, there is a momentum of saturation in our flow, at this point our required input reduces considerably.


TIME INCREASE

RIGOL
RADIANT ENERGY- COLD ELECTRICITY




Anti gravity magnetic field from radiant energy manifests at exact coil center or „center point of gravity ” . It develops as we increase our pulses

to peak levels, since radiant amplifies its frequency at much higher Hertz than ours. The antigravity field force will attract towards its vortex any magnetic material close to the range of attraction. At those high peak levels of very short time pulses, the antigravity field requires to release vast amounts of energy. Where, the more appropriate way to output this energy is through fast strobes, flashings of high intensity light. Since radiant energy feeds also from photons and different rays of light. That energy will return to it's vortex. This sudden high peaks pulses of light will generate a very high potential of anti-gravity field forces, opposed to our gravity, allowing any craft that carries those generators, to gain excessive speed altitudes in miliseconds of our time. This radiant energy antigravity field opposes to our generated, pulsed, electro magnetic field. However, greater in strength and intensity. To this point of attracting to it's gravitational vortex objects heavier than air. That remain floating on this antigravity environment. Bright Canadian scientist John Hutchinson, discovered this phenomena a few decades back known as the Hutchinson effect. But, the Canadian government confiscated his lab and equipment. He was ostracized by the scientific community. Never obtained the „fund$" to develop his work. However, he kept trying over the years. Now, does this electromagnetic phenomena of incredible force could ever be generated by a „single collapsing electro – magnetic field " ?

## The Hutchinson effect

John Hutchison's life changed drastically in 1979 when, upon starting up an array of high-voltage equipment, he felt something hit his shoulder. He threw the piece of metal back to where it seemed to have originated, and it flew up and hit him again. This was how he originally discovered fundamental frequencies can shield gravity. John Hutchison is one of the formost Nikola Tesla's experts alive today. He has replicate many of Nikola Tesla's works over the years, including the Death Ray, and a smaller Philadelphia Experiment. When John's Tesla coils, electrostatic generator, and other equipment created a complex electromagnetic field, heavy pieces of metal levitated and shot toward the ceiling, and some pieces shredded. Upon analysis and thorough investigation, the Canadian government dubbed this phenomenon the *Hutchison-Effect.* What is the Hutchison effect? As with much of the new-energy field, no one can say for sure. Some theorists think the effect is the result of opposing electromagnetic fields canceling each other out, creating a powerful flow of space energy. The Canadian government also reported invisible samples phasing in and out of existence. A Vancouver businessman, George Hathaway, heard about the Hutchison Effect in 1980, contacted Hutchison, and brought in a consulting engineer from Boeing Aerospace, and the Canadian government to form a company that would promote technology developed from the effect. They called this company *Pharos' Technology.*

**Many different political factors ensured Hutchison would not be allowed to continue in his research unless he signed agreements with either the Canadian government or the U.S. military. John refused**

**both offers. A little while after he returned from Los Alamos military base, during one of John's overseas trips to Germany to secure funding from a different government, the Canadian government seized the opportunity to acquire all of John's priceless replications of Nikola Tesla's equipment. They collaborated with his "partner" George Liscazis, who was paid upwards of 70 million dollars for information and samples of John's Field stress detector. The government also created a false PCB scandal so they could use the local press to justify their actions and hide the true nature of what the government was actually removing from John's Lab located at 13th and Kingsway, Vancouver B.C.**

**After many more years of experiments, demonstrations and lectures in other countries such as U.S.A. Germany and Japan, Hutchison returned to Vancouver in 1991. Piece by piece, he built out of surplus Navy equipment what now had become a landmark in New Westminster, British Colombia. John has built himself an apartment laboratory second to none. It took several years before he could reestablish his collection, however despite many obstacles , most political, John, until recently had his apartment lab equipped to perform for all types of media demonstrating the Hutchison Effect.**

**The Mayor of New Westminster forced him to cease in 2006, then in 2010 John was forcibly removed by order of the Mayor directing the fire marshal to remove him from his famous apartment lab on 5th Ave. Under the Experiments Section, you will find John and friends are still developing new ideas, and historically engineering suppressed and lost technologies for release and scrutiny by the general public. The Egyptian Technology Section, and the Atlantean Technology Section are favorite topics, of ours and the fans.**

**In John's newsletter, he has released never before seen, previously classified documentation from his own works as well as some of the Department of Defense documentation he has acquired over the years. from government sources, with or without official authorization. Please enjoy this independent scientist's website and all it has to offer. John has remained independent regardless of multi million dollar offers to conceal his findings from the general public.**

**NASA is among the agencies he has turned down, as well as both the North American superpowers offerings to privatize and or militarize his inventions. John believes in a world of free energy and the marvels of anti- gravity for the general public, not just those in positions of power. Now that the government has destroyed his third laboratory, and again taken his home from him, where did John end up with his tiny fixed income and boxes of his broken dreams? A German research team bought his entire New Westminster apartment laboratory after seeing demonstrations ofhis effect, and gave him enough seed money to take his whole show on the road with his new wife Nancy.**

**As John travels the U.S.A. in his newly converted S.W.A.T.T bus (mobile laboratory), he treats polluted waters of the gulf with the Hutchison Effect and researches different possible pollution solutions from his mobile command center. He also remains hopeful his**

**inventions one day will ease the burden and suffering, and enrich all of mankind all around the world, rich or poor.** ***In the end, the government didn't crush his spirit and destroy his dreams. They set him loose. John roams the planet quite freely now with his wife and explores natures mysteries to this very day.***

## Crystal battery

**One should question current "laws" of physics. Is there any possibility Jupiter could be radiating electromagnetic oscillations we could collect and harness? How about the rest of the celestial bodies around us? Valhalla's belt perhaps. Have we really reached the peak of our civilization technologically speaking? Or are they holding someting back.. Based on the discoveries of *Thomas Townsend Brown*, John Hutchison has recreated some of this pupil of Tesla's works. Notably, the crystal battery.**

**In this section we endeavor to describe in layman's terms concepts you may have seen in a science show, more likely science fiction shows of late. Zero Point Energy, Casmir Effect, Sub-Space. Stargate SG1, if some of you may remember, was the longest running sci-fi show. The underlying story line if one follows from episode to episode is basically an explanation of our origin. The "ancients" were race of humans predating Egypt, all they way back to the time of Atlantis. This Ancient race, were masters of technology, utilizing ZPE devices to power entire continents, they were also masters of time travel, and sub-space wormholes.**

**In this section we have a few concepts to explain and demonstrate that have been under development for many years now. John has been basing certain inventions on fundamental concepts from T Henry Moray, T. T. Brown, and Nikola Tesla. Having a very extensive understanding of these very important people in the field of electricity (pardon the pun), John has had a very clear and instinctive understanding of the Casmir Effect, and has found multiple applications never before explored or understood in the west. Western scientists have been under a different set of funding and social restrictions, markets are different, and the armchair skeptic is given more credibility than the non-main-stream scientists who fund their own hypothesis, and work solely for the science, not the politics of the conditional funding.**

**Just as Tesla was not entirely credited with radio, T. Henry Moray was not entirely credited with the transistor. By entirely credited, I mean, history credits them, however, the patent office does not. T. Henry Moray created the transistor based on the vacuum tube of course, comprised of a diode material, and put together in a vacuum. Simply explained, a diode is an energy gate. It allows the energy to pass only one way in a circuit. Tubes and transistors make use of this action to meter out signal and rectify wireless radio transmissions into DC current. The crystal battery uses diode material sensitive to the Zero Point band of the electromagnetic spectrum.**

**Now we will show a variety of different Zero Point Devices, and give the theory behind how and why they work. Certain devices cost over**

**15,000 dollars to build, but most are much more affordable. John imparts this information to his fans on this site in the hopes that the general consciousness will be raised so voters will expect more from the environmental ministries in their governments. He most certainly welcomes all feedback. In fact, some of what we will present here has been learned through feedback from people John has given devices to, also from people who have mixed their own batteries in a variety of ways.**

## Shock waves

James Clark-Maxwell predicted the possibility that electromagnetic waves might exist. In theoretical discussions designed to more thoroughly explain his mathematical descriptions, Maxwell asked his readers to consider two different kinds of electrical disturbance possibly existing in Nature. The first consideration dealt with longitudinal electric waves, a phenomenon which required alternating concentrations of electrostatic field lines. This densified and rarefied pulsation of electrostatic fields necessarily demanded a unidirectional field, one whose vector was fixed in a Singular direction. The only variable permitted in generating longitudinal waves was the concentration of the field. Subsequent propagation along the electrostatic field lines would produce pulsating thrusts on charges, pulsations moving in a single direction. These ”electrical soundwaves” were rejected by Maxwell, who concluded that such a condition was impossible to achieve. His second consideration dealt with the existence of transverse electromagnetic waves. These required the rapid alternation of electrical fields along a fixed axis. Space spreading electrical lines would supposedly ”bend to and fro” under their own momentum, while radiating away at the speed of light from the alternating source. Corresponding forces, exact duplicates of the alternations produced at the source, would be detected at great distances. He encouraged that experimenters seek this waveform, suggesting possible means for achieving the objective. And so the quest to find electromagnetic waves began. In 1887, Heinrich Hertz announced that he had discovered electromagnetic waves, an achievement at that time of no small imporl. In 1889, Nikola Tesla attempted the reproduction of these Hertzian experiments. Conducted with absolute exactness in his elegant South Fifth Avenue Laboratory, Tesla found himself incapable of producing the reported effects. No means however applied would produce the effects which Hertz claimed. Tesla began experimenting with abrupt and powerful electric discharges, using oil filled mica capacitors charged to very high potentials. He found it possible to explode thin wires with these abrupt discharges. Dimly perceiving something of importance in this experimental series, Tesla abandoned this experimental series, all the while pondering the mystery and suspecting that Hertz had somehow mistakenly associated electrostatic inductions or electrified shockwaves in

air for true electromagnetic waves. In fact, Tesla visited Hertz and personally proved these refined observations to Hertz who, being convinced that Tesla was correct, was about to withdraw his thesis. Hertz was truly disappointed, and Tesla greatly regretted having to go to such lengths with an esteemed academician in order to prove a point But while endeavoring toward his own means for identifying electrical waves, Tesla was blessed with an accidental observation which forever changed the course of his experimental investigations. Indeed, it was an accident which forever changed the course of his life and destiny. In his own attempts to achieve where he felt Hertz had failed, Tesla developed a powerful method by which he hoped to generate and detect real electromagnetic waves. Part of this apparatus required the implementation of a very powerful capacitor bank. This capacitor ”battery” was charged to very high voltages, and subsequently discharged through short copper bus-bars. The explosive bursts thus obtained produced several coincident phenomena which deeply impressed Tesla, far exceeding the power of any electrical display he had ever seen, These proved to hold an essential secret which he was determined to uncover. The abrupt sparks, which he termed ”disruptive discharges”, were found capable of exploding wires into vapor. They propelled very sharp shockwaves, which struck him with great force across the whole front of his body. Of this surprising physical effect, Tesla was exceedingly intrigued. Rather like gunshots of extraordinary power than electrical sparks, Tesla was completely absorbed in this new study. Electrical impulses produced effects commonly associated only with lightning. The explosive effects reminded him of similar occurrences observed with high voltage DC generators. A familiar experience among workers and engineers, the Simple closing of a switch on a high voltage dynamo often brought a stinging shock, the assumed result of residual static charging. This hazardous condition only occurred with the sudden application of high voltage DC. This crown of deadly static charge stood straight out of highly electrified conductors, often seeking ground paths which included workmen and switchboard operators. In long cables, this instantaneous charge effect produced a hedge of bluish needles, pointing straight away from the line into the surrounding space. The hazardous condition appeared briefly, at the very instant of switch closure. The bluish sparking crown vanished a few milliseconds later, along with the life of any unfortunate who happened to have been so ”struck”. After the brief effect passed, systems behaved as designed. Such phenomena vanished as charges slowly saturated the lines and systems. After this brief surge, currents flowed smoothly and evenly as designed. The effect was a nuisance in small systems. But in large regional power systems where voltages were excessive, it proved deadly. Men were killed by the effect, which spread its deadly electrostatic crown of sparks throughout component systems. Though generators were rated at

