

Sammlung von Schaltplänen

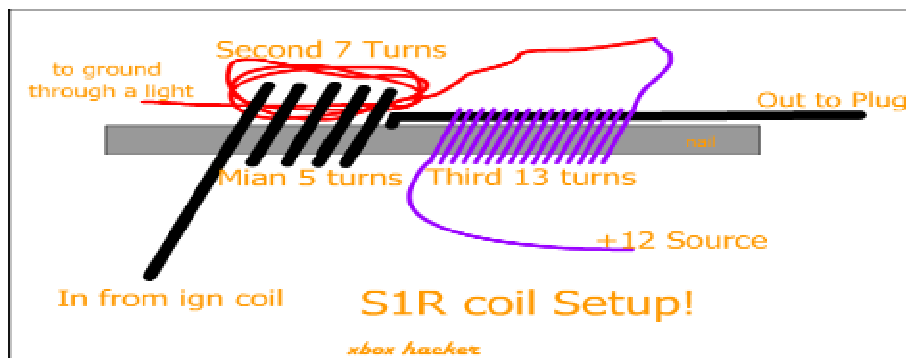
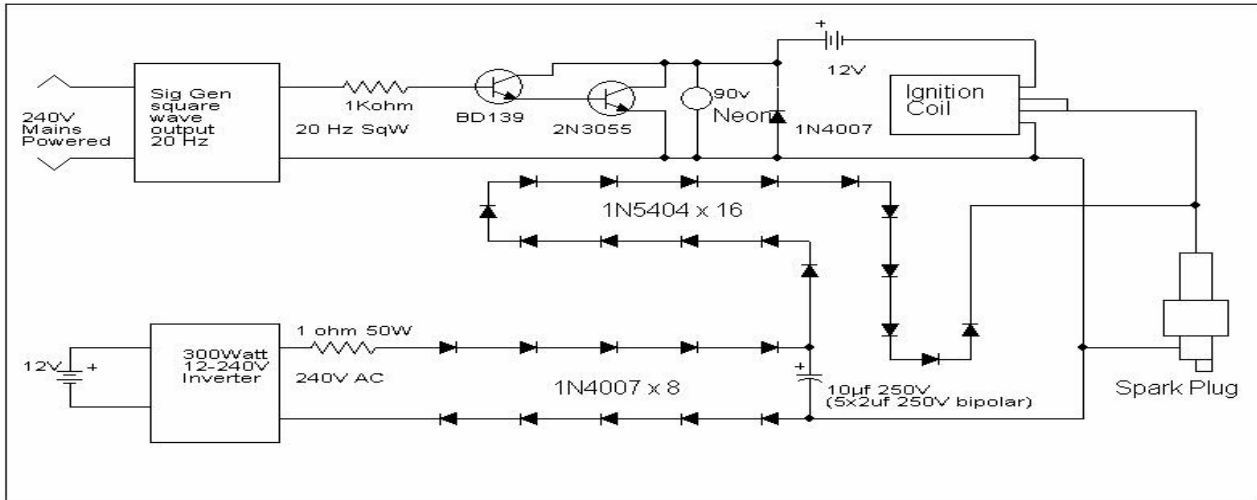
Richtigkeit ohne Gewähr, da viele Nachbauten

s1r9a9m9:

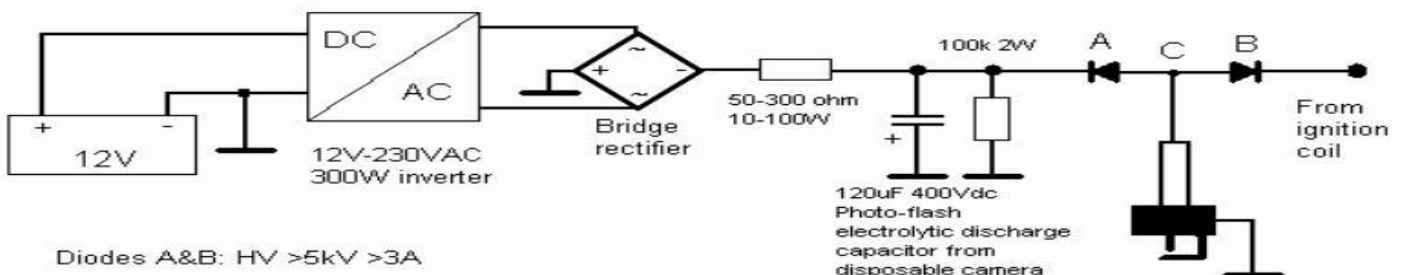
http://www.youtube.com/watch?v=tb3d_hf7R10&feature=related

