

Assembled by David Fine (Slovenia)

Abridged File
Important Posts Only!!!
Don Smith Replication
Zilano's Older Deleted Posts
Energetic Forum Posts

Sept 12, 2011
Zilano

please do not replicate --dangerous stuff

CADUCEUS coil or tensor coil are not used in don smith as they create time warp and makes u forget time and affect ur brain and cells and slows down communication from cells to brain making ur brain work at half frequency than a normal one. effects r bad. tesla used it though. don didnt

[caduceous coil experimental handbook and my experiments with it.](#)

[Caduceus Coil Observations](#)

MOBIUS COIL
[Mobius Coils](#)

interesting stuff **DONT REPLICATE ELSE U WILL VANISH!**
[Bajak claim of time travel - 06/27/00](#)

[Keelynet - Dimensional Shifts - written 02/14/97 - Updated 01/10/11](#)

a must read but dont apply thing

[The Time Travel Handbook: A Manual ... - Google Books](#)

[Caduceus Coil Used To Time Travel](#)

[LV LF resonance setups \(5\).MPG - YouTube](#)

[Running at 50w - YouTube](#)

[running at 17w.MPG - YouTube](#)

Sept 12, 2011

Zilano

Quote:

Originally Posted by **drak**

Well, I thought we were going from nst directly to step down. What you just described is a step up. If I do a step down then I have the extra wire. So I'll ask again. Is it ok to have all the extra wire from the secondary not used in the turns, can I coil it up or does it have to be straight? I'd rather not cut it off so I can still have the quarter wave / full wave.

see don setup pic and follow accordingly. xtra wires must not be coiled. use required length so u wont have extra wire except for connexions. u need xtra for sliding in and out of coil. use a string first on pvc and when u find right suitable length of string measure it and make coils accordingly. this is the trickiest part but u can do it.

remember rule of thumb primary=1/4 of secondary
and secondary is 4 times primary

dont deviate from this

split secondary in a magnet with blotch wall all same direction. later u can use bifilar.

first same direction secondary coil splitted at blotch wall and join the two coils with and earth it. when u join both ends of secondary with diodes u get voltage that is half of the full voltage secondary eg if u have 6.6 kv then u will have finally 3.3 kv(centre tapped and earthed)and two ends joined of secondary. the output will be from centre and two joins of secondary.

Sept 12, 2011

Zilano

don circuit coil turns calculation and frequency of operation

Hi folks!

well nst solid state 30-40 khz. 3 kv or 4 kv is required

we use lengths to vibrate em without needing caps. we r just inducing half wave just to make em vibrate at their natural frequency and since natural frequency of vibration depends upon the length of coil thats why lengths r important. we use mhz range coz if we use khz range lengths will be veryyyyy long.

suppose u have 2 inch radius pvc for primary

so length one turn required $=2*3.14*2=12.56$ inches/12=1.046 feet approx

if u need 5 turns then length required $=5*1.046=5.23$ feet

and ur secondary length will be $=4*5.23=20.92$ feet

now u can calculate ur frequency at which its gonna work

length(1/4 wave) $=246/\text{frequency in mhz}$

$5.23=246/f$ in Mhz

f in mhz for quarter wave $=246/5.23=47.03$ Mhz

now if u have 3 inch radius for secondary

length required for 1 turn $=2*3.14*3=18.84$ inch/12=1.57 feet

so no of turns in sec wil be $=20.92$ feet/1.57 feet=13.32 turns

so u will have 5 turns primary with 2 inch radius and 13.32 turns in secondary with 3 inch radius pvc tube.

thats how its calculated.

we r not using full lengths for turns we need extra for connexion and middle join so we take it from lengths calculated so we adjust turns accordingly say 3 turns in primary and 10 turns in secondary. keeping lengths same for

primary=5.23 feet and secondary=20.92 feet

if u feed 2000 volt in primary 3 turns then voltage per turn=2000/3=666.66 volts

and since we have secondary 10 turns then voltage per turn across secondary is 666.66 volts

so full voltage across secondary is $10 \times 666.66 = 6666.6$ volts = 6.6 kv approx

since we treat secondary coil as magnet we have to make space for blotch wall(the middle neutral space of N____S middle join. so we make 5 turn_____5turn

_____ is sec coil middle in straight line its length=primary coils total turn width. so primary sits between this straight wire joining 5 turns and 5 turns of secondary.

0000000000000

_____ is joining secondary turns below red 000 not shown

0=secondary coil turns

0=primary turns(slidable)

hope u understand now.

hope my work is over now

i take ur leave now!

alien atlantis and the flight crew

wish u best of learning and good luck!

only aliens can help u out and am one!

Sept 11, 2011

Zilano

Quote:

Originally Posted by **drak**

I don't quite understand what you are saying here.

The other parts cleared things up some. I guess the confusing bit is you are describing many different ways of doing it. I have 4 different NST's on order and waiting for them to get here. I haven't tried the longer secondary yet. Is it ok to have all the extra wire from the secondary not used in the turns, can I coil it up or does it have to be straight? I'd rather not cut it off so I can still have the quarter wave / full wave.

Thanks for your help

well just get nst solid state 30-40 khz. 3 kv or 4 kv

we use lengths to vibrate em without needing caps. we r just inducing half wave just to make em vibrate at their natural frequency and since natural frequency of vibration depends upon the length of coil thats why lengths r important. we use mhz range coz if we use khz range lengths will be veryyyyy long.

suppose u have 2 inch radius primary

so length one turn required = $2 * 3.14 * 2 = 12.56$ inches / 12 = 1.046 feet approx

if u need 5 turns then length required = $5 * 1.046 = 5.23$ feet

and ur secondary length will be = $4 * 5.23 = 20.92$ feet

now u can calculate ur frequency at which its gonna work

length(1/4 wave) = $246 / \text{frequency in mhz}$

$5.23 = 246 / f$ in Mhz

f in mhz for quarter wave= $246/5.23=47.03$ Mhz

now if u have 3 inch radius for secondary

length required for 1 turn= $2*3.14*3=18.84$ inch/12=1.57 feet

so no of turns in sec wil be = 20.92 feet/1.57 feet= 13.32 turns

so u will have 5 turns primary with 2 inch radius and 13.32 turns in secondary with 3 inch radius pvc tube.

thats how its calculated.

we r not using full lengths for turns we need extra for connexion also so we adjust turns accordingly say 3 turns in primary and 10 turns in secondary. keeping lengths same for primary= 5.23 feet and secondary= 20.92 feet

if u feed 2000 volt in primary 3 turns then voltage per turn= $2000/3=666.66$ volts

and since we have secondary 10 turns then voltage per turn across secondary is 666.66 volts

so full voltage across secondary is $10*666.66=6666.6$ volts = 6.6 kv approx

since we treat secondary coil as magnet we have to make space for blotch wall(the middle neutral space of N____S middle join. so we make 5 turn_____5turn

_____ is sec coil middle in straight line its length=primary coils total turn width. so primary sits between this straight wire joining 5 turns and 5 turns of secondary.

0000000000000

0=secondary coil turns

0=primary turns

hope u understand now

Sept 11, 2011

Zilano

Quote:

Originally Posted by **drak**

Most of it. Some times it was match your primary frequency to your nst and other times thats not needed. Sometimes a series spark gap will not go OU, and sometimes it will. I'm confused about why the equation of the length of wire is so important and even needed if you are going to cut the wire down anyway and compensate with caps.

Your extra coil thing sounds interesting, but I don't quite understand it. Could you clarify a little more? 90 degrees to primary?

Hi the don thing can be applied in the following ways

1. when u have high voltage only nst 60 hz then u have to make it radio frequency and that can be done by pulsing(don way of connecting diode n sparkgap for pulsing primary) so u get high voltage and high frequency.
2. when u have high frequency and u wanna large harvest so u wanna increase higher radio frequency in mhz from khz. u do same thing as above .
3. when u have 30 khz and high voltage and u want to stay at this frequency only u will just use a transformer(don coil air core) with turns of primary n secondary according to ur choice and make em resonate with ur nst frequency 30 khz for that u have to use caps.
4. if u feel u dont want to disturb resonance. just earth secondary and wind another tapping of third coil and make it resonate with secondary and tap it for pulsing trafo. or u convert to dc and voltage divider to

make 12 or 24 volts. and use inverter.

if u want transformer output. the only way is to resonate it at 50/60 hz and that can be done by diode n spark gap. as resonance needs very low input coz it just need a push power to keep it going not much power input as resistance of circuit is zero.

length of coil is important coz it will make it easier to resonate and find matching resonance conditions else u will keep calculating caps for matching resonance. always use primary 1/4 of secondary. this will make u get resonance just by sliding primary inside secondary.

turns ratio are important for knowing the output voltage else u might overvolt output.

Sept 11, 2011

Zilano

Quote:

Originally Posted by **Zlatko**

Are you joking?

I folow thread from beginning. Why the long dispute about frequence change resistor with that guy where at som point you say you have working device based on it if in reality you used capacitor?

I mean i try to build device exactly like yours and i took ths informations for real and wanted to use resistor just to find out it was wrong info.

Can you at least verify that there is no more secrets before people build?

ALL IS REVEALED NOTHING HELD!

Sept 11, 2011

Zilano

Quote:

Originally Posted by **Zlatko**

Here is simplest Don circuit:

Don Smith kindly show it in video here and explain how works: [Donald L Smith Device - part 5](#)

Is without (expensive) capacitors.

For everybody who want build with minimal component or save money.

warning!!!!!!!!!!!!!!!!!!!!!!

this circuit will fry transformer. Don was quite clever. he wanted us to learn from mistakes. if u feed 35khz to iron core then core will saturate and heat up. coz iron core cant manage high frequencies thats why we use ferrite cores. moreover don wanted us to get to know wot is R. R is actually capacitor. and a diode is used in combination to pulse the trafo with spark gap in series. same thing done in primary. is done here also. but a pure pulsed dc is fed. means 2 diodes is used to generate 50/60 hz ac through spark gap. triggering the LC circuit to oscillate at 50/60 hz. sine wave.

here u can understand kapanadze also. where he says first filter means diode then 2nd filter means another diode to pulse trafo.read kapanadze patent. and u will understand better. kapanadze did one thing instead of battery as pure feed he added capacitor across the input as a buffer. he charged that cap with battery and that cap fed the circuit containing high frequency module which then filtered and fed to primary. then added cap to primary and said first frequency stabilizer.to make primary resonant with secondary he again used stabilizer cap across secondary then 2nd filter to pulse output trafo.

Sept 11, 2011

Zilano

don transformer driver circuit

complete don with transformer driver

pic attached

here trafo is pulsed with dc timed by spark gap creating 50/60 hz resonance in trafo primary. match primary Inductance of trafo in nomograph with 50 or 60 hz matched with inductance draw line at two points and select the right cap where it crosses farad line.

the trafo can be 2000 volt to 110 or 120 volt ac or 480 to 120 or 110 v ac. depended on the output of L2 coil. can be managed by variac or a step down at L2 using right turns ratio.

warning! warning!warning!warning!warning!warning!
warning!warning!warning!warning!warning!warning!warning!
warning!warning!warning!warning!warning!

do it at ur own risk. i wont be responsible for any failures or damages that might occur.High voltages r dangerous and can kill you instantly. read safety norms. i do not recommend you or encourage you to do it.the information here is for knowledge purpose only.

Attached Thumbnails

Sept 11, 2011

Zilano

Quote:

Originally Posted by nico

I wallready finished my oscillator for 50Khz who will drive my flyback. Primary coil (on ferrite) is in 50Khz resonance, 64 turns, 0.470 miliH, capacitor 20nf (5 capacitor of 0.1uF each in series).

Secondary is 8 turns CCw and 8 turns Cw, Lsecondary is 7-8 microH each, the capacitor will be 1,5uF for resonate at 50Khz.

Because will be a step down transformer in primary will be 2Kv in secondary 260v -280v at 50Khz frequencies. This can be dangerous for my TV or my computer? or for me?

ferrite core for nst input and don coils must be air cored. keep ur all electronic gadgets switched off. no its not dangerous for u except careful at handling high voltages.**They can kill u instantly when handled**

carelessly. read safety norms below

important read it below

[Donald Smith Devices too good to be true](#)

Sept 11, 2011

Zilano

Quote:

Originally Posted by **cognito**

So the HV transformer is a split Tesla coil ala Don Smith?

Two coils center tapped to ground, coils are 180 degrees out of phase (counter rotated from each other ground in center "voltage and current")

Air-coils are not needed if VAR is high enough for 30kva setup ?

Needed Air-coils are second HV stage for 160kva setup!

Br,

Cognito

use nst for input and use aircore don coil.

Sept 11, 2011

Zilano

don trigger resonance! must view

Hi folks!

veryyyyyyyyy important basic concept!

must view this to understand with clear concept

learn and understand don trigger

to activate resonance of coil

principle of triggering with diode

[Ð'Ð,Ð'ÐµÐ¼01 - YouTube](#)

applied trigger to get resonance(kapanadze alias don smith)

(kapanadze used low voltage where as don smith used high voltage. later kapanadze used high voltage)

[ĐŁÑ^Ñ,Đ°Đ½Đ¾Đ²Đ°Đ° next 1 - YouTube](#)

Sept 11, 2011

Zilano

Quote:

Originally Posted by **drak**

So when you say:

you are saying his secondary should be longer then his primary?

well secondary is 4 times primary. but we use turn ratio to our advantage. suppose he has 2000 volt fed to primary so he has to have 100 turns so he gets 20 volt per turn in primary. and in secondary he desire 120 volts so $20 \times 6 = 120$ so he will be having 6 turns in secondary in total but as this secondary coil is magnet he will have to wound 3 turns and 3 turns at the ends of primary so the primary is in centre of blotch wall of the secondary coil treated as magnet. same direction of 3 turns not bifilar. later he can use bifilar to see wot it brings better for him. the remaining length of extra wire of secondary must be there left free so he gets resonance and if he cuts that short he will have to use caps of larger mkfd. to make up the length he cut off. so length must be same its for us to decide how many turns we want.

basically wot don did he had 2000 volt and 5 turns primary that means he had 400 volt per turn in primary and he had 34 turns in secondary (centre tapped) so he had $400 \times 17 = 6,800$ volt in each secondary winding and when joined together he has 6,800 volt fed to caps [2mkfd@8000](#) volt so he stepped up actually. here we r doing step down from 2000 to 120 volt. here ususal caps of low voltage and higher capacity can be used and a diode and 1:1 ratio isolation transformer(can be made with thick wire iron cored) with suitable cap is used to pulse the transformer thru a spark gap so we get 120 volt ac pure sine wave. either we can step up and then do step down or we can use stepdown at the first step. the

thing is to have resonance working here we r saving an intermediate step of big isolation transformer. we r using 1:1 ratio for transformer. also we r saving high cost high voltage capacitors that r beyond affordability and budget constraints and availability.

Sept 11, 2011

Zilano

Quote:

Originally Posted by **dllabarre**

As stated previously I have 12kV NST, 30 mAmp

For primary I was going to use 2" PVC. Each turn around PVC is 8" of wire.

100 turns x 8" = 800" = 66.7 feet of wire.

Should primary be solid wire?

What size? 12 AWG?

For secondary - I was going to use 6 AWG stranded wire. 1 turn CCW and 1 turn CW. Based on calculation of length of primary how long should the secondary wire be? Should it be primary/4 for step down?

Thanks

Hi

plz read this link below first

[Donald Smith Devices too good to be true](#)

wire can be solid. but multistranded is recommended. well secondary is always 4 times primary use turns as required and leave remaining as free length. or u can go for 480 volt secondary and use stepdown later and use transformer for output from 480v to 120 volt. first try with don way coil. no bifilar. in secondary. the best way to go is step up n step down. if u can manage 2000-3000 volt using variac the turns of primary coil will be less. so think abt voltage and turns in primary judiciously b4 u make coils.

ask me if u r unable to calculate things. will recommend best for ya

Sept 10, 2011

Zilano

Quote:

Originally Posted by **dllabarre**

Zilano

I'm ready to start building and winding my coils.

I have a 120v AC input NST that outputs 12kV, 2 poles 6kV each, 30mA short circuited.

If I use this schematic, how many turns is my primary? 12kV divide by 100 turns is 120v per turn?

Then my secondary is only 1 turn CW and 1 turn CCW to give 120v output correct?

OR forget the turns and take length of primary divide by 4 to give me length of secondary? Does the length of primary matter in this case?

Or a combination of length and turns.

Thanks

well dllabarre!

first learn how to ? neon sign transformers

very important

caution

caution

SAFETY NORMS TO BE FOLLOWED

SAFETY

NST GROUND

[NST Ground - YouTube](#)

[NST Basics - YouTube](#)

[Phasing Neon Sign Transformers for Tesla Coil Use Part-1 - YouTube](#)

and

[Phasing Neon Sign Transformers for Tesla Coil Use Part-2 - YouTube](#)

and

[Phasing Neon Sign Transformers - YouTube](#)

learn first then decide coiling.

caution

caution

example below if u have 12kv out nst

USE VARIAC FOR VOLTAGE CONTROL AND U CAN KEEP VOLTAGE LOW AT 2000 ITS ALWAYS BETTER TO START LOW SAY 2000 VOLTS

$2000/100=20$ volt/turn and primary 100 turns

AND $120/20=6$ TURNS IN SECONDARY

DONT USE BIFILAR

USE SINGLE COIL 3 TURNS _____ 3 TURNS(SAME DIRECTION)
WHERE _____ IS GAP FOR 100 TURNS PRIMARY(ASK ME WHY)
IF U DONT GET IT.

secondary 000 _____ 000 (6 turns)

primary 0000000000 (1 layer)

_____ = width of primary 100 turns

IF U WANNA FULL SWING 12KV FULL THROTTLE FOLLOW UNDER

its very simple if u have 12kv feed then $12,000/100=120$ volt means 100 turns in primary and one turn in secondary. (length of secondary will be 4 times of primary leave extra uncoiled)

now decide the length of primary.

length of primary required = $2*\pi*r*100$ + extra 3 feet(for connexion)(r= radius of tube)

Sept 10, 2011

Zilano

don smith complete reference

Hi folks

go thru this

all complete videos and pdf nomographs etc even deleted vdo z of don smith home office.

[Freeenergyinventions](#)

practical circuit(the suitcase device!)

[Freeenergyinventions](#)

more don smith important

http://www.slock.co.cc/smith/don_smith_energy_guide.pdf

http://www.slock.co.cc/smith/don_smi..._pwr_guide.pdf

http://www.slock.co.cc/smith/don_smi...nrgy_meths.pdf

http://www.slock.co.cc/smith/don_smi...sla_patent.pdf

read and understand don much better and kapanadze too

http://www.panaceauniversity.org/Ain...rick_Kelly.pdf

MORE TO COME! KEEP LEARNING .
wait for more add ons on this page come back to this later also

Sept 8, 2011

Zilano

Quote:

Originally Posted by **Zlatko**

Why is device then so different from others?

No resonance on primary, no resonance on secondary.

Then ,as you suggest, only resonance on not visible output transformer?

How to set exact resonance frequency with such caps?

What capacitance would you use for calculation?

this single capacitor is charged by L1 and L2 and is placed b4 isolation transformer 480 volts or if L1 and L2 r not used its directly charged with dual diode input with nst directly. and $T=L/R$ and $T=RC$ used. each half wave of nst that is **120 cycles** charges n discharges the cap and that timming is related to 60 hz pulsing of isolation transformer. so resonance is happening in nst can be used directly to charge and discharge cap and pulse the isolation transformer.

Sept 6, 2011

Zilano

KAPANADZE USED DON CIRCUIT. ALL HIS DEVICES ARE DON REPLICATIONS.

THE THIEF CIRCUIT THAT SR 193 USED IS NOT WORTH THATS WHY SR 193 GOT 150 WATT POWER.

Sept 6, 2011

Zilano

Quote:

Originally Posted by **h2ocommuter**

*Please help me to understand what makes HF from my 60 hz nst, A little picture please ZZZZ if you will.
thanks*

hI h2ocommuter!

UNDERSTAND MY WORDS CLEARLY AND U WILL UNDERSTAND WOT U HAVE TO DO.

IF U DONT HAVE THE CANDLE U CANT LIGHT UP ANOTHER AND LIGHT UP THE WORLD.

FIRST MAKE CANDLE AND USE THIS CANDLE TO LIGHT ANOTHER ONE SAME IN LENGTH.

LET ME SEE IF U GET THIS. AM HERE STILL IF U DONT UNDERSTAND THIS RIDDLE.

Sept 5, 2011

Zilano

Quote:

Originally Posted by **boguslaw**

zilano

For NST you are suggesting series spark gap in both 60Hz and 35khz situation. What about parallel spark gap ? I saw in one of your schematic that it is used for NST because it doesn't load it with large current. Can we use it and in what situation ?

One more question : in case of 60Hz NST there is no diode in schematic. Does it mean capacitor must be matched to impedance of NST at that low frequency (60Hz) ?

Hi there!

we use pure tesla no diode when 50/60 hz to create hf coz we have hv already. **(diode can be used but it will deteriorate cycles to 25 or 30 so use inductance filter on both leads of nst. to protect nst 50hz/60hz)**

when we have hf and hv we use diode and use don circuit to trigger coils resonance and diode is used.

there is difference between creating hf and triggering hf.

yes cap has to be matched when making tesla coil for fun. but for dons circuit we dont need to match cap with nst(50/60hz nst

Sept 5, 2011

Zilano

Quote:

Originally Posted by **jharmon**
Thanks for the reply zzz. I will look into solid state NSTs.

The transformers on this page ([High Voltage Current Limited Transformers](#)) all seem to be for 60Hz, so I'm guessing that they are iron core although they are rated for the right voltage and amperage.

I now have the PVM 400 from the page (<http://www.amazing1.com/hv-hf-power-supplies.htm>). The specs say that open-circuit voltage is 20kv and that the output is variable from 1 to 15kv.

However, there is only one potentiometer on this for controlling frequency. Further, the website says it goes from 15Hz-35kHz and the product documentation says 20Hz-50kHz.

usually there is a control in nst to control voltage . if it doesnt have it u can use a high quality dimmer or variac if its ac operated(nst). if u go for 12 volt nst then a variable controller built in and if not use a variable resistance to control dc voltage fed to input of ur dc nst.

So I'm not quite sure what to do with this.