a few thousand volts, such mysterious surges represented hundreds of thousands, even millions of volts. The problem was eliminated through the use of highly insulated, heavily grounded relay switches. Former engineering studies considered only those features of power systems which accommodated the steady state supply and consumption of power. It seemed as though large systems required both surge and normal operative design considerations. Accommodating the dangerous initial ”supercharge” was a new feature. This engineering study became the prime focus of power companies for years afterward, safety devices and surge protectors being the subject of a great many patents and texts. Tesla knew that the strange supercharging effect was only observed at the very instant in which dynamos were applied to wire lines, just as in his explosive capacitor discharges. Though the two instances were completely different, they both produced the very same effects. The instantaneous surge supplied by dynamos briefly appeared supereoncentrated in long lines. Tesla calculated that this electrostatic concentration was several orders in magnitude greater than any voltage which the dynamo could supply. The actual supply was somehow being amplified or transformed. But how? The general consensus among engineers was that this was an electrostatic ”choking” effect. Many concluded it to be a ”bunching” action, where powerM fully applied force was unable to move charge quickly through a system. Mysterious, the combined resistance of such systems seemed to influence the charge carriers before they were able to move away from the dynamo terminals’ Like slapping water with a rapid hand, the surface seemed solid. So also it was with the electrical force, charges meeting up against a seemingly solid wall. But the effect lasted only as long as the impact. Until current carriers had actually ”caught up” with the applied electrical field, the charges sprang from the line in all directions. A brief supercharging effect could be expected until charges were distributed, smoothly flowing through the whole line and system. The dynamo itself thus became the brief scene of a minor shockwave. He began wondering why it was possible for electrostatic fields to move more quickly than the actual charges themselves, a perplexing mystery. Was the field itself an entity which simply drove the more massive charges along? IT this was true, then of what was the eleclrostatic field itself ”composed”? Was it a field of smaller particles? The questions were wonderfully endless. Despite the wonderful ideas which this study stimulated, Tesla saw a practical application which had never occurred to him. Consideration of the dynamo supercharging effect suggested a new experimental apparatus. It was one which could greatly outperform his capacitor battery in the search to find electrical waves. A Simple high voltage DC generator provided his electric field source. Tesla understood that the resistance of lines or components, viewed from the dynamo end, seemed to be an impossible ”barrier” for charge carriers to penelrate. This

barrier caused the ”bunching” effect. Eleclrostatic charges were literally stopped and held for an instant by line resistance, a barrier which only existed during the brief millisecond interval in which the power switch was closed. The sudden force application against this virtual barrier squeezed charge into a density impossible to obtain with ordinary capacitors. It was the brief application of power, the impact of charge against the resistance barrier, which brought this abnormal electro-densifled condition. This is why the conductive wires in his present experiment often exploded. The analogy to steam power and steam engines was urunistakable. Large steam engines had to be valved very carefully. This required the expertise of old and wellexperienced operators who knew how to ”open up” an engine without rupturing the vessels and causing a deadly explosion. Too suddenly valved, and even a large steam engine of very high capacity could explode. Steam also had to be admitted into a system gently, until it began smoothly and gradually flowing into every orifice, conduit, and component. Here too was the mysterious ”choking” effect, where a large capacity system seemed to behave like an uncommonly high resistance to any sudden and sustained application of force. Tesla learned that he could literally shape the resultant discharge, by modifying certain circuit parameters. Time, force, and resistance were variables necessary to producing the phenomenon. The academic world of experimenters was yet fixated on his former discovery of high frequency alternating currents. It seemed that Tesla alone now exclusively studied these impulse discharges. He was producing explosive impulses which had not been observed in laboratories. Every component was carefully insulated, himself implementing insulator rods and rubberized regalia to insure complete safety. Tesla had observed electrostatic machines whose ability to charge insulated metals was potent, but this demonstration exceeded the mere charging of wire by the instantaneous switch closure. This effect produced ”springing” charge, phenomena like no other before witnessed by Tesla for its sheer strength. Whatever the conditions observed in previous systems, he had now leamed how to maximize the effect. Balancing voltage and resistance against capacity, Tesla leamed to routinely produce supercharge states which no existing device could equal. Emptrical observation had long taught that ordinary capacitor discharges were oscillating currents, spark currents which literally ”bounced” between each capacitor plate until their stored energy was wasted away. The high voltage of the dynamo exerted such an intense unidirectional pressure on the densified charges that alternations were impossible. The only possible backrushes were oscillations. In this case, charges surged and stopped in a long series until the supercharge was wasted away. All parameters which forced such oscillations actually limited the supercharge from manifesting its total energetic supply, a condition Tesla strove to eliminate. Indeed he spent an excessive time

developing various means to block every ”backrush” and other complex current echo which might forced the supercharge to prematurely waste its dense energy. Here was an effect demanding a Single unidirectional super pulse. With both the oscillations and alternations eliminated, new and strange effects began making their appearance. These powerful and penetrating phenomena were never observed when working with high frequency alternations. The sudden quick closure of the switch now brought a penetrating shockwave throughout the laboratory, one which could be felt both as a sharp pressure and a penetrating electrical irritation. A ”sting”. Face and hands were especially sensitive to the explosive shockwaves, which also produced a curious ”stinging” effect at close range. Tesla believed that material particles approaching the vapor state were literally thrust out of the wires in all directions. In order to better study these effects, he poised himself behind a glass shield and resumed the study. Despite the shield, both shockwaves and stinging effects were felt by the now mystified Tesla. This anomaly provoked a curiosity of the very deepest kind, for such a thing was never before observed. More powerful and penetrating than the mere electrostatic charging of metals, this phenomenon literally propelled high voltage charge out into the surrounding space where it was felt as a stinging sensation. The stings lasting for a small fraction of a second, the instant of switch closure. But Tesla believed that these strange effects were a Simple effect of ionized shockwaves in the air, rather like a strongly ionized thunderclap. Tesla devised a new series of experiments to measure the shockwave pressure from a greater distance. He required an automatic ”trip switch”. With this properly arranged, a more controlled and repetitious triggering of the effect was possible. In addition, this arrangement permitted distant observations which might cast more light on the shied-permeating phenomenon. Controlling the speed of the high voltage dynamo controlled the voltage. With these components properly adjusted, Tesla was able to walk around his large gallery spaces and make observations. Wishing also to avoid the continuous pressure barrage and its slinging sparks, Tesla shielded himself with several materials. The arrangement of rapidly interrupted high voltage direct currents resulted in the radiation of slinging rays which could be felt at great distances from their super-sparking source. In fact, Tesla felt the slings right through the shields! Whatever had been released from the wires during the instant of switch closure, successfully penetrated the shields of glass and of copper. It made no difference, the effect permeated each substance as if the shield were not there at all. Here was an electrical effect which communicated directly through space without material connections. Radiant electricity! In these several new observations, the phenomenon was violating electrostatic charge principles experimentally established by Faraday. Projected electrostatic charges normally spread out over the surface of metallic

shield, they do not penetrate metal. This effect had certain very non-electrical characteristics. Tesla was truly mystified by this strange new phenomenon, and searched the literature for references to its characteristics. No such reference was found, except in the surreptitious observations of two experimenters. In one case, Joseph Henry observed the magnetization of steel needles by a heavy spark discharge. The extraordinary feature of this observation (1842) lay in the fact that the Leyden Jar, whose spark apparently produced the magnetizations, stood on the upper floor of an otherwise electrically tmpervious building. Brick walls, thick oak doors, heavy stone and iron flooring, tin ceilings. Moreover, the steel needles were housed in a vault in the cellar. How did the spark affect such a change through such a natural barrier? Dr. Henry believed that the spark had released special ”light-like rays”, and these were the penetrating agencies responsible for the magnetizations. A second such account (1872) occurred in a high school building in Philadelphia Elthu Thomson, a physics instructor, sought to make the sparks of a large Ruhmkorrf Spark Cot! more visible for his next lecture. Attaching one pole of the cot! to a cold water pipe, and reactivating the coil, Thomson was thrilled to find that the nature of the spark had changed from blue to white. Wishing to amplify this effect, Thomson attached the other pole to a large metal tabletop. Again reactivating the coil produced a shrieking silver-white spark, entirely visible to any who sat in the last row. Wishing to show this to a colleague, Edwin Houston, Thomson made for the door and was abruptly stopped. Touching the brass knob on the otherwise insulated oak door, Thomson received an unexpected sizzling shock. Turning off the Ruhmkorrf Coil, Thomson found it possible to stop the effect. Calling for Edwin, he summarized what had occurred. Then turning the unit back on again, the stinging charge effects returned. The two gen tlemen ran throughout the huge stone, oak, and iron building with insulated metal objects now. Each touch of a penknife or screwdriver to anything metallic, however distant from the coil or insulated from the floor, produced long and continuous white sparks. The account was written up as a short article in Scientific American later in the same year. In studying each of these two prior observations, events each separated by some thirty years, Tesla perceived an essential unity with that of his own discovery. Each observation was perhaps a slight variant of the very same phenomenon. Somehow accidentally, each experimenter had managed to produce the explosive super-charging effect. In the case of Dr. Henry, the explosive bursts occurred in a Single flash, electrostatic machines being used to accumulate the initial charge. The second case was peculiar, since it evidenced the sustained and continuous production of super-charging effects. The effect was rare because it obviously required very stringent electrical parameters. Tesla deduced this from the simple fact that the effect was so infrequently observed by experimenters the world over. In

addition, he was quick to remark concerning the anomalous attributes attached to the phenomenon. Tesla knew that, despite the extremely penetrating effects in each case, he had secured the only means for achieving the ”complete” and maximum manifestation of supercharging. His was an apparatus with no equal, capable of releasing an aspect of the electrostatic field which others very apparently had not. Though discovered by Tesla in 1889, the preliminary observation of this effect was published after an intensive battery of investigations. The ”Dissipation of Electricity”, published just prior to Christmas of 1892, is the pivotal Tesla lecture. This is the departure point in which Tesla abandons research and development of high frequency alternating current. Divorcing himself from that field entirely, Tesla describes the shockwaves and other effects of IMPULSES. In addition to those physical sensations which he describes in characteristic understatements, Tesla also enlarges upon the ”gaseous” aspects associated with the phenomena. He observed that the abruptly charged wires in his experiments projected a strange gaseous stream when immersed in an oil bath. A phenomenon which he once thought due entirely to wire-adsorbed gases, he found that the effect could be so continuously produced from a Single wire that no volume of ordinary adsorbed gas could supply the flow. Indeed, he was able to produce streams of this kind in oil which so powerfully projected from charged wire ends that they visibly depressed the oil into a hole, some two inches in depth! Tesla began to realize the true nature of the fine issuing ”gas” which projected from wire ends immersed in oil. He now prepared an extensive series of tests in order to determine the true cause and nature of these shocking air pulses. In his article, Tesla describes the shield-permeating shocks as ”soundwaves of electrified air”. Nevertheless, he makes a remarkable statement concerning the sound, heat, light, pressure, and shock which he sensed passing directly through copper plates. Collectively, they ”imply the presence of a medium of gaseous structure, that is, one consisting of independent carriers capable of free motion”. Since air was obviously not this ”medium”, to what then was he referring? Further in the article he clearly states that ”besides the air, an other medium is present”.

Through successive experimental arrangements, Tesla discovered several facts concerning the production of his effect. First, the cause was undoubtedly found in the abruptness of charging. It was tn the switch closure, the very instant of ”closure and break”, which thrust the effect out into space. The effect was definitely related to time, IMPULSE time. Second, Tesla found that it was imperative that the charging process occurred in a single impulse. No reversal of current was permissible, else the effect would not manifest. In this, Tesla made succinct remarks describing the role of capacity in the spark-radiative circuit. He found that the effect was powerfully strengthened by placing a capacitor between the

disrupter and the dynamo. While providing a tremendous power in the effect, the dielectric of the capacitor also served to protect the dynamo windings. Not yet sure of the process at work in this phenomenon, Tesla sought the empirical understanding required for its amplification and utilization. He had already realized the significance of this unexpected effect. The idea of bringing this strange and wondrous new phenomenon to its full potential already suggested thrilling new possibilities in his mind. He completely abandoned research and development of alternating current systems after this event, intimating that a new technology was about to unfold. The effect could also be greatly intensified to new and more powerful levels by raising the voltage, quickening the switch ”make-break” rate, and shortening the actual time of switch closure. Thus far, Tesla employed rotating contact switches to produce his unidirectional impulses. When these mechanical impulse systems failed to achieve the greatest possible effects, Tesla sought a more ”automatic” and powerful means. He found this ”automatic switch” in special electrical arc dischargers. The high voltage output of a DC generator was applied to twin conductors through his new arc mechanism, a very powerful permanent magnet sitting crosswise to the discharge path. The discharge arc was automatically and continually ”blown out” by this magnetic field. Imperative toward obtaining the desired rare effect, the capacitor and its connected wire lines had to be so chosen as to receive and discharge the acquired electrostatlc charge in unidirectional staccato fashion. The true Tesla circuit very much resembles a pulse jet, where no back pressure ever stops the onrushing flow. Electrostatic charge rises to a maximum, and is discharged much more quickly. The constant application of high voltage dynamo pressure to the circuit insures that continual successions of ”charge-rapid discharge” are obtained. It is then and only then that the Tesla Effect is observed. Pulses literally flow through the apparatus from the dynamo. The capacitor, disrupter, and its attached wire lines, behave as the flutter valve. The high voltage dynamo remains the true electrostatic source in the apparatus. This was a fact well appreciated by Tesla, who disliked the painful radiant effects proceeding into space. It was evident that the dynamo had somehow been modified by the addition of these ”pulsing valve” circuits. The dynamos being used provided deadly voltages, capable of killing a man. The valve circuits were forcing a strange radiance of those deacUyfield energies. Somehow, the dynamo energy was being expanded into space with dangerous and painful force. But how? By what mysterious and provocative means was this condition established? The result of this experimental series fixed a new concept in Tesla’s mind. Tesla had of course realized the implications of his mysterious shocking-field effect. This was radiant electricity. With this phenomenon, Tesla could develop a far better world-changing technology than Polyphase. Moreover, this radiant electric effect could replace