<http://www.youtube.com/watch?v=pBCI3OdM9Y4&feature=channel>

<http://www.youtube.com/watch?v=ucb8cJwIChY&feature=channel>



"S1r-Tero" plasma spark plug system for a single-cylinder engine using the original ignition coil



Diodes A&B: HV >5kV >3A

The inverter charges up the 120uF Photo-flash capacitor to about 300Vdc. The resistor (or lamp or an inductor) is used to limit the charging current to the capacitor. The polarities of the bridge rectifier, capacitor and two diodes are reversed, because it seems that the engine's ignition circuit gives a better spark in the negative direction.

The capacitor is discharged instantaneously through the spark plug when the ignition coil creates a spark in the plug. The discharge energy is about 5J, or about 100 times stronger than the spark created by the ignition coil itself. You can switch between original and plasma ignition by switching the inverter off and on. Bleeder resistor safely discharges any residual charge in the capacitor.

The engine's RPM rises when the plasma ignition is activated (at least with gasoline and propane). The gasoline consumption seems to be a little bit less than with stock ignition. The engine starts extremely well with the plasma ignition.

NOTE: Make sure that the spark plug is not resistor type (measure resistance from tip to center electrode, should be less than a few ohms), otherwise the capacitor does not discharge fast enough through the plug.

