

Zilano Design for "Reverse Tesla Coil" Free Energy Generator

Summary Document A for Beginners

by Vrand

Thank you Zilano for sharing your very interesting design and we all wish you the very best, keep up the good work!

Energetic Forum

<http://www.energeticforum.com/renewable-energy/>

This is a short document describing the work of Zilano as posted on the Don Smith Devices thread at the Energetic Forum so that other researchers can experiment and build their own working free energy generator to power their homes.

Zilano stated that this design was based on the combination works of Don Smith, Tesla, Dynatron, Kapanadze and others.

Design Summary

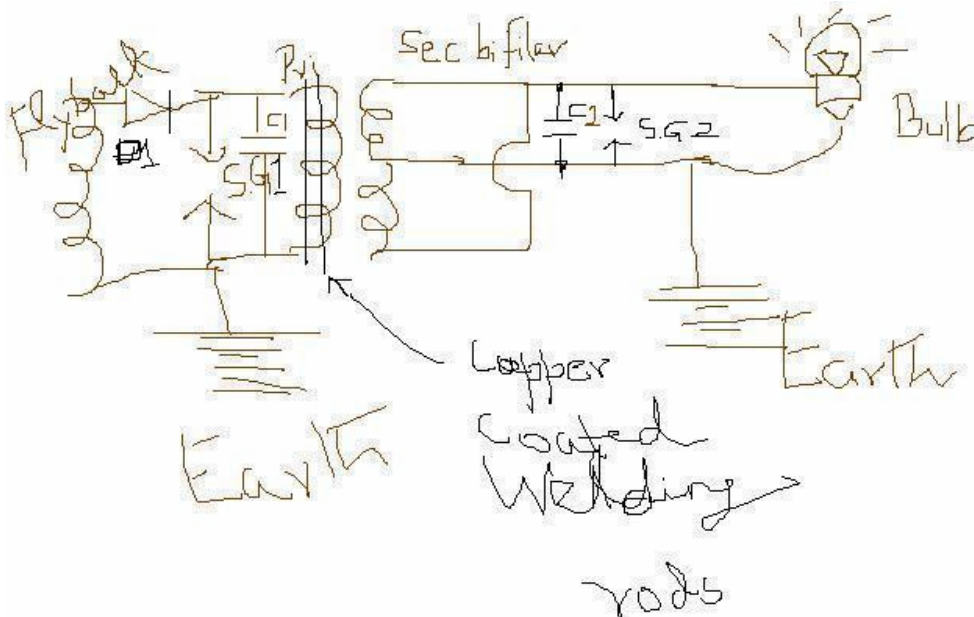
Key points:

- "Reverse Tesla Coil" (in this document)
- Conversion of high frequency AC (35kHz) to 50-60Hz (not in this document)

"Reverse Tesla Coil" is where the spark gap pulsed DC voltage from a 4000 volt (4kv) 30 kHz NST (neon sign transformer) goes into an air coil primary P of high inductance (80 turns thin wire) that then "steps down" the voltage to 240 volts AC a low inductance Secondary coil centered over the primary coil (5 turns bifilar, center tap, thick wire) with high amperage output. The high frequency (35kHz) AC output can then power loads (light bulbs) or can be rectified to DC to power DC loads.

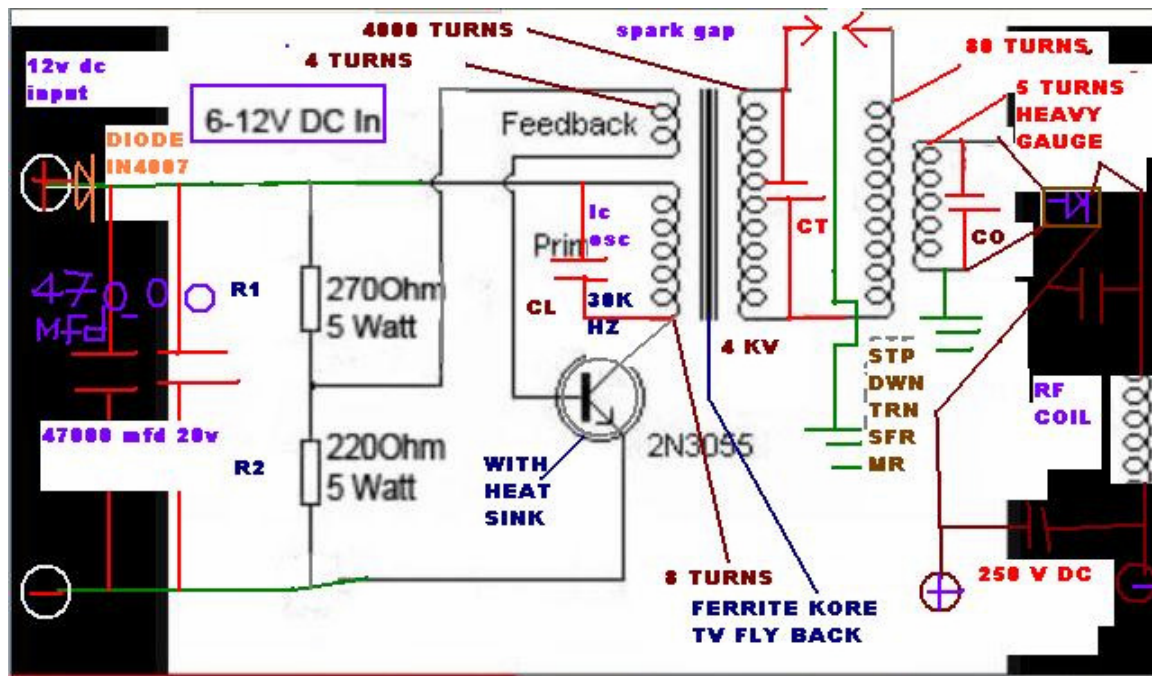
Copper coated welding rods can be inserted into the air coil to increase the inductance of the air coil primary that then increases the output amperage from the secondary coil to the loads.

See the below **diagram 1**:

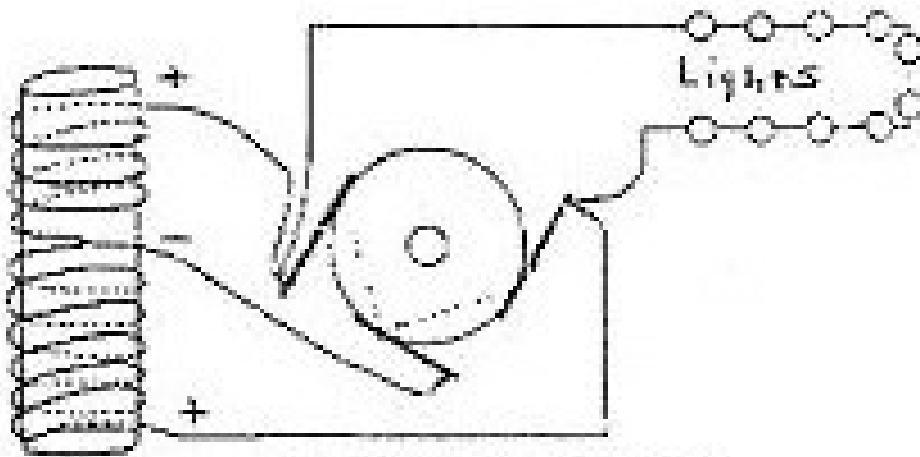


- NST 4KV 20-35KHZ
- D1 high voltage diode
- SG1 SG2 spark gaps
- C1 primary tuning HV capacitor
- P Primary of air coil, on 2" PVC tube, 80 turns of 6mm wire
- S Secondary 3" coil over primary coil, 5 turns bifilar (5 turns CW & 5 turns CCW) of thick wire (up to 16mm) with center tap to ground.
- C2 secondary tuning capacitor
- D2 high voltage diodes to rectify 240V AC to DC see diagram 3.

See the below **diagram 2** of the custom made Flyback:



Bifilar Coil Diagram, 5 turns CW & 5 turns CCW with center tap.

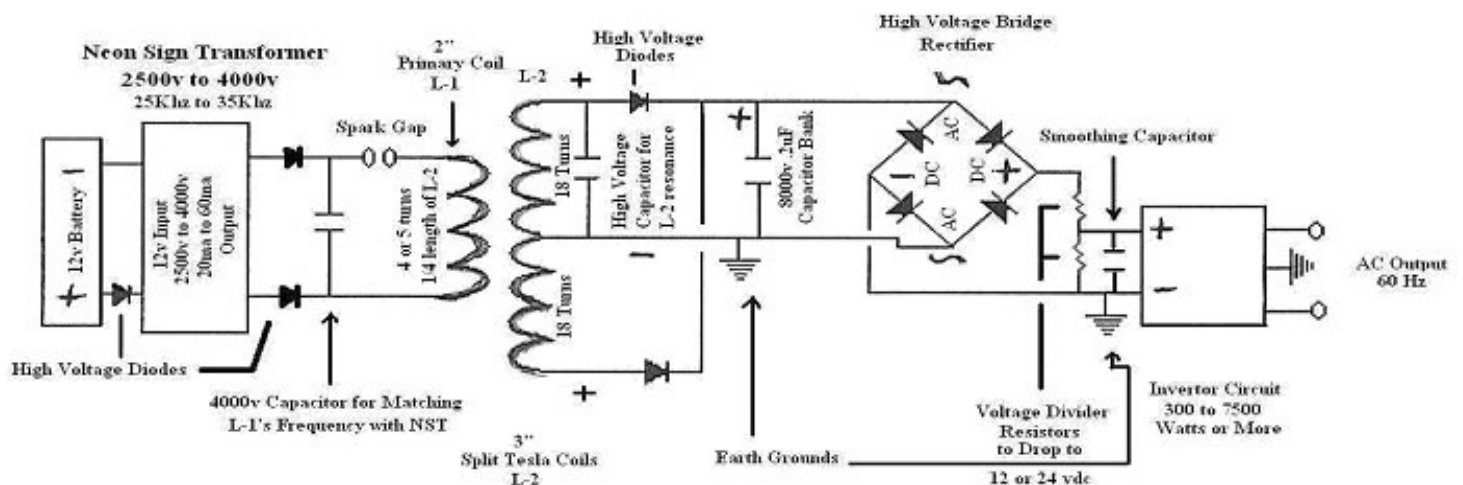


Armature (generator)
taking place of the L - 1
yields desired Amperage

The conversion of high frequency to low frequency can be found in Zilano's postings on the Energetic Forum and is beyond the scope of this paper, as this is a beginners document to show that it is possible to create high output energy from low input energy.