The flyback circuit will take the frequency of its load (my spark and resonant coil), right?

But since this has a driver, I need to tune my load (spark and resonant coil) to it and fiddle with the potentiometer.

And I have no idea how to control voltage with this device.

Hi jharmon!

read first. page 25 post 746

usually there is a control in nst to control voltage . if it doesnt have it u can use a high quality dimmer or variac if its ac operated(nst). if u go for 12 volt nst then a variable controller built in and if not use a variable resistance to control dc voltage fed to input of ur dc nst.

NST MEANS NST NOT PWM GET SOLID STATE

try to find 30-40 khz 4kv dc 12 volt nst or same rating ac nst according to ur grid supply frequency 50 hz or 60 hz and voltage rating in ur country

[Neon Transformer 4kv-Neon Transformer 4kv Manufacturers, Suppliers and Exporters on Alibaba.com](#)

dc nst

[Neon Transformers, Neon Power Supplies](#)

ebay

[neon transformer | eBay](#)

Sept 5, 2011

Zilano

Quote:

Originally Posted by **Farmhand**

Excelent stuff in this thread, Zilano you are putting a lot of time and work in here, good job. Even those of us not paticipating much in this discussion are getting something out of this thread, good to see all the interest and good direction.

I think the way the secondary coils still confuse me, Don says he just cut a long coil in two pieces, so that would mean it should be like one big coil but tapped in the center. Whats your opinion on that Zilano ? Does it matter ?

I dunno.

Since there is only one primary wouldn't it be kind of cancelling if it was wound any other way ? But since it is in resonance wouldn't both ends alternate thier peak voltage with the center tap between. When the two ends are added and put through one AC side of the FWBR it would give double the duty/voltage-time and the center tap to the other AC side of the FWBR gives all the current. Maybe.

Anyway keep up the good work all.

Cheers

EDIT: When I say "Like one big coil" I was just refering to the direction of winding is all, each side of the secondary would make up one coil each for resonant purposes. As you say earlier.

It's just the direction I'm getting at.

Hi Farmhand!

well top of tesla single coil when base earthed has (**voltage peak+current node**) and base has (**current peak+ voltage node**) when 2 tesla used back 2 back same direction **voltage** is at each end a **current** is at base

but in case of bifilar where one is cw and other is ccw whole thing changes the ccw coil has **voltage peak** and **current node** at base and end has **voltage node** and **current peak** at end of ccw

when we join the two bases and join the two ends of cw+ccw coils we have almost same voltage and same current at base (joined) and ends(joined)

resonance is like sleep it has no effect on cw or ccw. either u lie on bed to sleep or sleepwhile sitting. sleep is sleep!

Sept 5, 2011

Zilano

Quote:

Originally Posted by **RAMSET**

Zilano

Yes you have shared "Heaps" of info,And it is most definately appreciated!!

The problem is in The "Heap"!![for me the "novice"]

Will any amount of begging ,Groveling ,or pleading.....

Appeal to your compassion??

Can you Focus a bit more??

Please

Chetkremens@gmail.com

Hi!

radium was found in the heap of dust! be a mole and dig a hole till u find the the secret of power. if heaps rnt there where u r gonna dig the hole? i gave u heap with radium inside , all u need is to dig it right but its surely there in this heap of text and figures.

yes its the spark!

spark changes the game from low to high and high to low!
the game of frequency is played below
step up frequency and step up voltage. harvest power lower frequency and step down voltage.
and there u go!
these lines above have all the magic from HF TO LF. those who will understand need less
components and achieve the desired!

moreover am here to help ya

always !

UNTIL AM NOT CAPTURED BY A UFO

Sept 5, 2011

Zilano

parallel or series????? resonance!

An electromagnets magnetic field strength is
determined
solely (without changing the ferromagnetic core
material) by the number of turns in its winding times
the
current measured in amps flowing thru it. With that in
mind consider the difference between serial resonance
and anti-resonance (below).

Series LC circuit:

Resonance = input current is

maximum

at resonance; Current thru drive coil windings
is

maximum.

Parallel LC circuit:

Parallel Resonance/Anti-resonance

= input current is

minimum at anti-resonance; Current thru drive coil windings is

maximum.

Now, if you were a design engineer after the maximum magnetic field strength for the least input power, which circuit would you use?

answer: parallel of course!

Remember these things very clear

1. when u have nst of 50 hz then u have high voltage but u dont have high frequency. so make it using primary oscillate at hf.
2. when u have nst with high voltage n high frequency u only need to trigger primary and make it to oscillate at hf independent of nst frequency. dont try to match primary frequency with nst
3. Hf of nst has nothing to do except inject hv hf into primary to make it oscillate at natural frequency but if it doesnt then use cap across primary. and match primary frequency with secondary.

4. use **don way** of connecting primary,cap,spark gap when u have hv+hf nst.(sr 193 also used this) inject hv+hf+diode. half wave pulses to make oscillate primary at its natural frequency.

5. when u dont have hf nst then u must use **squire042 way**(cap , spark gap, and primary coil) and fire up ur nst 5kv or 3kv or 2kv 50hz/60hz

[Coil Construction Techniques - HAMwaves.com](http://HAMwaves.com)

[Designing and Making a Tesla Coil Part 1 « Nate's blog](#)

point to ponder!

If we can use 50hz or 30khz to create 24.7mhz can we not make 24.7 mhz to 50/60 hz?

answer is yes and kapanadze knew well so we too!.

that is the secret of Resistance R in don smith mysterious R b4 isolation transformer.

think ! and execute!

final secret revealed!

Sept 5, 2011

Zilano

Quote:

Originally Posted by **squire042**

Hello all! This thread has been progressing quiet well and Thank you to all who has helped, especially Zilano, Mr. Clean, Don Smith, Tesla, and so many others.

This is my current circuit for a flyback system and so far out of all the circuits I tried this one has the best charging time for the capacitor(based off of don's smith circuit, bifiliar). I used a 20 second time trail for comparison but I have no idea how close I am to input compared to output. My multimeter can't read the amps while the system is running due to high frequencities. Any idea's how to compare

watts in to watts out?

Also I am curious on how to make this a self running circuit, without the 12volt, seen in the Kapandaze video. I tried some capacitors out front, after the 12 volt, and it helped the circuit to run more cleanly but won't it run after I disconnect the battery.

Another question I have is how do I know my voltage on the output? A flyback can operate anywhere from 20kv to 50kv and trying to get it back down to 12 volts seems quiet challenging. Another observation I noticed too was that the ground seem to hinder my charging capacity but when I do attached it to the spark gap, the coil seems to 'shake'.

Anyways, thanks to all for your ideas and observations, its inspirational to see great minds seeking to benefit the species. Good show.

Just a soul seeking freedom from tyranny.

What lies behind us and what lies in front of us is nothing compared to what lies within us.

hi SQUIRE042!

TRY LOAD FIRST AND KEEP ADDING LOAD AND WATCH UR INPUT POWER. USE 100 WATT BULBS RATED FOR THE VOLTAGE U SET FOR VERIFY THAT INPUT DOESNT INCREASE WITH LOAD INCREASE.

IF ONE KNOWS TURNS IN THE SECONDARY OF FLYBACK ONE CAN CALCULATE VOLTAGE.

TO CALCULATE HIGH VOLTAGE U NEED PT AND CT I HAVE MENTIONED IN MY POSTS B4 SEE MY THREAD U WILL FIND IT. PT IS POTENTIAL TRANSFORMER AND CT IS CURRENT TRANSFORMER. USED TO MEASURE HIGH AMPS AND VOLTAGE.

BUT IF U DONT HAVE PT OR CT. U HAVE TO DO HIT N TRIAL. USE VOLTAGE DIVIDER AND TRY 12 VOLT LAMPS. IF THEY BURN OUT VOLTAGE TOO HIGH. REDUCE IT

WARNING!

KEEP GROUND CONNECTED ELSE UR COIL WILL SHAKE COZ OF VORTEX FORMATION AND THATS NOT A GOOD THING. ATTACH 2ND GROUND ALSO

UR VOLTAGE WONT BE 30KV OR 40 KV COZ U R USING 12 VOLT TRY COMPARING

120 -130 VOLT IS FED TO FLY BACK TO GET 30KV OR 40 KV. U R USING JUST 12 VOLTS.

An electromagnets magnetic field strength is determined solely (without changing the ferromagnetic core material) by the number of turns in its winding times the current measured in amps flowing thru it. With that in mind consider the difference between serial resonance and anti-resonance (below).

Series LC circuit:

Resonance = input current is

maximum

at resonance; Current thru drive coil windings

is

maximum.

Parallel LC circuit:

Parallel Resonance/Anti-resonance

= input current is

***minimum* at anti-resonance; Current**

thru drive coil windings is

maximum.

Now, if you were a design engineer after the maximum

magnetic field strength for the least input power, which

circuit would you use?

Remember these things very clear

1. when u have nst of 50 hz then u have high voltage but u dont have high frequency. so make it using primary oscillate at hf.

2. when u have nst with high voltage n high frequency u only need to trigger primary and make it to oscillate at hf independent of nst frequency. dont try to match primary frequency with nst

3. Hf of nst has nothing to do except inject hv hf into primary to make it oscillate at natural frequency but if it doesnt then use cap across primary. and match

primary frequency with secondary.

4. use don way of connecting primary, cap, spark gap when u have hv+hf nst. (sr 193 also used this) inject hv+hf+diode. half wave pulses to make oscillate primary at its natural frequency.

5. when u dont have hf nst then u must use squire042 way(cap , spark gap, and primary coil) and fire up ur nst 5kv or 3kv or 2kv 50hz/60hz

Sept 5, 2011

Zilano

Quote:

Originally Posted by **jharmon**

Hi zzz,

I just placed orders for a 120V / 140V Variac and a 4kV 30ma NST. I couldn't find a 4kV 60ma NST, so maybe I need to wait to find another to wire them in parallel. I didn't see any GFCI reset buttons in the picture, so hopefully it's what I need.

Since I'm not using the flyback, the signal I have coming out of this will be roughly 4000V @ 60Hz and 30ma. I would think that I'd want the primary coil ringing at 30kHz across the gap cause it's an even multiple of 60Hz.

I still don't understand the purpose of the gap on the output side. I'm guessing it's only necessary to dump the high voltage if you are using a low turns primary to a high turns secondary. That gets you down to just about 480V or whatever your target is and then the varistor smooths out the rest.

If that's true then the point is that you can go in either direction (step-up or step-down), as long as you dump the excess volts.

I was about to purchase some varistors, but I need to double-check... we are talking about clamping voltage, right? What max voltage and amperage should these be rated for? Also, there aren't any varistors that clamp at precisely 480. They clamp @ 475V and 488V. I'm guessing we should use 475V to protect the 480volt caps downstream.

Sorry I'm behind. This thread is moving fast. I have lots of catch-up reading to do. :-)

J

Hi jharmon!

well ur nst is ok first try with this nst. i have uploaded the pic of don arrangement of spark gap on this page see it. use hv diode ok. gap is just use to trigger pulses of hv and hf to xcite primary to set into oscillations. its frequency doesnt depend upon nst frequency it depeds upon LC of

primary. anyways wots ur frequency of nst? is it 60 hz or in khz? **ITS BETTER U GET NST WITH HF SAY 30-40 KHZ. COZ DON CIRCUITS NEED HIGH FREQUENCY AND HIGH VOLTAGE INPUT.**

Sept 4, 2011

Zilano

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.

Sept 4, 2011

Zilano

Quote:

Originally Posted by **jharmon**

Man,

I have been reading and I'm realizing I need to take this one step at a time. I'm going to start with my flyback.

zzz...

can you recommend which of the wound flybacks on this page you would use?

[High Voltage Transformers](#)

I'm happy to wire up the driving circuit, but I don't want to wind it myself. Thanks!

J

**GET ANY SOLID STATE NST WITH 4KV AND 60 MA 30KHZ
OR MORE DUAL OUTPUT
BETTER IF NOT AVAILABLE GET SINGLE OUTPUT**

Sept 4, 2011

Zilano

warning dangerous-Isrovika- resonance!

- One hundred years ago there was no electronic devices that generate a high frequency electromagnetic waves.

But it got a very simple scheme. It was a capacitor that is discharged to the punch. When a spark between the electrodes slipped in the circuit there were

fluctuations in a very wide range of frequencies.

Whether by accident, either specially Tesla brilliantly solved the problem simply adjust the resonance.

After all, the electric spark is practically all frequencies, some of them will coincide with the natural frequency of the circuit, and resonance occurs. This frequency varied depending on the load, but automatically adjusts the contour iskrovik in response.

Iskrovik - a dangerous thing, because some of its spectrum lies in the hard ultraviolet and soft X-rays, which can be learned and quite strongly. This convinced some experimenters who tried to repeat the experiments Tesla: they tend to get cancer and die prematurely.

[Electromagnetic spectrum - Wikipedia, the free encyclopedia](#)

MAKE UR COILS IN THE SPECTRUM OF RF NOT X RAYS OR UV

T=L/R calculation

[Instantaneous Current Calculations of an Energizing RL Circuit \(Calculator TI-30XIIS\)](#)

T=R.C calculation

[Instantaneous Voltage Calculations of a Charging RC Circuit \(Calculator TI-30XIIS\)](#)

capacitor charging

Capacitor

Inductor charging

Reactance

best for understanding don idea to drive ironcored transformer from hf hv ac to 110 volt ac

<http://www.physics.byu.edu/faculty/b...o/su442/ac.pdf>

important

Frequency Response

IGBT=INSULATED GATE BIPOLAR TRANSISTOR

Insulated Gate Bipolar Transistor

An Insulated Gate Bipolar Transistor (IGBT) is a device that combines "the best of" MOSFET's and bipolar transistors. They are characterized by having both high voltage and current capacity. Usually the voltage rating is 600 V or 1200 V. Small IGBTs (around TO-220) can handle around 15 A, where as the larger "brick" IGBTs can handle several hundred amperes. Their typical application is in an H-bridge for high power applications.

Sept 4, 2011
Zilano
calc and animation

NOTE: FOLLOW DON WAY OF CONNECTING DIODES AND COIL AND SPARK GAP. IF U HAVE FLYBACK THEN U WILL USE ONE DIODE SO POWER IS NOT MUCH BUT IF U MAKE CIRCUIT

USING PRIMARY N FEEDBACK COILS THICKER AND SUPPLY 12 V U WILL GET MUCH INPUT POWER N SPARK WILL BE FAT. FOR AIR COILS ONLY. THOSE USING FERRITE CORE FOR DON COIL. CAN USE NOT SO STRONG SPARK MAKE SURE UR NST OSCILLATOR TRANSISTOR CAN TAKE ALL THAT HEAVY INPUT. USE MJE1300... SERIES.

ALL NST WILL WORK DON STYLE TRIGGERING AND ARE NOT DEPENDENT ON THE FREQUENCY OF THE INPUT. THE COILS AND THEIR LENGTHS DECIDED DECIDE THE FREQUENCY.

Calculations

If you decide not to use the the [TeslaMap](#) program (or other design program) you can use the following equations to design your Tesla coil.

$\pi = 3.1415926535897932384626433832795$

NST VA = NST Output Current * NST Output Voltage

NST Impedance = NST Output Voltage / NST Output Current

NST Watts = $((0.6 / \text{NST VA}^{0.5}) + 1) * \text{NST VA}$

PFC Capacitance = $(\text{NST VA} / (2 * \pi * \text{NST Input Frequency} * (\text{NST Input Voltage}^2))) * 1000000$

Primary Resonate Capacitance = $(1 / (2 * \pi * \text{NST Impedance} * \text{NST Input Frequency})) * 1000$

Primary LTR Static Capacitance = Primary Resonate Capacitance * 1.5

Primary LTR Sync Capacitance = $0.83 * (\text{NST Output Current} / (2 * \text{NST Input Frequency} / \text{NST Output Voltage})) * 1000;$

Secondary Coil Turns = $(1 / (\text{Magnet Wire Diameter} + 0.000001)) * \text{Secondary Wire Winding Height} * 0.97$

Secondary Capacitance = $(0.29 * \text{Secondary Wire Winding Height}) + (0.41 * (\text{Secondary Form Diameter} / 2)) + (1.94 * \text{sqrt}(((\text{Secondary Form Diameter} / 2)^3) / \text{Secondary Wire Winding Height}))$

Secondary Height Width Ratio = Secondary Wire Winding Height / Secondary Form Diameter

Secondary Coil Wire Length = $(\text{Secondary Coil Turns} * (\text{Secondary Form Diameter} * \pi)) / 12$

Secondary Coil Wire Weight = $\pi * ((\text{Secondary Bare Wire Diameter} / 2)^2) * \text{Secondary Coil Wire Length} * 3.86$

Secondary Inductance = $((((\text{Secondary Coil Turns}^2) * ((\text{Secondary Form Diameter} / 2)^2)) / ((9 * (\text{Secondary Form Diameter} / 2)) + (10 * \text{Secondary Wire Winding Height}))) * 0.001) * \text{Secondary Inductance Adjust}$

Advanced Theory

It is actually a bit more complicated then the explanation given above. Although the turns ratio is around 1:100, the transformer operation is based more on resonance then on turns ratio. When the spark gap fires, the electric charge in C1 dumps into L1, and then back into C1, and then back into L1. This is called resonance. C1 and L1 make up what is called a resonator. They are changing an electric field (C1 volts) into a magnetic field (L1 gauss), and back again, at a rate (frequency) determined by the value of C1 x L1. The secondary (L2) picks up some energy from L1 each time L1 charges up. The output

terminal C2 gets an electrical charge from L2 each time L2 discharges. The secondary and the output terminal resonate at the frequency determined by $L2 \times C2$. The magic happens when $L1 \times C1 = L2 \times C2$, or both resonators resonate at the same rate (this is made to happen by adjusting the tap on L1). When both resonators are at the same rate, the energy in L2 builds by a little bit from L1 on each cycle. This is called resonant rise. The output terminal voltage gets higher on each cycle, until the voltage gets too high to hold, and then ZZZZZAAAAAAPPPP. This is analogous to a person on a swing. Imagine the legs are a resonator, going back and forth at a certain rate. The swing with the person is another resonator, swinging back and forth at a certain rate. Initially, the swing is hardly moving. The legs start going back and forth and the swing starts going. If done right, the legs change position at the very peaks of swing motion. They are resonating at the same rate as the swing is swinging. As each peak of swing motion is reached, the leg motion adds a little bit to the next cycle so that the swing arc grows a little each time. This can continue until the arc gets over 180 degrees (horizontal at each peak). Then, the chains begin to slacken and things can get pretty unpredictable. In the same way, the resonator $C1 \times L1$ acts like the legs, adding a little energy to resonator $C2 \times L2$ (swing + person), on each cycle, until the voltage in C2 gets so high that it just explodes as an electrical discharge in search of ground.

VERY IMPORTANT SITE FOR CALCULATIONS

[Tesla Coil Design, Construction and Operation Guide](http://www.teslacoildesign.com/#design)

<http://www.teslacoildesign.com/#design>

Sept 2, 2011

Zilano

Quote:

Originally Posted by **boguslaw**
zilano and others

I think I'm starting to understand formula of natural resonance.

$$L = 246 / f [\text{Mhz}]$$

it's taken from speed of propagation of EM wave along the surface of wire. We match the length of wire (L) to 1/4 of wavelength :

$$L = 1/4 * \text{alfa} (\text{alfa} = \text{wavelength})$$

because $f = c / \text{alfa}$ (c - speed of light in vacuum or air (nearly)) f - frequency

then we have :

$$\text{alfa} = c / f, \text{alfa} = 4 * L \Rightarrow L = 1/4 * c / f$$

one foot = 0.3048 m (meters) and $c = 299\,792\,458 \text{ m/s}$

so computing all using feet instead of meters and choosing to cut frequency to Mhz (instead of Hz) we have :

$L = 1/4 * 983571056,43(...) / 10^6 = 245.89/f$ [in Mhz] , the result is in feet

I hope I understood it correctly zilano ? Maybe that helps somebody.

Now if this is the case then 1/4 wavelength is maybe also 1/4 of period of oscillation of that EM wave. Would that mean we are chasing strictly magnetic field of 1/4 of oscillation or so called NEAR field ?

Hi there!

"For those not well acquainted with Tesla coil design and operation, Hull begins by pointing out that, fundamentally, grounding the base end of a vertical coil forces a node at that end, and the coil resonates at its natural 1/4-wavelength frequency. A "good" ground connection is a must. If, however, the coil is ungrounded, and typically placed in an elevated, horizontal position, the coil then self-resonates at its natural 1/2-wavelength frequency with a node forced at the center. "

If we place a quantity of electrical energy into the coil and do it quickly enough, the coil will ring at its natural resonant frequency, much like a bell. Voltage nodes and peaks will appear along the coil. If the coil is floating in free space, it will tend to oscillate at its natural 1/2-wavelength resonant frequency, and each end of the coil will exhibit a voltage peak while a voltage nodal point will exist in the exact center of the coil. 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. Resonant rise is a function of the current value at the base of the resonator and the "Q" or quality factor of the resonator. This quality factor is determined by the inductance of the coil, its resonant frequency and

the AC resistive losses within the coil. This is all that enters into the equation as long as the coil is free and floating in the "perfect vacuum" of interstellar space! To my knowledge, no coil in history has ever completely satisfied the equation for Q!

In the real world, Q is most affected by the coil form that the wire is wound upon, specifically its composition and thickness. There is another "evil" with which Tesla did battle constantly, and never so boldly as when at Colorado Springs, that is known as inter-turn capacitance. In addition to self inductance, a coil of wire also has internal or distributed capacitance created by the proximity of the adjacent turns to one another. Each turn is like a small capacitor plate which interacts capacitively with each turn adjacent to itself. Both the form factor and the internal self capacitance work to reduce the resonator Q. Finally, near effects by things such as the ground, metal objects, etc., all conspire to make the real world Q an almost impossible value to calculate.

Why all the fuss about Q? This is what Tesla terms the "magnification factor" and is directly related to the efficiency of all Tesla coil or similar resonant systems. And, this is what makes a magnifying transmitter into the ultimate Tesla coil.

Sept 1, 2011

Zilano

Quote:

Originally Posted by **boguslaw**

zilano, I'm not good in electronics ,could you explain some things ?