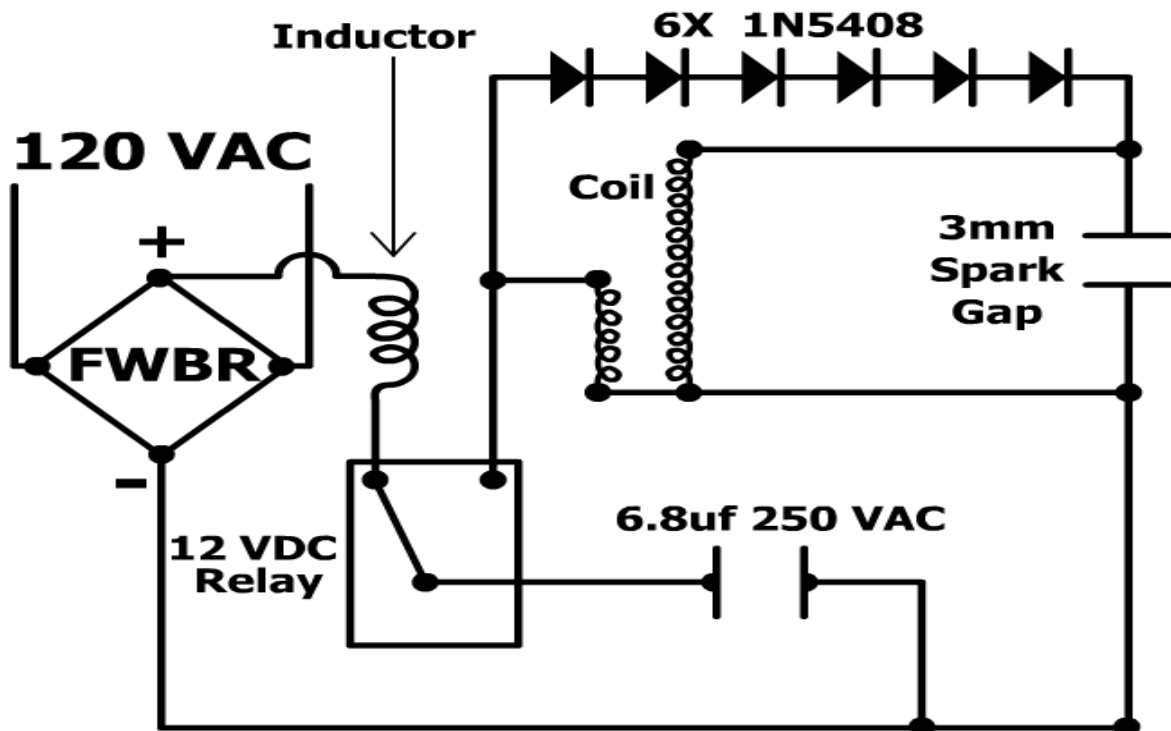