powerlines. The Tesla Research Laboratory was a four story structure which stood at 33-35South Fifih Avenue in New York City. Buildings such as the Tesla Laboratory may yet be found in the Soho section of Marthaltan. Each is large in size, amply supplied with several floors of immense gallery halls and upper floor studios. He was thus afforded the space to perform several critical experiments in broadcast electrical power techniques. Tesla first conducted elaborate and extensive investigations in order to comprehend the exact nature of this new electrical effect. Tesla realized that this strange ”shocking field” actually radiated through space from the impulse apparatus. If this was electrostatic energy, it was more intense and more penetrating than any electrostatic field he had ever observed. If this was merely a ”stuttered” electrostatic field, why then was its strength so very intensified? Tesla began to believe that he had discovered a new electrical force, not simply a treatment of an existing force. It is for this reason that he often described the effect as ”electrodynamic” or ”more electrostatic”. By properly adjusting the inherent circuit parameters, Tesla learned how to produce an extremely rapid series of unidirectional impulses on demand. When the impulses were short, abrupt, and precise in their successions, Tesla found that the shocking effect could permeate very large volumes of space with apparently no loss of intensity. He also found that the shocking effect penetrated sizable metal shields and most insulators with ease. Developing a means for controlling the number of impulses per second, as well as the intermittent time intervals between each successive impulse, he began discovering a new realm of effects. Each impulse duration gave its own peculiar effects. Able to feel the stinging shocks, though shielded at a distance of nearly fifty feet from his apparatus, Tesla recognized at once that a new potential for electrical power transmission had been revealed to him. Tesla was first to understand that electrical shock waves represented a new means for transforming the world. Even as his Polyphase had done, Tesla fully intended to disclose his discoveries to the world at large. Radiant electricity had special characteristics of which the scientific world had no knowledge. If released with sufficient power, radiant electrical broadcasts could kill. His initial experiments were sufficiently potent enough to cause severe and painful stings. Here was a lethal system requiring control and development What was intended to be a great benefit to humanity could be misconstrued as the greatest detriment. Working with a simple but powerful embodiment of his original apparatus, Tesla found that radiant electricity could induce powerful electrical effects at a distance. These effects were not alternations, not alternating waves. They were longitudinal waves, composed of successive shocking waves. The advance of each shocking wave, followed by short neutral zones together comprised the radiant field. Vectorial components of these shockwave successions were always unidirectional. The stuttering

shockwaves were capable of forcing charges in the direction of their propagation. Objects placed near this device became powerfully electrified, retaining a Singular charge sign for many minutes after the magnetic discharger had been deactivated. Tesla found it possible to amplify these Single charge effects by a simple asymmetrical alignment of the magnetic discharger. By placing the magnetic discharger closer to one or the other side of the charging dynamo, either force positive or force negative vectors could be selected and projected, Thus, charge could be projected into or drawn from any object in the field space. Introducing objects into the radiant space gave spectacular effects, becoming surrounded by crowns of white sparks. Objects charged by this apparatus evidenced a powerful and permeating charge action like no other seen before. This was a new electrical force. Tesla realized more than ever that he was in unknown territory. The fact that these radiant forces travelled as light-like rays distinguished them from the electromagnetic waves of Maxwell. The waves were weak, but these rays were strong. Uncommonly strong Directional effects could obtained by shaping the wire lines which radiated the shocking waves. The condition which best radiated evenly in all directions required that each line be semi-circular, the entire apparatus being circularly disposed. How far did this field extend, and what was the effect of distance on the intensity of the radiant field? Tesla found it impossible to measure a diminution in radiant force at several hundred yards. In comparison, he recalled that Hertz found it relatively easy to measure notable inverse square diminutions within the confines of his laboratory in Bonn. Tesla suspected that these effects were coherent, not subject to inverse laws other than those due to ray divergence. If he wished to broadcast power to a neighborhood, it would be critical that all radiant energy be focussed in receivable directions. Also, Tesla wished to determine the effect of gradually decreased impulse durations required greatest skill and precaution. Tesla knew that he would be exposing himself to mortal danger. Controlling the rapidity of current blowout in the magnetic DC are, Tesla released a new spectrum of lightlike energies throughout his large gallery space. These energetic species were like no other which the world has since seen. Tesla found that impulse duration alone defined the effect of each succinct spectrum. These effects were completely distinctive, endowed with strange additional qualities never purely experienced in Nature. Moreover, Tesla observed distinct color changes in the discharge space when each impulse range had been reached or crossed. Never before seen discharge colorations did not remain a mystery for long. Trains of impulses, each exceeding 0.1 millisecond duration, produced pain and mechanical pressures. In this radiant field, objects visibly vibrated and even moved as the force field drove them along. Thin wires, exposed to sudden bursts of the radi ant field, exploded into vapor. Pain and physical movements ceased when impulses of 100

microseconds or less were produced. These latter features suggested weapon systems of frightful potentials. With impulses of 1.0 microsecond duration, strong physiological heat was sensed. Further decreases in impulse brought spontaneous illuminations capable of filling rooms and vacuum globes with white light. At these impulse frequencies, Tesla was able to stimulate the appearance of effects which are normally admixed among the electromagnetic energies inherent in sunlight. Shorter impulses produced cool room penetrating breezes, with an accompanying uplift in mood and awareness. There were no limits in this progression toward impulses of diminished duration. None of these impulse energies could be duplicated through the use of high frequency harmonic alternations, those which Sir Oliver Lodge popularized, and which later was embodied in Marconi Wave Radio. Few could reproduce these effects because so few understood the absolute necessity of observing those parameters set by Tesla. These facts have been elucidated by Eric Dollard, who also successfully obtained the strange and distinct effects claimed by Tesla.

By 1890, after a period of intense experimentation and design development, Tesla summarized the components necessary for the practical deployment of a radiant electrical power distribution system. Tesla had already discovered the wonderful fact that impulse durations of 100 microseconds or less could not be sensed and would do no physiological harm. He planned to use these in his power broadcast. Furthermore, shocking waves of 100 microsecond duration passed through all matter, a fitting form of electrical energy to broadcast throughout the stone, steel, and glass of a power-needy city. Tesla would not expect distortions with specially adjusted energy fields, vectors which permeated matter without interactive effects. Tesla made a most startling discovery the same year, when placing a long Single-turn copper helix near his magnetic disrupter. The coil, some two feet in length, did not behave as did solid copper pipes and other objects. The thin- walled coil became ensheathed in an envelope of white sparks, Undulating from the crown of this coil were very long and fluidic silvery white streamers, soft discharges which appeared to have been considerably raised in voltage, These effects were greatly intensified when the helical coil was placed within the clisrupterwire circle, Inside this ”shockzone”, the helical coil was surrounded in a blast which hugged into its surface, and rode up the coil to its open end, It seemed as though the shockwave actually pulled away from surrounding space to cling to the coil surface, a strange attractive preference. The shockwave flowed over the coil at right angles to the windings, an unbelievable effect. The sheer length of discharges leaping from the helix crown was incomprehensible, With the disrupter discharge jumping I inch in its magnetic housing, the white llimmering discharges rose from the helix to a measured length of over two feet. This discharge equalled the very length of the coil itself1 It was an unexpected

and unheard transformation. Here was an action more nearly ”electrostatic” in nature, although he knew that academes would not comprehend this term when used in this situation, Electrostatic energy did not fluctuate as did his shockwaves. The explosive shockwave had characteristics unlike any other electrical machine in existence, Yet Tesla stated that the shockwave, during the brief instant in which it made its explosive appearance, more nearly resembled an electrostatic field than any other known electrical manifestation, Just as in electrostatic friction machines, where current and magnetism are negligible, a very energetic field component fills space in radiating lines, This ”dielectric” field normally launches through space in a slow growth as charges are gathered. Here was a case where a DC generator provided the high voltage. This voltage charged an insulated hoop of copper, growing to its maximum value. If all values in the circuit were properly balanced, in the manner prescribed by Tesla, a sudden charge collapse would then occur, This collapse was necessarily very much shorter than the interval required to charge the hoop, The collapse comes when the magnetic disrupter extinguishes the are, If the circuit is properly structured, no backrush alternations ever occur. This unidirectional succession of charge-d.ischarge impulses causes a very strange field to expand outward, one which vaguely resembles a ”stuttering” or ”staccato” electrostatic field, But these terms did not satisfactorily describe the conditions actually measured around the apparatus, a powerful radiant effect exceeding all expectable electrostatic values, Actual calculation of these discharge ratios proved impossible, Implementing the standard magneto-inductive transformer rule, Tesla was unable to account for the enormous voltage multiplication effect. Conventional relationships failing, Tesla hypothesized that the effect was due entirely to radiant transformation rules, obviously requiring empirical determination, Subsequent measurements of discharge lengths and helix attributes provided the necessary new mathematical relationship. He had discovered a new induction law, one where radiant shockwaves actually auto-intensified when encountering segmented objects. The segmentation was the key to releasing the action. Radiant shockwaves encountered an helix and ”flashed over” the outer skin, from end to end. This shockwave did not pass through the windings of the coil at all, treating the coil surface as an aerodynamic plane. The shockwave pulse autointensified exactly as gas pressures continually increase when passing through Venturi tuhes. A consistent increase in electrical pressure was measured along the coil surface. Indeed, Tesla stated that voltages could often be increased at an amazing 10,000 volts per inch of axial coil surface. This meant that a 24 inch coil could absorb radiant shockwaves which initially measured 10,000 volts, with a subsequent maximum rise to 240,000 volts! Such transformations of voltage were unheard with apparatus of this volume

and simplicity. Tesla further discovered that the output voltages were mathematically related to the resistance of turns in the helix. Higher resistance meant higher voltage maxima. He began referring to his disrupter line as his special ”pri mary”, and to the helical coil placed within the shockzone, as his special ”secondary”. But he never intended anyone to equate these terms with those referring to magnetoelectric transformers. This discovery was indeed completely different from magneto-induction. There was a real and measurable reason why he could make this outlandish statement There was an attribute which completely baffled Tesla for a time. Tesla measured a zero current condition in these long copper secondary coils. He determined that the current which should have appeared was completely absent. Pure voltage was rising with each inch of coil surface. Tesla constantly referred to his ”electrostatic induction laws”, a principle which few comprehended. Tesla called the combined disrupter and secondary helix a ”Transforrner”. Tesla Transformers are not magnetoelectric devices, they use radiant shockwaves, and produce pure voltage without current. No university High Frequency Coil must ever be called a ”Tesla Coil”, since the devices usually employed in demonstration halls are the direct result of apparatus perfected by Sir Oliver Lodge and not by Nikola Tesla. The Tesla Transformer is an impulse apparatus, and cannot be as easily constructed except by strict conformity with parameters which Tesla enunciated. Tesla Transformers produce extraordinary white impulse discharges of extreme length and pressure, which exceed the alternating violet spark displays of Lodge Coils. This is illustrated by noting the manner in which Tesla Transformers are actually constructed. While looking and seeming the same, each system actually performs very different functions. Lodge Coils are alternators. Tesla Transformers are unidirectional impulses. The most efficient Tesla Transformations were obtained only when the disruptive radiating wire line equalled the mass of the helical coil. The empirical determination proved that a mysterious and Simple mass-to-mass correspondence necessarily existed between the disrupter apparatus and the secondary coil. Tesla learned that a simple balance beam could be used to best design his Transformers. Metal line or thick metal strapping would be cut and placed on one side of the balance. Thin copper wire would be unwound from a spool and hung on the other balance beam end. When the balance was even, when the masses were identical, Tesla cut the thin wire. Transformers made in this mass-to-mass ratio consistently provided the most powerful transformations. Each Transformer conducted a specific impulse duration with special force. Therefore each had to be ”tuned” by adjusting the disrupter to that specific impulse duration. Adjustments of arc distance provided this control factor. Once each transformer was tuned to its own special response rate, impulses could flow smoothly through the system like gas flowing in a pipe. Finding that

gas-dynarnic analogies and applications indeed provided him with a consistent record of successful assessments in these regards, Tesla began considering whether or not the white flame discharges, so different from anything he had ever seen, might not be a gaseous manifestation of electrostatic force. There were certainly abundant experimental instances in which a purely gaseous nature, so unlike anything electrical, was being clearly made manifest. The manner in which the radiant shockwave travelled over the wire cailings in white flimmering laminar streams, brought a new revolution in thought. Voltage pulses traversed the secondary surface like a gas pulse under increasing constriction, Until reaching the free end of the coil, these gaseous pulses flowed over the copper surface rather than through it. Tesla referred to this specific manifestation as the ”skin effect”. In this the discharge greatly resembled the manner of gases in motion over surfaces. Furthermore, whenever a metal point was connected to the upper terminal of one of his Transformers, the stream became more directive. It behaved just like a stream of water in a pipe. When the white flimmering stream was directed at distant metal plates, it produced electronic charges. This charge production could be measured as amperage, ”current”, at the reception site. In transit however, no such amperage existed. Amperage appeared only when intercepted. Eric Dollard has stated that the space surrounding Tesla Impulse Transformers so surges with these streams that the ”interception current” can reach several hundred or even thousands of amperes. But of what was this mysterious stream composed? Tesla struggled with the doubt that these discharge phenomena might be ordinary electricity behaving in extraordinary ways. But did electricity indeed have a smooth, soft, and fllmmertng nature? The electricity with which he was familiar was shocking, hot, burning, deadiy, piercing, stinging, alI the attributes of an irritant. But this discharge phenomenon was, whether cool or warm to the touch, soft and gentle. It would not kill. Even the manner in which the pulse exploded as bright white discharges of greatly transformed voltage, suggested the way in which gases behave when released from their confinements under pressure. These reflective meditations convinced Tesla that this effect was not purely electrical in nature. Closely examining the white flames, Tesla realized why there was no measurable ”electrical current” at the crown of these activated coils. The normal heavy charge carriers, electrons, could not travel as quickly as the radiant pulse itself. Choked in the metallic lattice of the coil, electrons became immobile. No electron current moved through the coil at all. The radiant pulse which moved over the coil surface, was therefore not electronic in nature. Additionally, Tesla discovered an amazing phenomenon which removed all doubt concerning the true nature of energetic carriers at work in his apparatus. Tesla arranged a very heavy a U-shaped copper bus-bar, connecting both legs directly to his disrupter