The energy output from the secondary is rectified and can be fed into an inverter or used as high voltage DC to power a motor/generator.

See the secondary output **diagram 3** below. For the primary input see the diagram 1 above.



Below are some of Zilano's description of this design (vrand highlighted):

- #56 (permalink)

08-06-2011, 01:25 AM

zilano

Hi mr. clean ! greetings!

you are doing great work. try doing what kapanadze did. get an empty ferrite core. and wind primary 8 turns and 4 turns independent coils of same gauge. and wind secondary about 4000 turns. measure L(8turns) of primary and use an online calculator to calculate capacitor to make it resonate at 30 khz.

here is link

Resonant Frequency Calculator

<http://www.deephaven.co.uk/lc.html>

use L(4 turns as feedback coil) and use any high hfe transistor as switch to make oscillator resonating at 30khz all sine wave circuit. so it will induce 4 kv 30 khz. **THIS IS UR CUSTOM MADE NST. IT WILL WORK FOR 9-12 VOLTS DC. PRODUCING AC 4kv 30 khz. use diode to make dc. just half wave.** since ur custom made nst oscillating at 30 khz u dont need to use resonating length of L_{pt} =length of primary tesla coil just use 80 turns of thin **wire $4000/80=50$ volt per turn as primary** it will oscillate at 30 khz then wind secondary thick wire 5 turns giving u **$5 \times 50=250$ volts output as primary induces 50 volt per turn into thick secondary**. try resonating. if it fails hopefully not. even if it does fail. measure with lcr meter the primary(80 turns) and use Resonant

Frequency Calculator

to calculate caps for 30 khz. use it.do same for secondary that is 5 turns tesla coil. match right cap for it. now it will work. so ur output is 250 volts and ampere depend upon the wire u used i mean at which amps rating thats rated. suppose its rated 10 amps so u r having power output from this output coil= **$250 \times 10=2500$ va=2.5kw**. now voltage is in control. now to control frequency either convert it to dc using high amps low voltage diodes. and use class c amplifier with power transistors and produce ac of 50 hz or 60 hz. use 1:1 isolation transformer. use varistor at the output rated for 250 volts.

another method is to use 1:1 isolation transformer and measure the inductance L of the input side of transformer that is input side of ur setup to the input leads of the transformer put R across two input points R can be calculated from american radio relay league graph that is reactance chart. now u know the amperes so u can calculate the wattage of resistor. the sixth edition of howard and samson book " handbook of electronic tables n formulas" also contains the reactance charts. for 50 hz look for 100 hz entry in chart and for 60 hz look for 120 hz entry in chart with ur inductance value of the transformer primary input. plot the line and where it cuts the resistance line use that value.

Now u have everything decently calculated and managed setup. use **varistor** at the output of isolation transformer. its better u make isolation transformer using an old empty bobbin iron cored unused transformer or use any robust ferrite core to keep it cool. thats it

just make sure the wires u use for transformer are rated 20% higher ampearage rating of the ampeares u r gonna use. here u have 10 amps so calculate 20% plus of 10 amps-A SAFETY FEATURE. ISOLATION IS MUST. COZ WE DONT WANT ACCIDENTS AND WE WANT SAFE FREE POWER. when power is more in output looping back and closing the loop is as easy as a wink. feedback 12v 5 amps(mysetup) in ur case may be different. use AMERICAN -AWC RATINGS OR CANADIAN RATINGS FOR WIRE GAUGES WITH AMPS N FREQUECIES TABLES. SELECT RIGHT ONES FOR UR SETUP

EMPOWER URSELF

FREEPOWER TO ALL

- to **get proper voltage grounding** is must. better earth ground with a lotta moisture helps to keep voltages in shape. since the appartus is not enclosed in a metal box coz its in experimental stage stray electromagnetic fields alter the frequency and this imbalance causes voltage spikes. use better ground and enclose ur resonating setup in a metal cage u will get good results.
- thats why **varistors** are used to stabilize output. moreover its radio frequency setup rf. its vulnerable in open. enclose it and get peace of mind!

- The formula

$$T=L/R$$

WHERE T= FREQUENCY

L=INDUCTANCE

R=RESISTANCE

DOES THE TRICK

THE COIL IMPEDANCE CHANGES SO DOES THE T

- **THE SHORTCUT IS:**

make a transformer according to ur requirement have it aircore only and just use caps in parallel of ur primary step down only u dont need cap on secondary output coil of ur step down transformer. so turns are controlled within limits and frequency with caps.

its always better to use low voltage enuff to get spark going so u can control voltage at input and output also easy way. i used 4 kv and 250 volts out. go thru my posts i have given elaborate explanation to get anyone going to get juice my way.

The best solution in in ur case is to use same coil but reversed connected to ur setup coil. so u have two stages now. one is step up and another is step down. now u have step down use low voltage high amps and high frequency diodes to get dc and a low voltage high capacity capacitor across the dc output to smooth out ripples and its much better to use PI filter which consists of two caps and an inductance in between so u get pure dc low voltage.

try a load and measure amps and use voltage divider circuit to get 12v or 24 volts as ur case may be and **use an inverter** to get ac power output.

hope u try and if u get low juice try **inserting copper coated welding rods** in ur step down coil as core. but make sure all setup ur step up n step down resonating. if ur step down is not resonating with ur step up then u wont get juice so match frequency and then **add core of welding tube sticks.**

the core enhances induction and gives more strength to output amps.

hope u try that gonna work. report me ur adventure.

dont use raw ac power without rectifying it in stepdown else u burn up ur invertor coz high frequency will saturate core and sending ur invertor transformer in flames.

always make dc after step down before u attach invertor.

- AN AIRCORE TESLA COIL CAN BE USED AS STEP DOWN IN REVERSE TESLA COIL FASHION. MEANS THIN PRIMARY AND THICK SECONDARY AS (OUTPUT) INSIDE THE THIN PRIMARY. AT THE CENTRE.
- IMPORTANT: A STEP DOWN MUST RESONATE!
- TIP: COPPER COATED WELDING RODS CAN BE USED IN A BUNDLE AS A REPLACEMENT OF FERRITE CORE. A SUBSTITUTE. WORKS FINE.
- IN A NUTSHELL: MAKE AIRCORE REVERSE TESLA COIL. MAKE IT RESONATE WITH UR NST. THEN USE DIODE BRIDGE AND VOLTAGE DIVIDER AND USE PI FILTER GET 12 OR 24 VOLTS DC.

- Getting A Spark Firing Is Not Over Unity!

hI THERE!

THERE HAS TO BE A COMBO FOR OVER UNITY DEVICES.

A SPARK GAP + RESONANCE.

THEN U GET OU(OVERUNITY)

KAPANADZE HAD SPARK GAP AND RESONANCE.

MR. CLEAN ALSO HAVE.

KAPAGEN HAD SPARK GAP BUT NOT RESONANCE SO ITS NOT OU(OVERUNITY)

SR193 HAD SPARK GAP BUT NOT RESONANCE HE USED INDUCTION SO OUTPUT IS JUST 150 WATTS JUST A RESULT OF SPARK GAP AND NOT RESONANCE. IF SR USED RESONANCE THEN HE WUD BE IN THE CATEGORY OF KAPANADZE LONG B4.

I HAVE BOTH IN MY SETUP AND AM FINE WITH OUTPUT. AM USING IT FOR MY HOME A 10 KW UNIT. 220-250 VOLT 50 HZ SINE WAVE. AM HAPPY WITH IT!

- WELL turns thickness and gauge and length dont matter all matters is rightt caps

u can oscillate 1 inch of wire at 30 khz(not natural frequency of coil) but LC combination. frequency changes when c attached to coil. so here we oscillating combination not just a coil. moreover LCR meter tells c also of coil. add it to the oecillating parameter so total c is value is suitable for the applied frequency. frequency will remain same and not shoot to mhz !

i have not used natural resonant frequency of coils. we r feeding oscillating power so we force resonate coils. when caps added resonant frequency of coil changes.

we make L slave with capacitor and make it oscillate and dance on 30 khz in my case.and whole circuit dances at 30 khz.

- lets understand oscillatory dance!

bifilar gives u amps at low voltage. the key to get amps from higher voltage is just reduce voltage.

since coils r resonating the resistance between coils is zero so power is there that was being eaten up by resistance is also there. when we lower voltage power still remains same but it is there in the form of high amps and low voltage.

this is the key don never told. i have spent 5 months reading and experimenting i also failed to get power then i read transformer basics where i got this idea,

why not make a transformer first and then make it resonate. i tried and i got superb results. my first attempt gave me 2.5 kw. Don has explained everything but i agree he did not disclose 2 basics but they r hidden in his text and schematics.

one i told u is reverse tesla coil and another is still a secret with me. i want u to use my concept and reach output high amps and low voltage. i will disclose more but try first wot i have posted. if u have been trying for 2 yrs till now try the way am telling u and show me that u have high amps

and i will show u the way to get 50 or 60 hz. but u must lightup a load. reach this stage first.

i know i have it. and its my decision to video it or not. i never despair coz i know how to do it coz i have done it already. i want u to pull on wot am telling ya here is not gibberish its based on expertise and experience. its true when i joined the race i was just novice. i gained knowledge applied it and i got it.

report me ur progress. and i guide u more.