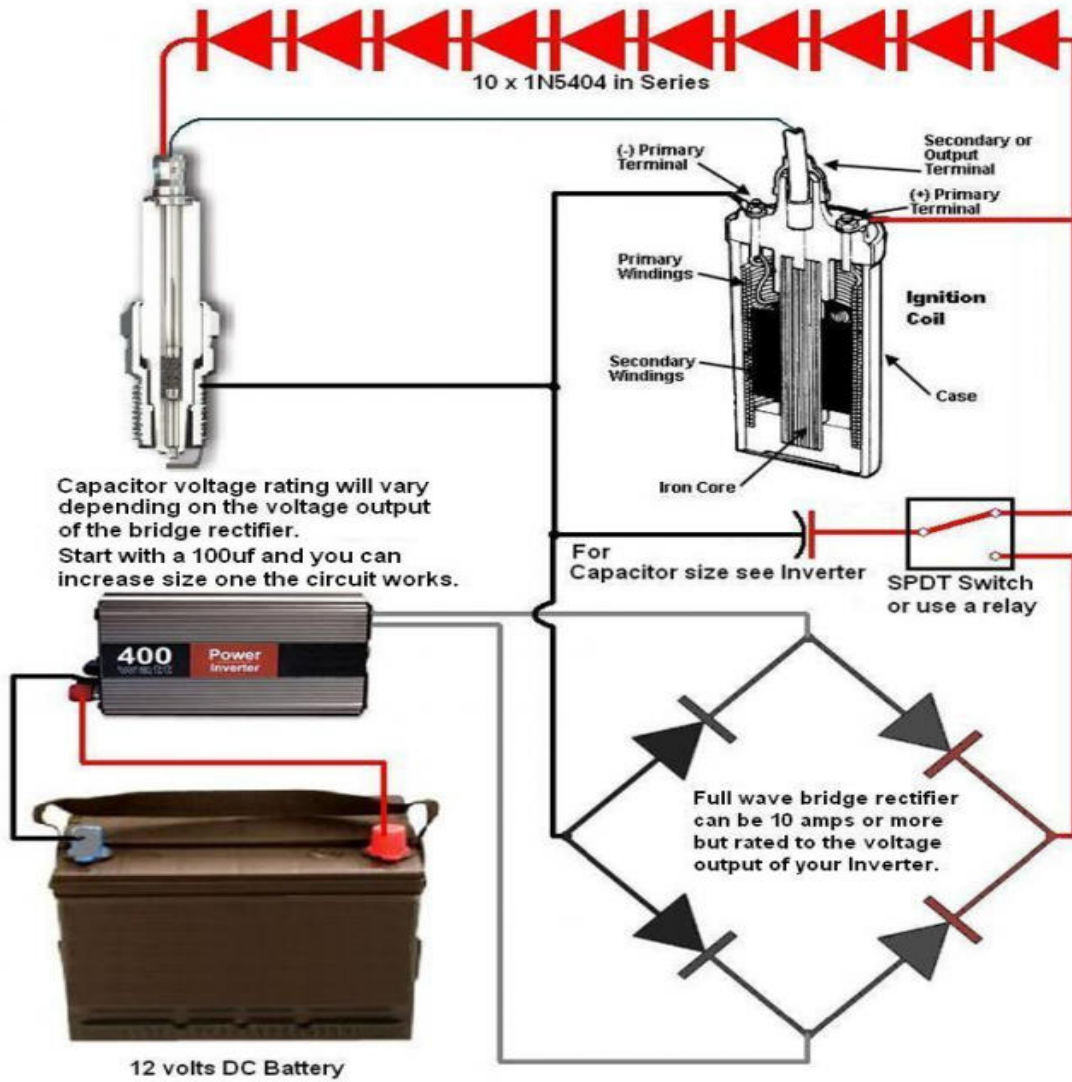
31st July 2005
tero.ranta@bigfoot.com

