

## **Magneto-electronic.**

An oft posed question from the owners of Magnetos bikes is ‘can I change to Electronic ignition (which is in effect coil ignition) and what is the cost?’ Yes and lots!

BUT you will have to think long and hard before you jump. The first big problem is that with Electronic/coil ignition you become very reliant on your battery and its charging, AND you will easily find that you don’t have enough from the humble dynamo and you might just end up ‘pushing’ home.

Some facts-There are self generating electronic ignition systems that even look like the magneto, they are expensive.

If you decide to try to fit the humble Boyer Bransden kit then you are almost bound to fit the Micro Digital system to keep the power needs as low as possible ie down to 9Watts . The magneto can be removed and a ‘mushroom’ housing designed for magneto replacement (should have a tapered shaft drive a la magneto). You will also have to ensure you use a magneto fixed sprocket drive (as used in a manual advance system) ie magneto auto advance units have to be removed/disabled) The ignition advance in a Boyer kit is built in and automatic. Or you can try having an electronic kit fitted within a magneto body ‘to retain originality’ I have done this in the past but the cost starts to rise well above £200 for the Boyer kit and fitting hardware, then you have to consider battery charging ie 12V etc.

There is a 6V version of the BB kit but certainly with a twin you really should have 12V to allow the usage of 2 off 6V coils in series.

So if you are going 12V and electronic suddenly there is a real need for battery reliability and your charge capability from the E3L dynamo is starting to push its luck, especially if you want lights AS WELL. The idea of daylight running only and keeping a close eye on battery charging is important and possible. If however you want to do long distance at night at 12V then you would be advised to stick with the magneto or buy a later proper alternator/coil ignition machine.

If you have an alternator in the first place (with a magneto) then converting to coil/electronic is not a big worry. You will have to fit an ignition key/switch, (also needed with dynamo bikes) again 12V is recommended for twins (on 6V). You have to decide if the cost of a modified magneto body is needed or the cheaper easier fit 'mushroom.

One small point in favour of the electronic on the twins is the wasted spark system which ensures that the spark on both cylinders comes at exactly the same time, so removing any discrepancy between the cylinders as can be manifest by the magneto cam ring. Another bonus point is that ignition with electronic should be strobed, so you should fit up some strobe points on drive/crank when initial fitting, hence forth ignition setting becomes a lot easier and accurate being strobed.