1. We should match capacitor C1 at primary to impedance of transformer ? What does it mean ? Is that for minimizing reflections from souce so capacitor is charged from this power source fastest possible way ? How fast is that and is that important for final effect ? Your computation is for 50Hz which is very slow frequency - does frequency of power source matter ?

Thinking about TV flyback with own driver ; how we can find output voltage (can be measured approximately by spark length), amperage of spark and frequency (can be measured by scope probably) to set proper concensator C1?

2. We are matching primary RLC to the 1/4 of natural frequency of primary coil length ,right ?
 3. Secondary length is 4 times primary length - means full wave length , right ? Do we assume in that case Tesla bifilar (two windings in opposite directions from center) and does it mean 1/2 wavelength for each sub-coil ?
 4. Then we have match secondary cap and coil to this natural full wave frequency making second RLC circuit on output side?
 5. Using Tesla coils method (two TC; one for step up and one for step down) how the procedure should be corrected ?
- And finally the most important question : what is that natural resonant frequency of wire ? why 246/Mhz ? Sorry,if that was explained before (just post link where)

Hi Boguslaw!

1. well we match impedance of nst with cap. so efficient power transfer of nst to cap. moreover its also to match timing of 50 hz or wotever frequency u have for nst. so cap charging cycles r timed correctly (**only when we r using ac**) if we r using dc as in case of dons circuit-diodes after the nst then we dont need to calculate cap and just follow length of primary and match cap for the inductance of primary and we can stick to 246mhz or 123 mhz)

2. well in case of flyback we dont know voltage and milli amps so we use hit n trial method. as flyback has diode built in(color tv/color monitor) we just calculate L of primary and calculate c using formula $f=1/2*\pi*\sqrt{LC}$. and just feed the two wires of flyback in series with spark gap or parallel spark gap to either parallel LC or series LC primary circuit.

3. Well a single tesla when erthed from bottom and around bottom 1/4 wavelength primary triggers it so it resonates at 1/4 of its wavelength. here we have two tesla coils joined at base and we r with primary resonating at 1/4 so it will make 2 tesla coils to resonate independently at 1/4 of its wavelength. coz middle is base of 2 tesla coils joined back to back of bifilar is earthed.

4. again at secondary we r matching 1/4 wave but coils r joined so we add cap to one tesla bifilar. so primary n sec resonate at 1/4. here the trick is we harvesting 2 outputs with single primary resonating input. bifilar r used to divide voltage into independent unit one tesla producing amps and other tesla voltage. we can tap more amps and less voltage by tapping less turns on voltage producing tesla and more turns on current producing tesla by using a rheostat like tapping slider on tesla coils.

5. there r many ways. one we can step down using similar tesla coil. or when we make coil we decide voltage of secondary by having less turns on secondary so its diameter is bigger. we can make coils to get 110 volts by using a single turn of secondary or by using a little say quarter

portion of secondary.

watch carefully the pic of kapanadze coil green box . the coil u see which is biggest has been tapped not at ends but a portion of the turn. thats giving kapanadze 5kw else kapanadze said it was giving 200kw so they made it suitable for 5 kw.

well the last part of ur question is if we use frequency in kilo hertz say 30 khz= $30/1000=.03$ mhz

formula for finding length of resonant wire is

length of resonant wire in feet= $246/\text{freq. in mhz}$

so its $246/.03\text{mhz} = 8200$ feet

which is too big coil

so we use $246/246\text{mhz} = 1$ feet

or $246/123 = 2$ feet

which are manageable in winding.

Sept 1, 2011

Zilano

Quote:

Originally Posted by **spark2**

hi Zilano

I see what you mean now

As I understand

It's up to us during the construction of L1, what is the frequency the more natural and less cumbersome for us.

The frequency of NST do not have any connection with the construction of L1 than to decide the value of the charge rate of C1.

So what we see on the image of Don suitcase is not reality. Because the coil L1 has a length of 2.25 feet, making it a frequency of 109mhz but that is just one example.

Am I correct??

hi spark 2!

yes u are correct. but we dont know dons actual length. so we cant predict the frequency don

used. well frequency in range of megahertz makes us manageable lengths to coil and if we go in for kilo hertz lengths are much larger and thousand of turns so 246 mhz is very suitable. also u can divide 246 by any frequency in mega hertz so it gives u enough length to wind primary with 5-10 turns. and make secondary 4 times of primary length. **plz read my post that am going to update on page 23 of this thread.**

Sept 1, 2011

Zilano

Quote:

Originally Posted by **nowatts**

I've been experimenting with the Don Smith device and am about to reverse the primary and secondary coils as suggested. Interesting approach. This thread is great.

I am now wondering if a major flaw in my replication is due to my not understanding the NST. I am using one of the older, non-GFI iron-cored NSTs. Is this putting out only 60 Hz and not the 35 kz Don talks about? And if it is only 60Hz ouput, will the spark gap be sufficient to raise the frequency?

I also am wondering if it would be viable to put a diode on the line voltage feeding the NST so it outputs pulsed dc. Anyone tried this?

I am really concerned there is a world of difference between the old and new style of NST. Perhaps the best solution is using a new solid-state NST and attempting to bypass the GFI.

hi nowatts!

old nst will work fine read my post on page 23 of thread.

nst frequency just help to calculate primary cap of the don coil. and its frequency just help charge capacitor. but it will work.

DIODE HELPS TO PREVENT DAMAGE FROM SEC COIL VOLTAGE SPIKES TO THE NST

Sept 1, 2011

Zilano

Quote:

Originally Posted by **spark2**

Hi Zilano

I do not understand

You speak of the natural frequency of the cable which is like a 123mhz dllabarre as the calculated or that of the nst ???

Hi spark2!

frequency depends upon the wirelength of primary coil we r going to use

its calculated by formula

length of wire in feet=246/freq. in mhz

secondary is 4 times of primary and if bifilar wounded its 8 times

read my post on page 23 of this thread where i explained how to calculate the primary capacitor.

even a 60 hz old nst can be used and also latest solid state 30 or 40 khz nst can be used.

nst is just power supply and its freuency only helps to charge primary cap faster.

**DIODE HELPS TO PREVENT DAMAGE FROM SEC COIL
VOLTAGE SPIKES**

Sept 1, 2011

Zilano

Quote:

Originally Posted by **qvision**

Has anyone here ever removed the GFI from a modern NST like this one :

[Ever light Neon Power Supply 5kv 25ma](#)

Hi qv!

well it can be removed by opening the case it contains a small circuit but as u open it warranty of nst will void. another way out is dont earth the nst and earth the secondary bifilar at centre. and slowly raise the input either using a dimmer in series with ur solid state nst and then pulling it back and again raising it slowly. use diode in the output lead of nst so to prevent it from high voltage spikes that can destroy ur nst by secondary bifilar voltages that r fed back to primary coil circuit. u have to try it many times and u will get to know that how to handle it without tripping.

i have updated the info in page23 of thread do read it abt tesla coil and links are added.

Sept 1, 2011

Zilano

Quote:

Originally Posted by **dllabarre**

So your saying all copper wire, 1 foot long, will resonate at 246mHz?

No matter how thick or thin the wire is?

246 / 10 feet of wire = 24.6 mHz

246 / 2 feet of wire = 123 mHz

So I have to add a capacitor in parallel to my nst output so they resonate at 123mHz in my example for 2 feet of wire in my primary coil?

I think I have it...

DonL

Hi Dllabarre!

YES U R RIGHT!

never confuse wire with a violin string. string vibrate and we feel vibrations where as in wires thin or thick magnetic and electric fields vibrate not the wire. yes thick wire will have low impedance and thin wire have high impedance.

impedance = resistance in ac circuits. if wire is thick oscillations stay longer where as in thin wire they die fast.

Aug. 31, 2011

Zilano

Quote:

Originally Posted by **qvision**

Thanks Zilano.

For all you people spending a lot of time indoors with HF spark gaps, please read this :

"Exposure to an arc-producing device can pose health hazards. In a closed space such as a classroom or home, the continuous arc formation of an open-air Jacob's Ladder will ionize oxygen and nitrogen, which then re-form into reactive molecules such as ozone and nitric oxide. These free radicals can be damaging to the mucous membranes of people near the spark gap. Plants are also susceptible to ozone poisoning.

These hazards are not present when the arc is formed outdoors since the heated ionized gases will

rise up into the air and dissipate into the atmosphere. Spark gaps which only intermittently produce short spark bursts are also minimally hazardous because the volume of ions generated is very small.

Arcs can also produce a broad spectrum of wavelengths spanning the visible light and the invisible ultraviolet and infrared spectrum. Very intense arcs generated by means such as arc welding can produce significant amounts of ultraviolet which is damaging to the retina of the observer. These arcs should only be observed through special dark filters which reduce the arc intensity and shield the observer's eyes from the ultraviolet rays."

From :

[Spark gap - Wikipedia, the free encyclopedia](#)

QV.

Hi Qv!

well thankx for the alert!

I recommend spark gap must be contained in a metal container like the spark gap in two wheelers or automobile. it wont radiate uv and bad spectrum and outlet can be tubed to open environment. yes it is harmful for eyes and brain. so watch out!!!!

Aug. 31, 2011

Zilano

Quote:

Originally Posted by **dllabarre**

Zilano

"the basic key is $246/\text{frequency in Mhz} = \text{length of primary in feet}$ "

Example: $246/.03 = 8,200 \text{ feet}$

This formula will result in thousands of feet of wire.

How do you only get 10 or 20 turns bifilar with that much wire?

Thank you

hI DLLABARRE!

PLZ DO READ ELSE U WONT BE ABLE TO FIND RESONANCE.

AM REALLY SO SORRY FOR TELLING U FORCED FREQUENCY CALCULATION OF WIRE. SO AM WRITING AGAIN TO U TO FOLLOW NATURAL RESONANT FREQUENCY OF THE WIRE LENGTH. I HAVE LCR METER I CAN MANAGE ANY WIRE LENGTH AND MAKE IT FORCE RESONATE.

BUT FOR BEST HARVEST AND LOW INPUT WE NEED TO USE NATURAL RESONANT FREQUENCY OF WIRE

LENGTH OF WIRE IN FEET=246/FREQ IN MHZ

USE 246/246MHZ= 1 FEET OR

246/24.6MHZ= 10 FEET

note here frequency is 24.6mhz so we have to match the right cap for this frequency.

IN THIS WAY U GET NATURAL RESONANT length OF THE WIRE.

mistake is deeply regretted

Aug. 31, 2011

Zilano

Quote:

Originally Posted by **nico**
for ferrite core , the spark gap is in series with the primary and capacitor in paralel, the calculation will be the same?

hI USE SERIES CAP WITH PRIMARY. ELSE CALCULATION WILL GO WRONG.

HERE WE R MATCHING IMPEDENCE OF CAP WITH NST IMPEDANCE.

WELL WE CAN USE SERIES CAP AT PRIMARY AND PARALLEL CAP AT SECONDARY. WHEN WE USE PARALLEL CAP WE NEED TO ADD IMPEDANCE OF SEC COIL + CAP THEN USE FORMULA.

[JavaScript Tesla Coil Calculator](#)

Aug. 31, 2011

Zilano

Quote:

Originally Posted by **nico**
Thank you, that is what i need.
I belive i need a strong driver for flyback transformer not 2n3055 , like is in my attach filles.

Hi Nico!

u can still use ur flyback if u r using ferrite core. if u want aircore then go for NST. FIRST TRY WITH FERRITE CORE AND UR FLYBACK WITH ORDINARY HOME COPPER WIRE PVC COATED.

Aug. 31, 2011

Zilano

simple calculations that will make u coil ringing correctly

hI Folks!

important do read and follow!

"For those not well acquainted with Tesla coil design and operation, Hull begins by pointing out that, fundamentally, grounding the base end of a vertical coil forces a node at that end, and the coil resonates at its natural 1/4-wavelength frequency. A "good" ground connection is a must. If, however, the coil is ungrounded, and typically placed in an elevated, horizontal position, the coil then self-resonates at its natural 1/2-wavelength frequency with a node forced at the center. "

Nikola Tesla (1856-1943) among its many incredible inventions / insights, also made this curious

machine capable of generating high-voltage discharge. For many a teslacoil is a transformer, but it is an inappropriate term: the Tesla coil is not based on the principle of operation of the common transformer! There are various types of teslacoil:

-SSTC (Solid State Tesla Coil): teslacoil of this type is called "solid state" as it is controlled by an electrical circuit with no moving parts and no spark gap. The resonant frequency is generated directly by an electronic circuit.

-VTTC (Vacuum Tube Teslacoil): For fans of the genre, these works with vacuum tubes. To get really interesting discharges, you need to find huge military-type valves such as GU81M in some market places or specialized electronics distributors. The peculiarity of VTTCs is the high frequency of operation, generating harmless sparks via the skin effect, and you can tap them with your fingers!

-SGTC (Spark Gap Tesla Coil): This is the most famous and classic teslacoil, which we will explain below. Bases its operation on the appropriate size of a few components.

The aim in any case is to generate a resonant frequency on the primary winding that resonate on the secondary circuit, which must receive energy as a real antenna, but turning it to high voltages by reducing the amperage accordingly: *in fact it is not free energy, since the energy output does not exceed the energy supplied.*

HERE THE ABOVE STATEMENT IS CORRECT TESLA COIL IS NOT OVERUNITY. BUT ITS TRUE ONLY WHEN THE XCITING PRIMARY IS AT THE BASE OF SECONDARY COIL. IN DONS CIRCUIT ITS IN THE MIDDLE OF TWO BIFILARS SECONDARIES WHICH CHANGES WHOLE SCENARIO AS WE SPLIT TESLA COILS AS ONE PRODUCING AMPS AND OTHER PRODUCING VOLTAGE AND WE CAN TAP MORE AMPS AND LESS VOLTAGE IF THAT IS SUITED TO OUR NEEDS. MOREOVER THE BLUE STREAKS THAT WERE AMAZEMENT FUN IS CONVERTED TO USEFUL ENERGY.

XCESS POWER IS PRODUCED. WITH MIDDLE XCITING WITH BIFILARS.

How it works?

DON SMITH COIL IS TESLA COIL WITH A COMBO OF SINGLE PRIMARY AND 2 SECONDARIES BACK TO BACK. RESONATING AT 1/4

An SGTC teslacoil is based on two circuits oscillating at the same frequency:

Primary oscillating circuit Secondary oscillating circuit

A generator produces a frequency of 50Hz at high voltage, typically between 4 and 12kv describing a

wave that repeats itself over time 50 times per second:

When the half-wave is rising up, the primary capacitor is charged and the spark gap, which acts as an automatic switch, is opened to allow charging of the capacitor. The circuit must be designed so that the spark gap closes when the half-wave reaches its peak and the primary capacitor is at maximum charge!

When the spark gap closes, the high voltage generator is electrically separated from the circuit formed by the capacitor and the primary winding. In this condition, the capacitor starts oscillating with the primary, and acts as a transmitter at a frequency that is the resonance frequency of the LC circuit:

http://www.energeticforum.com/attach...d=131495241_5

The oscillation of the LC circuit is repeated until the charge is dissipated.

When the capacitor charge is completely dissipated during the oscillation, the spark gap no longer has enough energy to stay active, then it opens again, and begins a new cycle of charging the primary capacitor, thus repeating the above steps. This circuit without the secondary, it's just a powerful radio frequency transmitter.

The secondary circuit is a circuit that oscillates at the same frequency of the primary, but the value of the secondary inductance is much larger but still has the same frequency because C2 is a smaller capacitor compared to the primary C1 (the torus). This is the difference that introduces the big voltage amplification!

For optimum configuration of the secondary, you should adjust it to $1/4$ of its natural frequency of oscillation, this allows for the highest point of the coil, a maximum voltage (this says the legend, and the experiments confirm...) To obtain this frequency is used just to add on top of the secondary coil a toroid or a sphere of the correct capacitance. If you imagine the wave of charge that develops on the side of the coil, you drop the peak point at the summit, the last loop: So here we have the maximum voltage at the minimum current, with discharges less dangerous and more longer! If the circuit is not sized correctly and the voltage peak point was lower, along the winding, this can lead to surface discharges over the coil with the consequent failure of the insulation and winding damage...

Imagine being on the swing, you swing your legs back and forth: the swing is initially barely fluctuates, but insisted the oscillation will increase even more. In this example, your legs are the primary winding and the secondary coil are the swing. If you continue swinging the legs (the primary using the capacitor charge) that will increase more and more and the oscillation of the swing will follow exactly the motion of your legs, but still further increases, is getting higher and higher. This is the voltage increase! The primary continues transmitting its energy to the secondary that is already oscillating, adding the two

waves with each new oscillation, just like a swing. This is why it is important that the two circuits can oscillate at the same frequency!

The main components of a Teslacoil:

since we r using diode after nst so we have dc(though rippled one. its better we use fwbr=full wave bridge rectifier and make hvdc then feed primary cap) but half wave will also do. kapanadze used fwbr.

FIRST FIND LENGTH OF PRIMARY

LENGTH IN FEET=246/FREQUENCY IN MHZ

SAY U GET X FEET

PRIMARY=X FEET

SECONDARY BIFILAR=4X FEET AND 4X FEET

MEASURE PRIMARY INDUCTANCE L

AND USE FORMULA for calcualtion of primary capacitor C1

$f = 1/2 * \pi * \text{squareroot of } LC$

$f \text{ sqr} = 1/4 * \pi \text{ sqr} LC$

$C1 = 4 * f \text{ sqr} / \pi * L$

(CALCULATION OF SEC CAPACITOR C2)

meaure L2 individually make sure both secondary bifilars have same inductance L2

As L2 inductance of the secondary coil and Fq the frequency at quarter-wave of the coil:

fq=246 mhz when u r using (1 feet=246/freq in mhz(246))of primary and 4 feet of secondary

$$C2 = 1 / (4 * \Pi^2 * Fq^2 * L2)$$

or

$$C2 = \frac{1}{4\pi} \sqrt{f} \sqrt{L2}$$

attach this cap c2 on one bifilar **not across both bifilars**

note: the pic attached down below is DONS REVERSE TESLA. HERE WE DONT USE CAP AND THE HIGH FREQUENCY OF NST(SOLID STATE) IS DIRECTLY USED. SINCE WIRE LENGTHS ARE IN 1:4 RATIO SO THE SYSTEM IS IN RESONANCE. THIS IS CHEAPEST WAY TO GET POWER DON WAY

ALSO VERY IMPORTANT

[How To Build A Spark Gap Tesla Coil \(SGTC\)](#)

[JavaScript Tesla Coil Calculator](#)

Also veryyyyyyyyyyy important

[Classic Tesla Coil Design](#)

<http://tayloredge.com/reference/Machines/TeslaCoil.pdf>

QUARTER WAVE LENGTH FREQUENCY CALCULATOR

[Frequency Wavelength Calculator](#)

site for caps and mmc and matching transformer with capacitor

[DeepFriedNeon - Tesla Coils](#)

page to understand resonance of the circuit and timing !

[Resonant charging](#)

[Power harvesting with dons circuit](#)

dons circuit power at resonance

$W=0.5*C*V.SQRD*HZ.SQRD$

where w= energy in joules or watt second

since 1 joule=1 watt sec

so we raise frequency and voltage it gives greater power.

IN SENSE N SANE!

Attached Images

- [spark gap position in ac driven tesla coil.jpg](#) (28.1 KB, 146 views)
- [Table_top_SGTC_schematic.JPG](#) (13.6 KB, 169 views)
- [don circuit for old style 50 hz nst.jpg](#) (35.5 KB, 44 views)
- [don reverse tesla easyway.jpg](#) (20.6 KB, 37 views)

Aug. 31, 2011

Zilano

Quote:

Originally Posted by **nico**

I'll use ferrite rings, 12 pieces, which I will stick (glued) together.

ferrite is a 1.8 inch outside diameter and one inch long.

I use flyback transformer with diode built inside.

What will be the value of capacitor placed between flyback transformer and spark-gap?

hi yes stick em together.

yes wait for my next post happening just now. and u will get everything for caps and inductance calculation.

Posted Now! read it

Aug. 31, 2011

Zilano

simple message to all!

Hi folks!

To fetch power u must have two tesla coil one to step up and one to step down. in my earlier circuit i made nst as tesla coil to step up 4000 volts and then did step down. to 250 volts then added diodes and caps for 250 volts and

got results. since all of u cant make heavy gauge nst so its better for u all to use nst/flyback to power tesla as step up and use step down either by aircore transformer or using another tesla as step down. the idea is to get low voltage in range of 110,120,220,250 etc.**reverse tesla lowers voltage and keeps resonance working so amps are not lost.** dont use choke AT CENTRE OF BIFILAR **choke acts as resistor for ac AND INCREASES VOLTAGE so it slashes amps.** WE NEED AN RF CHOKE to correct ripple after diodes with caps(pi filter configuration) so u get pure ripple free 110,120,250 dc or even 12 v dc by voltage divider circuit. and use invertor or push pull with heavy ac transformer. and if u use ferrite in the centre of primary u get more than 70-100 amps. voltage divider just slashes voltage and amps will always be there.

i gave u all the hint of step down so its easier to handle power produced and ac caps at low voltage r cheap and affordable so the diodes too. all the diodes and caps r needed after step down.

Aug. 31, 2011

Zilano

Quote:

Originally Posted by **dllabarre**
1/4 wave Length 246
Hetz 30,000
Pri. Wire Length 8200
Divisor 4096 (2048 or 4096)
Primary in Feet 2.0
Secondary in Feet 8.0 (x 4 of Primary)

Correct??

correct!

u can also make it $2/2=1$ feet then sec is 4 feet.

Aug. 30, 2011

Zilano

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 output1

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 feet 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.

Aug. 30, 2011

Zilano

Quote:

Originally Posted by **vrand**

Nice setup drak.

Your secondary windings looked to be spaced farther away from your primary than 1/2" spacing?

Zilano says 2" primary and 3" secondary. What are your coil diameters?

Maybe next add some copper coated welding rods inside the primary? Zilano also says that will get you better results/more amps out of the secondary, as the primary coil coupling to the secondary coil increases dramatically.

What does your LCR meter say is the inductance of your coils?

What frequency are you resonating your primary coil? What are your primary caps values?

Do you have a center tap to ground on your secondary?