gotoluc:

<http://www.youtube.com/watch?v=FxnRQ7fkWtE>

<http://www.youtube.com/watch?v=8R2fNukDCPs>

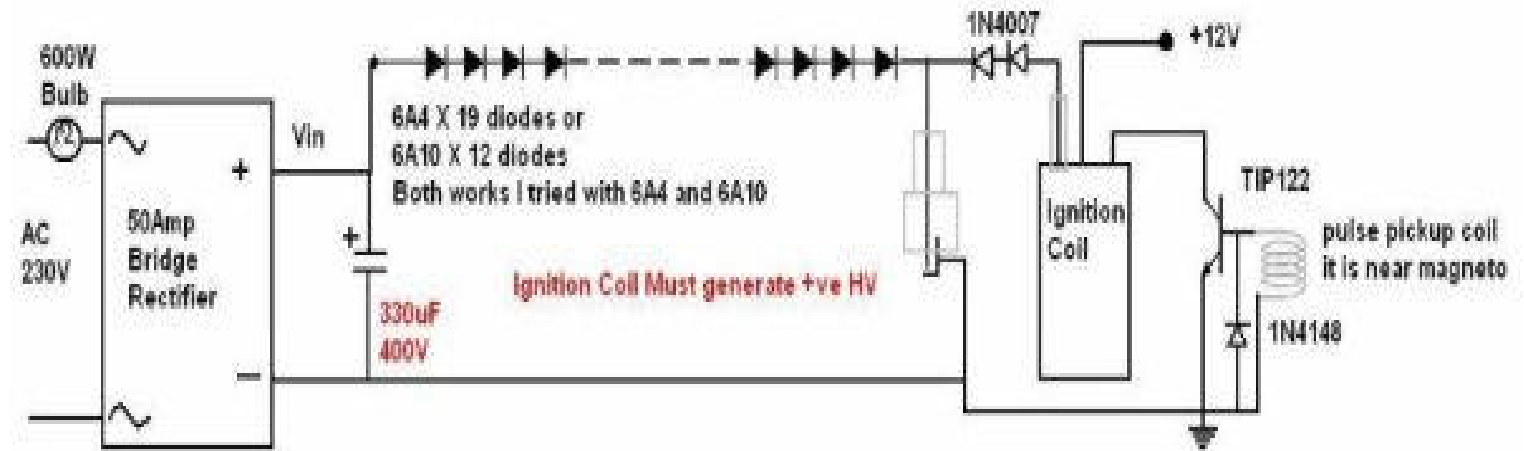
Updated July 13th, 2008



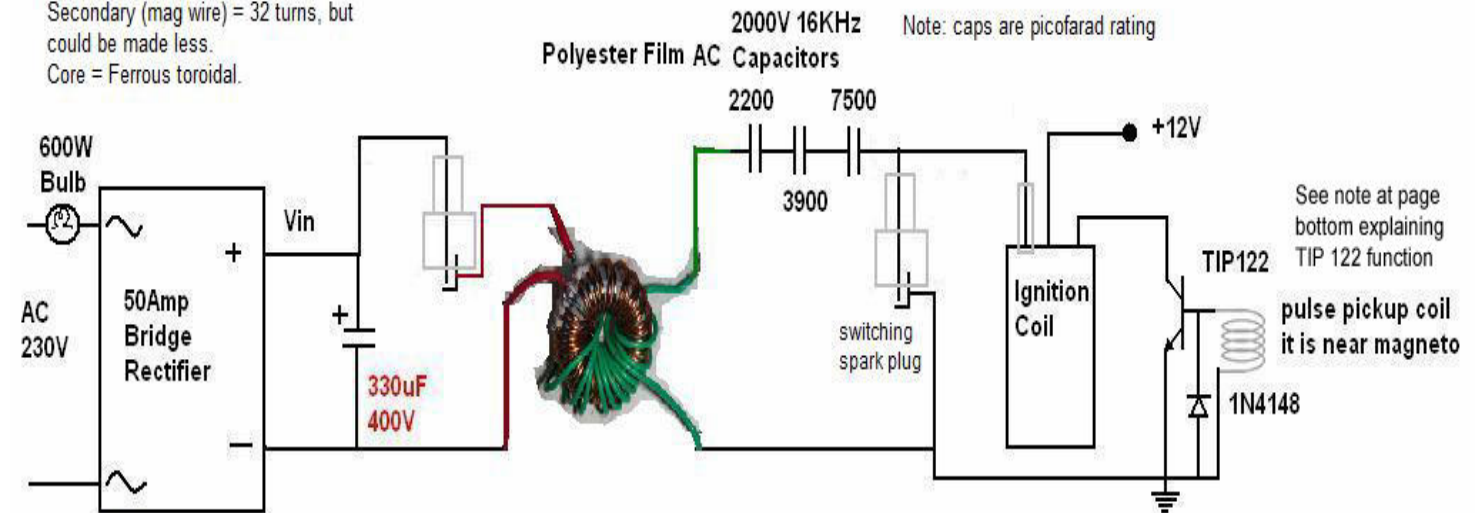
capacitor70:

<http://www.youtube.com/watch?v=nnUv6M0N6z4&NR=1>

This Circuit I used in working model



Primary (green) = 12 turns
 Secondary (mag wire) = 32 turns, but could be made less.
 Core = Ferrous toroidal.



How it works?

1. Capacitors charge to HV and first spark plug acts as switch, discharging capacitors into the green winding transformer primary.
2. If we directly connect HV to transformer's green winding it will not allow voltage to rise enough to trigger second spark plug. Also LC resonance is at work here.
3. Once high voltage spike is given at primary, secondary generates High voltage and it is connected in series with LV so LV+HV(secondary) makes spark and plasma is generated.

How to test ?

1. Connect primary as shown in figure.
2. Connect spark plug to secondary, Do not connect LV.
3. Once you see spark at secondary, its done,
4. Connect LV in series with secondary and spark plug.
5. Due to low number of turns on secondary it will allow LV through spark plug...

Notes:
 The TIP 122, 1N4148 diode, and pickup coil are only used if you don't have CDI ignition unit on engine. It works just like CDI.
 With ferrite core just put in normally gapped plugs. No need to change gap at all. Don't worry about gap, it works.
 The light bulb is there to act as a fuse, protecting against surge current.