- the coil arrangement.tesla.stepdown
Hi folks!

tesla step down arrangement.
pic attached.

primary thin more turns(adjust ratio of ur hv input voltage with no of turns and volatege per turn in primary in accordance with output voltage in secondary).

follow this for secondary coil to get amps and low voltage.more thicker more amps.less thicker less amps. more turns high voltage. less turns low voltage.

maintain resonance a must for juice

$f_p = f_s$

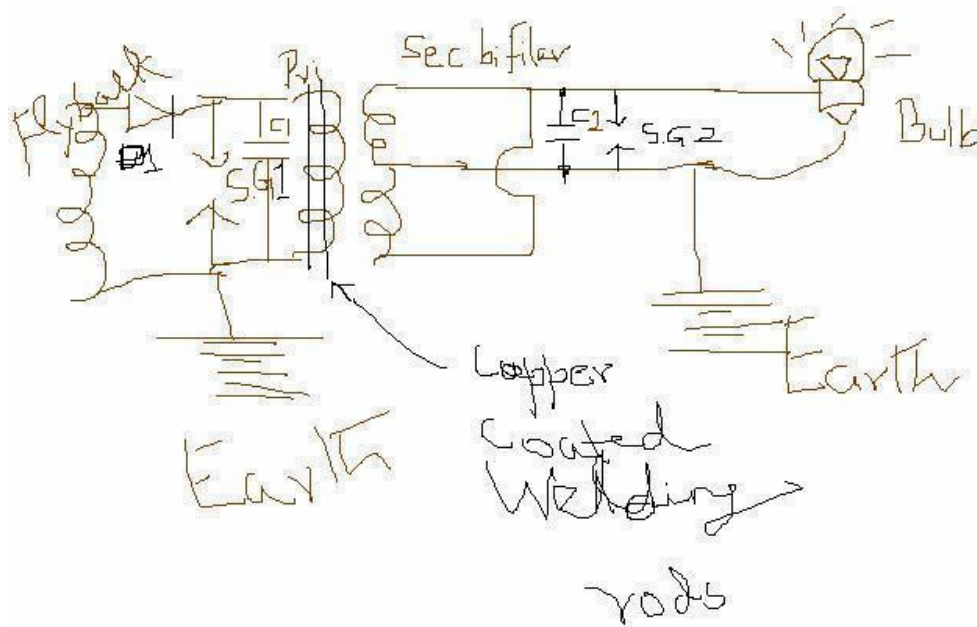
f_p = frequency primary

f_s = frequency secondary

keep frequency in the range of 35khz. frequencies from 1-20khz give u less juice.

- Spark Gap Position Very Important Must Read
hi FOLKS!

MUST READ



very important

the position of spark gap in my circuit is important. dont use spark gap in series. caps must be parallel with primary and a spark gap in parallel before LC combination. if u change spark gap position all u will be getting induction power which is always under unity and we dont want that. so keep spark gap as shown in above figure. veryyyyyyyyyy important.

Some Diagrams by Zilano:

#208 (permalink)

Today, 03:38 AM

zilano

Senior Member

Join Date: May 2011

Posts: 107

greenbox kapanadze alias don smith

Hi folks!

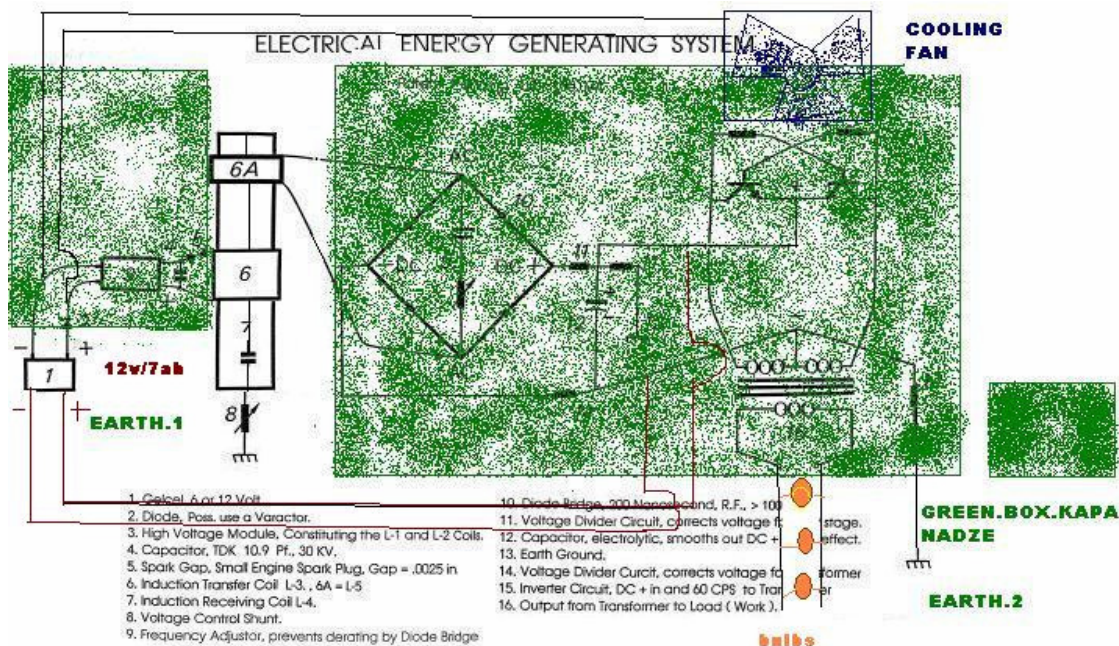
new arrangement pic attached

must view! updated.

regards

zzz

Attached Thumbnails



#210 (permalink)

Today, 08:00 AM

zilano

Senior Member

Join Date: May 2011

Posts: 107

crystal radio! think hard!

Hi folks!

presenting!

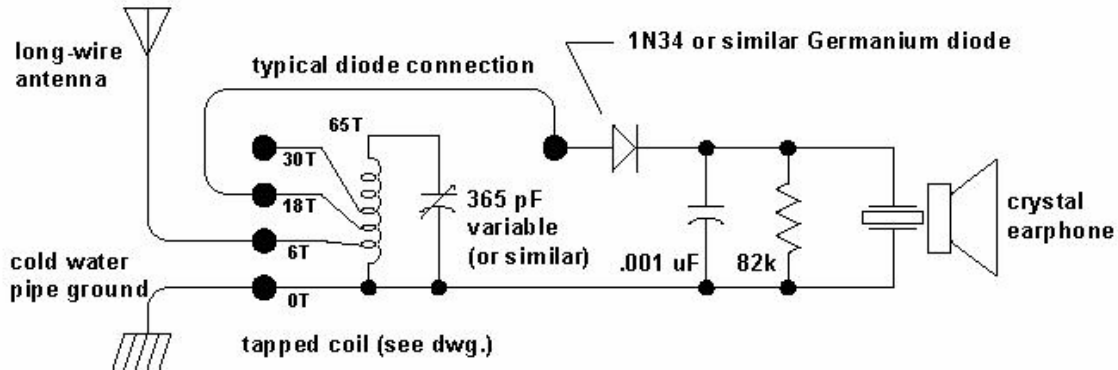
crystal radio! imagine the possibilities. read more.... google and get aquanted! 50 hz and 60 hz

pic attached.

regards

zilano zeis zane!

Attached Thumbnails



Crystal radio with typical connections for a long wire antenna and good ground connections. The diode is connected for weak signals and moderate selectivity.

#212 (permalink)

Today, 10:35 AM

zilano

Senior Member

Join Date: May 2011

Posts: 107

sycret-konstruktion

Hi folks!

Greetings!

learn more!

sycret-konstruktion

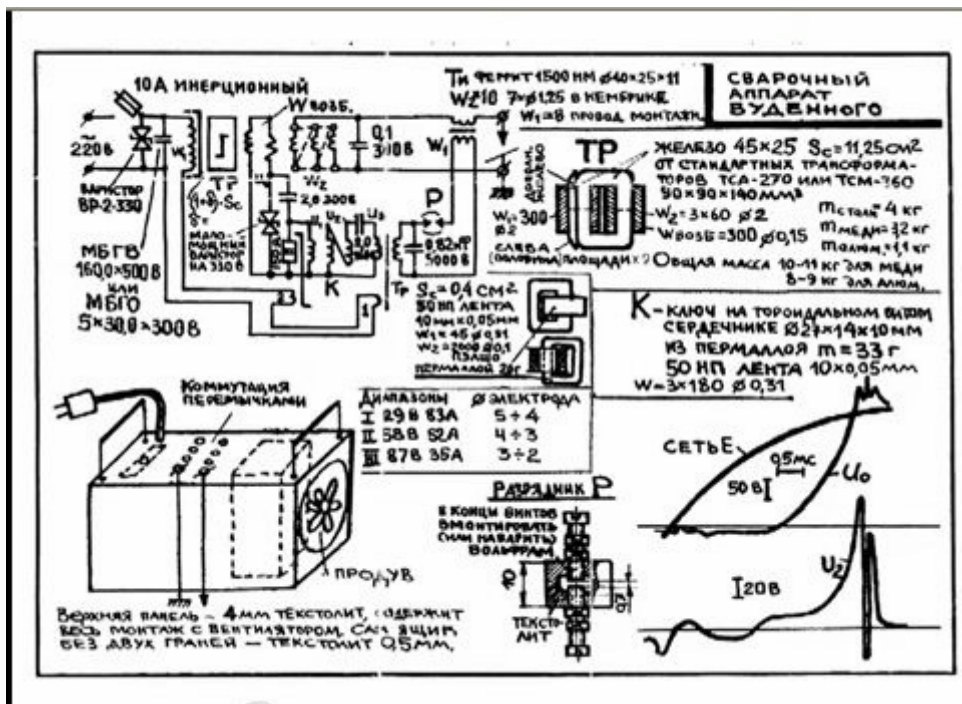
cirkuit attached!

regards

ZILANO ZEIS ZANE!

in sense n sane!

Attached Thumbnails



#227 (permalink)

Today, 07:47 PM

zilano

Senior Member

Join Date: May 2011

Posts: 107

the coil arrangement.tesla.stepdown

Hi folks!

tesla step down arrangement.

pic attached.

primary thin more turns(adjust ratio of ur hv input voltage with no of turns and volatage per turn in primary in accordance with output voltage in secondary).

follow this for secondary coil to get amps and low voltage.more thicker more amps.less thicker less amps. more turns high voltage. less turns low voltage.

maintain resonance a must for juice

$f_p = f_s$

f_p =frequency primary

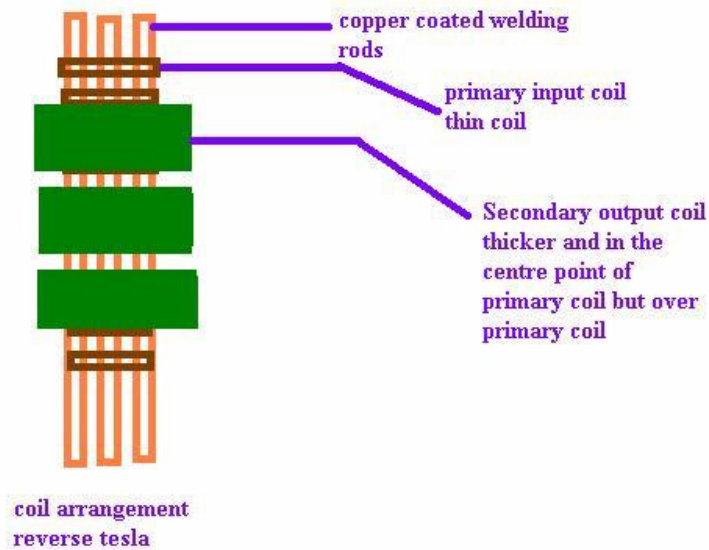
f_s =frequency secondary

keep frequency in the range of 35khz. frequencies from 1-20khz give u less juice.

regards

zilano zeis zane!