primary. Across the legs of this Ushaped busbar were placed several incandescent lamps. The arrangement was a very evident short circuit. The lamps were illuminated to a brilliant cold white light, while being shorted by a heavy copper shunt. Uncharacteristic of particulate current electricity, the bright but cold lamps revealed that another energetic current was indeed flowing through the ”shortcircuits”. Those who observed this experiment did not expected it to perform any function save the incineration of the disrupter circuit and possibly of the dynamo itself. Instead of this, witnesses beheld a marvel. The lamps lit to an uncommon brightness. In this Simple demonstration, Tesla was illustrating but one of his many evidences. Electronic charges would prefer the least resistant circuit, rejecting the incandescent bulbs for the copper path. The current in this situation chose to conform with a contradictory principle. Perhaps this was true because the currents were not electrical. Tesla repeatedly used this demonstration to evidence the ”fractionation” of currents electronic, from currents neutral.

# Energy machine of Joseph Westley Newman

Accordint to Mr. Newman, these gyroscopic particles are the smallest particles known and comprise all atoms within the universe. Quantitatively, there are trillions of such gyroscopic particles flowing in the described paths to generate the magnetic field. Although sub-atomic particles will be shielded by lead, the effects of magnetic fields can be observed through lead shielding. According to Mr. Newman, this is one proof that these particles are the most fundamental particles known. In his researches on magnetism, James Clerk Maxwell (as well as Michael Faraday ) explicitly described the lines of force surrounding a magnet as kinetic, mechanical energy. ( Maxwell called electromagnetism „matter in motion " ) . This description by Maxwell has been forgotten in the past 132 years. While Maxwell could not explain in detail the action of a magnet, he did recognize that such action is mechanical in nature. As one passes a conductor wire in front of and across the end of a bar magnet, one will observe the current to flow first in one direction, then become neutral, then reverse itself and flow in the opposite direction. This occurs due to the nature of the flow of the gyroscopic particles as they flow from each end of the bar magnet. On one side of the south and of the bar magnet, for instance, the particles flowing in and out along the „lines of force" spin „up" , while on the other side of the same south end, the particles flowing in and out along the „lines of force" spin „down" . A spinning gyroscope will move at right angles to the force acting upon it; hence, as the gyroscopic particles encounter the particles composing the conductor wire, they move „up" or „down" the conductor (at right angles to the direction that they first encounter the conductor ) . Mr. Newman indicates that it is principally the spin of gyroscopic particle ( and not the direction of flow for the gyroscopic particles along the „lines of force") that determines magnetic repulsion and attraction. The interaction of the peripheres of the particles actually effects such repulsion and attraction. Although the drawings depict space between the particles flowing in a given „line of force", in actuality the particles are more like individual spirals upon a strand of beads in the shape of helix, which results in a gyroscopic action – each particle „bumping against the next " . [According to Mr. Newman, between each particle there is a very small amount of space created by the electromagnetic force surrounding each particle. ] As the drawings depict, the actual „lines of force" are really shells of force, which envelop the magnets as discrete shells of gyroscopic particles, which lie concentrically within other shells. These „lines of force" or shells os force (in actuality) travel (rotate) in opposite directions relative to one another. The effect of such motion is to place the peripheries of respective gyroscopic particles (from one „line of force" to the next ) at opposition (or repulsion ) to one another and consequently

keep each „line of force ” seperated from each adjoining ( concentric ) „line (shell) of force ”. In addition, there are as many „lines of force” emanating from each end of the bar magnet as there are atoms aligned magnetically across the width and height of the N and S ends of the magnet.

Because of the large size of iron filings relative to the sub-atomic size of the gyroscopic particles, the particles within the „line of force” congeal clumps of the filings into (via the naked eye) a relatively few number of such lines. With more finely – ground iron filings, more „lines of force” would become visible to the human eye. Each particle travels along the „line (shell) of force” at speed of light (c ) and also individually spins at the speed of light (c) . Consequently, such motion results in energy (E) since $E = m * c^2$ It should also be noted that, based on the theories of Mr. Newman, I constructed three dimensional models of two bar magnets to study how the gyroscopic particles interact. Using simple styrofoam (for the bar magnet) , wire (for the „lines of force”), and wooden beads (for the gyroscopic particles), I was able to construct these models as shown in the technical drawings. (This is only an analogous construction . Mr. Newman does not state there is a solid particle spinning on its axis as it moves, but probably is a particle moving [in effect, spinning ] in a circular [spiraling helix] configuration at the speed of light and moving forward at the speed of light [within the general helix action], such combined motion equals C^2 ). Technically speaking, like a water wheel harnessing the mechanical ection of a river, Mr. Newman has effectively designed a machine capable of harnessing the above described magnetic energy and converting it to useful electrical energy. Therefore, the produced electrical energy comes from the gyroscopic particles comprising the atoms of the magnet. A magnetic field is created when the atoms of a given material become aligned. According to Mr. Newman, the motion of the gyroscopic particles about the „lines (shells ) of force” surrounding a magnet are a precise reflection of the interior, structural interaction of these particles within given atom. The larger particles (quark, neutrino, meson, electron, proton, neutron, etc.) are various configurations and aggulations of the gyroscopic particle. As the atoms become aligned within a magnet to be , they begin to act upon (and magnify) one another’s individual, atomic, magnetic fields completely mesh and expand to become the magnetic field of the complete magnet. One may wonder that, if the magnets are depleted of their gyroscopic particles during the course of the operation of Mr. Newman’s machine, will they not eventually lose their mass completely? The answer is yes, although because Mr. Newman’s energy machine operates at 100% conversion efficiency (there being no radiation, heat, light, etc. , as in nuclear fission reactions which operate at less than 1% efficiency), and because there are trillions plus gyroscopic particles within each atom, Mr.

Newman estimates that it would literally be thousands of years before one would detect any significant, measurable amount of mass loss within a magnet. It should be noted that Mr. Newman has worked on these ideas for 19 years. Mr. Newman submitted his theoretical discussion and proofs to the patent office several years before he constructed the actual working prototype of his energy machine. Mr. Newman was totally convinced of the rightness of his theories and did not need an operating machine to prove such rightness to himself. From his perspective, such a machine was needed as proof to everyone else. It is Mr. Newman's position that from his various theories (of which this discussion about the [magnetic – field – creating ] gyroscopic particles is only a single aspect of his theories ) one should be able to understand that it would be possible to construct an energy machine that was capable of harnessing such (gyroscopic ) energy if one could visualize the proper configuration of the materials necessary to effect such harnessing. Such configuration is the technical aspect of the patent itself – technically independent of, but theoretically dependent upon, understanding the nature of the gyroscopic particles and how they interact with one another, especially since all atoms in the universe are composed of such particles. Although this would be a seperate (but physically related ) theoretical discussion, Mr. Newman has indicated that gravitation is the observed effect of the interaction of unobserved electromagnetic fields (composed of gyroscopic particles) surrounding bodies in space. [Mr. Newman has theoretical concepts appropriate to this subject ] . As the drawings also indicate, positive and negative electrical charges are determined by the gyroscopic spin of individual particles, and such charges are repelled or attracted to one another according to periphery attraction . The fundamental, gyroscopic particle is , therefore, the unifying factor for the nuclear, electric, magnetic , and gravitational fields.

## Explanation for a working invention

I will now present an explanation for a working invention, which utilizes the energy within magnetic fields and produces more energy than is introduced into the system from an external energy input. Do not at this point reflect poorly upon yourself and blindly state „perpetual motion" . Simply put, the technological process, which I will discuss, converts mass into energy on 100% conversion process via $E = m * c^2$ . I believe it is imperative to reiterate that the energy in any magnetic field is the energy, which composes the elements of the atom, and is literally Einstein's equation of $E = m * c^2$ Such energy is the form of gyroscopic particles is the basic building block of all matter, and provides the basis for the conceptual interface between energy and matter. The following facts will clearly demonstrate a fundamental understanding, which prepares the reader for a more thoroughcomprehension of how one technological

embodiment of this pioneering invention can be built. The prior teachings indicate that copper is non-magnetic, and that the resulting magnetic field associated with current flow in copper is the result of the current. These teachings are totally wrong. Copper is extremely magnetic! It is so magnetic that it deceives the observer. Turn the current on, and magnetic field will occur very quickly. Then turn the current off, and the magnetic field very quickly disappears with no remnant of the magnetic field observed in the copper material. If one then places a magnet close to the copper, it is not observed to be noticeably magnetic. Therefore, one is easily deceived, since conventional, so-called magnetic materials generate a different results. By placing an iron core within a copper coil and turning the current on, a significantly stronger magnetic field will be generated. Now, turn off the current, and there will be small, remnant magnetic field surrounding the iron core. If a magnet is placed near the iron core, the magnet will be visibly affected. However, one is easily deceived by these tests and can be misled into believing that copper is non – magnetic. This is exactly what happened to Hans Christian Oersted in 1820 when he first discovered that an electric current produced a magnetic field, which would cause a magnet to align at right angles to the conducting wire. Oersted noted that the deflection of the magnet lasted only as long as the current was flowing through the conducting wire and hence, such magnetic action could not be caused by the (copper ) wire, but must be a result of the current itself. This same incorrect conclusion is still rigidly taught to this day. The following facts will clearly prove that copper is highly magnetic relative to the speed of atom alignment / unalignment as well as the action / reaction effect of the energy release (in the form of the gyroscopic particles previously discussed ) from the atoms comprising the copper wire!

What the prior art teaches: Hypothetically, if one imposes current into a (copper* ) conductor coil of pure inductance, the same current would be returned as that which was initially placed into the (copper*) conducting coil. Physically speaking, this simply means that the energy contained within the magnetic field – when generated by positive (+) current flow in one direction – is returned by the collapsing magnetic field as negative (-) current flow, when the current flow reverses direction. The prior art also teaches Kirchoff's law, which states: the same amount of current placed into a system (as a copper conductor ) for a given instant of time has the same amount of current flowing from that system (copper conductor ) for the same given instant of time.

The above facts totally contradict the prior teaching that the magnetic field generated by the current flowing in a (copper) conductor is solely a result of the current itself and that copper is non magnetic. The facts demonstrate the following: if one inputs a given amount of current into a copper coil during a given instant of time then the same amount of current

outputs from the copper coil during the same instant of time. If the current is then cut off, and the coil and the coil shorted with meters in the line, then the same amount of current will now come from the copper coil.
QUESTION: From where did the extra (X) amount of current coming from the copper coil emanate?
ANSWER: By analogy, the Prior Teachings indicate that current is equivalent to the volume of water and that voltage is equivalent to the pressure of water. Therefore, one should understand the essence of this analogy relative to the facts discussed above.
(There are those who will blindly state that the magnetic field produced is equivalent to pressure increase as related to hydraulics. Such statement is totally wrong even by the known laws of hydraulics, because as one increases the volume flow per second, one also increases the velocity of that entity and thereby it's pressure decreases. )
The factsclearly demonstrate that one „gallon" of current came from the copper coil itself, and most definitely not from the initial one „gallon" of current put into the copper coil. (This is an analogy only. The mass or volume of the electric current input or output cannot be seen or weighted, because it is composed of gyroscopic particles and is the mechanical essence of $E = m * c^2$) The prior teachings distort the above facts and would indicate that the analogy of one „gallon" of current has no pressure, when coming from the coil, and that one „gallon" of current has a pressure, which is thereby equivalent to one „gallon" of current with the input pressure. Furthermore, such teachings would indicate that because of resistance within the coil and other losses, not even the latter pressure will occur in reality . Even I was mislead by these teachings for many years, and I finally came to the realization that copper was highly magnetic by a completely different means than outlined above. These means included: (1) my general comprehension, which originated with my recognition that the basic building block of all matter was the gyroscopic particle, and (2) a test I conducted using a single piece of copper wire 800 feet long, which was doubled – back 400 feet to the starting point and hooked to a meter and dry cell battery. The test has the parallel positions of the wire 10 feet apart, with no „unobvious force" between the parallel portions of the wire. The test has the parallel portions of the wire extremely close, with an „unobvious force" between the parallel parts of the single wire.
The results of these two tests demonstrated the same current input for both tests. Prior to these results I had recognized that the words „Work" , „Force", and „Power" are implicit engineering statements and do not represent precise, scientific terms based upon observational reality. I conceptually altered such macroscopic, engineering statements to „Obvious work " , „Obvious force", „Obvious power" . I would microscopically describe what occurs internally, within matter as „Unobvious work", „Unobvious force", „Unobvious power" . (I will

explain these concepts later in this book. ) By my teaching, the facts clearly show that in the above analogy, one gallon of current „matter" ( consisting of gyroscopic particles) was released from the atoms of the copper coil! This extra one gallon of current (gyroscopic particles ) comes from the component parts of the atoms comprising the copper coil and simply utilizes Einstein's equation of $E = m * c^2$ (I must stress that this is analogy only. The volume or mass of matter via gyroscopic particles represents the mechanics of $E = m * c^2$, and such particles cannot be seen or weighted by conventional means. Their existence can be inferred, however, based on their mechanical behaviour combined with known, observation facts. )

QUESTION: How can this extra one gallon of current exist?