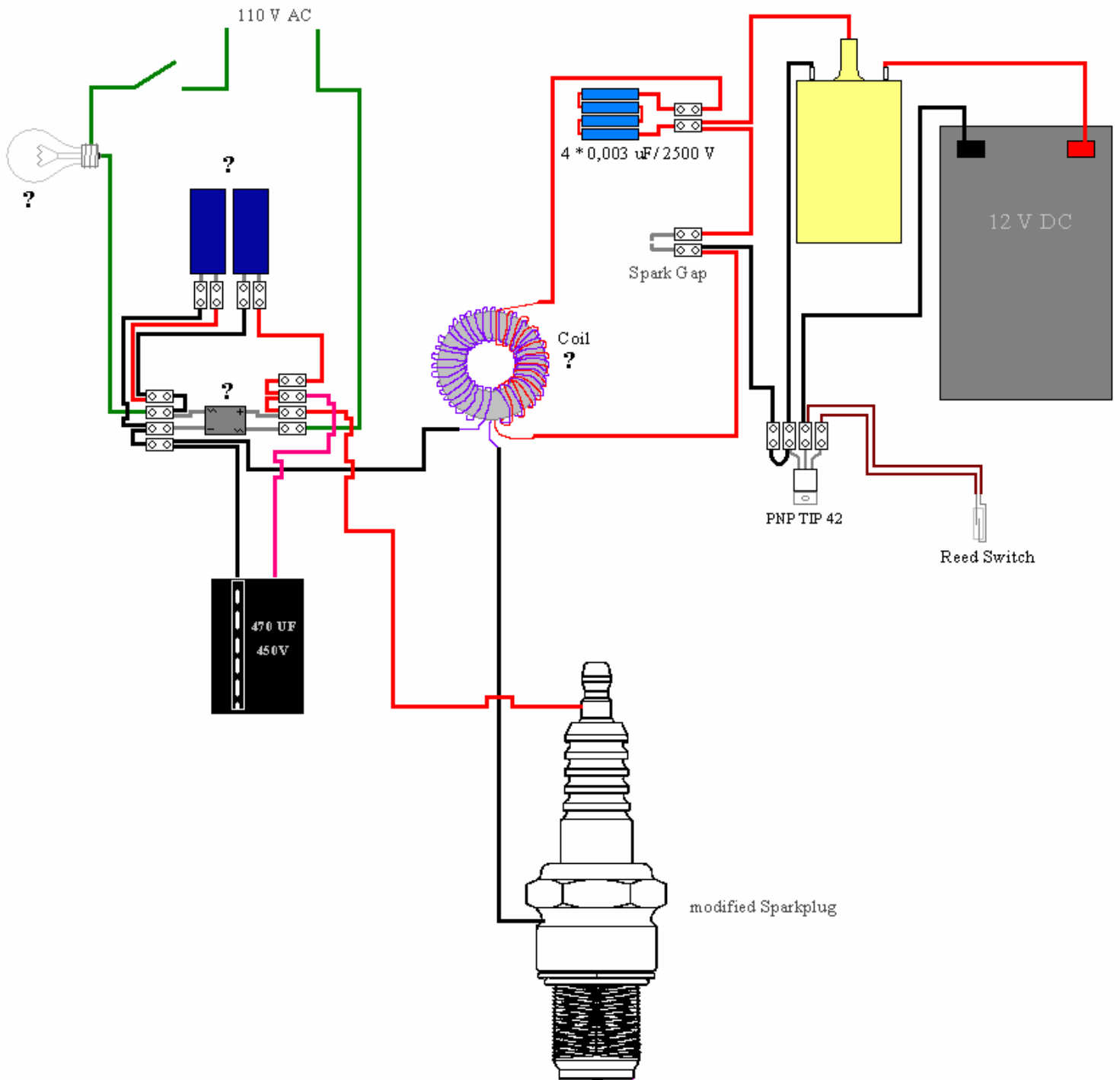
Q - I just remembered, on the coil that is on the tecumseh engine, it only has one wire exiting it, and it is a ground wire. the flywheel with the magnet on it turns and when it passes the coil it makes a spark and then exits the spark plug wire into the spark plug. There is no positive to hook to a 12 volt supply like an auto coil. What do i do with this?

