

**So You've Decided
To Subscribe To
The Pupman Tesla
Coil List**

(By Christopher "CajunCoiler" Mayeux)

Welcome to the list. Within the confines of this document, you will find some useful information for the greenhorn or seasoned coiler, who is ready to converse with his or her peers. If there's something here that you don't understand, there are lots of people reading and contributing on the list, who are more than happy to help.



Chip



Terry

The list is hosted by [Chip Atkinson](#), and moderated by [Terry Fritz](#).

If by some strange quirk of fate, you haven't actually subscribed yet, just click on one of the following buttons...



Subscribe List



Subscribe Digest



Unsubscribe List



Unsubscribe Digest

On <http://www.hot-streamer.com>, you will find an indicator that shows the current status of the list (up or down). Also on this same website, you will find a major padload of coiling information.

In "digest" format, several posted messages will come to your inbox as ONE message that you can sort through at your leisure. In standard "list" format, the messages come one at a time, and will most likely be grouped together with other single messages, in packs of as little as one, to as many as one hundred at a time... depends on how hot a topic is, and how frazzled Terry is.

To: All You Happy Readers
From: Chip Atkinson
Subject: What It's For.

The Tesla coil mailing list that I run covers the topics of Tesla coil construction, operation, measurement, and use. Topics range from sources of materials, opinions of commercial Tesla coil kits, measurement of electrical fields, photography of coils, construction techniques, etc

To: All You Happy Readers
From: Terry Fritz
Subject: How it's done.

Hi All,

Just "a few" reminders ;-)

All posts to the Tesla list have to "somehow" be related to Tesla coiling. Sometimes I use "fuzzy" logic there :-)) But at least stick the words "Tesla coil" in the post even if the relation is a "strained" one ;-))

Moderation is not a straightforward thing. It is based on gut feel and "wisdom". :-) I always appreciate comments, suggestions, and ideas... on how to make the list better and how it should be moderated. If you have any input, feel free to write me.

The Tesla list ONLY deals with the subject of Tesla coils. With 800+ subscribers, we get up to 90 posts per day (30 average) so we are really strict about keeping things fairly on the topic of practical Tesla coil subjects. Thus, we ask that posts be kept fairly on subject, and not excessively wordy

We do not send or accept file attachments of any type. If you do see a file attachment, assume it is a virus and take appropriate steps. It should not have been sent. Some mail systems may add files at your end which are probably fine but that is out of our control.

It is nice if everyone has some name or handle to go by and sign his or her posts with it. That makes it much easier for everyone to keep track of

who is saying what. Otherwise, we start sending answers to the wrong people and... it just gets messy...

Of course, profanity, flaming, trolling (that's a new one ;-)), and other obnoxious behavior is not allowed... Posts to the list are pre screened by the moderator to be sure they are appropriate. If I don't post something to the list, I always write back to the person explaining why. It can take up to 24 hours for a post to make it out to everyone so be a bit patient...

Please be sure to snip of the old parts of posts that are no longer needed in your replies. This helps keep posts from growing beyond recognition.

I ask that simple "thank yous" and other short personal notes be sent directly to the person or persons involved, rather than to the whole list. Even though the server is now capable of very high bandwidth, not all of our mailboxes are ;-)

Of course, there is a lot of off list correspondence, but if someone does not want your comments please leave them alone. I don't "judge" posts on quality, content, accuracy, etc... That is for everyone to decide for himself or herself, not me...

Fancy HTML text and stuff gets stripped and only plain text is sent out. So don't spend a lot of time making fancy HTML text. Those fabulous ASCII text things are ok :-)) However, please do try to make responses and added text clear and easy to read!

Adding blank lines to help denote added text is a real help!

I can certainly control what is posted to the list and take action if needed here. However, I can't do much about problems off-list unless I know about them. There have been a few cases in the past where people have been contacting other list members off-list with rude and generally unproductive comments. If anyone feels they are being unduly bothered, please let me know and I can handle it. Sometimes we find that such individuals are bothering many people once we go looking. I can assure you that Chip and I have a very low tolerance for such things...

I just wanted to mention that SPAM sent to the Tesla list is taken very badly. :- (While posting Tesla stuff you have for sale and such is perfectly fine, the true SPAM garbage is not tolerated at all. All the get rich quick, herbal remedies, viagra... gets a quick response back to the ISPs of the sender and the websites mentioned. I am really good at getting such sites nuked and accounts cancelled. (I have never had to phone them "twice") Many ISPs now charge hefty fines for spamming. So I just wanted to give fair warning about this in case anyone is ever tempted... I do not discriminate at all when it comes to spamming and I am known for being very vicious. I hardly ever get spam myself and there is a reason for that ;-)) Once in a very great while the Tesla list names get pulled into some mailing list. So far, spammers doing that have had a very "bad day" and the problem has been minor. I intend to keep it that way... This seems to be a problem more recently so I just wanted to give fair warning so I would not "zap" the innocent un-warned :-))

Cheers,

Terry

To: All You Happy Readers
From: Christopher "CajunCoiler" Mayeux
Subject: Hang In There

You still have several more pages to read, and every one of them has something useful on it. However, if you're in a bit of a hurry to find something in particular, feel free to avail yourself of the bookmark index on the left side of the page.

Even if you do jump around from page to page, getting just the bits and pieces you want "now", I highly recommend that at some point in time (preferably sooner than later) you sit down and read over the entire document AT LEAST ONCE. I'm not trying to force you to memorize it or anything, I just want to make sure you don't miss out on anything.

Party On!

