



The Micro Digital And Micro Power System

The Micro Digital ignition provides almost total control over ignition functions. In common with the MKIII, it offers electronic control of advance and retard functions. However, because the Micro Digital features a built in computer, the size of a postage stamp, it can make more than a million ignition decisions per second, to constantly monitor engine speed and time the spark precisely to suit. The programming of this micro processor also gives control over ignition coil energy, starting speed, tickover stabilisation and rev limits!

In common with the MKIII these systems are manufactured using the finest semiconductors and are fully encapsulated to protect against moisture intrusion. All units are guaranteed for five years.

The Micro-Digital system is designed to use the original coils where possible, the time these coils are switched during the ignition cycle is programmed into the microchip. With older machines, the coils have a high primary resistance and require a long switch on time. If the coils are replaced, it is important that coils of a similar resistance are used. Boyer-Bransden have a wealth of knowledge covering a vast range of motorcycles, and advice about matters such as this is available from an engineer, simply telephone between 4pm and 5pm on any weekday. Alternatively, consider upgrading to the Micro-Power system which is supplied complete with its own Digital Power coils.



The Mk3 system is now superseded by the Micro-Digital and Micro-Power units. Both are contactless systems and advance the timing electronically, featuring a microprocessor which can compute more than a million decisions every second. These units constantly monitor engine speed and time the spark precisely to suit. In addition, the programming of the 'mini computer' offers control over ignition coil energy, starting speed, tickover stabilisation and rev limits if required.

In both systems, ignition timing is controlled - in bands of 50 r.p.m. over the entire speed range, this gives the ability to programme any firing angle required. To help engine power at idle, the timing can be advanced, on and below the idle speed, this stabilises and reduces the chance of stalling. From idle, the advance can be sharper than provided by the previous Mk3 system, giving even better throttle response. The Micro-Digital system makes the best possible use of standard coils, whilst the latest Micro-Power system is supplied with miniature digital coils matched to the unit, for incredible performance.

This system is designed to work only with our special digital power ignition coils (type 00007 single output, or 00008 dual output). Up to three of these coils may be run from one ignition box, providing very high energy sparks for single, or twin plug cylinder heads. The ignition cycle is produced by a high current pulse lasting for a short period of time; this is controlled by the microprocessor program. The total current consumption is reduced by over a half and the spark energy is greater; average current consumption is less than 1.5 amps at maximum r.p.m.

The Micro Power Coils

The miniature digital ignition coils have a very low primary resistance and a very high quality iron core. Single and Dual output types are available as mentioned previously. The HT cables are detachable and the primary connections are by spade terminals. As these coils are controlled by current input and not voltage, up to four coils can be run in series from one ignition unit. With most dual output coils it is good practice to have only one output feeding a compressed cylinder, but with 35,000 volts it is possible to have both outputs feeding a compressed cylinder at one time.