Attached Thumbnails



#251 (permalink)

08-15-2011, 11:13 PM

zilano

Senior Member

Join Date: May 2011

Posts: 184

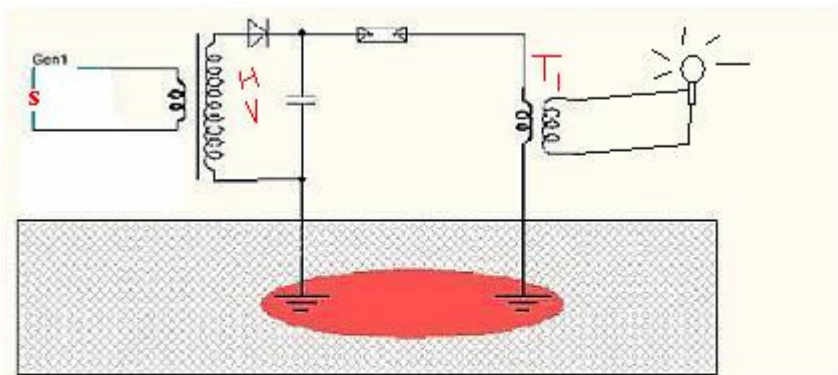
Simplest Cheapest Energy Circuit!
hi FOLKS !

CHEAPEST SOLUTION!

PIC ATTACHED

regards

zilano zeis zane!



when the HV pulse goes through the voluminous body (ground) ,
the accumulation of additional charges and the augmentation of the current density
takes place

#254 (permalink)

Yesterday, 05:26 AM

zilano

Senior Member

Join Date: May 2011

Posts: 184

Quote:Originally Posted by vrand

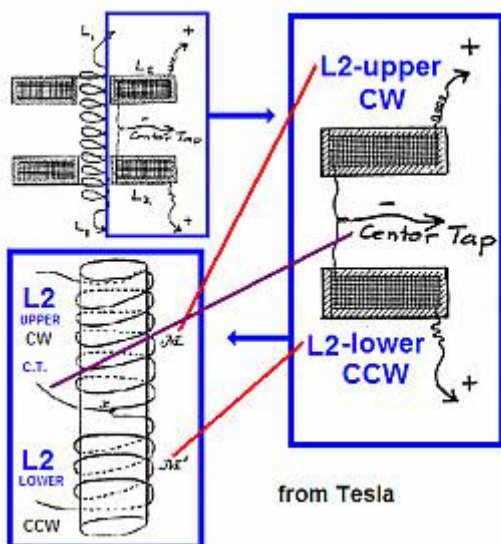
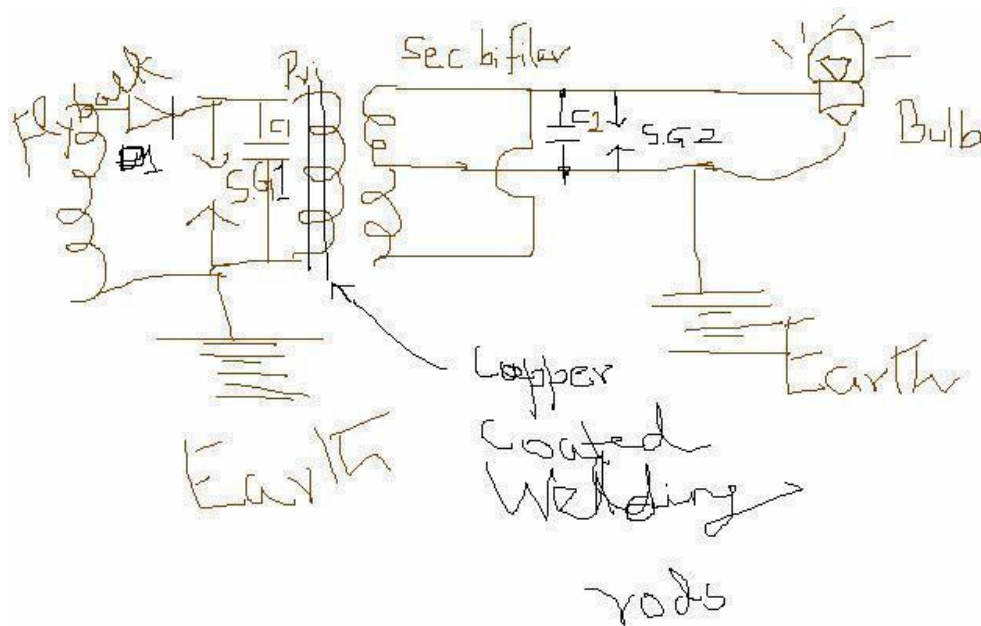
Hi Zilano

The bifilar is it center tapped to ground (per your drawing below)?

Is the bifilar like the diagram below where 5 turns from center are lower half CCW and upper half are CW 5 turns?

Is there any advantage in using copper tubing for the bifilar windings vs stranded wire vs solid copper wire?

Cheers Mike



Hi mike!

yes diagram is correct. copper is good conductor of electricity aluminium is 2nd to copper. its better to use solid copper rather than stranded. but stranded can be used. bifilar contains two things one is voltage and other is amps here we combine both and use for our benefit. if u can afford barker and williams coil that option is better. cos they have high mutual inductance. here we overcome this mutual inductance factor by using copper coated welding rods a cheap substitute to ferrite toroidal core. in case of ferrite toroidal core we cant change the the q factor but using copper coated ferrite rods we can by increasing and reducing rods. it doesnt matter wot way u wind ccw and cw coils wot matters is we combine the ends and take output from combined end and centre of bifilar. yes bifilar centre tapped grounded.

regards

zzz

#327 (permalink)

Today, 12:46 AM

zilano

Senior Member

Join Date: May 2011

Posts: 187

bifilar don coil

hi folks!

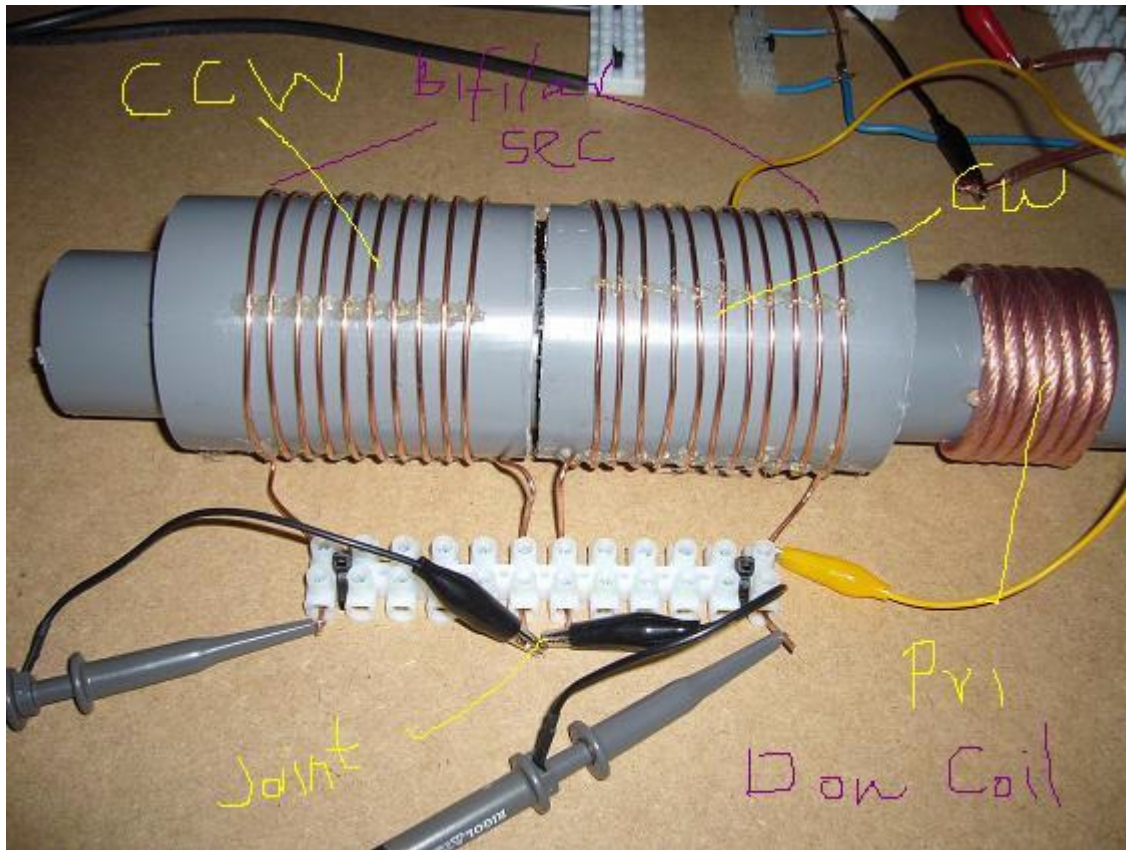
COURTESY: webmug (esteemed member-energetic forum)

don bifilar

pic attached

zzz

Attached Thumbnails



#329 (permalink)

Today, 01:01 AM

zilano

Senior Member

Join Date: May 2011

Posts: 187

Quote:Originally Posted by vrand

Hi Zilano

Interesting design. 7 turns primary and 20 turns secondary. What is the input voltage to the thick primary coil?
Output voltage from secondary?

Cheers Mike

hi THATS JUST A PIC TO SHOW DRAK! AND ALL OTHERS WHO DONT UNDERSTAND BIFILAR BASICS IN DONS CIRCUIT. ITS FOR ALL THOSE WHO WANNA KNOW HOW TO WIND BIFILAR.

regds

zilano zeis zane!