ANSWER: The current input (gyroscopic particles) simply acts as a catalyst relative to the atoms comprising the copper coil – atoms which align and unalign extremely fast compared to the atoms of conventional, magnetic materials – thereby releasing virtually immeasurable portions of the gyroscopic particles comprising the atoms of the coil. This release generates the magnetic field. When the input current is turned off, the collapsing (gyroscopic particles of the ) magnetic field withing the coil results in the gyroscopic particles attempting to return to the atoms from which they initially emanated. Such mechanical actions results in the gyroscopic particles striking other atoms from within the copper coil at some degree of right angle and moving at right angles to that force. This gyroscopic motion explains the source for the additional „one gallon" of current (gyroscopic particles) discussed in the above water analogy. Because of the „conversion efficiency" of this process via $E = m * c^2$ , there will be no observable change in the mass of the copper coil, even after decades of use. I should add that there is an important conceptual distinction between two meanings of the word „efficiency". To state that a given invention is 8,2 efficient, it produces over eight times as much energy as it consumes, is different from stating that the invention is 100 percent efficient, it completely converts the gyroscopic particles within the magnet from „magnet mass" to electrical energy. The former process involves production efficiency and the latter process involves conversion efficiency. Now to discuss the practical usage for this new understanding of the gyroscopic particles which are the mechanical essence of the equation $E = m * C^2$ and comprise the component parts of the atoms within all matter, conductors, and copper.

By understanding the teachings ( of this pioneering invention ), one can build a physical embodiment of this pioneering invention by using a conducting coil which will produce more energy out of the system than that put into the system from an outside source such as battery, generator, etc. I wish to thank Dr. Roger Hastings, senior physicist for Sperry-Univac, for calculating by conventional mathematics the quantitative

measurements for the following test, which I had proposed. Dr. Hastings is an exceptional scientist who had the character to come forth in my behalf, when many others were fearful or close – minded. For „mind – opening purposes" ( to use the current vernacular ) carefully study the following two tests: 1) Take 40-gauge copper wire which has a resistance of 1,049 ohms for 1000 feet with a total weight (of atoms composed of gyroscopic particles ) of a mere 0,02993 lbs, turning same into a coil with a 10 – foot interior diameter and 8,32 feet in height. One would therefore have approximately a mere 31,8 turns of copper wire (copper atoms, gyroscopic particles ) . If 100 volts is connected to coil, then a current flow of approximately 95 mA would occur with total power input of 9,5 Watts and resulting weak, magnetic field of 0,012 Gauss or mere 0,000014 Joules of energy stored in this weak, magnetic field. An insignificant current flow would now occur if the current input was stopped and coil was shorted out to collapse a weak magnetic field and provide an inductance of only 0,003 Henries.

Now, conduct another test with 5-gauge copper wire which has a resistance of 0,3133 ohms for 1000 feet. However, to equal the same resistance as in test above, one must now use 3348000 feet of 5-gauge wire with a massive, total weight (of atoms composed of gyroscopic particles moving and traveling at the speed of light, the mechanical essence of Einstein's equation $E = m * c^2$ ) of 335469,6 lbs or 16,77 tons. Such wire is turned into a coil with a 10 – foot interior diameter and 8,32 – foot height. This structure would have approximately a phenomenal 90000 turns of 5 – gauge (copper atoms ). If 100 volts were now connected to coil , then a current flow of approximately 95 mA could occur with a total power input of 9,5 Watts and a resulting, phenomenally larger magnetic field of 23,7 Gauss, or 1905 times larger for coil 2 than for coil 1 , and 116 Joules of energy stored in the magnetic field. This represents a phenomenal 8 million times more energy than in the 40 – gauge coil of test above. A phenomenally larger current flow would now occur if the current input was stopped and coil was shorted out as a result of the collapsing, much greater magnetic field of the 5-gauge wire. Such shorting would generate an inductance of 25700 Henries, which is better than 8 million times the inductance of the 40-gauge coil. Clearly, these facts - combined with the above facts prove beyond any doubt that Oersted's conclusion in 1820 (which is still taught to this day): „that the magnetic field came only from the current and not the conductor " to be totally false. [Although his conclusion is incorrect, I remain grateful to Hans Oersted for being the first to notice and attempt to explain an observed connection between an electric current and a magnetic field. ] . When coupled with facts through experiments clearly prove that the phenomenal difference in strength for the resulting magnetic fields (implying grat differences in stored energy) and additional current flow

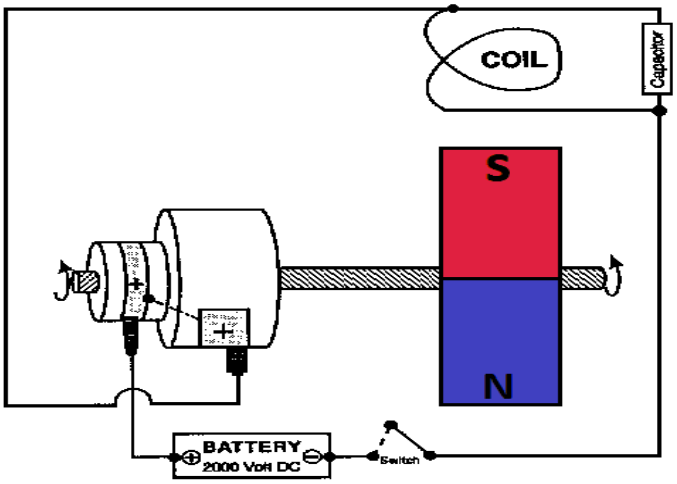
when the input current was stopped (inductance ), had to come from the gyroscopic particles comprising the component parts of the atoms within the copper coil. The current flow input was same in both tests, but the number of atoms (lbs of copper ) varied considerably from both tests correlating precisely with the phenomenal difference in the strength of magnetic fields produced, the extreme difference in the stored energy (gyroscopic particles ), and the great difference (inductance) in the additional current flow produced when the input current was stopped in both tests. These phenomenal differences represent the mechanical essence of $E = m * c^2$ , gyroscopic particles. All of the above facts scientifically establish the position that the mathematical formulas employed in the calculation of the energy within a magnetic field (intended to represent the potential energy or stored energy of Joules in a magnetic field ) are totally incorrect. The facts above clearly indicate that the magnetic field consists of gyroscopic type particles which are the mechanical essence of $E = m * c^2$ and represent an orderly flow of kinetic energy. I will go further and state that „potential" energy, as such, does not exist! All energy is kinetic in nature, since the gyroscopic particles continue, under all conditions, to move and spin at the speed of light in accordance with $E = m * c^2$ . The above facts prove beyond question that the proper mathematical equation (concerning the „kinetic " energy which makes up a magnetic field ) must be relative to $E = m * c^2$ A proper methematical equation would recognize that the „Unobvious force " produced represents the Joules of the „unobvious power" activated at that instant in time and as so used would diminish the mass of the source of the magnetic field via a 100% utilization (conversion efficiency ) of Einstein's equation $E = m * c^2$ , since the magnetic field consists of kinetic energy having a gyroscopic action, which represents the mechanical essence of $E = m * c^2$ . I leave the task of determining the nature of such equations to a thinking, questioning mathematical mind, as I do not have the mathematical expertise. It should be noted, however, that the mechanical comprehension of a natural phenomenon has ofter historically preceded a mathematical model. James Clerk Maxwell acknowledged the importance of Michael Faraday's mechanical and experimental abilities. Maxwell also recognized that such mechanical aptitude constituted a major intellectual input to his later mathematical theories. In his paper „On Faraday's lines of force", read before the Cambridge Philosophical society on December 10, 1855 and February 11, 1856, Maxwell explicitly stated his debt to Faraday: „The methods are generally those suggested by the processes of reasoning, which are found in the researches of Faraday, and which, though they have been interpreted mathematically by Prof. Thomson and others, are very generally supposed to be on an indefinite and unmathematical character,

when compared with those employed by the professed mathematicians. By the method which I adopt, I hope to render it evident that I am not attempting to establish any physical theory of a science in which I have hardly made a single experiment, and that the limit of my design is to show how , by a strict application of the ideas and methods of Faraday, the connexion of the very different orders of phenomena, which he has discovered, may be clearly placed before the mathematical mind. ”

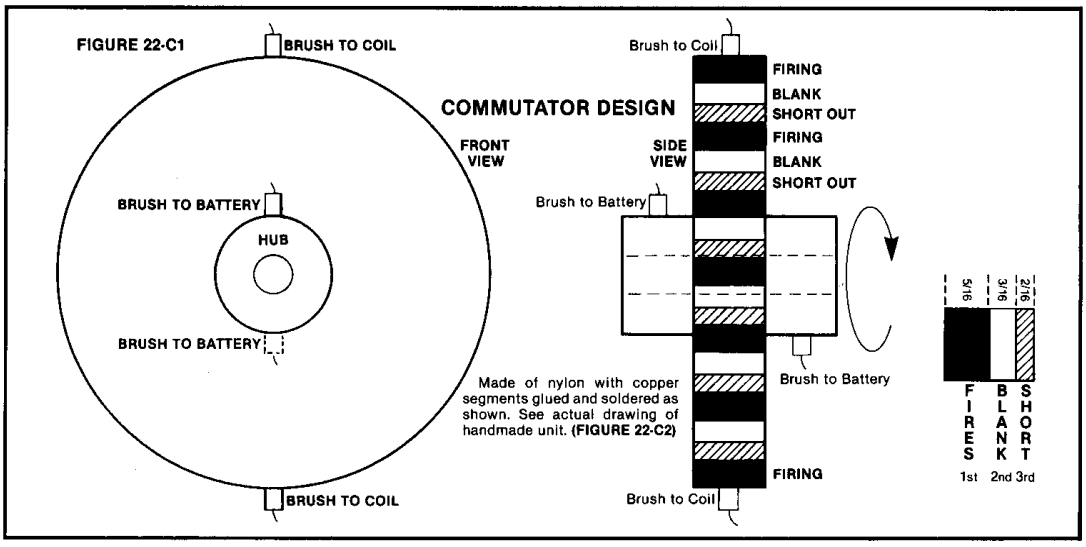
In 1979, I filed a patent for this pioneering invention of which several embodiments have been taught and disclosed since that time. The use of a conducting coil is one of those embodiments and the original patent and continuing patent applications were filed before any physical prototypes based on the theory were built

The physical prototypes were thereafter built for the benefit of others, not for myself, since I knew such prototypes would operate as I had predicted. Scientifically, one should find pertinent the fact that when these prototypes were constructed, they performed exactly as I had conceptually predicted in the patent applications for this pioneering invention. Gauge copper wire (atoms) wrapped over the outside of the 5-gauge wire (atoms), and a permanent magnet containing approximately 600 lbs. Of atoms (or slightly less than 0,333 of a ton ). [I am deliberately referring to the wire as „atoms” and describing the magnet as 600 lbs. Of „atoms” in order to accustom the reader to a mechanical perspective concerning the nature of the action of the gyroscopic particles contained within all atoms ]. The massive permanent magnet had an approximate 20-inch diameter and was slightly less than 4 feet long. The large, conducting copper coil had an approximate 1.D of 4 feet, was approximately 3 feet in height, and was wrapped upon a large fiberglass tube. The total weight of the system was approximately 5000 lbs.

## Newman pulse motor




**The Basic Newman Motor**




## A performance analysis of the Newman motor

This document complies and analyses the resultants of several experiments performed on the Newman motor in 1981 and 1982. The results of the experimental work show that this motor operates with energy output far in excess of energy input. This work is intended to characterize the motor, and to organize the experimental results. It is hoped that the document will serve as a guide in the development of the mathematical theory, which explains the Newman motor.