One theory with the secondary bifilar coil arrangement with the center tap to ground is to "pull electrons" from the ground connection. Another is that the bifilar CW/CWW creates volts on one end and amps on the other end of the coils. A third theory is that it creates "cold electricity" and the ground and capacitors "converts" the cold electricity to real electrons.

Looking forward to your experiments results, thank you for sharing them over here.

Cheers Mike

Hi Mike!

energy doesnt come from ground. ground acts as a drain pipe and if we use choke there we can control the hv voltage. of the secondary coil. and if we shunt it means no resistance to ground then hv is at full peak in secondary coil. its the magic of magnetic and electric fileds that produce amps.

Aug. 29, 2011

Zilano

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!

Aug. 29, 2011

Zilano

Quote:

Originally Posted by **boguslaw**

zilano

*What I mean is that new CRT flyback has internally HV capacitor, so it is already resonant circuit. That I saw on russian page. They stated internally flyback is like in picture (when flyback text should be replaced by primary/secondary windings)
That should be easy to check with RLC meter ,right ?*

Hi boguslaw!

yes right the flyback is resonant! but it has thin coils so amps r missing. thats why we feed flyback high voltage as power source only to resonate with thicks coils to harvest amps loaded voltage! thats the secret else sr 193 or kapanadze or kapagen people have not used coils after mot or flyback.

well if one is using flyback with internal diode then do not use diode which i mentioned in schematic. if the flyback is old one without diode then a diode must be used according to my schematic.

well a flyback is must to trigger the primary n secondary. in my schematic after spark gap is primary(trigger coil sec/4) and then shunted secondary 4*primary) then above that harvest coils in parallel for output.

Aug. 29, 2011

Zilano

Quote:

Originally Posted by **ewizard**

Ah Zilano, Where have you been all my life? ... oops sorry I got lost there for a minute the question was supposed to be where have I been the last few weeks. I totally missed this thread until today. Nice work here and congrats on having a home powered with OU and off grid! I do hope you will stick with us until there are some replications as it has happened so many times in the past that some one has something but disappears before any one gets a replication. I always worry that anything less than full disclosure of what you know may put you at risk of visits from bad people.

You had posted a circuit in post #463 but it does not seem to be there. Can you repost that or does anyone have that diagram?

well all **da credit GOES TO ONE MAN HERE AND THATS**

Vrand/MIKE!

He is the one who collected the material i just winked at him and he did all the harvest! CHEERS ! TO MIKE!

welcome back! to forum!

enjoy ur stay!

Aug. 29, 2011

Zilano

Quote:

Originally Posted by **jharmon**

So... I got my garage cleaned out last weekend. That's my progress so far. :-) Actually, my garage is a basement storage unit in an apartment complex. So I'd like to add shielding for my project right away. What's the best material to use for RF shielding?

J

Hi jharmon!

the best shielding material is fine wire mesh. but be careful coz since its metal it must not touch any of ur high voltage spikes or direct contact. first use with open circuit when its working u can enclose it with a metal box ensuring no shortcircuit of hv with the walls of the box (kapanadze green box)

Aug. 29, 2011

Zilano

Quote:

Originally Posted by **boguslaw**

I've found on russian site something interesting which needs confirmation. They posted schematic of TV flyback , the newer one with built-int diode. They stated it already contain HV diode and capacitor.If that's true some effects could be obtained just with flyback,spark gap and primary of transformer, when matching resonant frequency of flyback and matching primary to this.

I'm still searching for a way to measure length of primary and secondary of flyback or car ignition coil for purpose of 1/4 wavelength resonance.

Anybody has idea ?

Just my poor two cents

Hi boguslaw!

well all new CRT=CATHODE RAY TUBE tv and computer flybacks have hv diode built in the red wire with rubber cap in output and this is an advantage where as capacitor acts as current limiter. we can make flyback fire from 1.5 volt to 12 volt by using 2n3055 by winding primary and feedback coils on one limb of flyback ferrite. older tv flybacks didnt have hv diode but they used it externally they r like long tube 2-3 inches look like an elongated ac fuse or glass fuse.

to get power from resonance fly back is just use to tickle and trigger resonance and large harvest can be obtained from secondary directly or indirectly(step down) from same cored coil.

when we use parallel cap across primary then we have to match primary with nst/flyback. here waveform is balanced sine and at resonance its a pure standing sine wave. in case of nst we know frequency where as in case of flyback we dont know its frequency unless cro=cathode ray oscilloscope or lcd oscilloscope is used to measure its frequency. but coz of high voltage protective leads are used for measure else scope gets **destroyed**.

WE ONLY USE FLYBACK TO TRIGGER PRIMARY. FREQUENCY OF FLYBACK HAS NOTHING TO DO WITH FREQUENCY OF PRIMARY WHEN WE USE SERIES CAP WITH PRIMARY. WE ONLY THEN NEED TO MATCH PRIMARY AND SECONDARY FREQUENCIES.

dont go for car coil coz it doesnt have ferrite core it has soft iron core which will heat up at high frequencies and ultimately melt down.

Aug. 29, 2011

Zilano

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 aFFECTED 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 FEILD 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.

Aug. 28, 2011

Zilano

Quote:

Originally Posted by **drak**

Do you mean:

Primary _____ |-----| _____ = X

Secondary _____ |--|--| _____ = X/4

Won't that give us a resonance at a 1/4 harmonic of the primary? We would still have to use caps right? Changing the lengths and size of the wire will not make them resonate at the same frequency.

Example:

Primary: 246/.03 = 8,200 feet (for 30khz)

Secondary 8,200 / 4 = 2050 feet which gives us 120khz resonance. We would need caps to bring it down to 30khz. Unless the trick is to use a harmonic of resonance of the primary.

Hi Drak!

well primary is $246/.03$
and sec is 4 times of primary.
or follow simple rule sec 4 times of primary and primary= secondary/4
and compensate with caps.

we can override the the lengths and just keep turns ratio or primary and secondary in 1:4 ratio eg. if length of primary 5 turns then sec is 20 turns and if using bifilar then 20 ,20 turns in each limb of bifilar. or 10,10 turns in each limb of secondary bifilar.

also we can use formula primary= n turns and secondary $2n$. thats is even multiple of turns in secondary

it will coz here at secondary we have two tesla coils back to back and their bases earthed so it will resonate at $1/4$. and if we dont earth the middle of bifilar then it will resonate at $1/2$. when a tesla coils is earthed at base it resonates at $1/4$ and if not earthed it resonate at $1/2$.

Aug. 27, 2011

Zilano

Quote:

Originally Posted by LtBolo <i>Don't you mean $246/\text{frequency in MHz}$?</i>

Hi Ltbolo!

sorry misquoted!

error will be corrected.

thanks

error has been corrected.its $246/\text{freq in mhz}$

Aug. 27, 2011

Zilano

Get The Coil Ringing And U Will Be Gigling!

hI FOLKS!

for starters!

the basic key is to get resonance. get it anyhow. the basic key is
246/frequency in Mhz= length of primary in feet
use secondary 4 times of primary length in feet. USE BIFILAR
1 feet= 12 inch

no of turns=length in feet/2*pi*r
PI=3.14 OR 22/7

where r is in inches=outer diameter of pvc tube/2

we can override the the lengths and just keep turns ratio or primary and secondary in 1:4 ratio eg. if length of primary 5 turns then sec is 20 turns and if using bifilar then 20 ,20 turns in each limb of bifilar. or 10,10 turns in each limb of secondary bifilar.

also we can use formula primary=n turns and secondary 2n. thats is even multiple of turns in secondary

it will coz here at secondary we have two tesla coils back to back and their bases earthed so it will resonate at 1/4. and if we dont earth the middle of bifilar then it will resonate at 1/2.
when a tesla coils is earthed at base it resonates at 1/4 and if not earthed it resonate at 1/2.

then u will be needing lesser capacity caps to match resonance of nst to primary and to secondary if u use parallel spARK gap and if u use series spark gap then u only have to match resonance secondary with primary.

and moreover if u dont get proper caps then resonance can be matched with sliding primary inside secondary and if that dont work then try caps to match resonance.

GET THE COIL RINGING AND U WILL BE GIGLING!

Aug. 27, 2011

Zilano

Quote:

Originally Posted by **vrand**

Hi Zilano

So you wound your 16mm coil by way of #A (spiral) or #B (flat spiral) in the photos above?

Don showed the way of Tesla! Looking forward to your AA battery design!

Cheers Mike

Hi Mike!

dons circuit can give u much more mega watts!. well my coils r not much that thicker as they used to in my earlier experimental design. am using multi tap with multiple tapping from same dons coil. we can copy source and feed multiple outlets and source keep on providing its like getting power from same source without depleting it. am working also with tower arrangement of don.

Aug. 27, 2011

Zilano

Quote:

Originally Posted by **vrand**

Hi Zilano

Yes I remember the 5 turns CW and 5 turns CCW center tap to ground bifilar coil L2 secondary windings, 16mm (0.63" or close to 5/8" wide) secondary flat copper strap.

You mentioned 4 turns per 1" for the secondary? 0.63" wide can only fit 1 turn per inch?

A) Do you wind your 5 turns secondary this way?

B) Or do you wind the secondary this way, flat spiral?

Cheers Mike

well i just went for the required output voltage to suit me so i used caps or diodes or resistors or chokes for the 250 volt range saving me lot of costs. cheaper is better. i was striving for cheaper. thats where 5 turns counts.

and there are many ways to get the required output. and wot we need is just frequency matching even a voltage lesser than 120 volt will work and even we can bypass spark gap and derive power. we can use solid state tesla coil the don way and can use ferrite rings also so we can use lesser voltage but we have to use high frequency in 200 to 300 khz or 1 mhz. we can use crystal oscillator and as we move to mhz the coil length becomes smaller..... am trying now small footprint but powerful device which can be initiated by just 3 volts pencil lite or AA

BATTERIES. SINCE DONS ARRANGEMENT IS AIRCORE THATS WHY WE NEED TO FEED HIGHER AMPS TO GET HIGHER AMPS BUT IF WE GO FOR LOW VOLTAGE AND HIGH FREQUENCY WE STILL GET AMPS BUT WE MUST USE FERRITE CORE.

I HAVE USED MANY ARRANGEMENTS IN COILING FROM BARS TO SPIRALS DOUBLE SPIRALS AND MULTI TAPS AND EVEN USED HOLLOW CYLINDERS WITH PRIMARY INSIDE.MY

CURRENT COIL IS FERRITE CORED WITH COPPER ROD INDUCER AS PRIMARY AND SECONDARY IS SPIRAL COIL A BIFILAR.

note: if u r using air core then to have high Q WE NEED TO HAVE 4 TPI COILING AND IF WE USE FERRITE THAT CAN BE BYPASSED.

DON WAS NEVER WRONG.....

Aug. 26, 2011

Zilano

Quote:

Originally Posted by vrand

Hi Zilano

This one where it says "copper coated welding rods". Is the coil tube full of these welding rods to increase the inductance?

Cheers Mike

YES AND TO CONTROL VOLTAGE!

Aug. 26, 2011

Zilano

hI FOLKS!

MUST VIEW ! better than all sites

for all ur clarifications and needs about don circuits. and sr 193

just scroll down in dynatrons link page and see don smith circuit working and circuit diagram and sr 193 diagram and kapanadze too

[DYNATRON / D«D»D°D²D½D°Ñ÷ / FreeEnergyLT](#)

for all other free energy devices and downloads pdfs and videos and iso html text free info for all

[D«D»D°D²D¹⁄₂D°Ñ÷ / FreeEnergyLT](#)

Aug. 26, 2011

Zilano

Quote:

Originally Posted by **Pinoy_Tech**

Mr zilano,

Thanks for the reply... another inquiry is from the attached pict. I just observed it and got a little confusion. The 230V from inverter output is directly connected to 25T modulator coil which I think a very low reactance. Do you think is it not a short circuit to the inverter?

pinoy_tech

hi PINOY_TECH

YES I ADMIT THE MISTAKE. USE A 50 WATT BULB IN SERIES WITH FEEDING MODULATING COIL TO PREVENT SHORT CIRCUIT.

Aug. 23, 2011

Vrand

Quote:

Originally Posted by **zilano**

Hi Mike!

MAGNET CORE (WELDING ROD)

Purpose

To provide a low reluctance path that increases the magnetic flux through the coil.

Specifications

Low reluctance, high permeability magnetic material: Welding rod; 0.042" inch diameter copper coated steel

regards

zilano zeis zane!

Hi Zilano

Are the copper coated welding rods to fill in ALL of the 2" inside diameter coil space, in order to raise the coil inductance for higher magnetic coupling to the secondary thick windings?

Aug. 21, 2011

Zilano

Cheapest-don-final Circuit 50 Hz Ac Output-zilano Zeis Zane

hI folks!

final and cheapest circuit attached.

easily replicable

and much cheaper **with and without 555 modulator circuit.** **USE SINEWAVE INVERTOR TO FEED SINEWAVE IN MODULATOR COIL SO U GET SINEWAVE OUTPUT.**

can be self started with 12 volt battery. touch and start.

!DANGER.....WARNING!....DANGER!

HIGH VOLTAGE!

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.

Aug. 21, 2011

Zilano

don 50hz-60hz modulation technique

Hi folks!

get 50 or 60 hz 220 or 230 volt final output.

circuit attached.

Here we use crystal radio technique to get desired frequency. This circuit is based on radio telephony. Since coils are very close, the power is very high and tapped.

Here capacitor bank just bypasses RF signal 30kHz and 50 hz component is retained and resistance acts to stabilize impedance matching with transformer input.

Aug. 20, 2011
Zilano
Solutions Zzz

ATTACHED PIC

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

Aug. 20, 2011
Zilano
done calculations updated

Hi there!

done calculation updated. plz read.

Aug. 19, 2011
Zilano
note:

Originally Posted by vrand

Hi Zilano

On the above circuit you show a diode D1 from the flyback secondary before the spark gap.

The below circuits does not show the D1 diode from the flyback.

Is the D1 diode necessary from the flyback secondary output?

Cheers Mike

yes mike! its necessary to pulse the transformer.

Aug. 19, 2011

Zilano

Don-final Calculation

THE DON SMITH PDF DESCRIBES A DEVICE OF 28.8 KW ref: smith pdf uploaded in my posts.
see as attachment(pdf ones)

don says the transformer is rated for 60 amps and 480 volts
that is $60 \times 480 = 28800$ watts
=28.8 Kw

the method to FIND THE REQUIRED RESISTANCE TO CHANGE FREQUENCY TO DESIRED
CYCLES PER SECOND

since don uses 8000 mfd capacitors

voltage desired/capacitor in farad= required charging frequency

$480/.008=60000\text{hz}$

this means 2 cycles of 30000hz used to charge caps to 480 volts
since our transformer is 480 to 120 volt

$T=RC$ AND $T=L/R$

1 micro farad= 10^{-6} F

so 8000 micro farad= $8000/1000000=0.008$ F

where T= frequency desired IN CPS OR HZ, R is resistance IN OHMS and C is capacitor in FARAD

now we lower frequency

if we desire frequency 120 cps(60 up and 60 down)

then $R = T/C$

=120/.008

=15000 ohms

=15 Kohm(15 kilo ohm) wattage to be calculated by finding voltage and amperes. Since $P=V \times I$

we have $T=L/R$

$R=L/T$ (here we further stabilize 120 hz.calculate R and attach it across the input side of transformer.)

here L is unknown and have to be measured by lcr meter(L=PRIMARY OF TRANSFORMER)

$R=L/120$

NOTE: NOW THE BASICS BEEN CLEAR I REQUEST MEMBERS TO FIRST TRY DON SMITH CIRCUITS AND THEN TRY MINE.

Aug. 19, 2011

Zilano

Quote:

Originally Posted by **vrand**

Thanks Zilano

What LCR meter do you use and recommend?

Cheers Mike

hi MIKE!

ANY GOOD LCR METER. WHICH CAN MEASURE L C AND R IN VARIOUS DENOMINATIONS FROM STANDARD UNIT TO MICRO, MILLI, PICO AND MICRO OHMS TO KILO OHMS MEG OHMS ETC

Aug. 18, 2011

Zilano

Quote:

Originally Posted by **vrand**

Hi Zilano

Thank you for the clarification.

The spark gap (SG1) should also have a center post to ground? Is that needed?

Cheers Mike

Hi mike!

yes its needed when u r not reducing voltage. otherwise a 2 pin spark can work also. here i did not reduce voltage so a 3 pin spark gap and middle is earth.

Aug. 18, 2011

Zilano

Quote:

Originally Posted by **vrand**

Hi Zilano,

Is there any benefits to copper coated welding rods vs non copper coated?

Cheers Mike

Hi Mike!

MAGNET CORE (WELDING ROD)

Purpose

To provide a low reluctance path that increases the magnetic flux through the coil.

Specifications

Low reluctance, high permeability magnetic material: Welding rod; 0.042" inch diameter copper coated steel

Aug. 18, 2011

Zilano

Quote:

Originally Posted by **LtBolo**

I can easily believe some variation of that...meaning...none of us really fully understand the source, even if we have a pretty good sense of where it is.

So if spark + resonance is the key, then everything else is what we in the engineering world call "implementation detail". The reverse Tesla isn't the source of energy, it is the mechanism for converting high voltage, high frequency, high impedance energy into a usable current. Which is a pretty big deal, mind you, since the kinds of voltages that exist in a high Q resonant systems are a PITA to do anything with, especially at high frequency.

I had theorized years ago that a Tesla coil was OU as it sat, and that Tesla well knew the difference between 'magnification' of energy vs 'amplification' of voltage. But I wasn't convinced strongly enough of it being OU to work through whatever it was going to take to convert that wispy sparky purple power into something usable...which is exactly what your reverse Tesla is...and is exactly what Tesla showed in many, many of his drawings. The clues were there if we had just paid attention. It always bothered me that Tesla believed the magnifying transmitter to be his greatest invention, and it is one that we really use the least.

Thank you for taking the time to lead us through this, and thank you for taking the time to work through it yourself. I'm gonna be very pissed if you are yanking our chain...

Hi there!

AT HIGH VOLTAGE AMPS ARE LOWERED AND WHEN U STEP DOWN AMPS R HIGH AND VOLTAGE IS LOW. ITS JUST REVERSE. AND POWER REMAINS SAME AT RESONANCE COZ THE RESISTANCE OF CIRCUIT IS ZERO. MOREOVER AT HIGH VOLTAGE ELECTRONS DONT GO INSIDE THE WIRE THEY TRAVEL ON SURFACE SO LESS RESISTANCE.

WE SEE POWER WHEN ELECTRONS TRAVEL INSIDE CONDUCTOR GIVING HEAT AND LIGHT.

U HAVE SEEN BULB LIGHTING FROM TESLA COIL WITH A CAPS IN SERIES.

CAPS JUST MAKE CURRENT FORWARD IN PHASE OF VOLTAGE AND LOWERS VOLTAGE.

AT HIGH VOLTAGE AMPS ARE LOW

AT LOW VOLTAGE LAMPS GLOW

Aug. 18, 2011

Zilano

My Altered Circuit

hi FOLKS!

SPECIALLY MIKE!

MY ALTERED CIRCUIT!

MUST VIEW pic attached

Aug. 18, 2011

Zilano

Don And Crystal Radio

hi FOLKS

DON AND CRYSTAL RADIO

PIC ATTACHED VIEW IT

Aug. 18, 2011

Zilano

Don Smith Message For All

hi folks

Don smith wanted us to use our head. but nobody did. when we use nst(the iron cored) we have hv supply with low frequency say 50hz or 60 hz and its not a tesla coil. then we make a tesla coil-a resonant transformer. by using $1/4L$ and $4L$. but when we use solid state nst-its a tesla coil in fact-it has high frequency and high voltage. so wot we need just a step down. morover in Don circuits we make tesla coil and then do step down to suit our requirements like voltage dividers etc. but handling high voltages is not easy unless we r running a power company. most of want to build this device not

to earn money but just to power our homes and verify that don was right or wrong. when we step down its easy to find and afford components. and get usable power at the voltage we desire.

What i did i tried to understand Dons device. Many people Fail in replicating Don is because they use spark gap in series and get output under unity or unity. some dont know how to handle high voltage step down. some stick to myths that resonance degrades when we use its power. but like crystal radio resonance dont degrade and when we tune it to a station we keep listening to the station at its resonant frequency unless we rotate the dial.

My experiments and my suggestions are not based on fantasy or myths. its true the output is in VAR=VOLTS AMPERE REACTIVE. WHICH MEANS WHEN WE USE LOAD POWER DECREASES. FOR THAT WE HAVE TO USE CAPS SO THEY KEEP GIVING CONSTANT AMPS FOR A PARTICULAR VOLTAGE.

when we use solid state nst. we have one tesla coil. all we need is to use use it as step down and use AC CAPACITORS WHICH ARE EASILY AVAILABLE AND GET REQUIRED VOLTAGE OUT.

bUT WE MUST NOT FORGET ONE SIMPLE FACT RESONANCE. its the only key for power. when we step down we keep resonance working with the nst frequency and with our coil combination of step down tesla.

thats all.

if u have any queries and questions they r welcome!

Aug. 17, 2011

Zilano

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

Aug. 17, 2011

Zilano

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 Xenomorph!

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!

Aug. 17, 2011

Zilano

Quote:

Originally Posted by vrand

Hi Zilano

Thank you for the clarification. Do you also downgrade the frequency from 30khz to 50hz after the secondary? Or before the primary?

Cheers Mike

hI MIKE!

MY R DOES IT! AFTER SECONDARY AND B4 MY 1:1 TRANSFORMER RATED AT 60 AMPS 250 VOLTS. R ACTS AS LOW PASS PASS FILTER. AND ALLOWS FREQUENCIES LIKE 50 HZ TO PASS THRU TRANSFORMER. AND STOPS HF PASSING ONTO TRANSFORMER.

Aug. 17, 2011

Zilano

The R Factor B4 Transformer

hI FOLKS!

THE R FACTOR B4 TRANSFORMER

MUST READ

PDF ATTACHED

VERY IMPORTANT=ALL FREQUENCIES ARE PRESENT AT SPARK GAP

Aug. 17, 2011

Zilano

Quote:

Originally Posted by **vrand**

Hi Zilano

So you lower the voltage after the spark gap? Do you have a schematic on this setup?

How do you do the resonate between the NST and the air core primary at such low voltage? We needed the 4kv to jump the spark gap.