CajunCoiler

Commonly Used Abbreviations

AC or A/C
Alternating current

AL
Aluminum

ARRL
American Radio Relay League

ASRSG
Asynchronous rotary spark gap

AWG
American Wire Gauge

BPS
Breaks per second

BTU
British thermal unit

BTW
By the way

CPS
Cycles per second

CT
Center tapped

CW
Continuous wave

DC
Direct current

DMM
Digital multimeter

DW
Damped wave

EMI
Electromagnetic interference

EMMC
Enhanced Multi Mini Cap

FL
Fluorescent Light

FREQ
Frequency

FWIW
For what it's worth

GAK
I picked up the wrong can to drink from.

HDPE
High density polyethylene

HF
High Frequency

HV
High voltage

HZ
Hertz

IMHO
In my humble opinion

IMO
In my opinion

KHZ
Kilohertz (aka: 1,000 Hz)

KV
Kilovolt

KVA
Kilovolt amp

LDPE
Low density polyethylene

MHZ
Megahertz (aka: 1,000,000 Hz)

LTRC
Larger than resonance cap

MIG
Metal inert gas

MMC
Multi-mini cap

MOT
Microwave oven transformer

NST
Neon sign transformer

NaCl
Salt

OBIT
Oil-burner ignition transformer

PCB
Polychlorinated biphenyl

PET
Polyethylene terephthalate (mylar)

PF
Power factor

PFC
Power factor correction

PIG
Rural distribution transformer (aka: pole pig)

PP
Polypropylene

PS
Polystyrene

PT
Potential transformer

PVC
Polyvinyl chloride

PWM
Pulse width modulator

Q
Quality factor

RF
Radio frequency

RFI
Radio frequency interference

RMS
Root mean squared

RPM
Revolutions per minute

RQSG
Richard Quick spark gap

RSG
Rotary spark gap

SG
Spark gap

SRSG
Synchronous rotary spark gap

TC
Tesla coil

TCML
Telsa coil mailing list

TIG
Tungsten inert gas

VA
Volt amp

XFMR
Transformer



Safety Lesson



("borrowed" from Terry's website)

Tesla coils and their support equipment are extremely dangerous.

There are many known and unknown dangers associated with this type of equipment. "Some" of the known dangers are as follows:

High Voltages and Currents:

Tesla coils use and produce extraordinarily high voltages and currents. Output voltages for small coils are typically in the range of 500,000 to 1,000,000 volts. Currents of 1000 to 5000 amperes may be present in the input circuits. Under no circumstances should one come into contact with these voltages and currents. In all cases the voltages and currents used in Tesla coils are considered far beyond lethal levels. Please see special note.

Burns:

Due to the high frequencies involved, Tesla coils can cause severe burns without the sensation of pain. These burns are typically very deep and need long-term medical attention.

Long Distance Arcing:

Tesla coils, by their nature, produce electrical arcing, which can travel unpredictably in any direction and can strike at considerable distances. These arcs can be very dangerous.

Electromagnetic Fields:

Tesla coil type equipment produced extreme magnetic, electrostatic, and radio frequency fields. These may interfere with pacemakers and any other critical electronic devices in the area. These effects are unpredictable.

Ozone:

Tesla coil equipments produce large quantities of ozone, which is poisonous. Adequate ventilation must always be maintained.

Ultraviolet Light:

Spark gaps used in Tesla equipment produce intense ultraviolet light. This light can burn the retina of the eye with ease. Always cover any exposed arcs.

Fire:

Tesla coils can and have started a number of fires. They can arc to flammable objects with ease. Any fire extinguishing equipment must be rated for electrical fires but still must only be used when the power is removed from this type of extremely high voltage equipment.

PCB Oil:

Although rarely used now, high voltage devices such as transformers and capacitors may use oils containing PCBs. These substances can cause very serious and long-term health problems and fatal cancers.

Explosions:

Components used in Tesla coils can explode with great violence. High voltage capacitors especially can store a tremendous amount of energy and can fail catastrophically. Always wear eye protection and physically shield energy storage components.

Energy Storage:

Tesla coil circuits can store lethal voltages long after external power sources are removed. Circuits can spontaneously become energized without warning. Power supplies and especially high voltage capacitors must be discharged before approaching this type of equipment.

X-rays:

Vacuum tubes, light bulbs, and other evacuated spaces will produce X-rays when exposed to high voltages.

Radio Frequency Interference:

Tesla coils always produce intense radio frequency interference.

Electronic Equipment Damage:

Tesla coils can easily destroy any type of electronic equipment in the area or connected through the common AC wiring. This includes Computers, Televisions, etc.

In Closing

If you've gotten this far, then you'll most likely be sticking it out with us... good for you. This one act shows a higher than normal intelligence level is within you. Remember to keep the exchange of ideas flowing. Don't just lurk in the shadows... participate. There are no dumb questions, with the exception of the one you refuse to ask. You ask, we teach, that's how learning is done. With a little luck, and some help from the good (and sometimes facetious) people on the list, you'll find that your coiling project just might come out better, than if you'd gone on alone.

And by all means, don't forget to document your projects. If you run into problems, it'll be easier for you and the persons that help you, if you've taken notes of some kind, detailing your settings, and any changes you make. If you can include pictures and/or video in your documentation, that will be all the more helpful.

If you have list-related problems, talk to Chip directly.

If you would like to contribute to the content of this document, you can contact me directly. [CajunCoiler](#)

And now, to add to your enjoyment of this document, the next page is a picture of Nikola Tesla (frame included) that is suitable for printing, and hanging on your laboratory wall.

Enjoy