### Mechanical energy output

Test against a D.C. permanent magnet motor rated 80% efficient. In this experiment, eight fresh 1,5 volt alkaline batteries were connected to an 80% rated efficient D.C. motor . The motor turned an oil pump at about 1 Hz. The motor ran for 6 minutes, and the final battery voltage was about 60% of the starting voltage. Alkaline batteries were used because battery

performance curves were available from the manufacturer. One such chart is plotted in Fig.1. The performance of the D.C. motor is verified by the chart, which predicts that the batteries, when initially drained at 2 amps, will last 6 min. The measured motor drain under load was near 2 amps. The above results allow us to estimate the power consumed by the oil pump. We find:

$$\frac{initial\ pump\ output\ power}{initial\ battery\ input\ power} = 0{,}8$$

$$pump\ output = 0{,}8 * 2\ amps * 12\ volts = 19\ Watts$$

The same pump was connected to the Newman motor (with a 90# permanent magnet rotor) so that the pump again ran at near 1 Hz . Therefore, the pump was consuming the same power in this experiment. Eight fresh batteries were connected to the Newman Motor. (Unit designed as instructed in Patent Application, serial no. 179,474 , illustrated in Fig. 6 and stated in 1st three paragraphs of page 3 of declaration by Joseph Westley Newman of September 19, 1981 . ) The batteries were drained to about 60% of their starting voltage after seven (7) hours! Although the input current to the Newman motor follows a complicated waveform, we may estimate the initial average input current from the performance curve (fig. 1). Using 0,2 amps at 12 volts we find: Initial Newman motor input = 2,4 Watts. Since the output is consuming 19 Watts we have: $Newman\ motor\ efficiency = \frac{19}{2{,}4} * 100\% = 800\%$ . At this point we note that the intrinsic efficiency of the Newman motor could be greatly increased. As designed now, the motor has tremendous leakage flux, and extreme mechanical losses. An efficiently designed Newman motor would certainly have three times the efficiency quoted above, and perhaps ten times (8000% ) .

## Static torque test

The output shafts of the D.C. motor and Newman motor were connected in turn to a scale via a pulley and belt. The D.C. motor pulled a maximum load the D.C. motor consumed about 24 Watts while the Newman motor consumed only 2,4 Watts.

Static torque ratio $\frac{\tau 1}{\tau 2} = \frac{Newman\ motor}{D.C.motor} = \frac{13}{1{,}5} = 8{,}7$

Input energy ration $\frac{P1}{P2} = \frac{Newman\ power}{D.C.motor\ power} = 0{,}1$

If we define a motor performance parameter under static loads by the ration of maximum torque output to the input energy drain, we find that

this number is 87 times larger for the Newman motor than for the D.C. permanent magnet motor!

# Battery lifetime tests

It has become apparent that the batteries powering the Newman motor outlive the expectations of the manufacturer. In this test, 124 old alkaline batteries were used to power the (90 lb. rotor ) motor. The batteries read 2/3 of their fresh voltage value at the outset of the experiment. It was found that the 90 lb. cylindrical rotor is spun up to 6 Hz in 21 sec. When the batteries are connected to the motor. The voltage drops from 125 V to 70 V , When the batteries are connected, and remains at 70 V. When the rotor runs at speed. The minimum power supplied by the batteries is therefore equal to the power required to spin up the rotor. This is : $P = \frac{0{,}5 * I * \omega^2}{t}$ , where

T = time to spin up rotor = 21 sec

$\omega$ = angular speed = 2*$\pi$*6 [Hz ]

$$I = M * \left(\frac{R^2}{4} + \frac{L^2}{I^2}\right)$$

M = rotor mass = 41 kg .

R = rotor radius = 0,08 m

L = rotor length = 0,31 m

This yields a minimum energy required to keep the rotor spinning at 6 Hz. Of 13 Watts. Therefore the batteries must be supplying at least 13/70 = 190 mA . As a seperate estimate it was found that a constant drain of 300 mA through a resistor drops the battery voltage from 125 V to 70 V. Consulting the battery charts, we find that a fresh battery with a starting drain of 150 mA . ( 100 mA when V = 2/3 starting voltage ) will drop from 2/3 to ½ of its starting voltage ina few hours. If the batteries began at 2/3 of their fresh voltage under a drain of 250 mA. They would be very dead in two hours. The Newman motor has been run for between one and four hours per day for a total of ten hours. The batteries began at 2/3 of their fresh voltage, and after the ten hours the voltage had not dropped perceptibly. Mr. Newman intends to continue running the motor a few hours per day to test the limits of his motor. Here again the mechanical energy consumed by the spinning motor is far in excess of the maximum possible electrical energy which could be supplied by the batteries ( according to the charts) . An efficiency near 1000% is indicated by the experiment to date. April 20, 1982. On this date the old batteries have worn down to a point at which they will not even run a 1,5 V small toy motor. Yet when they are connected to the Newman motor, the 90 lb. rotor is spun up to 4,5 Hz in about 20 seconds!

## Electrical energy output

The Newman motor generates electrical energy by induction. The relevant experiments have been documented elsewhere, and indicate an efficiency of about 400% in the generation of electrical power. Experiments have since been run in which mechanical energy was measured via measurement of the frequency at which the motor runs, while delivering a measured torque. Electrical energy was simultaneously generated, and the sum of electrical and mechanical energy was roughly twice the energy obtained when only electrical energy was generated. In this experiment an accurate measure of the input power was not made. Instead, batteries were used and the time required to drain the batteries to a given voltage was measured. It was hoped that the battery charts could be used to estimate the input power. The result was too close to 100% efficiency to rely upon the accuracy of the charts. It should be noted that the measured output energy did not include losses in the belt used to transmit torque. In addition, the whole measurement apparatur was set into motion by the magnetic force during rotation.

## Static measurements

Mr. Newman has made measurements of the static torque generated by his 600 # magnet at various voltages. These results agree with theoretical predictions based upon measurements of the magnetic moment of the magnet. The predicted torque is: $\tau = M * H * \cos(\omega * t) * \left(1 - \exp\left(-0{,}5 * \frac{R*t}{L*}\right)\right)$ , and the maximum torque is M*H The static field generated by the coil is:

$H = \frac{N*I}{L}$

N = # turns

L = coil height

I = coil current

(Unit also designed as instructed in Patent Application, serial no. 179474 , illustrated in Fig.6 , and described in exhibit A or declaration by Joseph westley Newman, September 19, 1981 , except magnet rotary weighted approximately 400 pounds at that time. ) The magnetic field of the 600# magnet was measured at various distances from the magnet using a Hall effect transducer (factory calibrated ). These results were compared with the expression for the dipole field to yield a magnetic moment of $M = 100\ gauss\ feet^3$ . Therefore the maximum torque is predicted to be:

$\tau = M * H = 2{,}6 * 10^{-3} \frac{N*I}{L}\ [feet * lbs\ ]$

I in amps ,

L in meters.

The length of the motor coil is 0,69 m. and the number of turns is 2,63 . Therefore

$\tau = 9{,}9 * I$ [$feet * lbs$ ] I in amps

Mr. Newman's measurements of torque and current are listed below:

| Voltage | I (current) | $\tau$ (torque) | $\frac{\tau}{I} = \frac{torque}{current}$ |
|---|---|---|---|
| 6 | 0,6 | 17,3/4 | 7,21 |
| 12 | 0,98 | 33/4 | 8,42 |
| 18 | 0,75 | 29,3/4 | 9,77 |
| 24 | 1,3 | 38/4 | 7,31 |
| 30 | 1,4 | 47/4 | 8,39 |
| Average | | | 8,2 |

The value 8,2 for $\frac{\tau}{I}$ compares well with the predicted value of 9,9 considering inaccuracies in measuring devices. It has often been noted by Mr. Newman that for a fixed power input to a coil, the torque increases with the moment of the magnet. If the magnet is made infinitely magnetic, the torque becomes infinite, even if the power to the coil is very small.

Dynamic properties

Inductance

To begin with, the inductance of the 600# magnet motor coil may be predicted and taken from measurement. The predicted value is:

$L = \mu 0 * \mu * N^2 * \frac{A}{L}$

A = coil area

L = coil length

N = 2630

With a coil radius of 2,5 feet and 2,25 feet length we predict L = 23 henries.

In operation the motor inputs a square wave voltage for a fraction of the roughly 6,5 Hz cycle. Since the coil resistance is 13/L , L/R should be much larger than one period, and we predict a current rise of: $I = \frac{V}{R} * \left(1 - \exp\left(-t * \frac{R}{L}\right)\right)$ From an oscillograph photo with no load on the system, the coil current rises 0,5 amps in 0,1 sec, when 200 volts are switched across the coil. Thus: $L = \frac{200*(0,1)}{0,5} = 40$ [$Henries$ ] The magnet is turning during this measurement, so the approximate agreement between theory and measurement is reasonable.

Motor frequency

Under no load and assuming zero friction, the maximum theoretically possible frequency of the motor is determined by the condition that the induced voltage is equal to ( - ) the input voltage. The induced voltage is:

$Vind = -\omega * Bmagnet * \pi * R^2 * N$

$Bmag = magnetic\ induction\ of\ rotating\ magnet$

$R = coil\ radiums$

$\omega = 2 * \pi * frequency$

With Vind = - V we find:

$f = \frac{V}{2*\pi} * \frac{1}{\pi*R^2*N*Bmag}$

Now Bmag = 2*$\pi$ *M

M = magnetic moment , $\pi$ = magnet volume

With m = 0,01 $\frac{W}{m^2} * feet^3$ , R = 0,76 m , N = 2630

$\tau = \pi * (1^2) * 4 = 12{,}56\ [feet^3]$ we find:

$f = \frac{V}{4*\pi^3} * \frac{\Omega}{M*N*R^2} = 0{,}0067\ V\ (Hz)$

$f = 0{,}402\ V\ (rpm)$

At 200 volts we find the maximum frequency, if the motor had a 100% intrinsic efficiency ( no losses ), is : f = 80,4 rpm , about double the 600# observed motor frequency under no load.

## Energy input theoretical estimete

Assuming that: 1) Voltage input and induced emf are 180 degrees out of phase .

2)The voltagr input varies sinusoidally . We have: $(V - Vind) * \exp(j * \omega * t) = L * \frac{dI}{dt} + I * R$ $I = \frac{(V - Vind*\cos(\omega*t-Q))}{R*\sqrt{1+\frac{(\omega*L)^2}{R}}}$ , where

$\tan(Q) = \frac{\omega*L}{R}$

The average power consumed by the coil is then:

$P = 0{,}5 * \frac{V*(V-Vind)}{R*\sqrt{1+\frac{(\omega*L)^2}{R}}} * \cos(Q)$

$P = 0{,}5 * \frac{V*(V-Vind)}{R*\sqrt{1+\frac{(\omega*L)^2}{R}}} = \frac{V}{2*\omega*L} * \frac{R}{\omega*L} * (V - Vind)$

With $\omega = 2 * \pi * \frac{40}{60} = 4$ L = 50 , $\omega$*L = 200 , $\frac{\omega*L}{R} = 20$

V = 200 , $Vind = 0{,}5 * V = 100$ ,

$P = \frac{100}{40} = 2{,}5\ Watts$

This number agrees approximately with Mr. Newman's measurements of input power, in an experiment in which output was measured at about 5 Watts. The numbers used in the above calculation are approximate so the result represents an estimate. The expression for the input power along with the expression for Vind allow a prediction of how input power varies with motor frequency and voltage. The plot is shown in fig.2 , and the prediction is given below: $Predicted\ power\ input = \frac{450*\left(\frac{V}{200}\right)^2*\left(1-\frac{200}{V}*\frac{f}{80}\right)}{\left(1+\left(\frac{f^2}{3,1}\right)\right)}\ [Watts]$

V = input voltage (volts )

f = motor frequency (rpm )

This result was obtained by requiring the derived formula to match the experimental result that input power at 200 volts and 35,7 rpm is 1,8 Watts .

## Predicted output power

The output power is found by averaging the product of torque on the magnet and frequency over one cycle. The torque is given by: $\tau = M * H$ , and

$\tau = M * H * \cos(\omega * t) = \frac{M*N*I}{L} * \cos(\omega * t)$

Where the fact that maximum torque occurs in phase with maximum input voltage has been used. The output power is therefore:

$P(t) = \frac{M*N}{L} * \frac{V.-Vind}{R} * \frac{W}{\sqrt{1+\left(\frac{\omega*L}{R}\right)^2}} * \cos(\omega * t) * \cos(\omega * t - Q)$

And the average power is: $Pout = 0{,}5 * \frac{M*N}{L} * \frac{V-Vind}{R*\left(1+\left(\frac{\omega*L}{R}\right)^2\right)}$

The output power goes to zero at the maximum frequency (V = Vind) , and also at zero frequency . Predicted efficiency . Dividing the expressions for output and input power yields: $Predicted\ efficiency = \frac{M*N}{L} * \frac{W}{V} * 100\%$ , where W cannot exceed its maximum value. Using $\frac{M*N}{L} = 9{,}9\ feet\ .lbs$ . 1 amp = 13J/amp yields the following expression for the predicted efficiency of the 600 pound Newman motor:

$Predicted\ efficiency = 1{,}4 * \frac{f}{v} * 100\%$ f in r.p.m. V in volts

Operating under no load, the above formula predicts a Newman motor efficiency of 24% (35 rpm at 200 volts). The theoretical maximum motor efficiency is obtained by using the maximum frequency of 80 rpm at 200V, yielding a 56% upper limit in the case that the motor has zero frictional losses. Working back through the equations it can be seen that the maximum predicted efficiency is given purely in terms of geometrical factors ( ration of magnet volume to coil volume), and cannot exceed 100% . It is clear that measured efficiencies for the Newman motor are far in excess of predicted efficiencies. The predicted input power is in agreement with measured input. The measured output power exceeds the predicted output. For example, at 1,8 Watts input and 24% efficiency we except 0,4 Watts output from the Newman motor. In one experiment the motor generated 5 Watts of output power with 1,8 input drain. The discrepancies are far too large to be explained by experimental errors.