Cheers Mike

hI MIKE!

NST IS 4KV FED TO PRIMARY. SECONDARY DOWNGRADES IT TO 250V. VOLTAGE IS NOT LOW ITS 4KV. DONT HAVE SCHEMATIC RIGHT NOW. BUT ITS SIMILAR TO THE ONE I POSTED AS A CRUDE CIRCUIT. MY SPARK JUMPS ALSO AT 4KV.

Aug. 17, 2011

Zilano

Quote:

Originally Posted by **webmug**

Lol! tnx...

My setup is using 12V 9Ahr lead accid battery with an inverter to 110V max 150Watt and with a neon dimmer i can turn my NST to max 9KV 30mAmps output.

But that maximum not needed I guess otherwise i will burn out my caps because of max amps that is going to swing through the cap and primary coil.

I will also try to use a sparkgap in parallel of the tank circuit, because de tank also needs to be on resonance i can try sparkgap but also use a surgearrestor/lightingarrestor to limit the power, max amps will flow through primary tank with both setups.

For the secondary side i'm not sure what to use yet, a parallel sparkgap and a tank to resonate through a isolation transformer i guess, and thats then also possible with surgearrestor/lightingarrestor.

But I think I'm needed to make al large primary also otherwise i't is to much power, i'm always searching for big isolation stepdown transformers but they are not so common so step down in this coil setup is safer to do and to test.

br,

Webmug

Hi thanks webmug for the info. use parallel spark gap across primary. so dont worry about the high voltage u can join same coil reversed to ur present coil and do a step down. and use hf diodes and filter hf with low amps and use inverter. or u have a choice to make ur own air core transformer. the best method is to make dc and use inverter. since this device is susceptible to rf interference unless enclosed in a metal cage. and when we have dc its not that much problem if we have hv spikes coz diodes take care of that. but always use proper caps across ur rectified dc to smooth dc output.

use spark gap-very important

wish u all the luck. and if u feel u r not able to handle high voltage then use reverse tesla design. (make L1=primary 4 times of secondary L2.this means If L2 is 1 feet then L1 is 4 feet) and if using bifilar L2 then 1 feet+1 feet and 4 feet L1. Good luck to u!

best wishes

and if u need any help we r all here to advice u!

i request all members to help eachother and not just be selfish.

united we stand and divided we fall!

remember this motto!

Aug. 17, 2011

Zilano

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.

Aug. 17, 2011
Zilano
bifilar don coil
hi folks!

[COURTESY: webmug \(esteemed member-energetic forum\)](#)

don bifilar

pic attached

Aug. 17, 2011
Zilano
Quote:

Originally Posted by **vrand**
Hi Zilano

Thank you for the explanation. What wire size have you found that works in your 80 turn primary coil? Windings/turns per inch?

Cheers Mike

hI i just used pvc insulated insulated wire i found lying in my home did not measure the gauge of it but its solid copper single strand.and used basic rule of thumb primary coil wire is half thick than secondary but results were low as i was not getting the amps. so i used thicker copper wire like kapanadze. and got amps. the basic is when u have resonance the thicker coil generates more amps and if u wanna keep input low make primary thinner. experiments make u learn wots better for u. i used single strand copper ac wire 2mm thick 220-230 v A.C. and for secondary used thicker alluminum wire first then changed to copper. 16mm thick.

Aug. 17, 2011
Zilano
Quote:

Originally Posted by **dllabarre**

Zilano

What diameter is your primary coil (many turns/HV)?
and how many turns? 80?

Which way to wind primary cc or ccw or doesn't it matter?

How many turns is your secondary coil?
4 turns cc & 4 turns ccw???

Thank you

Hi!

inner 2" coil outer 3" coil diameter. 5 turns bifilar(5cw+5ccw) primary 80 turns. voltage fed 4kv=4000 volt. so voltage per turn in primary is $4000/80=50v$ per turn so it will not burn insulation. see tesla is just a transformer that happens to be a resonant one. usually tesla coils r step up so we can swap wires and dont worry abt insulation if we keep voltage per turn lesser than 300 volts. it can be used as stepdown also. only u have to swap wires. when u using it as step up the secondary has high voltage and insulation dont burn up so when u use it as a step down it will handle high voltage input. **but make sure primary and secondary must have distance greater than hv voltage breakdown between them**

Aug. 16, 2011

Zilano

Quote:

Originally Posted by **drak**

Yes I know I'm working on converting to parallel spark gap. I have to think of ways to do it. I will probably have to use two sets of coils to do this. Thank you for all your help zilano

Hi drak!

u dont need 2 pairs of coil combination. u only need ur flyabck and the step down. wot u just did with ur bulb. keep that as it is. just match right cap for primary. use a variable cap as u used in ur earlier setup. and if that caps capacity is low add parallel cap across it. ur fly back has high frequency ac already. so u dont need extra pair of coils. just match cap to primary and thats it.

regards

Aug. 16, 2011

Zilano

Quote:

Originally Posted by **drak**

I was never trying to get the perfect voltage by calculating the turns. I just wanted to blow up a 6 watt 120v bulb with 2 watts of power. At least then I would know I'm getting somewhere.

Hi Drak!

dont loose hope. u will light a bulb ok. just follow wot i tell u. ok do this basic. make sec twice thick of primary. and keep 20 turns for primary and ten turns for secondary and dont use bifilar. ok try with single coil. when u get resonance u will be so happy.

regards

Aug. 16, 2011

Zilano

watch caps inseries with tesla hv and then bulb and then earth

hi folks

must watch! for who have plans for megawatts designs(coil glimpse)

courtesy (<http://.rutube.ru>)

<http://rutube.ru/tracks/2512838.html?v=f165671162dfcd2ced0b10fdb64304ba>

regards

Aug. 16, 2011

Zilano

Quote:

Originally Posted by **drak**

Ok I guess I am getting confused as to what you guys are referring to when you say bifilar. I always thought bifilar meant wrapping TWO wires, then connecting the end of wire two to the beginning of wire one. OR do you mean wrap one single wire, and tap from the center of the one wire?

hI dRAK!

U R RIGHT. when u make bifilar for bedini school girl circuit. u can do that. but here bifilar is stretched. wind one coil cw and wind another ccw and join them at centre. so u have cw----centre jointed----ccw

cw= clockwise

ccw= counter clockwise or anticlockwise

regards

Aug. 16, 2011

Zilano

In A Nutshell

hi FOLKS!

U CAN USE RESISTOR ACROSS THE INPUT SIDE TRANSFORMER OF UR OUTPUT OF UR COIL TO GET 50 OR 60 HZ. COZ IT BYPASS HF AND ALLOW PRIMARY OF TRANSFORMER(IRONCORE) TO OSCILLATE ACCORDING TO THE PEAKS OF HF. WITH 50 OR 60 RATES. LOOK FOR 100 HZ IF U NEED 50 AND LOOK FOR 120 IF U NEED 60 IN CHART. THE COMBINATION DAMPENS FREQUENCY. **AND FOR THOSE WHO DONT AGREE TO MY SUGGESTIONS HAVE THE OPTION TO RECTIFY AC WITH BRIDGE AND USE DC AND INVERTOR. no hard feelings**

ZZZ

Aug. 16, 2011

Zilano

Quote:

Originally Posted by **vrand**

Hi Zilano

What would you recommend for 8 awg L2 secondary wiring 5 turns (thick one)?

Litz wire? Copper tubing?

Because of the "skin effect" copper tubing works well. Even better is silver plated copper stranded teflon cable.

Kapanadze used a copper tubing for his L2 heavy secondary. It worked for Kapanadze?

Cheers Mike

hI MIKE!

**FOLLOW KAPANADZE FOR COIL.
IT WORKED FOR HIM AND WILL WORK FOR U ALSO**

regards

zzz

Aug. 16, 2011

Zilano

RI Circuits Band Pass Filter Xtention-c

1. When analyzing a filter, our primary interest is in determining the maximum value of A_v and the value of the *cutoff frequency* (or frequencies).
2. The maximum load voltage for an RC low-pass filter occurs when $f_{in} = 0$ Hz. It is found from V_L , where R_F is the filter resistor.
3. The value of $A_v(\max)$ for an RC low-pass filter is always less than unity (1). It can be found from V_L .
4. The process for determining the cutoff frequency of an RC low-pass filter is demonstrated in Example 15.15.
5. A *bode plot* is a normalized graph that represents frequency response as a change in voltage gain (A_v) versus operating frequency.
6. A bode plot is an ideal plot of frequency response, because it assumes that gain remains constant until the cutoff frequency is reached. (See Figure 15.17.)
7. The advantage in using a bode plot is that only the value of the cutoff frequency varies from one filter to another of the same type.
8. The cutoff frequency of a given filter is commonly referred to as the *3 dB point* or *3 dB frequency*.
9. The *roll-off rate* of a filter is the rate of change in gain experienced by the circuit when operated outside of its frequency limit, normally expressed in dB per *octave* or dB per *decade*.
10. A roll-off rate of 6 dB per octave equals a roll-off rate of 20 dB per decade.

11. All low-pass *RC* filters experience the same 6 dB per octave (20 dB per decade) roll-off rates. The rates are independent of the values of *R* and *C*.
12. The gain and frequency calculations for an *RL* low-pass filter are slightly different from those of the *RC* low-pass filter. However, all the concepts relating to response curves, bode plots, and *roll-off rates* are the same.
13. The process used to determine the cutoff frequency of an *RL* low-pass filter is demonstrated in Example 15.16.
14. *High-pass filters* are formed by reversing the positions of the resistive and reactive components in *RC* and *RL* low-pass filters.
15. An *RC* high-pass filter and response curve are shown in Figure 15.22.
16. The value of $A_v(\max)$ for an *RC* high-pass filter is approximately equal to one (1).
17. The process used to determine the cutoff frequency of an *RC* high-pass filter is demonstrated in Example 15.17.
18. The bode plot for a high-pass filter is simply a mirror image of the plot for a low-pass filter.
19. The analysis of an *RC* high-pass filter is demonstrated in Example 15.17.
20. The process used to determine the cutoff frequency of an *RL* high-pass filter is demonstrated in Example 15.18.
21. The most common passive *bandpass* and *notch filters* are *LC* filters.
22. The operation of a series *LC* bandpass filter is based on the relationship between its input frequency and its resonant frequency: $f_{in} = f_r$. At resonance $X_S = 0$ so $I_T = V_S/R_L$. The circuit is resistive and the phase angle is 0° . $f_{in} < f_r$. Below resonance, X_S is capacitive and has a negative phase angle. X_S increases and gets more negative as f_{in} decreases. $f_{in} > f_r$. Above resonance X_S is inductive and has a positive phase angle. X_S increases and gets more positive as f_{in} increases.
23. The operation of a shunt *LC* bandpass filter is based on the relationship between its input frequency and its resonant frequency as follows: $f_{in} = f_r$. When the circuit is operating at resonance,

- $IL = IC$, and XP approaches infinity. As a result, the filter is effectively removed from the circuit and The circuit is resistive and the phase angle is 0° . $f_{in} < f_r$. Below resonance, XL decreases until at 0 Hz it effectively shorts out the load and $V_L = 0$ V. $f_{in} > f_r$. Above resonance, XC decreases. As f_{in} continues to increase, XC approaches 0, shorting out the load. Once again, $V_L = 0$ V.
24. The Q of a filter is approximately equal to (or less than) the Q of its inductor.
 25. The loaded Q (QL) of a filter is the quality of the circuit when a load is connected to its output terminals.
 26. The loaded Q of a filter is significantly lower than the unloaded Q of the inductor.
 27. The process used to determine the bandwidth of a series LC bandpass filter is demonstrated in Example 15.19.
 28. Once we know the bandwidth of a series LC bandpass filter, we can solve for the cutoff frequencies using the value of f_{ave} .
 29. The process used to determine the value of QL for a *shunt* LC bandpass filter is demonstrated in Example 15.20.
 30. A *series* LC notch filter can be constructed by placing a parallel LC circuit in series with the source and the load.
 31. A *shunt* LC notch filter can be constructed by placing a series LC circuit in parallel with the source and the load.

ZZZ

Aug. 16, 2011

Zilano

RI Circuits Band Pass Filters Attention-b

1. The primary limitation on dB values is that they cannot be used in circuit input/output calculations without being converted to standard numeric form.
2. When filters (or amplifiers) are connected in series, they are said to be *cascaded*.
3. Each filter (or amplifier) in a cascade is referred to as a *stage*.
4. The *dBm reference* represents an actual power value. It references a power level to a constant of 1 mW.

5. The ratio of circuit output voltage to input voltage is generally referred to as *voltage gain* (A_v).
6. The voltage gain of a circuit equals 70.7% of its maximum value at the cutoff frequencies. Expressed mathematically: $A_v = 0.707 A_v(\max)$ when $f = f_C$. This relationship is based on the fact that power gain equals 50% of its maximum value when voltage gain equals 70.7% of its maximum value.
7. The dB voltage gain of a circuit is found as twenty times the common log of A_v . By formula:
8. When dB power gain drops to 50% of its maximum value, the change in dB power gain is -3 dB.
9. When dB voltage gain drops to 70.7% of its maximum value, the change in dB voltage gain is -3 dB.
10. The process for converting a dB voltage gain to standard numeric value is demonstrated in Example 15.14.
11. dB current gain principles are identical to those of dB voltage gain.
12. When a capacitor (or other component) is connected from a signal path to ground, it is referred to as a *shunt component*.
13. When analyzing a filter, our primary interest is in determining the maximum value of A_v and the value of the *cutoff frequency* (or frequencies).
14. The maximum load voltage for an *RC* low-pass filter occurs when $f_{in} = 0$ Hz. It is found from $V_{out} = V_{in} \frac{R_F}{R_F + j\omega C}$, where R_F is the filter resistor.
15. The value of $A_v(\max)$ for an *RC* low-pass filter is always less than unity (1). It can be found from $A_v(\max) = \frac{R_F}{R_F + j\omega C}$.
16. The process for determining the cutoff frequency of an *RC* low-pass filter is demonstrated in Example 15.15.
17. A *bode plot* is a normalized graph that represents frequency response as a change in voltage gain (A_v) versus operating frequency.
18. A bode plot is an ideal plot of frequency response, because it assumes that gain remains constant until the cutoff frequency is reached. (See Figure 15.17.)
19. The advantage in using a bode plot is that only the value of the cutoff frequency varies from one filter to another of the same type.
20. The cutoff frequency of a given filter is commonly referred to as

the 3 dB point or 3 dB frequency.

21. The *roll-off rate* of a filter is the rate of change in gain experienced by the circuit when operated outside of its frequency limit, normally expressed in dB per *octave* or dB per *decade*.
22. A roll-off rate of 6 dB per octave equals a roll-off rate of 20 dB per decade.
23. All low-pass *RC* filters experience the same 6 dB per octave (20 dB per decade) roll-off rates. The rates are independent of the values of *R* and *C*.
24. The gain and frequency calculations for an *RL* low-pass filter are slightly different from those of the *RC* low-pass filter. However, all the concepts relating to response curves, bode plots, and *roll-off rates* are the same.
25. The process used to determine the cutoff frequency of an *RL* low-pass filter is demonstrated in Example 15.16.
26. *High-pass filters* are formed by reversing the positions of the resistive and reactive components in *RC* and *RL* low-pass filters.
27. An *RC* high-pass filter and response curve are shown in Figure 15.22.
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34. The operation of a series *LC* bandpass filter is based on the relationship between its input frequency and its resonant frequency: $f_{in} = f_r$. At resonance $X_S = 0$ so $I_T = V_S/R_L$. The circuit is resistive and the phase angle is 0° . $f_{in} < f_r$. Below resonance, X_S is capacitive and has a negative phase angle. X_S increases

and gets more negative as f_{in} decreases. $f_{in} \gg f_r$.
Above resonance X_S is inductive and has a positive phase angle.
 X_S increases and gets more positive as f_{in} increases.

35. The operation of a shunt LC bandpass filter is based on the relationship between its input frequency and its resonant frequency as follows: $f_{in} = f_r$. When the circuit is operating at resonance, $I_L = I_C$, and X_P approaches infinity. As a result, the filter is effectively removed from the circuit and the circuit is resistive and the phase angle is 0° . $f_{in} < f_r$. Below resonance, X_L decreases until at 0 Hz it effectively shorts out the load and $V_L = 0$ V. $f_{in} > f_r$. Above resonance, X_C decreases. As f_{in} continues to increase, X_C approaches 0, shorting out the load. Once again, $V_L = 0$ V.
36. The Q of a filter is approximately equal to (or less than) the Q of its inductor.
37. The loaded Q (Q_L) of a filter is the quality of the circuit when a load is connected to its output terminals.
38. The loaded Q of a filter is significantly lower than the unloaded Q of the inductor.
39. The process used to determine the bandwidth of a series LC bandpass filter is demonstrated in Example 15.19.
40. Once we know the bandwidth of a series LC bandpass filter, we can solve for the cutoff frequencies using the value of f_{ave} .
41. The process used to determine the value of Q_L for a shunt LC bandpass filter is demonstrated in Example 15.20.
42. A series LC notch filter can be constructed by placing a parallel LC circuit in series with the source and the load.
43. A shunt LC notch filter can be constructed by placing a series LC circuit in parallel with the source and the load.

ZZZ

Aug. 16, 2011

Zilano

RI Circuits Band Pass Filters Xtension-a

Frequency Response and Passive Filters

The following summarizes the major points made in Chapter 15:

1. Signal loss caused by the frequency response of a circuit is referred to as *attenuation*.
2. Attenuation is normally described using the ratio of a circuit's output amplitude to its input amplitude. In most cases, a power ratio is used.
3. The frequency at which the power ratio of a circuit drops to 50% of its maximum value is referred to as the *cutoff frequency* (f_C).
4. *Filters* are circuits that are designed for specific frequency response characteristics.
5. There are four basic types of filters. The *low-pass filter* is designed to pass all frequencies below its cutoff frequency. The *high-pass filter* is designed to pass all frequencies above its cutoff frequency. The *bandpass filter* is one designed to pass the band of frequencies that lies between two cutoff frequencies. The *band-stop* (or *notch*) *filter* is designed to block the band of frequencies that lies between two cutoff frequencies. The *basic frequency response curves* for these filters are shown in Figure 15.3.
6. The cutoff frequencies of a bandpass (or notch) filter are referred to as the lower cutoff frequency (f_{C1}) and the upper cutoff frequency (f_{C2}).
7. Because bandpass and notch filters have two cutoff frequencies, there are two values that are not commonly applied to the low-pass and high-pass filters used to describe their operation; *bandwidth* and *center frequency*.
8. The *bandwidth* of a filter is the range (or band) of frequencies between its cutoff frequencies.
9. The *bandwidth* of a filter equals the difference between the cutoff frequencies.
10. The *center frequency* (f_0) of a filter is the geometric average of the cutoff frequencies. By formula
11. The ratio of f_{C2} to f_0 equals the ratio of f_0 to f_{C1} .
12. Low-pass filters are normally described using their cutoff frequencies. Example: A low-pass filter with a 10 kHz cutoff

frequency.

13. Bandpass and notch filters are normally described in terms of bandwidth and center frequency. Example: A 20 kHz bandpass filter with a 150 kHz center frequency.
14. The quality (Q) of a bandpass or notch filter equals the ratio of its center frequency to its bandwidth. By formula: .
15. The value of filter Q actually depends on circuit component values. The bandwidth of a filter depends on the values of center frequency and Q .
16. The *average frequency* (f_{ave}) of a filter lies halfway between its cutoff frequencies. This frequency is used in conjunction with the circuit bandwidth to determine the values of the cutoff frequencies.
17. When $Q \geq 2$, the values of f_0 and f_{ave} for the filter are approximately equal. When $Q < 2$, the value of f_{ave} can be found as demonstrated in Example 15.6.
18. Frequency response curves normally use *logarithmic frequency scales*. The value of each increment on a logarithmic scale is a whole number multiple of the previous increment. An *octave scale* uses a frequency multiplier of 2 between increments. A *decade scale* uses a frequency multiplier of 10 between increments.
19. The ratio of circuit output amplitude to input amplitude is normally expressed using *decibels* (dB). Decibels are used because they allow us to easily represent very large and very small values.
20. The ratio of output power to input power for a component or circuit is commonly referred to as *power gain* (A_p). The word *gain* is used in reference to amplifiers, which can increase the power level of an ac input signal.
21. Passive filters all have power gains that are less than one (1).
22. The term *unity gain* is commonly used to refer to a value of $A_p = 1$.
23. The *bel* representation of a value indicates the power of 10 that equals the ratio. Expressed mathematically: If $\log_{10}(y) = x$,

then $10x = y$.

24. The bel representation of a number is positive when $A_p > 1$, zero when $A_p = 1$ (unity gain), and negative when $A_p < 1$.
25. Reciprocals have equal-magnitude positive and negative bel values. Expressed mathematically: If $\log_{10}(y) = x$, then .
26. At some point, the industry switched from bels to tenths of bels, or *decibels* (dB).
27. There are 10 decibels (dB) in one bel (B). Therefore, dB power gain is found as ten times the common log of the power ratio.
28. The dB power gain of a circuit is found from .
29. Power gain (in dB) is converted to standard numeric form as demonstrated in Example 15.10.
30. Decibel representations of gain are used because a very large range of values can be represented using relatively small numbers and because the total gain produced by series filters and/or amplifiers can be determined using simple addition.

ZZZ

Aug. 16, 2011

Zilano

Quote:

Originally Posted by **drak**
zilano,

Ok, I think I understand now. I was always putting my spark gap in series. I tried putting it in parallel and got no spark. The capacitor will never charge to a high enough voltage to spark because the energy is being consumed by the coil. Sooo, I'm guessing the frequency that charges the capacitor must be same as the resonant frequency of the LC therefore the coil will not accept the energy as well and will be dumped into the capacitor. I think that is what I was doing wrong. And that is why you are

saying charge your cap with sine wave?

hI dRAK!

U GOT IT.thats wot i meant. spark wont fire if u dont get resonance for L1 right. when its resonating spark will fire automatically. BUT DONT REMOVE DIODE IN THE INPUT ITS TO SAVE UR FLYABCK COIL WITH HIGH VOLTAGE FLASH BACK.

regards

Aug. 16, 2011

Zilano

parallel LR CIRCUIT XTENSION

hI FOLKS!