#360 (permalink)

Today, 10:54 AM

zilano

Senior Member

Join Date: May 2011

Posts: 187

Quote:Originally Posted by Xenomorph

What you describe:

RL circuit - Wikipedia, the free encyclopedia

Parallel Circuit

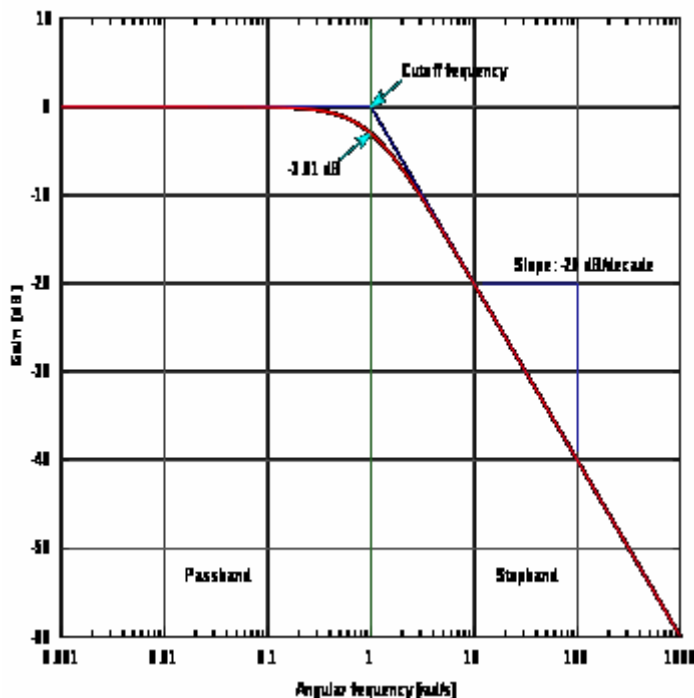
Quote:

A resistor across an inductor is NO Lowpass Filter !

A Low pass Filter requires a series resistor !

Low-pass filter - Wikipedia, the free encyclopedia

And even if you would use a Lowpass Filter, your "All-frequency"-signal would still INCLUDE the frequencies in the Passband below 50 Hz, like 40 Hz, 30 Hz etc that would NOT give you a clean 50 Hz AC output. It is impossible to run appliances with such a signal, so your device cannot work.



Hi Xeno!

its nice to see u here!

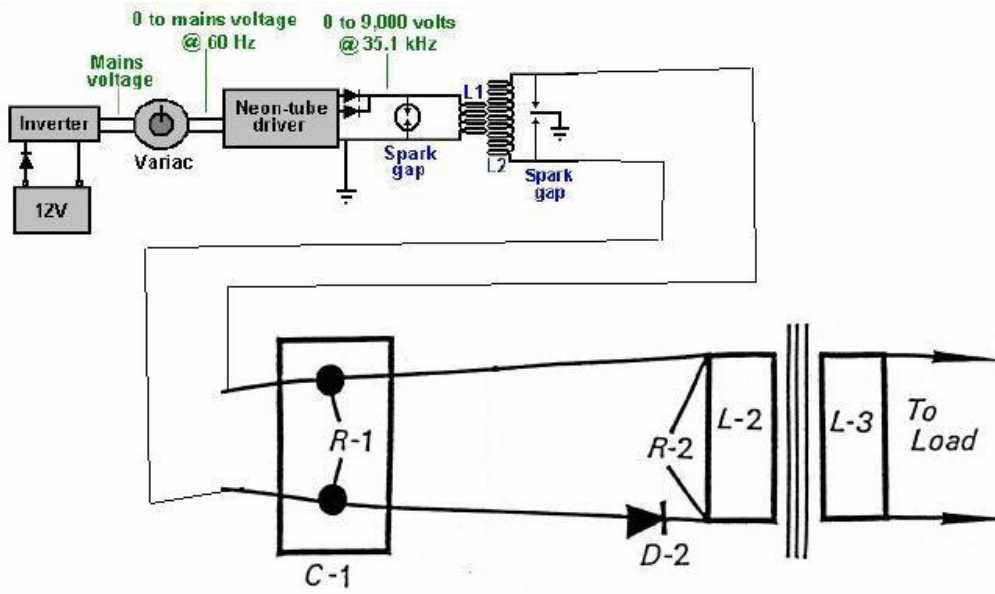
u r right. we have to use a capacitor and a resistor(lower the frequency here 50 or 60 hz that is power factor capacitor and use a diode to join R (across the transformer) b4 R and join R across the transformer input.

thats the solution!

regards

zilano zeis zane!

Attached Thumbnails



Last edited by zilano : Today at 11:12 AM.

#365 (permalink)

Today, 11:28 AM

zilano

Senior Member

Join Date: May 2011

Posts: 188

The Final Solution To Don Circuit!

hi FOLKS!

SEE THE ATTACHED PIC!

AND GET THE SOLUTION FOR FREE!

DON SECRET REVEALED FINALLY!

WISH U ALL THE LUCK!

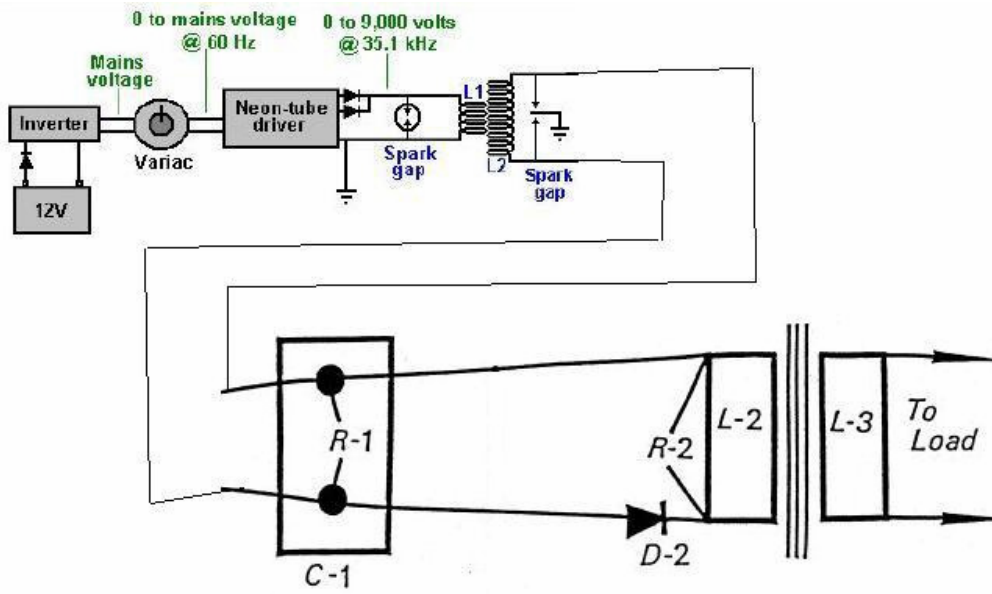
LETS SEE SOME DEVICES FROM MEMBERS AND GUESTS!

VIEW THE CIRCUIT AS ATTACHMENT

REGARDS

ZILANO ZEIS ZANE!

Attached Thumbnails



#379 (permalink)

Today, 08:29 PM

zilano

Senior Member

Join Date: May 2011

Posts: 188

Don And Crystal Radio

hi FOLKS

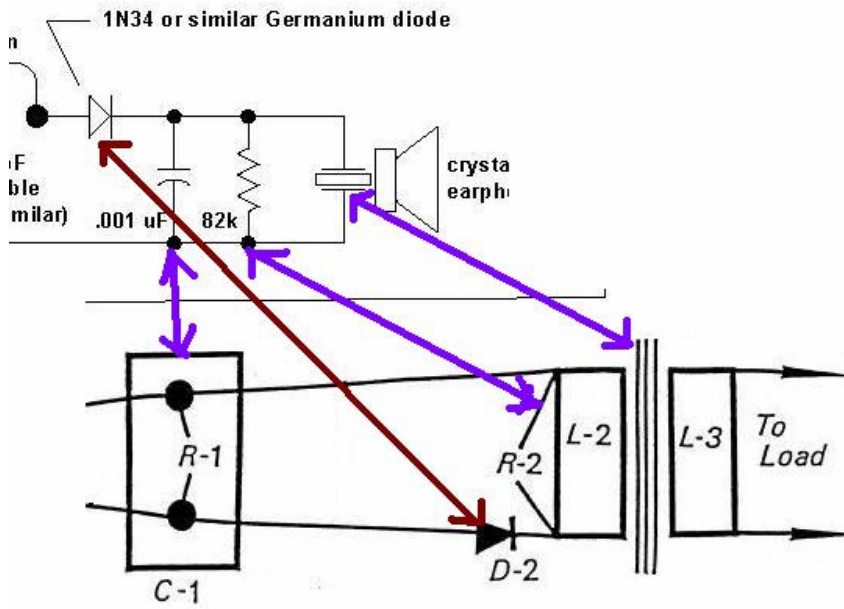
DON AND CRYSTAL RADIO

PIC ATTACHED VIEW IT

REGARDS

ZILANO ZEIS ZANE!

Attached Thumbnails



#383 (permalink)

Today, 08:53 PM

zilano

Senior Member

Join Date: May 2011

Posts: 188

My Altered Circuit
hi FOLKS!

SPECIALLY MIKE!

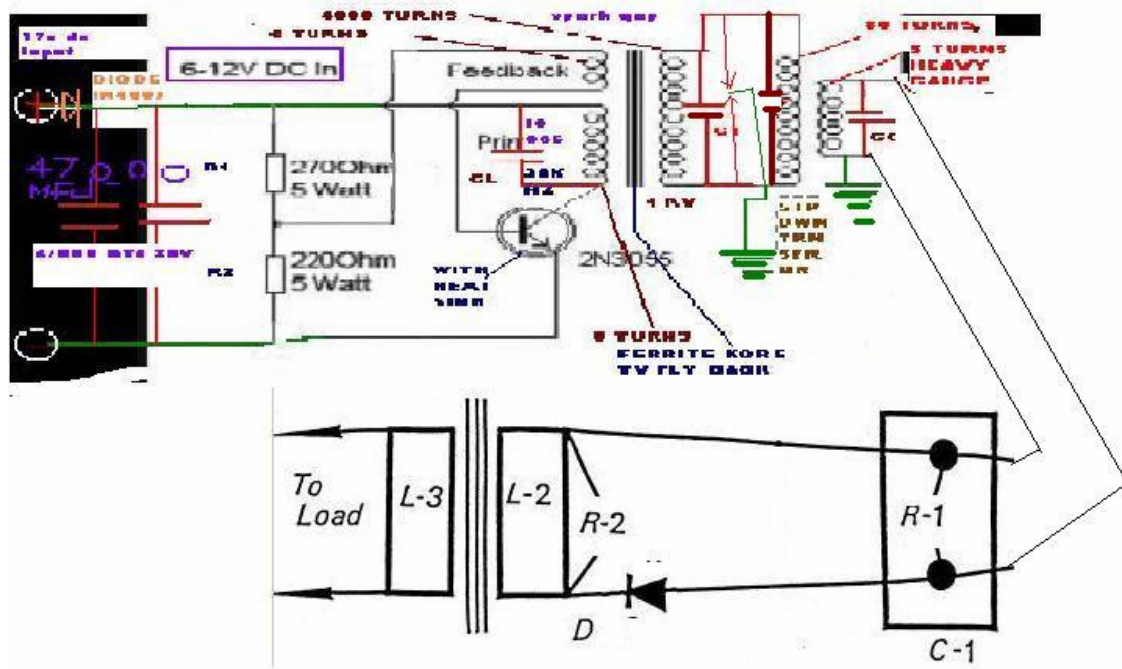
MY ALTERED CIRCUIT!