A - You need separate ignition coil and setup like My TIP122 and magnet and pickup coil at magneto.

mozon1967:

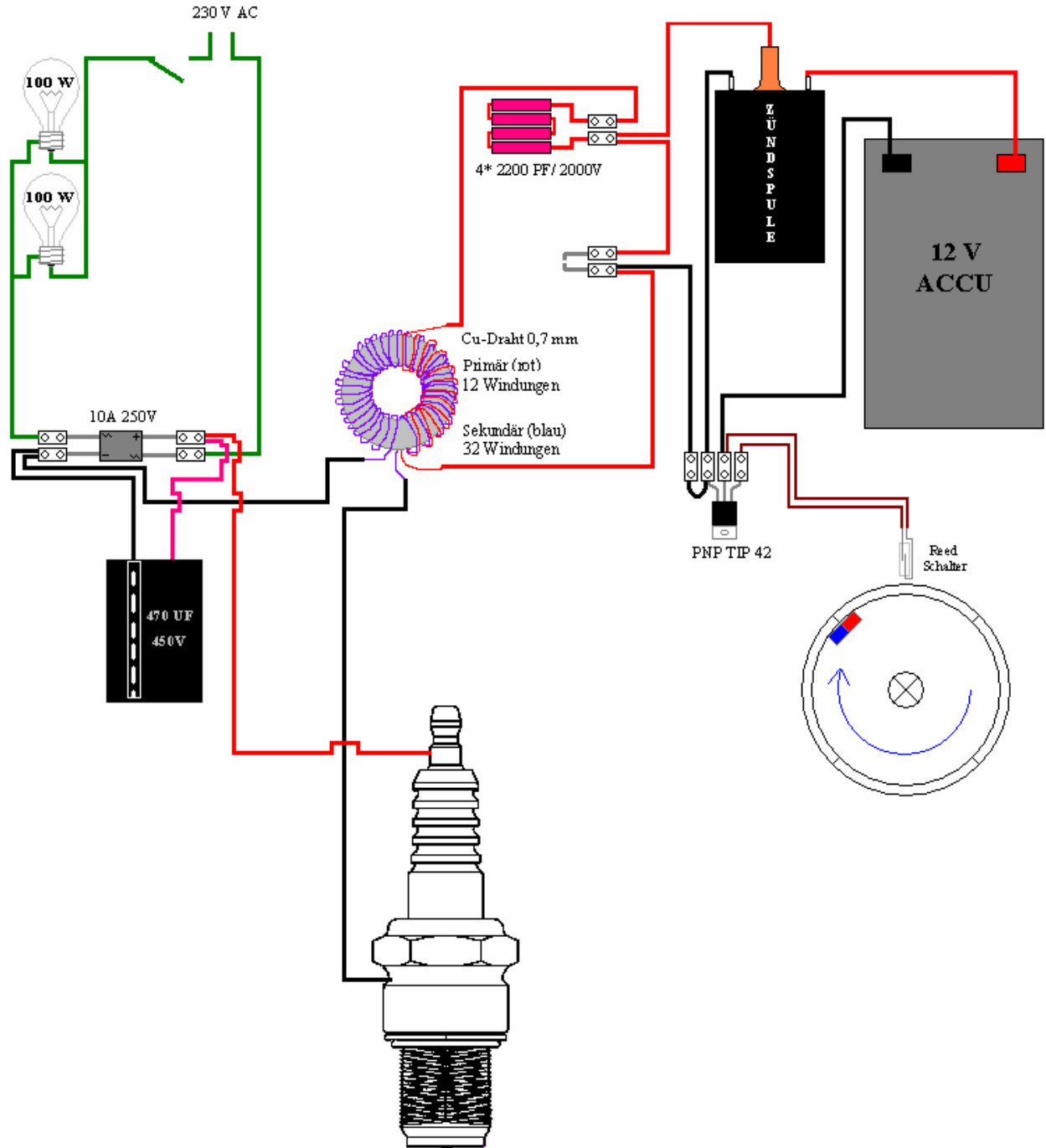
http://www.youtube.com/watch?v=eVP_qf78cnU