Resistive-Inductive (RL) Circuits

Summary

The following summarizes the major points made in Chapter 11:

1. A *resistive-inductive (RL)* circuit is one that contains any combination of resistors and inductors.
2. Many values in resistive-reactive circuits must be added as *phasor* quantities. Because the component voltages in an *RL* circuit are at 90° angles, geometric addition must be used to add two or more phasor quantities. For two phasors (*a* and *b*) at 90° degree angles, the geometric sum of the phasors (*c*) is found as .
3. In a series *RL* circuit the source voltage equals the geometric sum of the resistive and reactive voltages and the total impedance equals the geometric sum of resistance and reactance.
4. The values of source voltage and total impedance in a series *RL* circuit each have a phase angle that is normally expressed as

part of the value.

5. Inductor voltage leads resistor voltage by 90° in a series RL circuit.
6. The *source phase angle* (θ) is the phase difference between the source voltage and the circuit current. Voltage leads current in a series RL circuit. The source phase angle falls within the limits of $0^\circ < \theta < 90^\circ$.
7. Since circuit current is in phase with resistor voltage, it can be measured by measuring the phase difference between V_S and V_R .
8. The *total impedance* in a series RL circuit equals the geometric sum of X_L and R . By formula
9. The *impedance phase angle* in a series RL circuit equals the voltage phase angle. By formula
10. *Inductive reactance* leads circuit current by 90° in a series RL circuit.
11. In a series RL circuit we can calculate the component voltages using a voltage-divider relationship, but the phase angles must always be taken into account.
12. The term *frequency response* is used to describe any changes that occur in a circuit as a result of a change in operating frequency. The responses of a series RL circuit to an increase in operating frequency are listed in Table 11.2. The responses of a series RL circuit to a decrease in operating frequency are described immediately following the table.
13. In any resistive-reactive circuit, resistive power is measured in watts. P_R is the power that is actually dissipated in the circuit. Reactive power is measured in volt-amperes-reactive (VAR) and apparent power is measured in volt-amperes (VA).
14. The effect of *inductor winding resistance* (R_w) on the value of apparent power is usually negligible.
15. *Apparent power* leads the circuit current in a series RL circuit.
16. The *power factor* for a series RL circuit is the ratio of resistive power to apparent power. By formula . The power factor can also be found as the cosine of the phase angle. By formula

$$PF = \cos \theta$$

17. A parallel RL circuit is one that contains one or more resistors in parallel with one or more inductors, each branch containing only one component.
18. In a parallel RL circuit, the total circuit current equals the geometric sum of the currents through the resistance and the reactive branches, by formula . The inductor current lags the source voltage by 90° and the resistor current is in phase with the circuit voltage.
19. The current phase angle (θ) in a parallel RL circuit is the phase difference between I_T and V_S . By formula . Because voltage is assumed to have an angle of 0° in a parallel circuit, the current phase angle is always negative. For a parallel RL circuit, the current phase angle (relative to the source voltage) has limits of $-90^\circ < \theta < 0^\circ$.
20. The *product-over-sum method* for calculating total impedance is preferred for parallel RL circuits. (The geometric sum of KL and R is used in the denominator.)
21. The impedance phase angle in a parallel RL circuit is always the negative equivalent of the current phase angle.
22. The impedance phase angles for series and parallel RL circuits are calculated using reciprocal fractions, as follows:
23. The responses of a parallel RL circuit to an increase in operating frequency can be summarized as follows: When f increases, XL increases, which causes I_L and θ to decrease. The decrease in I_L causes I_T to decrease, which means that Z_T increases.
24. Analyzing a series-parallel circuit is simply a matter of combining series components according to the rules of series circuits and combining parallel components according to the rules of parallel circuits.
25. The analysis of a series-parallel circuit with resistive and reactive components gets a bit complicated because of the phase angles involved. Geometric addition is used to determine the sum of two phasors that are at 90° angles. Rectangular notation is used when adding two phasors that are at any angle

other than 90° (or 0°).

26. To add two phasors that are at angles other than 90° (or 0°), you should convert both phasors to rectangular form, add the two rectangular values, and convert the result back to polar form (if needed).
27. When the total impedance of a parallel *RL* circuit is converted to rectangular form, the new value is the series equivalent of the parallel impedance network.

REGARDS

Aug. 16, 2011
Zilano
Lr Circuits And Frequency Band

RL circuit

PLEASE READ THE RED TEXT BELOW

Series RL circuit

This shows that, if the output is taken across the inductor, high frequencies are passed and low frequencies are attenuated (rejected). Thus, the circuit behaves as a high-pass filter. If, though, the output is taken across the resistor, high frequencies are rejected and low frequencies are passed. In this configuration, the circuit behaves as a low-pass filter. Compare this with the behaviour of the resistor output in an RC circuit, where the reverse is the case.

The range of frequencies that the filter passes is called its bandwidth. The point at which the filter attenuates the signal to half its unfiltered power is termed its cutoff frequency. This requires that the gain of the circuit be reduced to

Parallel circuit This section requires expansion.

Parallel RL circuit

The parallel RL circuit is generally of less interest than the series circuit unless fed by a current source. This is largely because the output voltage V_{out} is equal to the input voltage V_{in} — as a result, this circuit does not act as a filter for a voltage input signal.

With complex impedances:

and

.This shows that the inductor lags the resistor (and source) current by 90°. The parallel circuit is seen on the output of many amplifier circuits, and is used to isolate the amplifier from capacitive loading effects at high frequencies.

also important. parallel RL circuit demo practical

<http://www.wisc-online.com/objects/ViewObject.aspx?ID=ACE10304>

REGARDS

Aug. 16, 2011

Zilano

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.**

regards

Aug. 16, 2011

Zilano

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!

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!!!

regards

Aug. 16, 2011

Zilano

Quote:

Originally Posted by **vrand**

Here is a strange transformer with flat windings:

[tesla coil, primary inductor, copper wire base, wraps, taps](#)

I was always fascinated by Don's lectures and writings where he says his little table top coils/caps/resistors setup produces 30kw to 200kw of output to megawatts for country size units. So its all about the secondary wire size to being able to take the amps. Interesting indeed.

Cheers Mike

Hi mike!

the flat panel good for tesla hv spark stuff. but for power u need not that. its whopping more wot u need. see the awg chart i have uploaded in one of my posts. and consider wire with amps n frequency in the chart. the standard chart provides amps but not frequency handling capabilities. get the chart with amps n frequency ratings for proper coiling. but its not necessary. u can use any copper the basic is. L1 (thin one) is half diameter of L2(thick one)

regards

Aug. 16, 2011

Zilano

Quote:

Originally Posted by **vrand**

Hi Zilano

By thick do you mean like a copper tube or large diameter > 2 awg copper cable?

I like your 10kw design so I would like to experiment with a secondary that can take 50-100 amps to connect to my house 60hz 240/120v split phase 100 amp panel.

Cheers Mike

Hi mike!

solid copper thick coil. dont use hollow copper. think a transformer(induction) and make it tesla(resonance). i made a transformer and made it to resonate like tesla coil.

consider how many amps u want in the output. and choose copper wire accordingly. if u need 5 amps. $5 \times 110 = 550$ watts or $5 \times 120 = 600$ watts. or $220 \times 5 = 1100$ watts

etc. hope u get my point! use wire according to amperage handling capabilities of the wire.

regards

Aug. 16, 2011

Zilano

Quote:

Originally Posted by **vrand**

Hi Zilano

Yes, Don Smith talked about using the magnetic end of the EM field to create the "amps" and he also showed that Tesla diagram of the bifilar cw/ccw coil with center tap.

In the Kapanadze photos of his secondary air coil it doesn't show this center tapped bifilar secondary. Was his system under-producing in electrical output?

Cheers Mike

Hi mike!

a single coil can also produce amperage too. kapanadze single coil also produced it. we use bifilar so we can control voltage and amps or reduce voltage and amps by increasing cw or ccw turns using something like a rheostat combination. u can use single coil but make it thick.

regards

Aug. 16, 2011

Zilano

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 alluminium 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

Aug. 16, 2011

Zilano

Quote:

Originally Posted by **vrand**
Thanks Zilano, I can get some 14 AWG GTO-15kv cable

- *Is the 80 turns all in one direction?*
- *For the 5 turns secondary air coil, is 1/4" (6.35mm) copper tubing okay?*
- *Spaced 6.35mm apart? Or can be closer? I guess can get as close as the 250 V air breakdown voltage (240vac output)?*

Cheers Mike

Hi mike!

coil 80 turns cw. coil 5 turns is a bifilar(cw5,ccw5 turns). 250 v hf.rectified with in 4007 or higher combination. coil primary 2" and sec 3". with 4 turns per inch secondary bifilar.

regards

Aug. 16, 2011

Zilano

Simplest Cheapest Energy Circuit!

hI FOLKS !

CHEAPEST SOLUTION!

PIC ATTACHED

regards

Aug. 16, 2011

Zilano

Quote:

Originally Posted by **vrand**

Thanks Zilano

For the 88 turns primary air coil do you use neon sign HV wire, for the input from 4kV from the NST? Wire insulation needs to be rated at least 4kV?

Cheers Mike

HI mike!

yes its not 88 turns its 80. sorry for crude pic. yes insulation 5k will work fine.

regards

Aug. 16, 2011

Zilano

Quote:

Originally Posted by **vrand**

Hi Zilano

Here is the schematics on that NST, PVM400:

<http://www.amazing1.com/download/PVM...CSCHEMATIC.pdf>

Do not see any GFI.

Thanks again you for your help and in sharing your fascinating insight to Tesla's/Don Smith's resonant electrical energy technology. Keep up the good work!

Cheers Mike

HI Mike !

this will work.

regards

Aug. 16, 2011

Zilano

Quote:

Originally Posted by **drak**

Where would I be using the sine wave at? It was my understanding that when the spark happens the capacitors drain to the coil then bounce back to the caps and then back to the coils etc at a certain frequency, the resonant frequency, until the energy is dissipated. At that point the spark bridge goes away only to be started again once the caps get charged again by your NST or fly back or whatever you are using to charge the caps. So a sine wave is automatic. Or are you talking about a sine wave to charge the caps from your NST or fly back? Does it matter how you charge those caps as long as they get charged fast enough to keep a steady stream of sparks?

[1632: Radio FAQ Part 1 — Spark and Crystal](#)

Well, my latest coils, not much more results. 10 gauge outer secondary 22 gauge inner primary.

Hi drak!

try alluminium thick wire the coil must be thicker. ur outer coil is thin still. but try with this first and use copper coated welding rods. and u will find the great improvement. make sure resonance happens. when u add welding rods coil inductance will change and u need to adjust resonance with caps in primary and secondary accordingly. but result will be best. when u dont have resonance working well results will be low and r just based on induction and thats wot we dont want. we want resonance give us the results.

Aug. 16, 2011

Vrand

Quote:

Originally Posted by **zilano**

hI MIKE!

NST U QUOTED ON PAGE WILL WORK FINE.if they dont have gfi(ground fault interruptor) not built in. coz whenever u earth it it will go off and trip in don smith circuits. thats why i made it on my own. without gfi.

regards

zilano zeis zane

Hi Zilano

Here is the schematics on that NST, PVM400:

<http://www.amazing1.com/download/PVM...CSCHEMATIC.pdf>

There is a ground connection, would this be a GFI?

Thanks again you for your help and in sharing your fascinating insight to Tesla's/Don Smith's resonant electrical energy technology. Keep up the good work!

Cheers Mike

Aug. 16, 2011

Zilano

Quote:

Originally Posted by **vrand**

For those building their own 4kv, 35kHz NST driver using a Flyback here some info on converting one from an old 1970's B/W TV:

Flyback Driver

[POWERLABS' High Voltage Solid State Flyback Driver](#)

Hi Zilano

The above Flyback driver is close to your flyback design. Would an off-the-shelf adjustable 0-20kV, 15-35khz work in your design?

Here is one from the popular Information Unlimited website:

[Neon Transformers, Neon Power Supplies](#)

If this NST would not work, do you recommend one that would work?

Those old '70's flybacks are getting impossible to find.

Cheers Mike

hI MIKE!

NST U QUOTED ON PAGE WILL WORK FINE.if they dont have gfi(ground fault interruptor) not built in. coz whenever u earth it it will go off and trip in don smith circuits. thats why i made it on my own. without gfi.

regards

Aug. 15, 2011
Zilano
Hi folks!

tesla step down arrangement.

pic attached.

primary thin more turns(adjust ratio of ur hv input voltage with no of turns and voltage 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

Aug. 14, 2011
Zilano
Quote:

Originally Posted by **MonsieurM**

There is a method i use to find information, and most of you know it, and that is triangulation, so far you have given one clue, i need two more and i'll have a clearer picture...so I'll be patient, do some research, and mostly wait to see what you will be posting Z....

hi THERE! U ALL HAVE IT WITH U! BUT THINK WISELY,
JUDICIOUSLY, PUT UR WHOLE HEART TO IT AND U WILL HAVE
IT AND U WILL SAY AWWW I KNEW THAT ITS SO EASY!

goodluck to all

cya soon with ur progress!

God bless u all

Hope u make Dons dream come true!

regards
and thanks for ur support!

Aug. 14, 2011

Zilano

Secret-Consturcion

Hi folks!

Greetings!

learn more!

sycret-konstrucion

cirkuit attached!

regards

ZILANO ZEIS ZANE!

Aug. 14, 2011

Zilano

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

Aug. 14, 2011

Zilano

greenbox kapanadze alias don smith

Hi folks!

new arrangement pic attached

must view! updated.

regards

Aug. 14, 2011

Zilano

Don Smith Vs Kapanadze Circuit

hi folks!

don smith vs Kapanadze.

see kapanadze coil(greenbox) is same as don 6A coil=6turns

see urself

pic attached

regards

zilano zeis zane

Aug. 13, 2011

Zilano
Resonance Is Real Phenomena

Aug. 13, 2011
Zilano
Hi folks!

the R takes the toll when frequency is low and L takes the toll when frequency is high! thats all i know and maybe the difference works for me so.

regards

Aug. 13, 2011
Zilano

Quote:

Originally Posted by **drak**.

Well, I did the reverse tesla coil, and now the output voltage is 450v and i'm getting a slight glow out of a 120v 6watt bulb, which is better then I was getting before . However I don't have the capacitors to bring my coils down to 35khz. I could only get them down to 385khz. Would building a bigger coil help or would I have to throw more input to it?, I was only throwing 12.6v .30amps at it and pulsing the flyback with about 5.8khz dc 50% duty load. Still playing.

Hi Drak!

if u use any thicker wire. or even a thick alluminium rod or coil. u will get more amps. its not necessary we just use copper coil. alluminium can be used for test purposes. the bad thing abt alluminium is that it oxidises fast and contacts loosening happens.

reduce turns in secondary and make it thick as much u can afford and u will light a bright bulb.

also u can use 1/4 turn of coil as output and ur voltage will be low and not 450v use output coil as a rheostat so u get 110 or 120 volts.
but make thick so u have more amps.

dont worry abt frequency keep it as it is. and dont use cap it will increase voltage.

congrats! u r learning well! **see attachment**

maintain resonance. keep this frequency. increase input.

regards

zilano zeis zane!
resonance musik
play it one!

Aug. 12, 2011

Zilano

Quote:

Originally Posted by **webmug**.

Hi there!

How do you guys ground these setups on the output side?

Using a extra grounding rod? Don shows a diodecapacitor to keep the voltage on the output high, any experiences with this?

I'm still thinking not using a sparkgap but a sa to keep voltage and currents at a usable maximum on the primary coil. A sg generates more power but with these amplifications on power output it seems to me that we could do with less output.. 150watt input and 10kw output... Pff if i can fry potatos i'm already happy .

Also should the power cap bank be of a specific type?

Br,

Webmug

Hi webmug!

Grounding is necessary. two grounds are needed one at spark gap and other in the output side. spark plays a **vital role as all frequencies exist at spark gap and it has to be tuned also by varying the gap so it matches the frequency of ur nst(if solid state or tesla transfomer)** view my crude drawing circuit in one of my posts.it has 2 earths.

keep hv low in range of 2kv or 1.5 kv. suppose u have 2kv=2000 volts and u need 120 volt out then $2000/50=40$ volts per turn in primary and make secondary 3 turns. means $40v \times 3=120$ volts. its better u decide ur transformer input n output and work accordingly.

make primary thin(high impedance) and secondary thick for more amps.(low impedance) so u

can test amps using a load in raw ac hf power. u can also use same coils but power will be less.

i have no idea wot u been thinking may be u have better idea without spark gap. try it.

Aug. 12, 2011

Zilano

Quote:

Originally Posted by **mr.clean** .
very cool, yes im trying all different combinations.

Hi Kurt!

use an RF(radio frequency coil) or slide a ferrite tube on both limbs of ur dc output. thats is negative(-) feed and positive feed(+) then measure amps then ur meter wont go berserk! will give u stabilized measurements though not fully but wud be more stable. better than u have now.

Aug. 12, 2011

Zilano

Quote:

Originally Posted by **mr.clean** .
Wow buddy, cant wait to see that monster in action .

Hi Kurt!

mine is just 10 kw 230-250v ac sinewave. but urz seem to be 18kw unit. so urz is a monster!

reverse tesla helps u to scale down voltage. try lower voltage else its gonna be hard to manage high voltage output. first try the don 6kw output.

important!: tune ur spark gaps so u get smooth flow out. gap is important. its also a tuning factor in don smith circuits. input n output spark gaps must be tuned so u get smooth output not the intermittant one. i saw ur bulb flickering means u need fine tune the gap. use screw and unscrew left n right and centre fixed peg.

Aug. 12, 2011

Zilano

Quote:

Originally Posted by **mr.clean** .

Yes, im not yet set on one or the other kind of primary, i like the idea of a heavy gauge wire, but have just had better results with the thinner high turn primary.

But i'll be able to tell even better with the B&W coils that should be here soon. I can tell the dinky copper tubing is holding back a lot of induction.

I look forward to your progress. any vids?

Hi kurt!

i havent made any vids till now. i want people to strive and learn and use brains first. coz if u give knowledge as a throwaway replicators can replicate easily but they wont know the idea and the basic behind the dons technology. let people learn. give them knowledge. but let people try it first themselves. i will be posting vids also but this is not right time. lets see no no members replicate with knowledge gained on here.lets see some progress !

though i have posted my crude circuit. my first attempt circuit which gave 250 v dc 2.5 kw output with 12 volt 120 watt input on here. i fine tuned it and scaled up to 10 kw 230-250 ac 50 hz

Aug. 12, 2011

Zilano

Quote:

Originally Posted by **mr.clean** .

Yes, im not yet set on one or the other kind of primary, i like the idea of a heavy gauge wire, but have just had better results with the thinner high turn primary.

But i'll be able to tell even better with the B&W coils that should be here soon. I can tell the dinky copper tubing is holding back a lot of induction.

I look forward to your progress. any vids?

Hi Kurt!

To get overunity the input must be low(thin primary-high impedance) and secondary output(low impedance) high amps. this is the magic behind dons circuits. but don never disclosed this magic trick. people who saw dons designs made primary thick and secondary thin they had

failures in output power. underunity. or unity. i call this REVERSE TESLA COIL. MAKE primary as secondary and secondary as primary. kapanadse got this idea and u can see his green box coil is based on don circuit. see my attachment in one of my posts dons smith pdf dated 1994 bottom circuit. the 6A coil 6 turns is same as dons circuit.

Aug. 12, 2011

Mr. Clean

Don Smith replication

Quote:

Originally Posted by **zilano** .

hI MR.CLEAN!

u r using reverse tesla concept-thin primary more turns and thick sec less turns. don never mentioned it. but its the only way to free power.

regards

zilano zeis zane!

Yes, im not yet set on one or the other kind of primary, i like the idea of a heavy gauge wire, but have just had better results with the thinner high turn primary.

But i'll be able to tell even better with the B&W coils that should be here soon. I can tell the dinky copper tubing is holding back a lot of induction.

I look forward to your progress. any vids?

Aug. 12, 2011

Zilano

Quote:

Originally Posted by **mr.clean** .

Hi guys, love the discussion.

i appreciate the reference to my vids.

I want to be clear that Im doing this build because Don had said himself that if we're interested in this device, & we wanted to actually see one in our lifetime...that we'd be better off building our own.

Don's credentials on top of his verbal recommendations...on top of his info, AND instruction, were

enough for me to at least try it.

So far im enjoying the progress. From no light at first, to being able to burn out bulbs is very exciting.

Zilano, it seems you have done a lot of study, cant wait to see what comes out of your work .

hi MR.CLEAN!

Thankx for reading my posts. i have it working in my home a 10 kw device.

230-250v sinewave. i did not use 555 timer based nst. i made it on my own. made to oscillate at 30 khz. a 4kv power pack and then just did step down. am using it.

you are on the virge of a one step away. and u will get it. any more queries welcome!

i posted ur progress without ur knowledge sorry abt that. i tried to contact ya but failed coz google didnt let me. here i never saw u online. am glad u are here ! congrats on ur progress!

may God bless u always!

good wishes from my side!

u r using reverse tesla concept-thin primary more turns and thick sec less turns. don never mentioned it. but its the only way to free power.

Aug. 12, 2011

Mr. Clean

Don Smith by Mrclean

Quote:

Originally Posted by **zilano** .

hI Penno!

thanks for the support. dont worry am not dettered easily. knowledge must be shared. and i will keep sharing. keep posting. people who dont try say it cant be done. am of the thinking when it cant be

*done then it must be done.
i never loose hope. failures do happen but they make u learn more.
edison tried 1000 times for electric bulb why cant we?*

regards

zilano zeis zane

Hi guys, love the discussion.

i appreciate the reference to my vids.

I want to be clear that Im doing this build because Don had said himself that if we're interested in this device, & we wanted to actually see one in our lifetime...that we'd be better off building our own.

Don's credentials on top of his verbal recommendations...on top of his info, AND instruction, were enough for me to at least try it.

So far im enjoying the progress. From no light at first, to being able to burn out bulbs is very exciting.

Zilano, it seems you have done a lot of study, cant wait to see what comes out of your work

Aug. 12, 2011

Zilano

Must Read Back To Basics- Early Radio

HI THERE!

WE MUST HAVE STRONG BASICS.