MUST VIEW pic attached

regards

zilano zeis zane

Attached Thumbnails



#448 (permalink)

08-20-2011, 02:21 AM

zilano

Senior Member

Join Date: May 2011

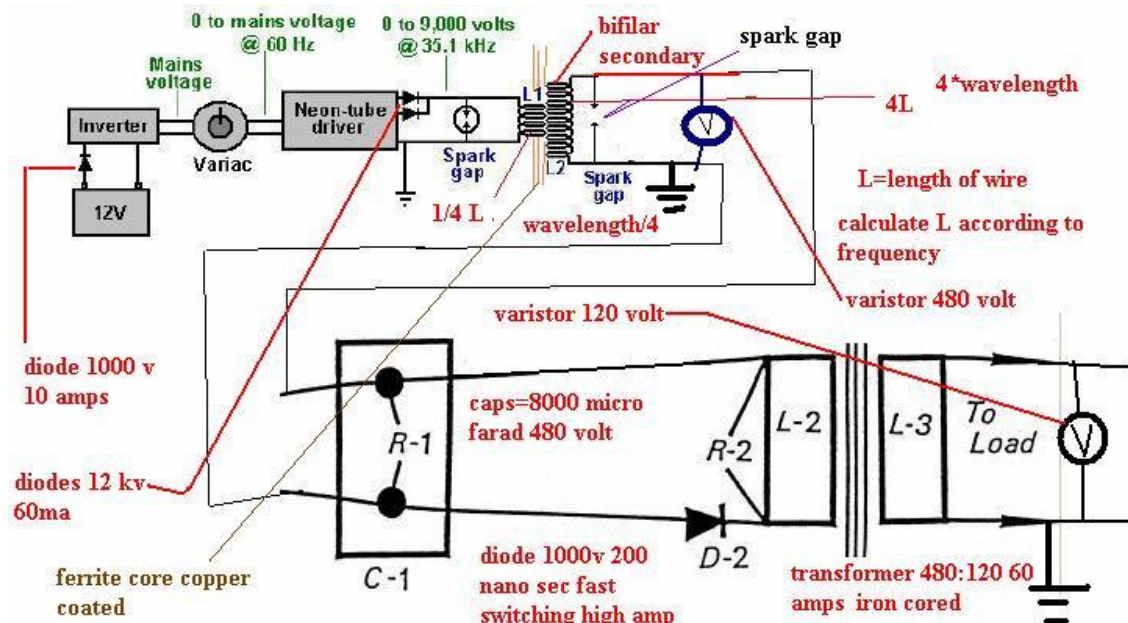
Posts: 258

Solutions Zzz

ATTACHED PIC

FIRST TRY WITH STEP UP AND THEN STEP DOWN AND VERIFY RESULTS.

ZZZ



HIGH VOLTAGE!

HIGH VOLTAGE!

A single ground in this circuit. so u must have a ground properly secured with heavy ground wire. HIGH VOLTAGE RULES APPLY HERE.DO IT AT UR OWN RISK! I WILL NOT BE RESPONSIBLE FOR ANYTHING!.

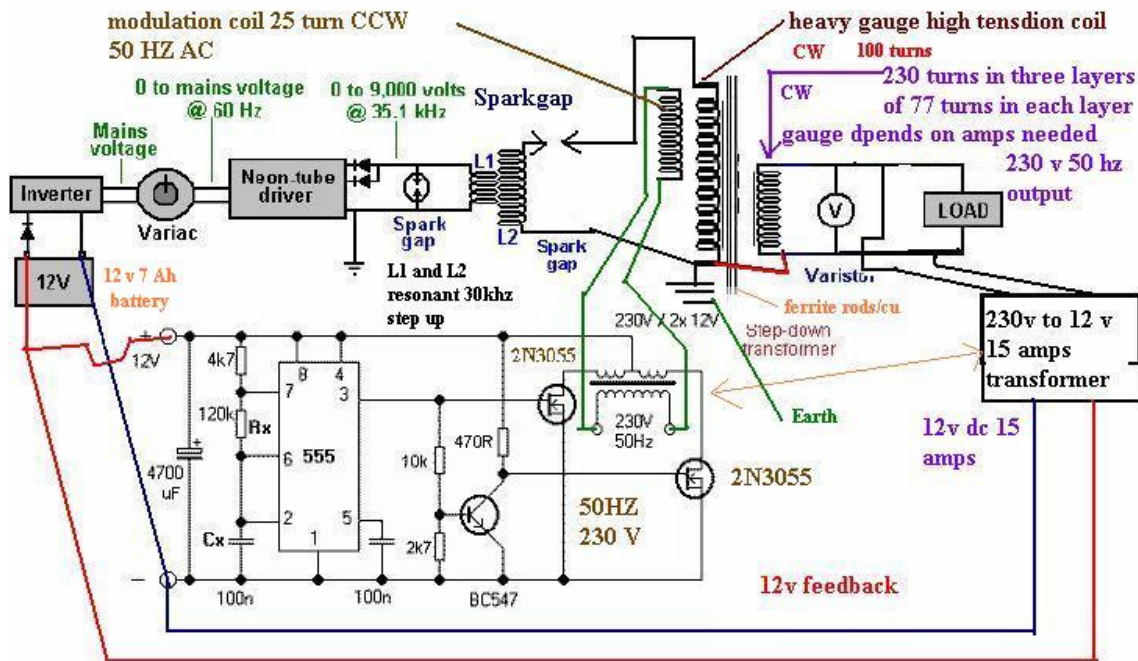
best wishes! to all!

thanks for ur cooperation.

regards

zilano zeis zane!

CHEAPEST DON POWER WITH 50 HZ OUTPUT WITH HIGH AMPS---ZILANO ZEIS ZANE



#605 (permalink)

Today, 01:31 AM

zilano

Senior Member

Join Date: May 2011

Posts: 248

New Arrangement For Coil With Low Input
hi FOLKS!

pic attached. but read this first.

HERE IS NEW ARRANGEMENT FOR LOW INPUT. HERE WE JUST TRIGGER RESONANCE SO WE NEED JUST FEEBLE SPARK TO GET COILS RINGING. OUTPUT IS NOT EFFECTED AND HIGH INPUT NOT REQUIRED COZ WE R USING FERRITE CORE OR RODS. AIR CORE COILS R

DEPENDENT ON HIGH INPUT SO MAGNETIC FIELD PRODUCED IS STRONGER. HERE FERRITE STRENGTHENS THE MAGNETIC FIELD SO LOWER INPUT AND EVEN A FEEBLE SPARK CAN TRIGGER RESONANCE. USE PRI 1/4 OF SEC. AND U WONT BE NEEDING CAPS AND COILS CAN BE MADE FROM ORDINARY THICK WIRE. BUT OUTPUT COILS MUCH THICKER TO GET MORE AMPS. TRY WITH SAME WIRE ALL COILS FIRST. WIRE MUST BE PVC COATED. IF LENGTHS R USED IN 1/4 AND 4 RATIO U DONT NEED CAPS. IN CASE U DONT GET IT RINGING THEN USE CAPS. THE SHORTED LENGTH IS REPLACED WITH CAP across one coil of bifilar see 2nd pic.

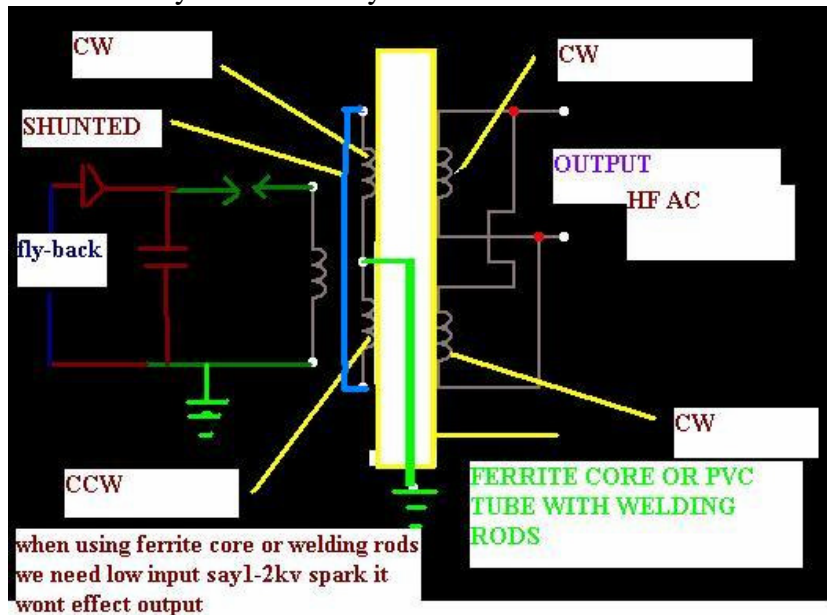
regards

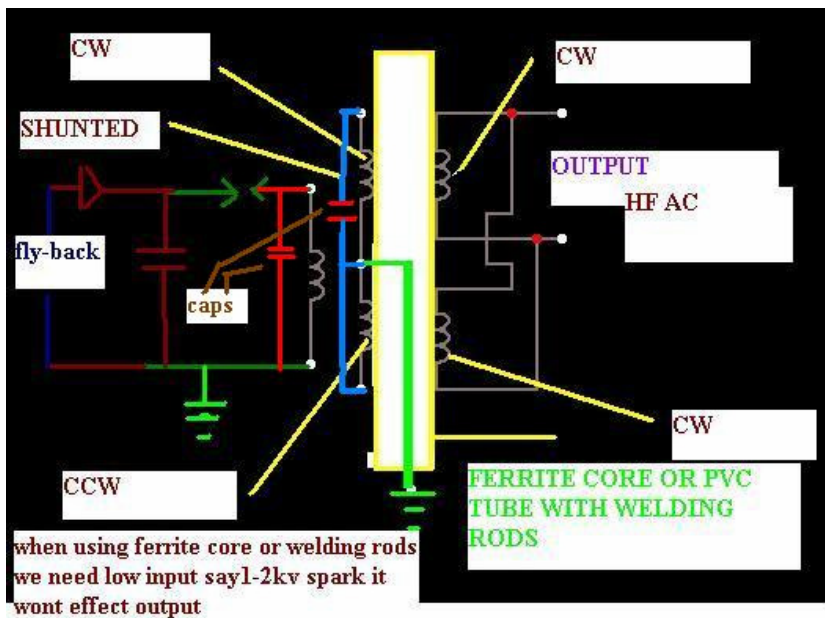
zilano zeis zane

Attached Thumbnails

Last edited by zilano : Today at 02:02 AM.