Zeichnung nach seinem Video von mir angefertigt

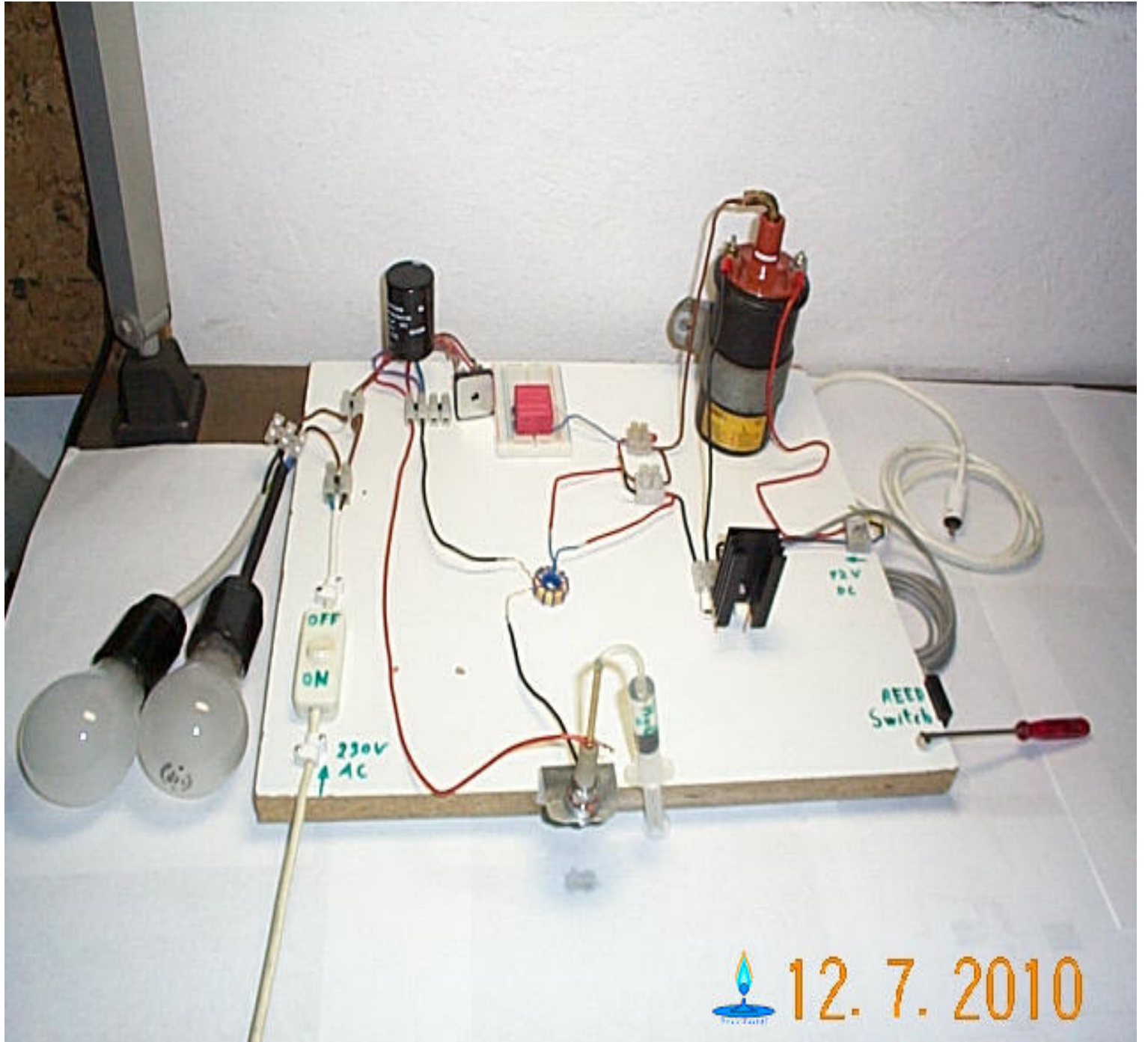


Mein Schaltplan:

wie in meine vier Videos zu sehen sind



Das hier ist nicht meine **WIK = Wasser-Ionisationskerze**
Die WIK hat eine neue Plus-Elektrode
Die Plus-Elektrode führt Strom und Wasser!



12. 7. 2010