LEARN AND UNDERSTAND BASICS

A MUST SEE TO UNDERSTAND DONS CIRCUITS

[EARLY TRANSMITTERS N RECIEVERS](#)

[History of Radio](#)

LARGE PROJECTS

ARE BUILT ON SMALL BASIC BLOCKS

ZILANO ZEIS ZANE

A 14 YEAR CAPS LOCK BOY

Aug. 11, 2011

Zilano

Phasing Neon Sign Transformer Nst

HI THERE!

WATCH N LEARN

[COURTESY: U TUBE](#)

PHASING NEON SIGN TRANSFORMER NST PART -1

[Phasing Neon Sign Transformers for Tesla Coil Use Part-1 - YouTube](#)

PHASING NEON SIGN TRANSFORMER NST PART -2

[Phasing Neon Sign Transformers for Tesla Coil Use Part-2 - YouTube](#)

Aug. 11, 2011

Zilano

Quote:

Originally Posted by **Xenomorph** .

This is starting to become entertaining.

So all OU motor-based systems like Adams Motors, Muller Motors, Kromrey Converters or magnetic systems like Floyd Sweet's device or Kron's negative resistor or not to forget the Moray valve are NOT OU devices then according to you because they are lacking a spark gap ?

hi!

OVERUNITY IS JUST A TERM AND HERE WE R DISCUSSING
DON SMITH AND NOT OTHERS.

BASICS OF DON- HIGH FREQUENCY. HIGH VOLTAGE. AND SPARK GAP WITH RESONANCE. (TESLA BASICS).

OVER UNITY CAN BE ACHIVED IN OTHER WAYS TOO BUT RESONANCE AND BUFFER SYSTEM IS USED.

A BUFFER CAN BE CAPS/BATTERY/ OR INDUCTION DEVICE.

MORAY DEVICE IS ALSO BASED ON RESONANCE AND ION VALVE(LIKE SPARK GAP) **BUT ITS NOT OVER UNITY DEVICE COZ HE USED RADIANT ENERGY TUNED HIS CIRCUIT TO IT AND JUST DREW POWER. HE DID NOT PRODUCE A SELF PRODUCING AND SELF FEEDING DEVICE. NOT A STAND ALONE SYSTEM. HIS DEVICE DEPENDED ON RADIATION FOR THAT HE USED ANTENNA OR A WIRE HUNG ON TWO POLES.**

SOLID STATE RESONATING SYSTEMS ALSO USE RESONANCE AND FLUX MANIPULATION(TIMMING CIRCUIT) EQUIVALENT TO SPARK GAP.

IN DONS CIRCUITS SPARK GAP IS TIMMING DEVICE AND RESONATES ACCORDING TO THE FLUX CHANGES IN SECONDARY.

A SYSTEM WITH SPARK GAP+BUFFER+RESONANCE BECOMES SELF RUNNING AND SELF FEEDING DEVICE.

Quote:

Originally Posted by **zilano** .
hi THERE!

*THERE HAS TO BE A COMBO FOR OVER UNITY DEVICES.
A SPARK GAP + RESONANCE.*

THEN U GET OU(OVERUNITY)

Aug. 11, 2011

Zilano

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!

Aug. 11, 2011

Zilano

Quote:

Originally Posted by **Xenomorph** .

I have no problem with your spelling, i tolerate that some people consider it unimportant to verify

their spelling.

Honestly i don't care if you are right or wrong. What you suggest here has in my eyes nothing to do with Don Smith. I am after high COPs of 300 like in the picture of the Don Smith device that you have swapped the primary and secondary in to illustrate your energy "saving" concept.

But good luck with it.

hi THERE!
GREETINGS!

watch! thick secondary and thin primary. primary 100 turns longer and secondary 30 turns than primary. bifilar coil. SINCE ITS BIFILAR SO 15 TURNS ACTUALLY USED AS OUTPUT. AS CENTRE TAPPED.

**Don Smith Project Part 12: Getting dangerous . courtesy: mr. clean
COURTESY: MR. CLEAN**

REVERSE TESLA CONCEPT WORKING- MORE AMPS OUT THAN IN.

PRIMARY VOLTAGE=12,000 VOLTS
TURNS=100
VOLT PER TURN=12000/100=120 VOLTS

SECONDARY=15 TURNS BIFILAR

VOLTAGE INDUCED IN SECONDARY=120*15=1800 V

12000-1800=10200 VOLTS STEP DOWN

A CLEAR CUT STEP DOWN U SEE!

Aug. 11, 2011
Zilano
Quote:

Originally Posted by **Joit** .

Actually thats the other Thing i miss, no real Backround there, just Castles in the Air, a lot

'Suggestions' what may some take blind over, in hope that there is something, but there will not be anything.

The Theories what he spread can anyone else put together, when he looks some closer at Don Smith Devices, doesnt mean, that someone really has something, and what we now here got is more Mess and Misinformations then anything.

The only thing you really can do at Don Smith's Devices is, build it, tune it, Days or even Weeks, change the Coils, and Components and then you can show something, but not hypothetically shot in the Dark with any Informations what you can find, and hope someone do rebuild it.

And when you wanna have really Informations about it, then the Informations what you allready can download are actually enough.

Hi there!

greetings!

see and believe it!

watch! thick secondary and thin primary. primary 100 turns longer and secondary 30 turns than primary. bifilar coil. SINCE ITS BIFILAR SO 15 TURNS ACTUALLY USED AS OUTPUT. AS CENTRE TAPPED.

Don Smith Project Part 12: Getting dangerous . courtesy: mr. clean

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A CLEAR CUT STEP DOWN U SEE!

COURTESY: MR. CLEAN

[kdkinen's Channel - YouTube](#)

[Don Smith Project Part 12: Getting dangerous. - YouTube](#)

Aug. 11, 2011

Zilano

Quote:

Originally Posted by **ewizard** .
Probably more like Italian and English is not his first language or maybe he's using a translator like Google. If he has anything it's certainly not making any sense to me either. I don't think he's a bot or spammer though and I doubt a disinfo agent either as his disinfo wouldn't fool anyone. I'm more inclined to think he has something but can't clearly convey it. Maybe some pictures or video's well done would clarify if there is anything here.

Hi there!
greetings!

see and believe it

COURTESY: MR. CLEAN

[Don Smith Project Part 12: Getting dangerous. - YouTube](#)

[kdkinen's Channel - YouTube](#)

Aug. 11, 2011

Zilano

Don Smith Project Part 12: Getting dangerous courtesy: mr. clean

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Don Smith Project Part 12: Getting dangerous . courtesy: mr. clean

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[kdkinen's Channel - YouTube](#)

[Don Smith Project Part 12: Getting dangerous . - YouTube](#)

Aug. 11, 2011

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I have no problem with your spelling, i tolerate that some people consider it unimportant to verify their spelling.

Honestly i don't care if you are right or wrong. What you suggest here has in my eyes nothing to do with Don Smith. I am after high COPs of 300 like in the picture of the Don Smith device that you have swapped the primary and secondary in to illustrate your energy "saving" concept.

But good luck with it.

Hi the the basic key is resonance and the spark. until u have both working u will have xcess energy always. and when u step down it doesnt mean u r reducing power as its known, at resonance resistance of

circuit is zero so u have power available whether u step up or step down.

Aug. 10, 2011
Zilano
Apply My Concept

DONT BE A Theorizer.

Theorizer----- are like High Voltage. A lot hot Air with no Power behind but they are the dead of applied Work and Ideas.

**APPLY THE IDEA AND SEE THE DIFFERENCE!
BE PRACTICAL**

ZILANO ZEIS ZANE!

TRY DOING !

Aug. 10, 2011
Zilano

don CLEAR CONCEPTS FOR CLEAR UNDERSTANDING

hI FOLKS!

ZZZ AGAIN!

TELL U WHY AM ZZZ COZ LIGHTENING BOLTS R ALWAYS Z SHAPED. LOL. TESLA STREAKS!

DON BASICS SAY HAVE HIGH VOLTAGE AND HIGH FREQUENCY AND THEN JUST STEP DOWN.

NST= NEON SIGN TRANSFORMER

CAUTION: NST HAVE HIGH VOLTAGES CAN EVEN KILL U IF HANDLED IMPROPERLY. BE CAREFUL WHILE HANDLING THEM. DO FOLLOW SAFETY NORMS. READ SAFETY POSTS I POSTED EARLIER

UR NST SOLID STATE IS ONE TESLA COIL IT HAS FERRITE CORE. IT HAS HIGH VOLTAGE AND HIGH FREQUENCY. HERE U DONT NEED ANOTHER TESLA COIL. U JUST NEED STEP DOWN ONLY AIRCORE OR FERRITE CORE.

FERRITE CORE USED FOR HIGH FREQUENCIES. AIRCORE CAN ALSO HANDLE HIGH FREQUENCIES IF U DONT HAVE FERRITE BUT OUTPUT AMPS HAVE NOT MUCH STRENGTH. AS COMPARED TO FERRITE CORES IN OUTPUT TRANSFORMERS.

NORMAL NST HAVE JUST HIGH VOLTAGE AND THEY HAVE IRONCORE. FREQUENCY IS 50 OR 60 HZ DEPENDING ON GRID SUPPLY FREQUENCY. SO U HAVE TO USE TESLA COIL TO MAKE HIGH VOLTAGE AND HIGH FREQUENCY. AND THEN U NEED STEP DOWN.

STEPDOWN CAN BE AIRCORED OR FERRITE CORE UNLESS U HAVE FREQUENCY 50 HZ. OR 60 HZ

FERRITE CORE CAN BE USED FOR 50 HZ OR 60 HZ THEY RUN COOL. THEY DONT HEAT UP.

WARNING: NEVER FEED HIGH FREQUENCY ABOVE 50 HZ OR 60 HZ TO IRON CORED TRANSFORMER IT WILL BURN TO FLAMES. USE FERRITE OR AIRCORE FOR HIGH FREQUENCIES.

READ TRANSFORMER BASICS LINK IN ONE OF MY POSTS AND MAKE STEP DOWN TRANSFORMER ACCORDINGLY. BUT U MUST KNOW OUTPUT VOLTAGE AND MAKE COILS

ACCORDINGLY OF THE TRANSFORMER WITH AMPS IN CONSIDERATION IN OUTPUT AS WELL AS AMPS IN THE INPUT SIDE OF TRANSFORMER.

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. then invertor OR use RESISTOR ACROSS INPUT SIDE OF IRON CORE TRANSFORMER MEASURE L WITH LCR METER AND USE REACTANCE CHART PAGE 23 OF BOOK ELECTRONIC TABLES AND FORMULAS UPLOADED BY ME IN ONE OF MY POST. TO FIND VALUE OF RESISTOR IN ACCORDANCE WITH 100 OR 120 HZ FOR GETTING FREQUENCY 50 OR 60 HZ BUT U MUST KNOW WATTAGE OF RESISTOR FOR THAT U MUST KNOW VOLTAGE AND AMPS USE FORMULA $P=VI$ WHERE P= WATTS V= VOLTS AND I= AMPS AND ALSO $V=IR$ AND $R=V/I$

IMPORTANT: USE PT= POTENTIAL TRANSFORMER TO MEASURE HIGH VOLTAGE AC AND CT=CURRENT TRANSFORMER TO MEASURE AMPERES

MYTH: PEOPLE TEND TO THINK LOAD ALTERS RESONANCE BUT ITS JUST FALLACY TO THINK THAT. U HAVE CLEAR EXAMPLE OF CRYSTAL RADIO SET. THE TUNED FREQUENCY REMAINS SAME AND U HEAR MUSIK STILL. SO LOAD DONT

CHANGE RESONANCE AND DERATES IT. IT JUST A SWITCH of TAP AND WATER KEEPS COMING! wash or bathe ur decision.

HOPE U UNDERSTAND BASICS NOW

AND FOLLOW ACCORDINGLY.

Aug. 10, 2011

Zilano

Quote:

Originally Posted by drak .

???? Are we still talking about two sets of coils? Or are you saying I only need a primary and a secondary? Reverse the secondary? The secondary is glued in place and no mater which way I flip it it is still wound in the same direction. I was thinking I have an L1/L2 then another set of L1/L2 with L1 being the same as L2 in the first set of coils and L2 being the same as L1 in the first set. You are confusing me, lol. I appreciate your help though. .

Hi there!

wot coil u have now u just need that only. no another set. just swap wires of primary with secondary.means two wires of ur primary is ur output the shorter coil. and two wires of ur long coil that is outer coil becomes ur primary. and u have step down instead of step up. u dont have to tear apart setup. let as it is just swap wires only.hope u get me now.u have L1 and L2. L1 IS UR PRIMARY AND L2 IS UR SECONDARY. USE WIRES OF L2 AND CONNECT THEM WHERE UR PRIMARY L1 CONNECTED B4. DO SAME FOR L1. CONNECT L1 WIRES WHERE UR SECONDARY L2 WIRES WERE CONNECTED. SO U HAVE A STEP DOWN MORE TURNS IN PRIMARY AND LESS TURNS IN SECONDARY. SO U GET LESS VOLTAGE AS OUTPUT. THE BETTER WAY IS ALWAYS TO MAKE PRIMARY LONGER AND THIN WIRE AND SECONDARY SHORT THICKWIRE SO U GET HIGH AMPS LOW VOLTAGE IN OUTPUT. REVERSE TESLA MEANS NOT

THE ARRANGEMENT BUT SWAPPING OF COILS and WIRES TOO.

general tesla coil have thick primary outer coil and thin secondary inner coil. reverse tesla means thin long primary outside and thick short secondary inside. and use it as step down transformer. means high volts input from ur nst in primary long coil. and output is ur short thick coil. physical arrangement will remain same thick inside and thin outside dont change that keep as it is. only wires r swapped.

**PIC ATTACHED WILL GIVE U IDEA
PIC REVERSE TESLA COIL**

Aug. 10, 2011

Zilano

The Shortest Way To Success Easy Way No Sparks No High Tension To Mention

hI this is zilano zane!

**A NEW BREAKTHROUGH in don
technology.**

reduce electricity bills!

must read

a small scale demo setup! can be upscaled for home use!

take a 12 v 220 or 110 volt 1 amps step down transformer with 2 wires primary and 2 wires secondary measure L of primary with lcr meter and use resonance calculator to calculate caps for 50 or 60 hz. use this cap across primary. then calculate L of secondary with LCR meter and use resonance calc to get secondary caps value for secondary 50 or 60 hz.

now take another 12v 220 v or 12 v 110 v 1 amp transformer. feed 12 v ac to ur resonating transformer with caps to its primary it will make it oscillate in resonance with secondary of resonating secondary with caps. attach a 220 v or 110 v as ur transformer u r using attach load. measure input power and output power and calculate gain. use iron cored transformers. core is suitable for 50 hz resonance. attach caps in parallel across primary and secondary of the transformer.

RESONANCE FREQUENCY IS 50 OR 60 HZ DEPENDING UR GRID SUPPLY FREQUENCY COUNTRY DEPENDENT. FIND CAPS ACCORDINGLY. VOLTAGE WILL BE 12 VOLT OR 110 OR 220 VOLT OR CAPS.EG $C=X$ MFD 60 HZ 12 V OR $C=X$ MFD 120 V. MFD= microfarads.

try it! circuit is below as attachment.

Aug. 10, 2011

Zilano

Quote:

Originally Posted by **drak**.

Ok, making another coil exactly the same, but reverse. Once that is done, how do I connect the coils together. Directly or through some circuitry? Because if i do it directly won't that effect the resonant frequency because it would look like one big coil? Thanks zilano

HI Drak!
greetings!

b4 u read this go to bottom of page and read text in red first.

u can connect directly. it will be a step up and step down. but u must know voltage of primary of step up.the coils can be conncted secondary to secondary air core. try connecting raw load as mr clean did. get to know amps. now u know I. but u must have idea of voltage that can be only done by using PT= potential transformer. i have posted my circuit where i used 4kv in primary and 5 turns in secondary to get 250 volts in secondary with 5 amps out. amps depend on wire used in secondary. am not good at art the circuit diagram looks crude but works. try myway u get juice. keep reading all my posts. in my case i made custom made nst and made it work as tesla coil so i have high voltage 4k and high frequency and just did step down with aircore. since u already have high voltage and high frequency its not wiser to make another tesla coil means step up. u just need step down. i dont know wot voltage u will have in ur seconday of step down. but its gonna be huge. make ur nst like i did. tune it as tesla coil then do step down. dons point is if u have just nst with 50 or 60 hz then u have high voltage but not high frequency. to make high frequency u need a coil and caps and spark gap to make a secondary resonate with primary. but if

u have nst with 12v input and high frequency and high voltage then u just need step down. a 12 v 30-35 khz 4-5 kv is good nst or u can get 50 v ac or 110 v ac 30-35 khz 4-5 kv nst u just need step down. thats why i made nst myself and had high frequency and high voltage. so nst was my tesla coil and i did step down aircore only. to reduce voltage in primary stage is is easy.decrease input power in ac feed using varactor and in dc input use pot.

never use 45 to 50 kv nst(all tv or comp flyback have this much voltage) start with low kv just enuff to get spark going. but still u can reduce voltage using a variable capacitor air core in series with ground in output and measure it with PT(POTENTIAL TRANSFORMER) KEEP PT EARTHED ALSO TO AVOID DANGERS OF HV. SEE MY ARRANGEMENT OF PT I HAVE uploaded image how to use PT AND CT. GO THRU ALL MY POSTS. hope u get the idea wot am talkin about. any more queries r welcome. keep reading my post u will get more info and better understanding of dons devices. take good care till then..... God bless u and keep u safe!

PS: SHORTCUT: JUST REVERSE UR COIL THEN U DONT NEED ANOTHER COIL. make primary coil as secondary and secondary as primary so it will be a step down. u will get resonance this time also but it will be a step down and resonating too.dont change physical arrangement of the coil just swap primary and secondary wires

Aug. 9, 2011

Zilano

Electric Shocks Caution N Prevention

hI FOLKS!

MUST READ

SAFETY

http://www.sayedsaad.com/fundmental/23_ELECTRIC%20SHOCK%20.htm

USEFUL AC FORMULAS

[USEFUL AC FORMULAS](http://www.sayedsaad.com/fundmental/24_USEFUL%20AC%20FORMULAS%20.htm)

http://www.sayedsaad.com/fundmental/24_USEFUL%20AC%20FORMULAS%20.htm

regards

zilano zeis zane!
PREVENTION IS BETTER THAN CURE!

Aug. 9, 2011
Zilano
handbook of electronic tables and formulas sams

Hi folks!

go to this link below

[Handbook of Electronics Tables and Formulas - Free eBooks Download
http://www.ebook3000.com/Handbook-of-Electronics-Tables-and-Formulas_85355.html](http://www.ebook3000.com/Handbook-of-Electronics-Tables-and-Formulas_85355.html)

then use deposit file link to download the ebook

use free download wait for requisite time then u get a flash which says **download File** click it and u get it free.

and go to page 23 to find the requisite reactance charts in chapter 1.

other stuff is also included browse for urself

regards

Aug. 9, 2011
Zilano
Quote:

Originally Posted by **h2ocommuter** .
*I appreciate your replies ZZZ, you are a master. way to go.
Thank you so much i am happy you have joined us. I am so new at much of the true understanding about all of this technology and general transforming of energies i must ask this question about how changing Hz is accomplished.*
I realize how voltages are changed by step up and step down transformers but what changes to frequencies?

Another observation I must cite is when I fired up my 5,000 v mid tap luminous tube transformer it was mounted to wood and on a wood desk and it was blowing large continuous sparks onto the board.. well no explanation necessary just learning to be way way cautious!

Oh is it true that the ambient energy that Don speaks of is activated by use of the spark gap?

*Thanks
zane*

Hi zane!

**the sparks maybe due two reasons maybe ur table top is made of sunmica or it has built up electrostatic charge by usage of ur table top. or the top layer of polish or paint must have metal ingredients. sparks r high voltage streaks and they tend to neutralize. law of conservation of energy. a high must go low. i dont know exactly where u kept the globe. sparks r fatal do not use hands to recieve sparks. since high voltage sparks r not sensed by brain due to slowness of nerves to detect fast travelling sparks. sometimes people dont even feel pain coz pain feeling nerves r not able to detect it. but they r veryyyyyyyyyyyyyyyyyyyyyyy harmful. use always a wooden stick with a metal loop at the other end to test for sparks if u have to and hold the stick far away from other end your hand-----wood-----
o{ <--metal loop
keep safe burning by sparks can make u loose memory sense of touch and can even burn ur flesh deeper not visible with naked eyes.
so be careful.**

**Aug. 9, 2011
Zilano
more pics**

Hi folks!

too less limit for upload! huh! 6 files max. anyways dont worry. will keep posting.

regards

magic of CW AND CCW when i joined the race i didnt know wot is cw and wot is ccw but i know now. cw= clockwise turns and ccw= counter clockwise= anticlockwise turns= opposite to the direction clock hand.

BIFILAR= IS JUST A COIL WITH EQUAL TURNS WOUNDED CW AND CCW JOINED TOGATHER SO SIMPLE.

VARISTOR

the pics u see extreme right n b4 next to it are VARISTOR. IT LOOKS LIKE CAPACITOR BUT ITS NOT!

zilano zeis zane

A novice and a nerd !

but still learning !
keep learning!

Aug. 9, 2011

Zilano

Picture Speak Louder Than Words!-don Smith Support Collection

hi FOLKS!

MUST SEE ALL PICS

GET UR HEAD REELING AND REEL IN IDEAS!

ATTACHMENTS ATTACHED VIEW AT UR LEISURE WITH PLEASURE!

LINKS BELOW

first pic is dons nomograph. 2nd is dons circuit. 3rd is 555 timber based tv/comp flyback 4th is ignition coil driver circuit 5th is inside the nst and 6th is just resistance color code chart. always count rings colors from opposite end of silver or gold lining. there are online resistor calculator programs

here is link

[Handbook of Electronics Tables and Formulas - Free eBooks Download](http://www.ebook3000.com/Handbook-of-Electronics-Tables-and-Formulas_85355.html)

http://www.ebook3000.com/Handbook-of-Electronics-Tables-and-Formulas_85355.html

Resistor Color Code Calculator

[Resistor Color Code Calculator](http://www.csgnetwork.com/resistcolcalc.html)

<http://www.csgnetwork.com/resistcolcalc.html>

another link related to same things inclusive of LCR AND RESONANCE
CALC SAME PLACE

[Electronics Converters and Calculators](http://www.csgnetwork.com/electronicconverters.html)

<http://www.csgnetwork.com/electronicconverters.html>

FREQUENCY AND WIRE LENGTH CALCULATOR

[Wire Length From Coil Frequency Calculator](http://www.csgnetwork.com/wlfmcoilfreqcalc.html)

<http://www.csgnetwork.com/wlfmcoilfreqcalc.html>

Aug. 9, 2011

Zilano

Wire Basics For Coilers A Must See

hI folks!

u must see this

[Wire and Cable](#)

<http://www.windsun.com/Hardware/Wire.htm>

regards

Aug. 9, 2011

Zilano

Quote:

Originally Posted by **h2ocommuter** .

