

The wrongly called "110v relay", is actually an AC , 6 volt vibrator, vacuum sealed, switching, old style pivoting Electromechanical Rectifier with dual 1 ohm coils and with points/contacts sets inside enclosure under coils magnetic fields, as possible Tesla Magnetic Spark Gap producing Radiant Energy to spark plug. 6 Millihenry total inductance hooked in series extends spark time and INCREASED high voltage to 40KV with 10 amp DC through spark plug.

Low voltage current side formula $E / I = R$ is the resistance total through water spark plug gap from Alternator power. Reference here is to the 2008 You Tube videos by S1R9A9M9 with Briggs 18HP riding mower engine. The Briggs ignition system is Induction type, with flywheel north pole magnet source energy, not CDI which is too fast.

The working circuit is called step up converter BUCK-BOOST TYPE with coil hooked to ground. (Not Boost type). Normal Negative High Volts in, with Positive high volts out from reverse kick flyback effect of total inductor stored energy. (Magnetron Ignition Negative volts temp shorted to positive ground through coil) The KEY here, is that the input line is ALREADY pulsing on/off High V. The brown extension cord fools the public as it is actually a very long single line going to ground under spark plug. Both the S1R coils assy and one set sealed dual coils are in the deli plastic tub hanging on side of Briggs engine in 2008 videos. Other diodes should be included - 1KV blocking diode from double coil output to anode cathode to spark plug top. A later protection diode series BANK, requires step up DC to DC converter power supply to offset voltage losses. This Needs 40KV 10 amp Fast type diodes from Bridge to plug top. Wider than 10KV plug gap also set, .080" so as only for higher + 40KV generated. Nathren was told the voltage on the 18HP was much higher than on the V8 engines, and that coils were mounted in series from the outside terminals on sealed "relay". You Tube videos 1+2 showed successful running of mower engine on water with DIRECT CONNECTION to plug type , not induction type, as in his final report, as he was afraid of others getting hurt. He only assumed the Induction method would work, but had left out extra wire and diode for a "COMPLETED ROUND CIRCUIT". He had very little electrical background, the hired paid 2 shop technicians did all of the engine wiring, and others. This is also why the other two 18HP videos he personally showed had non running engine, as not knowing all of the tech people's details. All data had to be slowly picked apart by us from gleaned thousands of haphazard messages. He gave very little other tech data over years on messages web site, of all that time available to send us useful information he didn't, because of not taking it from the other's tech shop computer file. Yahoo Waterfuel1978 groups shut down Dec 14, 2019.