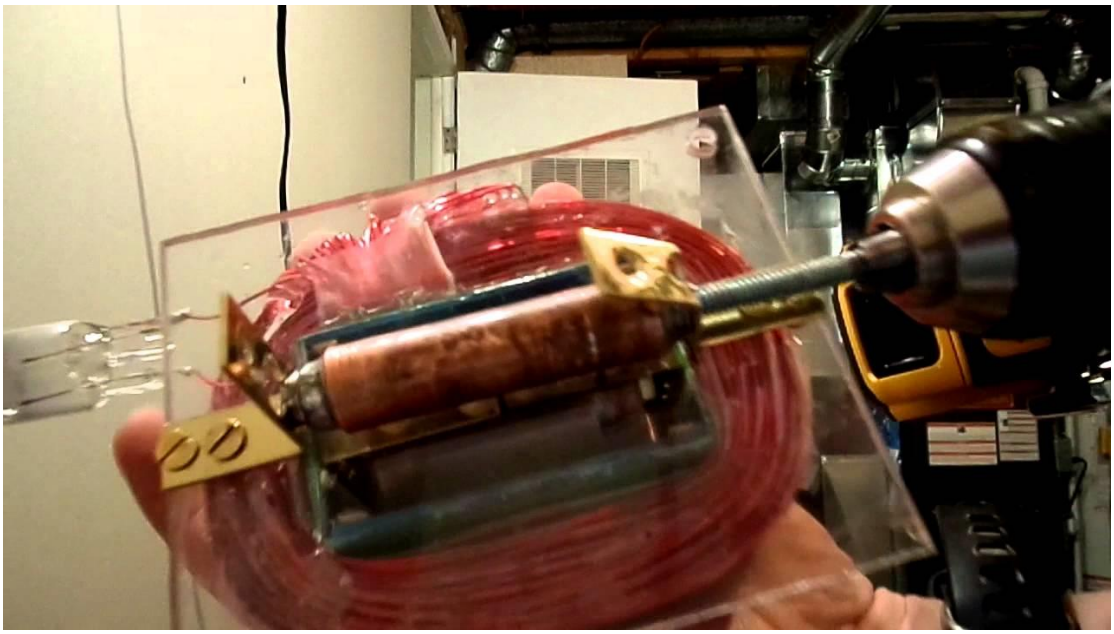
## Unusual (non conventional ) behavior

As seen above, a number of properties of the Newman motor follow conventional theory. In specific, the input power is as expected. The output power (in excess of input ) is the nonconventional result. In my mind the most interesting motor measurement is the oscillograph photos taken around the coil showing very high voltages. This photo also shown

the (to me amazing) fact that the coil current is over three times the current at the battery, when the voltage is applied. My opinion is that an excess charge is left in the coil, when the input voltage is cut off. At this point a spark appears and a huge induced e. m. f. is created in the coil. This emf should dissappear quickly (showing up as a spike) . However, the high voltage remains, having the period of the moving magnet. Is indicates that the magnet is „pushing ” an excess charge around in the coil, and this appears as excess current, when contact is re-established with the battery. There is also the issue of the „anomalous” current, which appears during the spark. It is unclear from the photos wheather this current appears in the coil, but it has the proper sign and magnitude to drive the magnet.

## Future theoretical research

The upcoming challenge for this writer is to explain the Newman motor output mathematically. The purpose of the above documentation, for me, is to isolate the origin of the excess energy. At that point, it is likely that application of a unified theory of charge, matter, and energy , will be required to mathematically describe the results. This mathematical explanation will also have to explain other various embodiments of the Newman invention, which will obviously result from the Newman disclosures.



"The finished prototype of what I teach will change the world drastically for the good of humanity, more so than any invention before this time."So claims Mississippi inventor Joseph Westley Newman of his machine, the Newman Energy Generator.

Newman is a professional inventor holding numerous patents, from plastic-covered barbells to a mechanical orange-picker. But his life's

work, on which he has laboured for more than 30 years, is altogether more revolutionary - a free energy device.

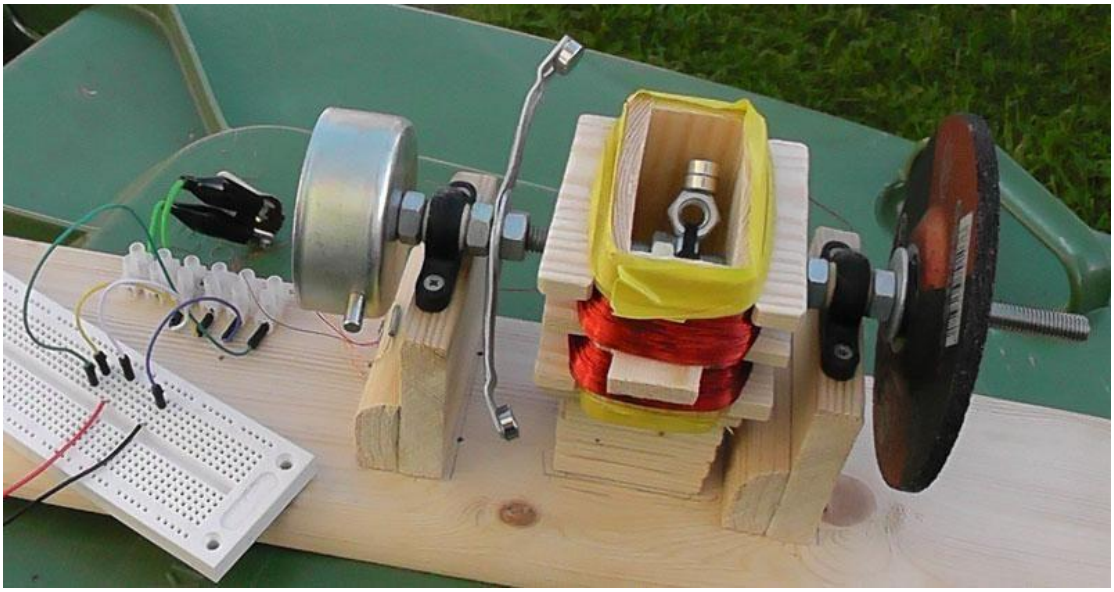
In 1984, Newman sued the US Patent and Trademark Office, which denied him a patent on the grounds that his device "smacked of a perpetual motion machine". Newman's claim that his device generated more energy than was required to run it, officials said, contravened the laws of nature: the Second Law of Thermodynamics states that even the most efficient engine eventually loses energy.

In taking on the patent office, Newman gained the sort of media coverage that makes professional publicists turn green, including a sympathetic feature in the journal Science. He's never looked back.

Several prototypes of his device exist, some portable, the largest most certainly not. Kept in a shed behind his house, it's described as a big motor powered by more than 100 six-volt batteries and wrapped in about 200 miles of copper wire. In effect it's a powerful magnet, weighing more than three tonnes.

Several engineers have seen the device in action including, according to Newman, representatives of the US military. He has also given public demonstrations of his more portable devices, but these seem usually to end with malfunctioning parts and disappointed spectators. Meanwhile, the question that is most regularly asked of his invention - if it produces more energy than it requires to run, then surely it can power itself, to become a perpetual motion machine - remains perpetually unanswered.

None of these disappointments have dissuaded the elderly Newman from refining his engine, which now runs at what he claims "11,400% efficiency". Newman has also outlined his revised models of energy and electromagnetism, the Theory of the Gyroscopic Massergy,in a 580-page book, The Energy Machine of Joseph Newman, now in its eighth edition.



## Technical developments

11, 1987 Joseph Newman successfully demonstrated his revolutionary electric car at the Biloxi, Missisippi Coliseum before 750 people and newsmedia. At the demonstration, the 550-lb energy machine motor powered a sterling-body car (mounted on Porsche chassis) for two hours using a current equivalent to that supplied by 1,5 volt transistor battery! As evidenced by the facts concerning electromagnetism, the current equivalent to what is in a small 1,5 volt transistor battery should not even

move the automobile, much less run it. For it to do so, proves that the magnetic field supplying the energy must come from the basic composition of more than 200 lbs of atoms in the motor's copper coil and the 200 lbs of atoms in the motor's copper coil, and the 200 lbs of atoms in the motor's permanent magnet. The energy released by the motor is released in accordance with the matter to energy conversion process described by Einstein's equation of $E = m * c^2$ and occurs without pollution to the environmant or the human race. Conventional teachings in present physics books state that this cannot be done . Joseph Newman has numerous 1,5 volt transistor batteries connected in series , which provide high voltage / very low amperage and produce power to move the 1800-lb automobile at low speed. The automobile at the Biloxi, Coliseum ran at walking speed. Joseph Newman asks the question: what is the ultimate power source that powers his electric car? He maintains that it is not the small amount of current from the 1,5 volt batteries hooked in series, but rather it is caused by the energy released from the interactions of the magnetic fields generated by the motor's copper coil and permanent magnet. The magnetic field generated by the copper coil is caused by the coil's atom alignment which results from high voltage / low amperage input. CONVENTIONAL SCIENCE TEACHES: to have an efficient motor one must use large current input and low voltage. JOSEPH NEWMAN TEACHES: just the opposite! High voltage with low amperage (as low as possible) will generate strong magnetic fields in the coil, and thereby induce the release of magnetic to electric energy through an electromagnetic (rather than fission ) reaction in accordance with $E = m * c^2$ . It is important to stress that Joseph Newman connects the 1,5 volt transistor batteries in series – not in parallel. A series connection is made by hooking a wire from the positive terminal of one cell to the negative terminal of the next cell in a chain fashion, until all the cells are connected. The total current carrying capacity is therefore the same as that of a single cell. The 1800 – lb car already had run for eight hours prior to the March 11, 1987 demonstration that was featured on National CBS evening news. After two hours the newsmedia and people were ready to leave, having seen demonstrated what conventional science says is not possible. The statistics on the demonstration were – VOLTS IN : 15640 , AMPS IN : 10 – 25 milliamps (a conventional electric motor starts with a surge of approximately 500 amps, and runs on 100 – 200 amps ) ; VOLTS OUT: over 100000 ; AMPS OUT : ( 2 components ) - the AC was twice the DC input and the R. F. (radio frequency ) was ten times the DC input.

In December, 1986 the car motor was damaged in shipment from Lucedale to Jackson, Missisippi although it was successfully demonstrated in Lusedale prior to shipping. The PVC tubing associated with the motor's coil slipped and compressed the PVC tubing, which acted as a brake on the shaft. The shaft itself is still out of alignment by

10000th's of an inch. Later the PVC tubing, coil, and braking problem were repaired, but the shaft remains bent. To repair the shaft would require complete motor rebuilding. Presently, Joseph Newman is seeking the funds to rebuild the motor. ( Most of Josephs Newman's assets are now being spent to fight the Patent Office which is financed by your tax dollars!) Dr. Roger Hastings calculated that frictional losses due to the bent shaft alone exceed the power input! Yet the 1800-lb car still moves and proves that Joseph Newman's teachings are correct as did the first, 12-second, 120-foot flight of the Wright Brothers in 1903. In fact, the Wright Brother's first four flights lasted between 12 and 59 seconds, and each went only a short distance. But these flights proved for the first time that powered flight in a havier than air flying machine was possible. The flying machine had, however, a very difficult time securing a patent and in 1903 the Patent Office informed the Wright Brothers
that their claim to a flying machine was rejected because it related to „a device that is inoperative or incapable of performing it's intended function. " The Wright Brothers had to battle the Patent Office for 3,5 years before securing a patent. Joseph Newman has continued to battle the Patent Office for over 8 years, although he has or is receiving energy machine patents in Spain, South Africa , India, and Argentina.
LEGAL DEVELOPMENTS: During the week of December 8-12, 1986, Federal Judge Thomas P. Jackson conducted the trial of Joseph Newman vs the Patent Office in Washington, DC . The trial went quite well for Joseph Newman. Physicist and magnetic expert Dr. Roger Hastings, electrical specialist/battery expert Ralph Hartwell, and mechanical engineer Milton Everett testified on behalf of Joseph Mewman during the trials first three days. The Patent Office was unable to refute any of the technical testimony of these three experts. After the trial, written post-trial briefs were submitted by both sides on March 2, 1987. Verbal closing arguments still remain ( as of this writing ) after which Judge Jeckson can take as long as he wishes to issue his decision. In an unrelated case, a trial ended 2,5 years ago and Judge Jackson still has yet to issue a decision! Speedy trials ( and decisions ) seem to come at a premium in Jackson's court. Joseph Newman is still interested in trying to find a way to directly sue Patent Office officials via a trial by jury. Suggestions are welcome.

