

FEG. How to catch the effect when tuning by Sergey Alekseev
<https://www.youtube.com/watch?v=s1ves5ukyVI>

link contains several unrelated videos linked together
transcript is for first fragment 0 - 4:10

00:15 Hello Nail, want to show specifically
00:20 a certain thing that you catch the effect
00:24 at once, well, push pull with
00:27 controlled kacher and voltage regulator
00:31 here inside is done, but for now it's in
00:36 so far, it is not tuned yet
00:39 like this, closer-further adjustment to do
00:45 that's it
00:47 this is how wire will be 1.2mm
00:50 diameter wire, aluminum
00:53 this is copper this is also copper everything well this is
00:58 completely all copper, this HV coil
01:01 aluminum, with copper doesn't work well
01:06 I want to show one important point and so
01:09 there is a blue trace here we have it
01:12 it is a collector
01:19 to K2611 with other transistors is bad
01:21 it turns out or K1358
01:24 it practically does not heat up especially, power
01:29 it is on the kacher that the
01:32 the effect turned out right here in the coil
01:34 the effect of amplification has occurred in general
01:40 it is necessary to tune the voltage and
01:44 I put the
01:47 LM2577 and will it be such a regulator
01:50 it will be clear exactly what the effect will be
01:55 you tune frequency
01:58 about 1.2 from 1.1 to 1.4 and
02:08 so we look at power supply 26
02:11 volt it can be 22 volts depending on
02:13 what kind of transistor and now
02:15 come on like this
02:16 we will squeeze it all when this is such garbage
02:20 is and not now we will reduce
02:24 voltage
02:31 but there are no special ones
02:34 we raise it above the norm, well, now it's not particularly
02:40 apparently I have already set it up here because it
02:43 it's very hard to knock down
02:44 there is no jumping, it means we have to
02:47 lower now lower it smoothly so here
02:52 only in this position
02:54 the effect will manifest itself in other words
02:56 this is a very narrow moment in frequency and
03:00 voltage and duty cycle
03:02 if these are not respected means

03:05 will not work, just about 24
03:13 volt nothing about
03:15 25.7
03:23 30 volts no effect
03:27 this is 26-27 volts for power supply now we
03:31 we will appear directly check on kacher
03:42 ok sorry one hand is not comfortable so
03:48 here are 25.11 volts well, put it on
03:52 the other transistor will be the voltage will be
03:54 other
03:55 put other transistor
03:57 it will be different again
03:59 everything will depend on Tesla itself
04:02 important Tesla is the most important part in
04:06 FEG is Tesla
04:10 well in two words so
<cut>

Summary of other parts

4:10 – 7:30 tuning of the system
7:30 – 9:50 power calculation, odd and even harmonics
10:00 – kacher influence on the output