

Subject: Antenna Battery Charger
Sent: 22 Dec 06

This is a good idea and worth commenting on. Three paragraphs from the following link have been copied in to refresh memory. <http://www.zetatalk.com/energy/tengx084.htm>

“Just about every Ham operator knows better than to disconnect an antenna and then pick it up later by the connector and touch a ground. Enormous charges can build up on an insulated wire and the longer the wire the more charge that will build. Most all of us have learned to pick up the coax and bleed off this charge. How few of us have ever been so poor as to have to think about how they can use this free energy. Wiley Almond told me how to do this a few years ago. When he was a kid in the depression, buying batteries to listen to his homemade 2 tube regen radio was out of the question. So they used the long wire antenna they had scrounged from an old telegraph line to charge the batteries so they could listen to the radio.

What Wiley did at the ripe old age of 12 or 13 was hook a spark plug to the end of the wire and then run the ground end (where the threads are) into a 12 volt coil off an old A Model, but any old coil will do. The bottom connector or the coil that used to go to the points is hooked to the positive side of the battery. The negative side of the battery is hooked to a good earth ground and a 1 to 3 KV capacitor (a few picofarred type like those found in the horizontal section of a television chassis) is hooked from ground back to the wire where the top of the spark plug is connected. That's it! Nothing should be touching ground except the ground post of the battery. Wiley was using about 200 feet of insulated wire and it will completely charge a 12 volt deep cycle every 2 or 3 days! A thousand feet of wire will do it a lot quicker but the voltages approach lethal levels.

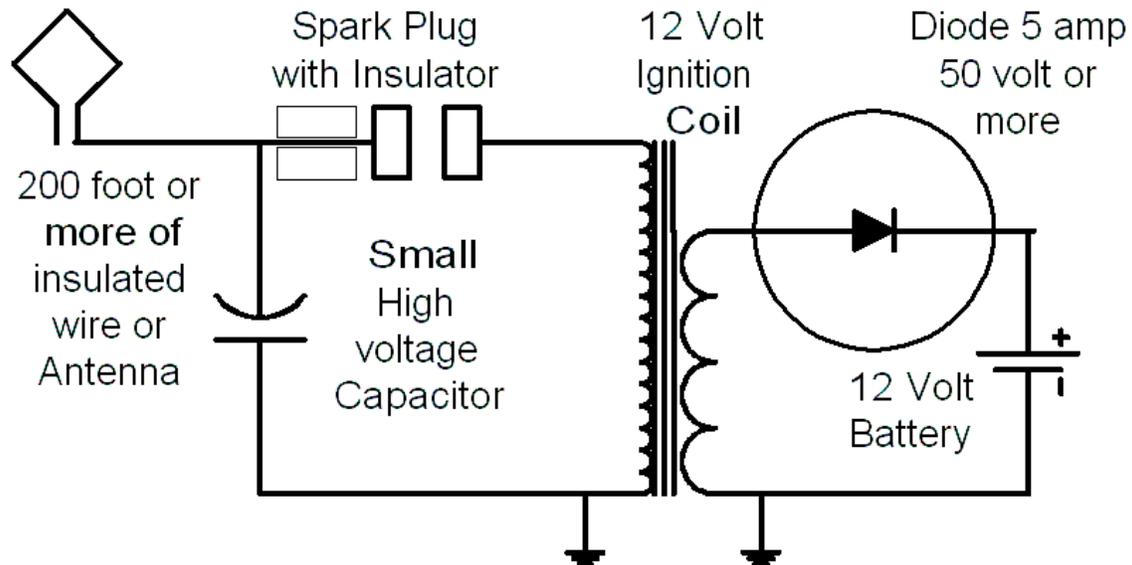
What is behind this feat is that a very long wire acts like a capacitor and builds a charge on the wire. When a few thousand volts are reached, it will discharge by "sparking" across the spark plug. The spark plug delivers the charge to the coil that downconverts it to a few hundred volts and pulses the battery, kind of "squirting" a charge into it. The weather controls how much static electricity is in the air. Wind and super cold air seem to really make you think you can weld with this thing! I hooked a small neon bulb to a full wave loop on a winter night when it was snowing with a high wind and the bulb burned continuously all night long! The higher you get the wire off the ground the better. The wire has to be completely insulated. It doesn't seem to make any difference whether you lay it out in a straight line or weave it back and forth. Length is the thing here, not size. Old phone wire, old coax from the cable company anything that is insulated and long will do the job. I use my Ham radio antennas as they are up and long already. This thing will weld the fillings in your teeth together if you are not careful with it!”

My comments follow:

I am not sure how well this will work in wet after post pole shift conditions. But it is worth a try. The following is a few comments on how to build it with scroungable

commonly available items. Attached is a circuit diagram.
http://home1.gte.net/mikelob/Antenna_Battery_Charger.gif

Antenna Battery Charger Circuit



The description did not use a diode in the charging circuit, but did specify using an old model-T ford coil. When one uses a more commonly available ignition coil a low voltage diode is needed to keep from discharging the battery. If the coil is hooked up without the diode, flow would start immediately and soon discharge the battery. The diode limits flow in one direction to charge the battery.

The above ground wire would need to be well insulated at the far end or wherever it is held up in the air. Ceramic or plastic could work. Heavy duty fishing line or weed eater line could be used to hold it up and tie off the antenna wire. A short section of PVC pipe with holes drilled in each end so that it can be tied off could also work.

Adjusting the size of gap on the spark plug would change the voltage of the output. The size of the capacitor doesn't matter much. The bigger it is the more will be stored until it sparks. One could build it from a plate of glass or plastic 1/8" or thicker and tin foil covering each side (leave it about .5 inch away from the plate edge to avoid leakage. Then copper leads attach to each side.

The ignition coil is an oil filled metal-can shaped about 2" round and 6" long. It can be taken from an older type car, truck or tractor that uses points. I am guessing earlier than about 1975. Most car part stores have replacement coils in stock now. The secondary or high voltage side is the one that has the well insulated high voltage spark plug size wire coming out the top. The other side of the high voltage winding is internally grounded to

the metal case. The primary side is found as two small terminals with screw threads and a nut on them. This is where one hooks up the battery. Test the connection and make sure you are getting a positive flow into the battery. One may have to reverse the polarity of the connection to the ignition coil to get it to work.

MikeL