Last edited by zilano : Today at 02:02 AM.





#630 (permalink)

Today, 01:35 PM

zilano

Senior Member

Join Date: May 2011

Posts: 257

50 hz resonance input in pico watts output in watts

Hi folks!

AC 50 HZ RESONANCE!

must view

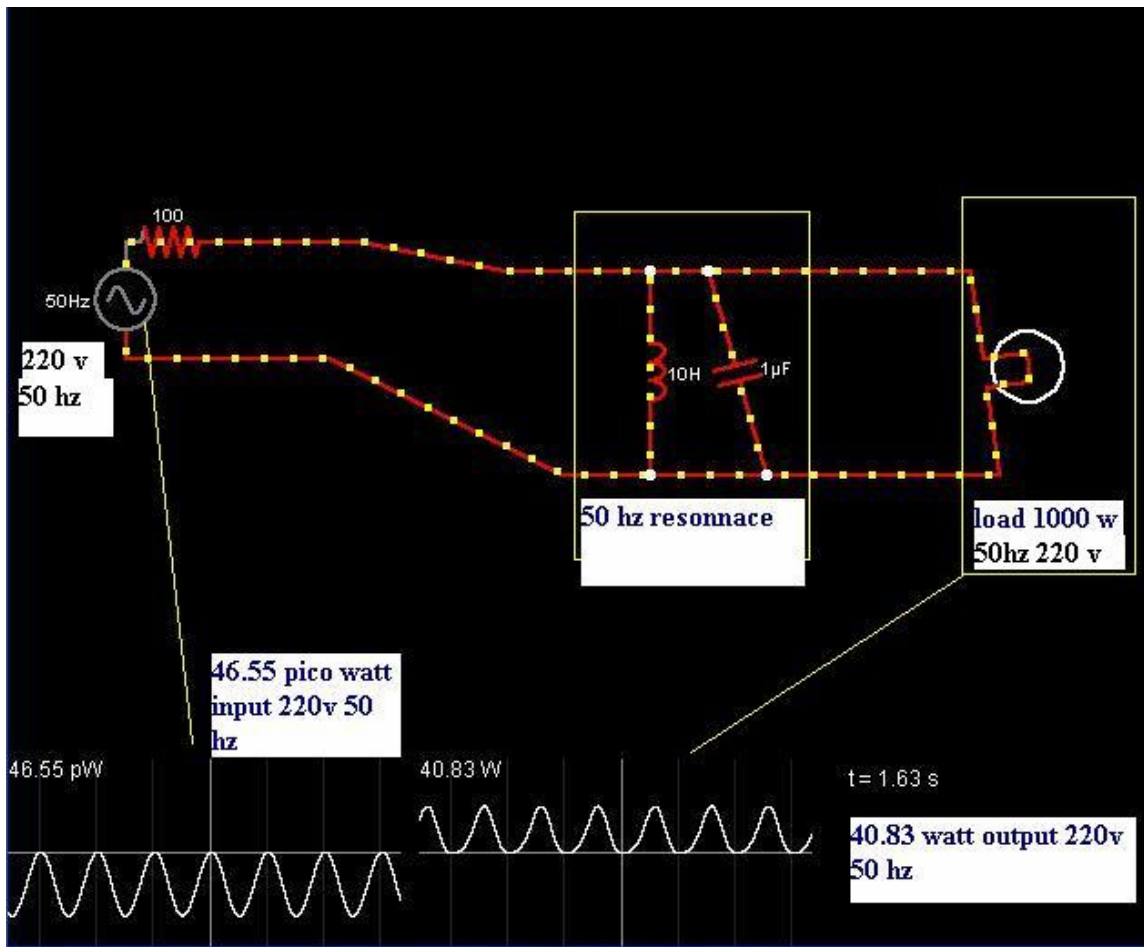
easy solution showed i posted in previous posts. here is screenshot.

pic attached!

rgds

zzz

Attached Thumbnails



#634 (permalink)

Today, 02:57 PM

zilano

Senior Member

Join Date: May 2011

Posts: 259

Quote:Originally Posted by synergicus

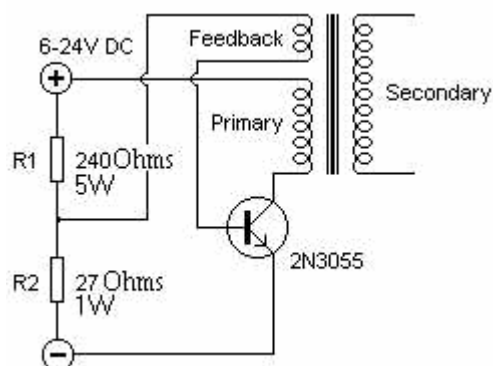
Zilano ;

I see in your picture near AC source , the number 100 ;this is a resistor at 100 ohms?

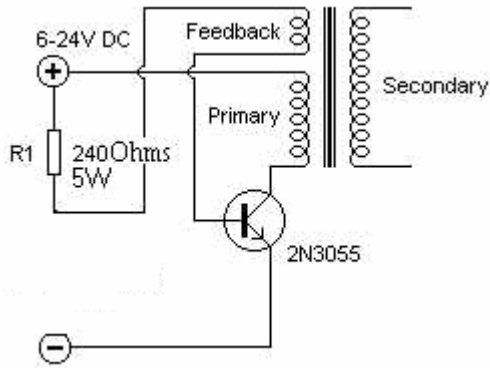
Also ,how will look like your circuit at pulsed dc ?

Now;regarding the flyback driver given here:

POWERLABS' High Voltage Solid State Flyback Driver



I made the following modification :



With original design, my circuit draws at 12 v ,700 ma and gave me in secondary (300 turns of 0,3 mm wire) a flame between terminals about 7 mm long;

With my modification , circuit worked well too ,with less energy draw from battery (around 600 ma).In conclusion ,in my opinion the 27 ohm resistor is useless ...can somebody tell me why in original schematic , the 27 ohm resistor is used if the circuit working better without him?

Hi there! Sinergicus!

yes its 100 ohm resistor in ac resonance. the more u load it the input goes lesser.

well u must use heat sink with 2n3055. well base is always given high resistance as smaller base variations produce large variations in collector current. moreover the circuit is used for high voltage input from 6-24 volts and 2n3055 cant handle that it heats up. well if ur circuit is working fine and transistor doesnt heat up it means ur feedback has right resistance for base of 2n3055. well u can also try to power it up with 3 volts and it will work too. the basis and the basic here to have spark. and if u r going for air coils u need stronger spark and if going for ferrite u need feeble spark. u can do that by applying 3-6 volts for feeble spark and 12-18 volts for strong spark.

regards

zilano zeis zane!

Last edited by zilano : Today at 03:00 PM.

#641 (permalink)

Today, 04:44 PM

zilano

Senior Member

Join Date: May 2011

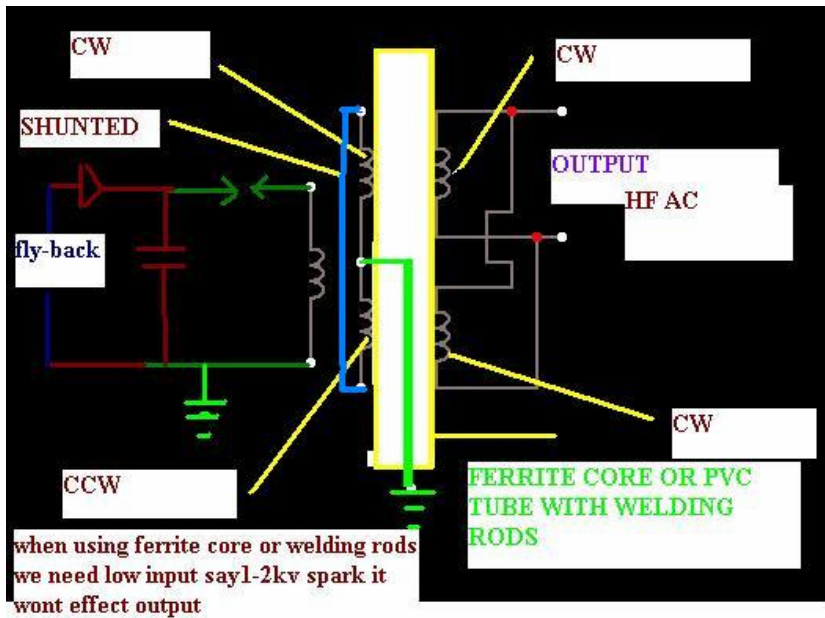
Posts: 266

Quote:Originally Posted by vrand

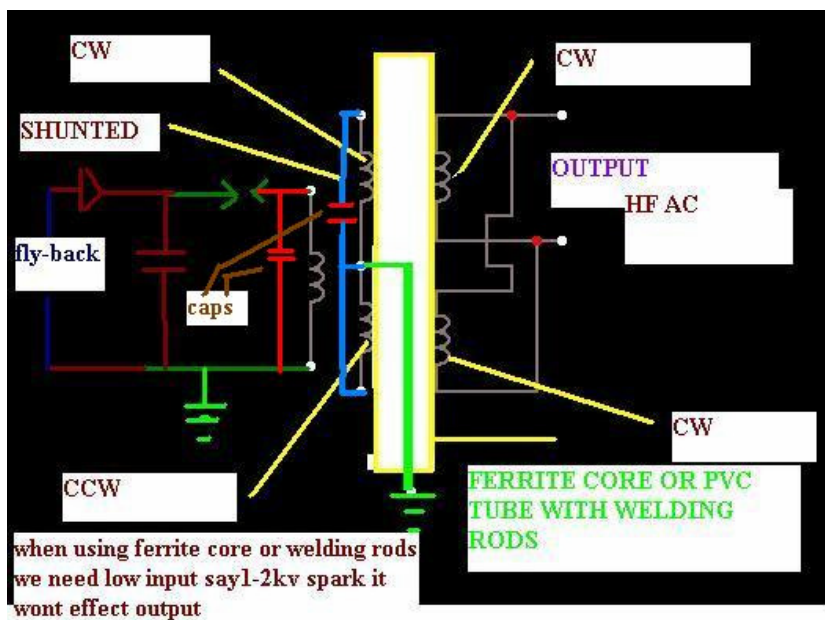
Hi Zilano

Thanks for the explanation.

