

# A Brighter Spark

The subject of this article is a comparatively high-tech piece of equipment, only available since miniature solid state electronic components became commonplace. During the lengthy period of Minor production such devices were in their infancy and only to be found on 'guinea pig' cars, which formed the test bed for the development of many features of modern vehicles. Nowadays we don't give a second thought to disc brakes, fuel injection or electronic ignition all of which were tested extensively on the road and racetrack before being released for public consumption.

The original ignition system fitted to the Minor is fired by "contact breaker points" which have an arduous life switching the primary ignition current on and off several thousand times a minute. It is hardly surprising that these contacts suffer from the erosive effects of sparking and require regular attention for optimum performance. There are alternatives, such as the 'electronic' modules which rely on optical or 'Hall-effect' triggers to switch the current, thus doing away with the points and their associated condenser. A better spark and more consistent ignition timing should result, so theoretically it is a worthwhile improvement which could lead to smoother running and maybe an extra mile or two to the gallon.

With these benefits in mind I bought an 'Accuspark' distributor with electronic switching but it worked for a little less than four hundred miles, before failing completely. I was half-expecting this problem and had the original distributor on standby in the boot of the car; within a few minutes it was installed and I finished my journey without further hindrance.

After this unhappy experience I decided to retain the Lucas distributor and contact-breaker points, and fit an external electronic switching unit, which in effect is a relay controlled by the points. The advantages are that the current and voltage across the points are considerably reduced, the condenser is not needed removing another potential problem and electronic switching should improve the spark marginally.

The unit I fitted is a Pazon 'Energy Booster' (fig. 1) which had already done several years reliable service on two motorcycles, during which time it survived an acid attack from a leaky battery. It appears that this device has been discontinued however an identical product is sold by Boyer-Brandsen Ltd. (figs. 2 & 5) and is available via the internet.

These units are very simple to fit having only four wires, see fig. 3. The existing condenser in the distributor may be left in place or removed, it makes no difference. Any connectors or extensions to the wiring must be soldered to avoid any problems which could lead to misfiring or a complete breakdown. There is no need to make up any fixing brackets as the 'box' can be wrapped in something to keep it from rattling - I used a piece of innertube - and placed anywhere convenient, as long as it is safe; the one on my car being trapped behind the tie plate of the inner wing.

When the ignition is on, two lamps glow (figs. 4&5); the green one shows that power is on whilst the red one goes out when the points open, enabling the static ignition timing to be set without removing the distributor cap.

After five years and around three thousand miles with this device fitted, the points on my AJS motorcycle showed no sign of burning or pitting and starting was always 'first-kick'. The Morris has

done about 7500 miles so far, in a similar fashion, except I have resisted the temptation to kick it! Any vehicle, 6 or 12 volt, positive or negative earth (specify when ordering) with normal coil ignition can be fitted with one of these 'black boxes' in less than an hour and with no significant modification.

Most owners of older vehicles have a distrust of electronic 'gadgets' - that is why I had that spare distributor with me, so it is an added comfort to know that in the unlikely event of one of these modules breaking down it is possible to return the ignition wiring to standard and be back on the road again in less than ten minutes!



**fig 1**



fig 2

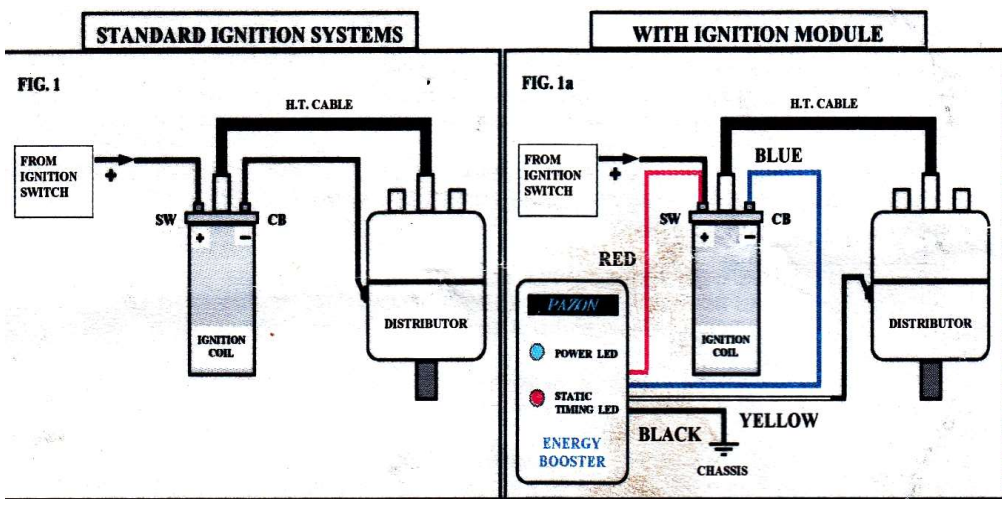


fig3



**fig.4**



**fig. 5**