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Oh is it true that the ambient energy that Don speaks of is activated by use of the spark gap?

Thanks

zane

Hi Zane!

greetings!

the energy produced by both spark gap and resonance combination. spark gap is just a trigger to tune up resonance its like tapping resonance frequency of the secondary coil. its like drums beating when u stop beating drum sound stops. if u keep beating drum with drum stick the sound continues and if u get the the timming correct drum continues to emit sound when beaten at its resonance frequency then u have lesser hits to make drum emit continuous sound and u can rest ur hand till its time again to hit it b4 the drum sound is on the verge of dying out. you hit again and cycle continues.

we can use resistor across the input side of the transformer but we must know the wattage. in dons circuit people dont know how much

voltage is at output but they do know amps. since $V=IXR$. AND $P=VXI$, P IS WATTS .We must know V and I both to decide wot wattage to use. the reactance chart also shows C values also we can use C also across input side of transformer then u can see the LC combination and LC we get it that LC have frequency. since don said caps r costly and resistances are cheap its better to use R to save cost. moroever kapanadze converting ac high frequency low voltage using voltage divider circuit and then using class c amplifier using two transistors u must have seen fan cooling two transistor on top of green box. view my pdf and u see kapanadze circuit based on dons circuit. **read pdf uploaded by me dsmith-refernce... scroll to bottom see the circuit of don the 6A COIL is the same coil u see on kapanadze greenbox larger thicker 6 turns. hope u get my point.if u have any more queries u r welcome to ask me.**

regards

Aug. 9, 2011
Zilano
Tools For Ur Help

hi Folks!

voltage divider calculator link

[BeyondTTL Resistor Voltage Divider Calculator](#)

2n3055 reference pinouts

[2N3055 Power Transistor, 2N3055 Datasheet PDF, Circuit Schematic, Pinouts](#)

tesla coil single transistor solid state

[Single transistor solid state Tesla Coil](#)

electroniks learner goodies

Basic Electronics

transformer basics

TURNS AND VOLTAGE RATIOS

transistor substitution chart

TRANSISTOR SUBSTITUTION CHART

wire gauges

[The Energy Experimenting People. - Wire Sizes - Powered by ForumCo.com](#)
[- The Forum Company](#)

SAFETY FIRST

DeepFriedNeon - Tesla Coils

tesla coil text as pdf attached-**make led tester for testing resonance included**
scroll down in pdf to see it

Aug. 9, 2011

Zilano

BUFFER the basis of FEEDBACK CIRCUITS

Hi Folks!

this is zilano zeis zane again!

we always talk about closing the loop when output is ample than the input. to make automatic feedback to make circuit self feeding we have to have a temporary storage area called BUFFER it can be a battery or a capacitor or capacitor combination. mostly auto feedbacks do not use battery they use capacitors. capacitors acts as battery without acid and weight of the lead plates. they keep storing and feeding input fetched from output. in any self running machine a BUFFER or initiator is required. if we use battery we have

to see its not overcharged and it becomes a headache with a cutoff circuit and since battery deplete and have fixed life they die sooner or later. the smart generation called caps comes in and they r far much better than battery although they hold less charge but large enuff to keep feeding circuit in auto feedback loop. the 4700 mfd(microfarads) do this. hope u understood the basic behind caps at input.

regards

Aug. 8, 2011

Zilano

The Circuit Don Smith Simplified

hI FOLKS!

this is zilano zeis zane

hope u see wot i was reffering to. here CL=capacitor oscillatory value depends on L primary. use online resonance calc to calculate value for 30khz. CT= same way and CO same way. just go on matching frequency. always measure L with LCR METER AND THEN FIND THE REQUIRED C. THE CAPS ARE 300V 2.5 MFD in pi filter. please read 4700 mfd not 47000 mfd. mistake is regretted.

A MUST DO: USE 10 MEG OHM RESISTORS ACROSS CAPACITORS TO AVOID SHOCK AFTER POWER IS SWITCHED OFF.

WARNING!!!!!!!!!!!!!! DO IT AT UR OWN RISK WARNING !!!!!!!!!!!!!!!

WARNING: DC VOLTAGES R ALSO FATAL ABOVE 50 VOLTS THEY STICK YOU WHEN U R ON GROUND AND 250V DC TOUCHED BY U.ITS MORE FATAL THAN 250 V AC. SO WATCH OUT. WORK WITH SHOES ON AND WOODEN FLOOR AND WOODEN TABLE. USE VOLTAGE DIVIDERS TO GET SUITABLE DC 12 OR 24 VOLTS. MEASURE VOLTAGE. TRY ATTACHING LOAD AND IF ITS OK THEN USE INVERTOR.

Aug. 8, 2011

Zilano

Quote:

Originally Posted by **h2ocommuter** .

I simply want to give you credit for pointing out many of the highlights Don had mentioned and highly respect you estute claiification of these matters.

I must try your setups. I am afraid of my 5 K volt Neon sign transformer.

LOL I have been bit hard by my plasma globe.

I have some 20KV gloves now but it is still a scary adventure!

glad to see you here.

Dustan Zane Muckey

hi there DZM!

!!!! HIGH VOLTAGE!!!!

!!!!CAUTION!!!!!!

SAFETY FIRST!

**WELL KEEP ALL PRECAUTIONS! WORK WITH SHOES
WOODEN TABLE AND WOODEN FLOOR MUST. WHENEVER
U MAKE ADJUSTMENTS TO HV SETUP MAKE SURE U TURN
OFF POWER FIRST. ALWAYS USE BLEED RESISTORS
ACROSS CAPS IN MEG OHM TO DISSIPATE CHARGE AS
CAPS HAVE A TENDENCY TO HOLD CHARGE. IF U USE
BLEEDERS THEY DISCHARGE SAVING U FROM SHOCK.
REALLY FELT SORRY FOR THE MISHAP. AM GLAD U ARE
ALIVE JUST BE CAUTIOUS AND FOLLOW SAFETY RULES.**

but there is a saying

FEAR IS THE KEY!

fear makes us learn and excel and shine out!

we learn from mistakes

God bless u and keep u safe!

high voltages r fatal keep safe!

regards

Aug. 8, 2011

Zilano

Quote:

Originally Posted by **drak**.

Still trying to figure out what to do with the captured radiant energy. Resonance is easy, its the high voltage output, what do you do with it? How do you turn high voltage low amps back to usable energy? [Don Smith device just testing](#); - YouTube

Hi there!

greetings!

WARNING AND CAUTION:

THINK B4 U ACT!

PLZ HAVE AN IDEA WOT INPUT VOLTAGE U R FEEDING UR PRIMARY. COZ IF U R FEEDING SAY 12KV AND U HAVE 3 TURNS PRIMARY THEN 12KV/3 MEANS U R FEEDING 4KV PER TURN AND IF U HAVE 20 TURNS SECONDARY THEN U HAVE $20 \times 4KV = 80KV$ IN SECONDARY. SO ITS BETTER U THINK OF TURNS AND VOLTAGE FOR A STEP DOWN MEANS U HAVE TO HAVE 80K TURNS IN PRIMARY OF UR STEP DOWN AND 12 OR 24 TURNS IN SECONDARY OF STEP DOWN.FOR 12V OR 24 VOLT OUTPUT. THIS IS HUGE AND IMPOSSIBLE.

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 inverter coz high frequency will saturate core and sending ur inverter transformer in flames. always make dc after step down before u attach inverter.

regards

Aug. 8, 2011

Zilano

measuring high voltages

Hi folks!

greetings!

to measure high voltages and high currents(high amps) we need PT= potential transformers and for amps CT= currents transformers. am attaching a pic see the configuration how to use PT AND CT. a flyback driver circuit(use 4700uf 20 volt across the 12v input for better performance of fly back to reduce load on battery and saving circuit from hv kickbacks. Also u

can use a capacitor across the primary matching with L of primary to make it oscillate for 30khz. measure L with LCR METER and use online resonance calculator for caps specifications here is a link [LC Resonance Frequency Calculator at WhatCircuits.com](#)) reactance charts. and a 12 volt to 220 volt simple inverter circuit. use a 110 volt transformer rated 15 amps for 110 volt inverter circuit. lol i ran out of the space allotted for upload i have a dump of info to share with u all let me know how to increase upload space.so more juicy and important info can be uploaded for all of ya to use.

Aug. 7, 2011

Zilano

Quote:

Originally Posted by **h2ocommuter** .

I simply want to give you credit for pointing out many of the highlights Don had mentioned and highly respect you estute claification of these matters.

I must try your setups. I am afraid of my 5 K volt Neon sign transformer.

LOL I have been bit hard by my plasma globe.

I have some 20KV gloves now but it is still a scary adventure!

glad to see you here.

Dustan Zane Muckey

Hi Dustan Zane Muckey !

greetings!

well the basis of don globe is based on matching frequency of the globe with ur coil. the coil must be in resonance with the globe frequency. so tune that with caps caps added. this can also be done by using the length of the coil without caps. also u have to use 4L LENGTH OF THE COIL THAT IS THE CROWN.or if u have smaller coil then use caps to match it. then do the step down with a single diode and caps for storing power just half wave will do. people think just putting up a coil crown make it resonate its not that case we have to match resonance frequency first then tap the juice. view my posts i have simple solution without a globe thats will get u juice faster n smarter way. with experience and expertise that u get while performing experiments will lead u to learn how to self start generator with just 9 volt dc battery. all it takes to learn from

mistakes. i learned a lot so will u.

well formulas are universal i just elaborated on them.am not an inventor just a discover agent.

wish u all the very best!

Aug. 7, 2011

Zilano

misconceptions related to don smith circuits

Hi greetings to all!

This is zilano zeis zane again.

hope u all r listening!

its a misconception that don smith circuits draw power from ground which is not actually true. the energy is drawn from the resonance where minimal input needed for maximum output. earth grounding is necessary to maintain proper voltage for the circuit to operate.since here we r dealing with high voltages and high voltages often associated with streamers they are small arc voltages jumping like small tesla arcs which are irritating. they r produced by high voltage leakage causing imbalance to resonance.

we often come across having one phase with low voltage and if one need to increase voltage one can use this phase and an earth ground as neutral wire and light a bulb better than using one phase and a neutral wire.

earth just sucks in power not give out power. earth is just a great good conductor. so fellows shun ur misconception that dons power or kapanadze power coming from ground. its not its coming from resonance. and resonance is often reffered to as ambient environment. it just multiplies input to give multiplied output. we have two inputs frequency and voltage and resonance gives squared product of the two. if ur input is twice u get $(2 \times 2) \times (2 \times 2) = 4 \times 4 = 16$ times more with twice times

input. that is voltage squared X frequency squared. thats the little secret!

tesla found it used it and all others followed tesla including me.

regards to all

Aug. 7, 2011

Zilano

Quote:

Originally Posted by **drak** .

Still trying to figure out what to do with the captured radiant energy. Resonance is easy, its the high voltage output, what do you do with it? How do you turn high voltage low amps back to usable energy? [Don Smith device just testing](#); - YouTube

Hi There!

greetings!

please keep in mind never use 555. use LC CIRCUIT FOR OSCILLATOR. so u have a pure sine wave. as input. i saw ur setup the waveform is not balanced. since waveform is not balanced as input resonance waveform also deteriorates. first check the waveform of input it shud be perfect sine wave. then apply it. so u get perfect resonance. ur resonant waveform is not perfect. so it will causes problems in output usage unless u rectify it to dc. try reading my post and u will get to the solution. low voltage high amps. and a sine waveform as output.

regards

Aug. 7, 2011

Zilano

Quote:

Originally Posted by **drak** .

Still trying to figure out what to do with the captured radiant energy. Resonance is easy, its the high voltage output, what do you do with it? How do you turn high voltage low amps back to usable energy? [Don Smith device just testing](#); - YouTube

Hi greetings!

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

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 $L_{pt} = \text{length of primary tesla coil}$ 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= $250 \times 10=2500va=2.5kw$. 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

REGARDS

Aug. 7, 2011

Zilano

Quote:

Originally Posted by **Kokomoj0** .
I was not aware they really existed.

I look forward to testing them.

where can I go to do that please?

hi GREETINGS!

google is the best place to search all ya need. i used google and found out everything. keep digging and keep watching my posts. there is always fire where there is smoke. people dont try things and say things dont work. and feel that they r super intelligent and say the devices r not good enuff to be true. to succeed in anything go to the root. keep thinking and keep searching and u get it all. just keep asking questions and get answers. i was a novice and still i am but i dug it deep and found

the right things to make the device running and in control.

well the basic part is nst neon sign transformer. since old nst uses iron core they cannot be resonated at high frequencies as core will saturate and transformer will burn up in flames. today's nst's use ferrite cores so high frequency is not a problem but they have gfi=ground fault interruptor built in that trips the nst when grounded in domestic circuits. so it's better to make ur nst customised by winding primary and feedback coil and secondary using any ferrite core from old tv eht=extra high tension= flyback transformer. tv flybacks can be used but they have 45kv rated or more so dangerous voltages. we just need 3kv to 4 kv to get spark going so why we use 45 kv flyback? nst is nothing but a high voltage step up transformer where u feed oscillatory power in khz in primary to get high voltage and high frequency in the secondary output winding of nst. tv flyback cores can also be used to make customised nst. with controlled voltage that is 4kv. tv flybacks have one good thing they have high voltage diode built in. but they have 45kv to 50 kv outputs very hard to handle unless u keep voltages in control.

the input voltage is the primary factor that controls how many turns u wanna have in ur primary. to make a step down tesla transformer. higher the input voltage makes primary to have more turns. as compared to secondary where u wanna have 110 to 250 volts output. the voltage applied to primary divided by turns gives u voltage per turn in primary and since each turn induces voltage to secondary turns. so if u have higher voltage per turn in primary ur gonna get higher voltage per turn in secondary. it's better to think tesla like a normal transformer and create primary n secondary according to ur needs. in this case frequencies dont match. to match frequencies we have to use caps in parallel to get resonance. so number of turns and thickness of coil dont matter if we get them resonating. it's always better to reverse the tesla coil. make primary more turns and secondary less turns and thicker to get amperage.

can any one help me how to post schematics i will give u more links and more juicy things to get u going from scratch to free power. am new to

this forum and i dont know how to upload schematics.

dons circuit operate like a radio set. resonance happening at the transmitting station to listen to radio we need a coil and tune it with the variable capacitor to get in resonance with the transmitting station. when our reciever coil is in resonance with transmitting station we get musik. so dons primary is transmitting station and our coil is just secondary and its not far from transmitting station its so close. so we have less losses as distance is negligible and we can get musik just by tuning our secondary coil which is our recieving primary.thats the basis of dons power.

i will keep u informed with more till then

take good care and use google and search wotever comes to ur mind regarding don smith and u keep saving pdfs and all titbits. google is a wonderful thing just scribble wot u need and in seconds u get it!

i googled and found everything!

and if u dont find anything..... just keep reading my posts and u will get all ya need!

regards

ZILANO ZEIS ZANE

Aug. 7, 2011

Zilano

Quote:

Originally Posted by **baroutologos** .

I have been devoted past week at studying Donanld Smith's devices and theories.

This man seems serious and claims that overunity or an extraordinary energy gain can be achieved with moderate means.

One device illustrated, and as claime, it was presented at a Tesla symposium, it was the image below.

Don Smith claims that a high frequency alternating current could be modified in frequency by the

application of a resistor, a capacitor or perhaps a coil (choke) wired in parallel to the initial HF source.

Does it tell anything to anyone that? Is it makes any sense? That illustration uses a 12 volt powered Neon Sign Transfomer to charge 8000uF caps at 400 volts or so.

LOL? how the... can it be? Is the man heavily miscalculating or is there any explanation to this?

Baroutologos

hI GREETINGS!

the formula

T=L/R

WHERE T= FREQUENCY

L=INDUCTANCE

R=RESISTANCE

DOES THE TRICK

THE COIL IMPEDANCE CHANGES SO DOES THE T

REGARDS

ZILANO ZEIS ZANE

Deleated (No Date)

Quote:

Originally Posted by **zilano** .

Hi greetings!

well this is the truth believe it or not wisdom lies not in the glass and steel chambered offices but in the garages and attics!

*don is an old fella and has suffered attacks which paralised him so he is not in good form ! we must respect his old age and the way hi talks. when we grow old we are gonna be more worst than don. age conquers all. but he is the guy who gave everything in his book. its just our wisdom is not much to see wots hidden in his text and graphics. **there are no methods in free energy devices producing mega watts of power but dons does.** all we need is wide eyes and see wot he is reffering to. if u read dons text n schematics carefully he told ya everything. the word is **JUST REVERSE TESLA COIL AND THATS THE CLUE MEANS MAKE PRIMARY AS SECONDARY AND SECONDARY AS PRIMARY AND U GET IT.***

REGARDS

ZILANO ZEIS ZANE

Aug. 6, 2011

Zilano

Quote:

Originally Posted by **mr.clean** .

in my experience digital multi meters are unreliable around spark gaps or even exciters. The one's I have simply do not read any usefull information anywhere near a spark gap. If you really want a reliable reading you will need to use very expensive digital meters or analogue one's. The meters readings aren't as important as powering a load though so the approximate power levels can be determined that way....

...from the NST that is 300 watts and if there is 10 amps coming out at 120 volts then thats 1200 watts. So the benifit is obvious. .

Anyway I like you're setup, good work, well done. Keep us posted, a lot of us are interested in this particular arrangement.

Thanks for posting Cheers

I appreciate that man! i'll definitely keep you guys posted [/quote]

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](#)

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 ouput from this output coil= $250 \times 10=2500va=2.5kw$. 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 FREQUEECIES TABLES. SELECT RIGHT ONES FOR UR SETUP

EMPOWER URSELF

FREEPOWER TO ALL

REGARDS

ZILANO ZEIS ZANE

Aug. 6, 2011

Zilano

suggestions for the benefit of all memebers don smith devices

Quote:

Originally Posted by **mr.clean** .

hi guys, cant seem to get much response on this LOL jeeez

Here is my recent work on the Don Smith device

[YouTube - Don Smith Device Project Part 9: SYSTEM ON LOW, Average 1.7 Amp In, 10+AMPS Out](#)

Just wondering if anyones workin on this, or any input from anyone. Im doing this with very little knowledge. Im pleased so far.

the basis of don smith power is on two factors voltage and frequency. the minimum voltage to make a spark gap work is 4kv ie 4000 volts and use the optimum frequency for the rest. if we r to make a device for home use we must fix one of two things its better we fix voltage and vary frequency. if we use both high voltage and high frequency it will make us produce power not controllable and with more hazardous voltages. so keep voltage just enuf to spark get going and use frequency by formula of resonant circuit. assume $c=1$ and calculate power in joules of resonant

circuit. so keeping voltage 4k fixed n changing frequency and capacitance to minimum(capacitance associated with inductance only) power is

$$P=0.5 \times C \times (V \text{ squared}) \times (\text{HZ squared})$$

P=POWER IN JOULES or watt sec (1 joule = 1 watt sec)

C=CAPACITY IN FARADS

V=VOLTAGE

HZ=CYCLES PER SECOND

x= multiply sign

when we are using caps C as storing power of tesla coil or inductance L

the formulas for output power are

caps formula-putput power

$$P_c=0.5 \times C \times (V \text{ SQUARED}) \times \text{HZ}$$

P_c= power in joules= watt sec

C=CAPACITY IN FARADS

HZ= CYCLE PER SECOND

$$P_l=0.5 \times L \times (A \text{ SQUARED}) \times \text{HZ}$$

P_l=power in joules= watt sec

C=CAPACITY IN FARADS

HZ= CYCLE PER SECOND

A=current in ampeares

if we r taking output from L ie inductance only use pl formula
and if we r taking output from capacitor then use pc formula

its always better to use reverse tesla coils
that is thin primary and many turns
and thick secondary few turns many amps

resonance is a just a frequency and its a match if matched then number of turns and thickness dont matter.

all that matters is resonating circuit producing power at low voltage and high amps.

the secret of don smith revealed.

JUST REVERSE TESLA COIL

AND U GET THE GOLD
AND THATS WOT THE STORY NEVER TOLD

GOOD LUCK AND ALL SUCCESS! TO ALL FELLOW MEN!

REGARDS

ZILANO ZEIS ZANE

Aug. 6, 2011

Zilano

great work mr. clean

HI there! you have done a wonderful work. if ur nst is 12kv and ur output coil is 15 turns then ur voltage might be 180000 volts that is 180kv and u r getting 10 amps means u r getting 1800kva power and its hard to make a transformer for that for a step down. try reversing tesla coil. make primary many turns and secondary thicker yet lesser turns so u get optimum voltage step down and in resonance with more amps. if u can get step up resonance then u can get step down resonance. try making coil so secondary gives 220 volts or 120 volts as the case maybe. and use 1:1 isolation transformer with amps in consideration. hope u have a reason to whistle and smile..... its just a suggestion and i hope u try it its gonna work. use bifilar coil in output for better ampearage.

isolation transformer is must coz we dont want any accidents at output.

am really glad and very happy seeing ur replications! great work keep it up !
its an awesome attempt !

regards
ZILANO ZEIS ZANE
in sense n sane!

Aug. 6, 2011
Zilano

All Kapanadze Replications R Based On Don Smith

its true all kapanadze circuits resemble with don smith circuits. truth always lie in heaps of dust. uncover it and u get golden truth. don gave us everything to start with and he is the only person with maximum details to help us replicate.his devices are true in all respects.. try digging more here is a link [‪Don Smith Device Project Part 8: SYSTEM ON HIGH, STEADY 12-20 AMPS NO CAPACITORS‬‏ - YouTube](#)