ONE DIRECT BENEFIT OF THE TRIAL: three days of expert testimony for Joseph Newman represent the finest technical testimony yet assembled on Josephs Newman's technology! (We hope to make available the complete, 600 – page trial transcript and excellent post trial brief. ) During cross examination, the Patent Office's thermodynamic expert belatedly conceded that if the energy machine worked as Joseph Newman claimed than it did not violate the First and Second laws of thermodynamics, and therefore was not „impossible" . During extensive technical testimony, Dr.

Hastings explained how the energy machine obtained more energy output than external energy input: „When current flows through the motor, there is a torque exerted in the rotor, and then, in return, the rotor induces a back current or an opposing current in the coil. ” Dr. Hastings concluded, „When the reaction of the rotor on the coil is smaller than the force that drives the rotor, ” than there is „more output power than input power”. In lieu of Judge Jackson’s actions to date, we are not axcepting any „miracles” And either side could still appeal the decision. At the very beginning of Joseph Newman’s contact with Judge Jackson over three years ago, Jackson stated that he needed a special master (court expert ) to expendite proceedings and SAVE JOSEPH NEWMAN MONEY .

QUESTION: Do Judge Jackson’s actions believe his words? Now, over three years later, the Patent Office filed papers on March 2, 1987 seeking to have Jackson order Joseph Newman to pay the Patent Office $10218195 ! $9864926 of this amount is to pay for the National Bureau of Standards tests conducted last summer and since discredited at the December 1986 trial! Moreover, this does not include the more than $700000 in expenses relating to the legal battle conducted by Joseph Newman over the past three years. Yet the clock drags on, the expenses mount up, and the political/judical injustice continues to deny the people an invention that will revolutionize our lifestyle and provide us with abundant, inexpensive and non-polluting energy to power our homes, cars, factories, farms and appliances.

POLITICAL DEVELOPMENTS: In 1986, eleven Congressmen introduced eleven identical private bills to grant Joseph Newman a congressional patent. These bills do not make a scientific judgement about the energy machine, but leave it up the American marketplace. [In the house, priate bills cannot be co-sponsored and must be seperately introduced; in the Senate, private Bills can be co-sponsored. ] All eleven Bills were KILLED by Congressman Robert Kastenmeier of Wisconsin who refused to simply schedule an open hearing in his Subcommittee. His excuse: „the issue is in litigation and doesn’t belong in congress. ” Reply: Many Bills are both introduced and passed in Congress, while litigation is pending in the courts; moreover, why should the American people be judicial hostages during years of litigation, since Congress constitutionally has the power to issue patents? Also, Kastenmeier’s attitude actually punishes Joseph Newman for his own litigation! It was not the Patent Office that initiated the suit, but Joseph Newman, who filed the suit in an effort to seek justice, and keep his „patent pending ” status valid with such legal action. It is fair to penalize Joseph Newman’s pursuit of the only legal recourse available to him by refusing to schedule hearing on this issue in Congress? Robert Kastenmeier also says the President’s official

representatives oppose the Joseph Newman Bills . Who are the unnamed „official representatives?" What is the specific evidence of the president's opposition? We have a right to know all details. And since when is a democratic congressman (Kastenmeier) so concerned about what a republican president (Reagan) thinks of pending legislation? Something is definitely wrong here.

IMPORTANT CONGRESSIONAL DEVELOPMENT: As a member of the house appropriations committee, congressman Robert Livingston will attempt to attach an amendment to the Bill authorizing Patent Office funding. The amendment would deny only that funding used by the Patent Office to fight Joseph Newman's effort to obtain a patent. To „scientifically summarize" the political opposition to Joseph Newman's energy machine: „If a pound of mass were completely converted into energy, about 10 billion kilowatt hours would be obtained. If one mass unit (i. e. , one proton) were converted into energy, 931 million electron volts would be obtained. It has been estimated that one gram of matter, if totally consumed, would run a home for a thousand years. Our problem is not an energy shortage, but rather bureaucratic overage! "

OTHER ENERGY MACHINE NEWS: There has been extensive coverage of Josephs Newman's work in Sweden. Tom Leone of Lansing, Michigan suggested that people contact their local public and high school libraries and request that this book be ordered to enable more people to learn about this new technology. We also thank Mr. Leone for holding a demonstration in support of Joseph Newman on the steps of Michigan Capitol during the Biloxi, Missisippi demonstration. Supporter Sandy Smith writes: „I took your book to Tulsa University and my son's stayed up all night reading ; their conclusion: it's a marvelously exciting discovery " … their comment, „It brought all four years studies together, and made them make sense; he should write textbooks " The ORANGE COUNTY REGISTER (9/3/86) carried four powerful letters to the Editor in a section entitled „I am peach the Judge who stopped the 'Energy Machine'" . V.A. Bickov of Bloomington, California wrote, „Judge Jackson at the very least, is guilty of malfeasance in office in keeping such a machine from the American people and industry, a machine that seemingly permits our country to cease being dependent on oil imports and maybe even atomic energy. "

In the 10/23/86 WALL STREET JOURNAL Congressman Robert Livingston wrote in a letter: „I am convinced that the Patent Office has not followed normal or proper procedure in the handlings of Mr. Newman's application. As a result, taxpayer money is being used improperly. This situation is doubly alarming due to the fact that the invention just might be beneficial to hundreds of millions of people… From a legal standpoint,

this case is an abomination. But in the final analysis, it should be the marketplace, and not the government, that determines the worth of Mr. Newman's invention. ” David E. Cowlishaw in Silverton, Oregon writes: „If you would like to see this invention survive the cover-up, then do something! Communicate, explore, and never take „impossible ” for an answer! ” . John Eckert of Oneonta, New York writes: „Through the efforts of dedicated people like yourself, the dignity of the individual will be enhanced … ” And Don Kelly of Clearwater, Florida puts it very succintly, when he writes: „We now have a situation in the United States, where second – rate bureaucrats are making judgement calls on work of first rate engineers and scientists, and if this situation is allowed to continue, we had best call the 21st Century , due to lack of interest! ” We especially wish to thank everyone for their continuing efferots on behalf of Josephs Newman and for the kind letters we receive from across the United States and Europe. We will not give up and we are grateful for your continuing assistance in this battle, where the durable future of humanity depends upon this revolutionary technology being developed to benefit your children and your descendants. As Dr. Hastings said, „If you have any conscience at all, you can't walk away from this. ”

The subject of this press release and the object of attack by the United States government concerns the technology I teach, which will end all pollution on Earth, will permanently end the energy problem, will totally prevent any future Ethiopias, will generate many beneficial changes in our economic system, will cause the work hour week to approach one hour per week, will enable space travel to become a reality within 20 years, and no aspect of science will remain untouched by this revolutionary technology to benefit humanity. For the last three years, I have consistently stated that when the news media dug into the facts concerning the gross injustice relative to the Newman energy invention patent and court case, that the facts unearthed would make Watergate appear as a mole hill to a mountain.

Let's look at the facts:

If the energy invention came forward quickly, many financial people associated with conventional energy – people who have clout and political power – would possibly become insignificant.

On March 21, 1984, I received a „standard type reply” from the special assistant to president Reagan, who returned all of the materials I had sent , materials that were neatly packed as though they had not been opened. Included was the closing statement, „So many requests are received that it just is not possible to comply” .

As I unpacked the material I had sent in (2 ) above, I discovered a foul – up the part of the White House: I found accidently enclosed with my materials, a White House video review of a tape I had sent and from which conclusions were totally opposite to (2 ) above and proved (2)

above to be a blatant falsehood. The White House video review stated, and I quote: „Summary: A new energy source – electro magnetic device – John Stennis requested funding – needs help to get U.S. Patent , some scientists believe this invention could change the world as it converts mass into energy – runs on its own energy, WWL TV Channel 4, New Orleans, gives it excellent coverage. " . A section of the review marked „Special cases to Chunk Donovan, room 94 " was checked [v] – meaning that the materials and the video review was a special case and was therefore sent to him. You and I both know that president Reagan receives very little, if any, material from outside sources that gets such an extreme, impressive review and that could be of such vital importance to the „People" of this nation and the world.

President Reagan appointed Donald Quigg commissioner of the U. S. Patent Office. Donald Quigg was a top executive with PHILLIPS PETROLEUM for more than thirty years before being appointed to head the U.S. Patent Office. Donald Quigg has consistently published verbal and written falsehoods concerning my revolutionary energy invention. Example: Quigg, as well as the Patent Office, states that I have a „Perpetual Motion Device" . The federal district court in Washington DC appointed special master William E. Schuyler, Jr. (a former Patent Office commision with „superb credentials" according to Judge Thomas P. Jackson) who stated that in his special master's report that „Newman has specifically disclaimed that his invention is a perpetual motion machine " Even more incriminating: Reagan's own staff member who viewed by work stated the truth : „as it converts mass into energy" – runs on its own energy. Further incriminating evidence: at the recent trial on my pioneering patnet application, even the Patent Officer's own expert admitted, if the energy machine worked as Joseph Newman claimed, then it did not violate the first and second laws of thermodynamics and therefore was not „impossible" . And still further incriminating evidence: the special master stated in his report - „Defendant (The Patent and trademark office) intentionally did not consider the formalities of the Plaintiff's (Joseph Newman's ) application or the patentability of Plantiff's claims under 35 USC, Sec 102/103 " (This means that the Patent Office intentionally did not follow the law. ) . Question: Why the deliberate falsehood to the „People" and the „News Media" by Quigg and the Patent Office?

After experiencing years of injustice from the U.S. Patent Office, I went to the U.S. Federal Court in Washington, D.C., in hopes of receiving justice at which point Judge Thomas Penfield Jackson was given my case. Let's look at additional facts. President Reagan appointed Thomas Jackson as a federal judge in 1982. It has been reported that Thomas Penfield Jackson was the attorney for John N. Mitchell during the Watergate scandal and was also the attorney for the notoriously corrupt finance division of the

committee to re-elect the President , which was named CREEP . One of Jackson's law partners of that time, Kenneth Perkinson , was one of the seven indicted for the cover up conspiracy in the Watergate scandal. However , he was the only one aquitted. Nixon was replaced by president Ford, then president Carter, and then very soon after Reagan was elected as President, Reagan nominated Thomas Penfield Jackson for Federal Judge. (During the Watergate scandal, Thomas Penfield Jackson was a person who had already proven to people in financial and political power that he could be trusted as a federal judge to represent their interests. )
Thomas Penfield Jackson conveniently become the federal judge handling my case. Jackson stated that he had no technical ability and needed a special master (someone who was skilled in the art to evaluate my energy machine . ) I objected to his need for a special master and stated that the court needed only to count true witnesses of operability of the invention of which I had thirty competent scientific minded individuals and the Patent Office had zilch. Jackson stated in the court record that the reason he was using a special master was to expendite the summary judgment and to save me money. Thomas Penfield Jackson then chose a special master – William E. Schuyler, Jr . – nominated by the U.S. Patent Office, and Jackson specifically stated the fact that the Master's credentials were superb. Mr. William E. Schuyler, Jr. Was a former U.S. Commisioner of the Patent Office, with a background in electrical engineering and years of patent law experience. Within a short period of time on September 28, 1984 , the master issued his report which stated: „Evidence before the patent and trademark office and the court is overwhelming that Newman has built and tested a prototype of his inventions, in which the output energy exceeds the external input energy; there is no contradictionary factual evidence. " [This statement proved that what I had stated in (6) above was true . ] The U.S. Patent office had already stated in writing that if my invention worked, then I would be entitled to a „Pioneering patent" . The supreme court has already ruled that a pioneering patent was something that had not been done before. Thomas Penfield Jackson had open to him a perfectly clear road that the pioneering patent should issue, since the supreme master was nominated by the patent office , the patent office had stated that I would be entitled to a pioneering patent, if the invention worked, and the special master had stated the evidence was „overwhelming" the invention worked. Thomas Penfield Jackson charged me $1160220 for the special master's report that he originally stated he must have and then Jackson threw out his own special master's findings! This was a shocking violation of federal law , which states that: if a special master in the absence of jury , then the special masters findings must be accepted unless clearly erroneus. When Thomas Penfield Jackson was asked by my attorney to provide evidence that the special master was wrong, Jackson stated: „I am not going to tell you." Moreover, he has not

told us to this day! Question: Why should a federal judge deliberately violate federal law, and risk attention to be drawn to himself, when he could have followed the law and been perfectly safe?

It become extremely obvious to me that my ordeal was now not only a patent ordeal, but also a judiciary ordeal. Prior to this time I had as many as three attorneys at once working together in my defense. However, because of deliberate injustice by the patent office and federal court, I was forced to replace these attorneys with an extremely competent litigator, Mr. John Flannery of the Washington DC area. The first time Mr. Flannery and I went before Thomas Penfield Jackson, I bet Mr. Flannery twenty (20) to one (1) odds that he would find Jackson to be deliberately unlawful and not a representative justice. Mr. Flannery, a person who has great respect for justice as do I , took the side of Jackson and said that he felt the judge was simply overwhelmed by the magnitude of what I had accomplished.

Within a few minutes of having to deal with judge Thomas Penfield Jackson, Mr. Flannery knew I was correct and Mr. Flannery nevertheless handled himself most impressively under the extreme unjust conditions and actions of Jackson, so much so, that Mr. Flannery paid me our wager before we left the courthouse, and said that I was most definitely correct in my original assessment of Judge Jackson.