Is the choke wound over the primary coil as shown in your diagram?



And by choke shunt to ground in this diagram?



So there are 3 sets of coils, primary, bifilar secondary CW/CW & and a bifilar choke CW/CCW? Did I get that right?

Cheers Mike

Hi Mike!

there is no choke here. choke can be put across output. here r 4 coils

1 primary.

2 secondary bifilar

3 output 1

4 output 2

output 1 and output 2 are joined parallel for final output.

coils wound over ferrite rings and if u cant find ferrite rings u can use cu coated welding rods in pvc tube and wind bifilar first then secondaries at ends and finally primary in centre. mark leads of each coils coz later they will confuse u if same wire is used. use different colored wire. so identifiable.

bifilar is shunted and earthed. lengths must be exact $246/\text{freq in mhz} = Z$

divide z by suitable number so u get 1 foot or so adn make each bifilar 4 ft. if the division is not exact then use fractional part also else coil will be needing caps to match pri n sec resonance.

rgds

zzz

#651 (permalink)

Today, 08:38 PM

zilano

Senior Member

Join Date: May 2011

Posts: 267

resonance led tester

Hi folks!

for those who want to find out whether the coil is in resonance or not. either primary or secondary. here is cheap little circuit. it will light up to show coils is ringing or not!

pic attached

rgds

zzz

Attached Thumbnails

Figure 12: LED as a tune indicator

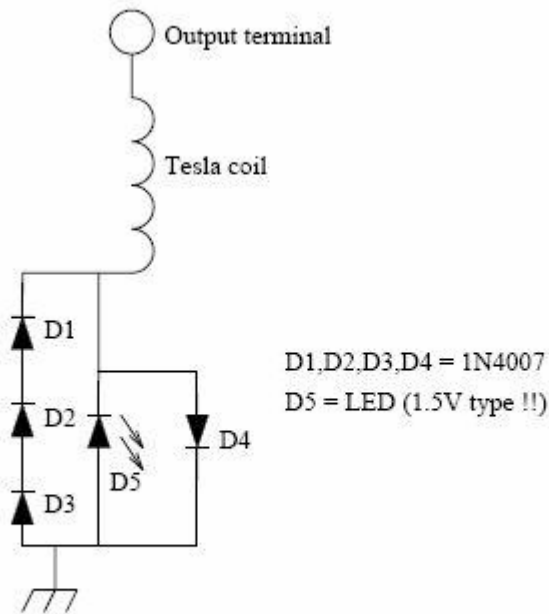


Figure 12: LED as a tune indicator

#728 (permalink)

Today, 12:53 PM

zilano

Senior Member

Join Date: May 2011

Posts: 304

Quote:Originally Posted by broli

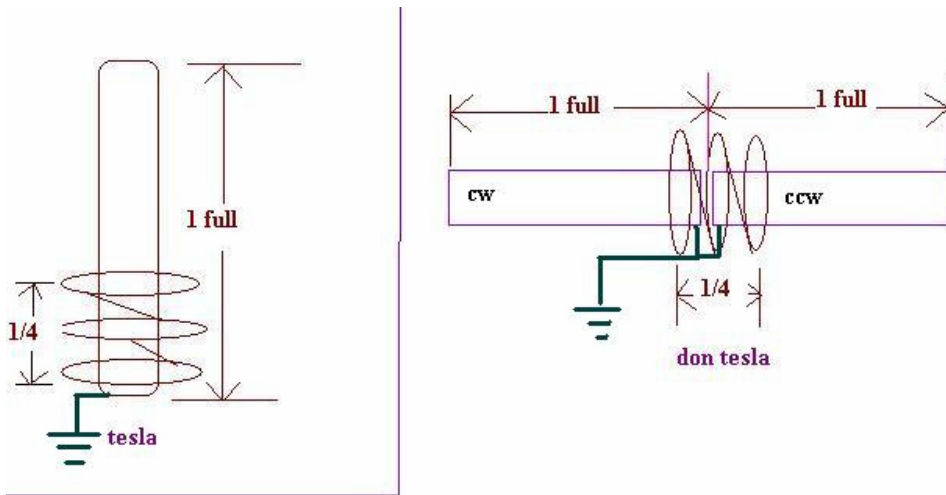
Your bifilar resonating coil is it wound and connected like the attachment below?

In this thread somewhere there was a statement about the ground forcing a node. Since your bifilar coil is one wavelength long and you force a node in it's middle it means nodes will form at the beginning and end as well. This will cause 0 voltages on both these ends, so it has no use connecting a capacitor or even the ends together. Or am I wrong about this?

Hi BRoli!

well primary is $1/4$ wavelength and secondary is $4 * 1/4 = 1$ full wavelength.

bifilar are 2 full wavelength that means 2 tesla coils back to back with their bases in the centre and earthed. our exciting primary in centre is at the base of 2 back to back tesla. here we r hitting one arrow to kill two tesla coil. so input is one and output is 2. this is the basic step to overunity.



rgds

#730 (permalink)

Today, 01:14 PM

zilano

Senior Member

Join Date: May 2011

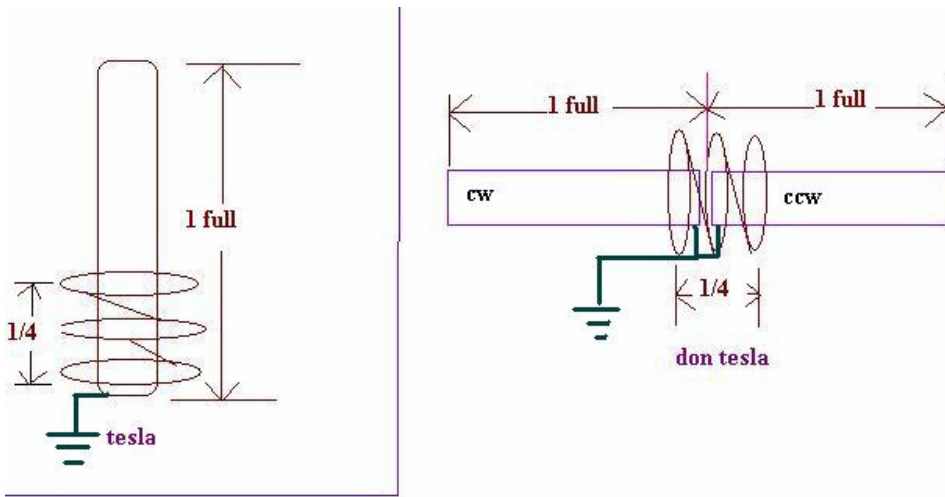
Posts: 304

Quote:Originally Posted by broli

Is there a reason why you're using the term "bifilar" then. It seems you have one 1/4 wave primary and two full wave secondaries left and right of it. bifilar refers to a way of winding and hooking up a coil, usually by winding a turn of one coil between the turn of the other coil like illustrated above. And also with this correction of yours my remark still stands. Since the "bases" of the secondaries are at 0 volt and they will force a node of the standing wave, which also means nodes will form at the ends of the coils. Thus there will be no voltage there.

Hi Broli!

bifilar is nothing! its same coil but ccw. if ur one tesla is cw the other is ccw. joined together. one produces voltage and other produces current. ccw produces current.



rgds

If, however, we ground the base of the coil, this is a forced nodal point and the coil will oscillate at its natural 1/4-wave resonant frequency. The results will be enhanced if the energy is pulsed into the coil at its exact resonant frequency. The effect is called resonant rise, and the coil a helical resonator. A standing wave appears on the classic 1/4-wave resonator which has a current peak at its base or ground point and a current node at the top of the coil. Likewise, there exists a voltage nodal point at the ground or base of the coil and a voltage peak at the top.

well we are always attracted with glitteratti ! we always tend to see tesla top as power source but its not its just voltage peak at resonance. thats why we use cap in series with top and light a bulb. here we make current ahead by attaching cap. we never look for ground base of tesla. ground point of tesla has current peak. however if we place a bulb from ground point of tesla coil and top of tesla u will light the bulb in a good way. since power $=v*i$. voltage is at top and current is at base. we combine two with a bulb in series. u will light the bulb.

rgds

zzzz

#739 (permalink)

Today, 03:46 PM

zilano

Senior Member

Join Date: May 2011

Posts: 304

Quote:Originally Posted by Pendar

I'm confused about the location of the spark gap. I have several schematics and drawings and they show different arrangements.

Does the SG go in series or parallel to the coil?

Does the SG go before or after the capacitor?

Does the capacitor go in series or parallel?

Does it matter?

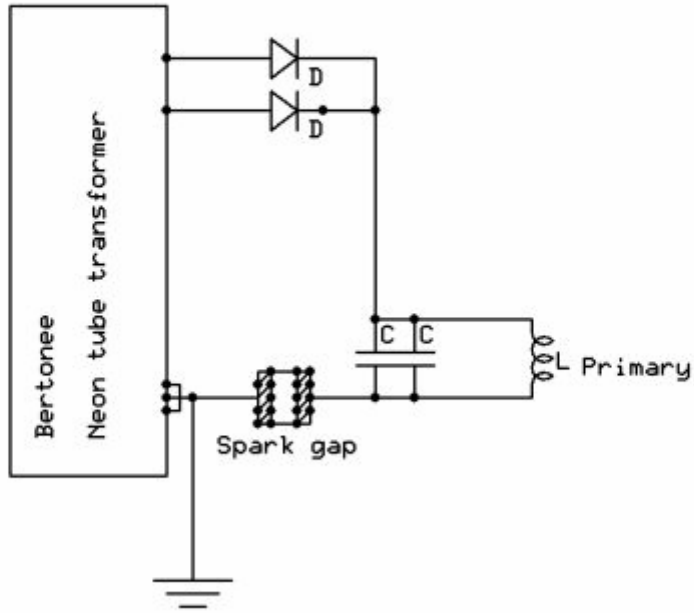
TIA

Hi Pendar!

see pic!

use same position of spark gap in don setup. it works for any frequency. it just triggers hv hf to trigger primary coil. frequency of nst has nothing to do with Lc primary frequency. frequency of primary will depend on its inductance and cap attached to it.

so dont confuse with nst frequency. its just hv hf power supply. use diode(must)



rgds

zelina

Attached Thumbnails

Last edited by zilano : Today at 04:06 PM.