

MICRO-DIGITAL IGNITION SYSTEM FOR B.M.W.PRE-79 MOTORCYCLES WITH 12 VOLT ELECTRICS**Comprising:-**

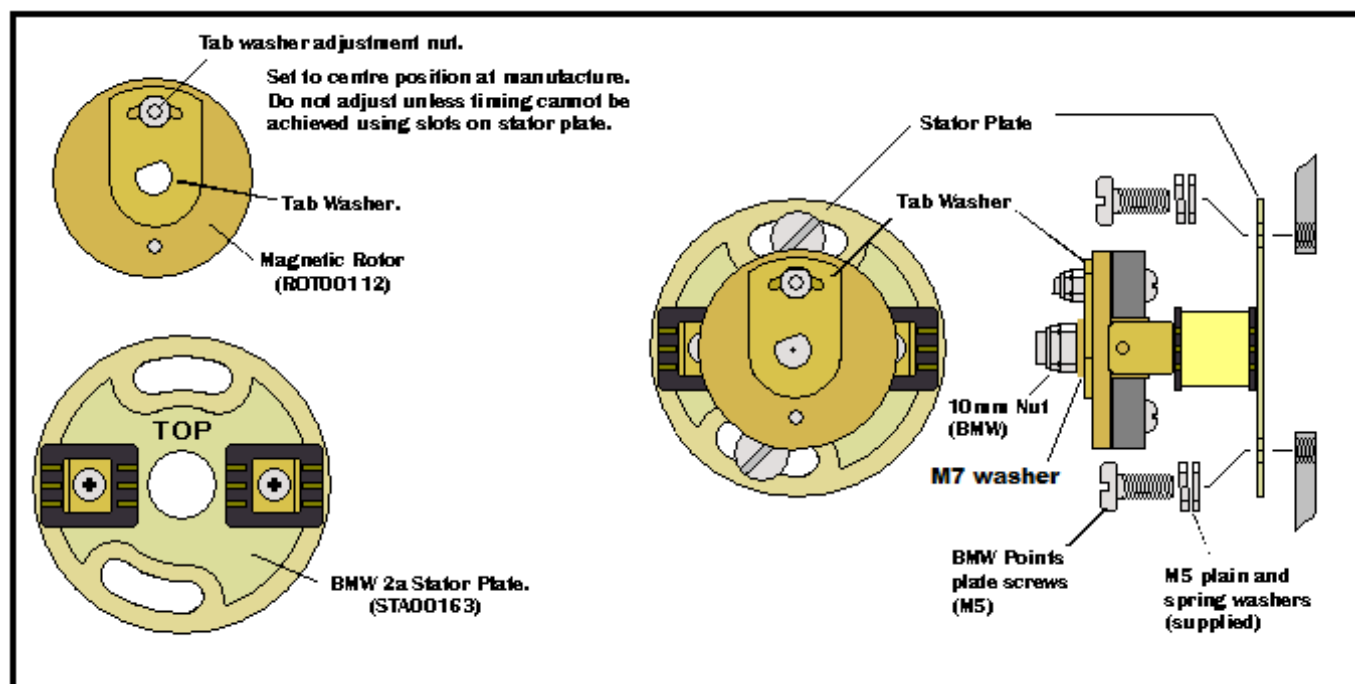
- a) Red Micro-Digital Electronic Box (BOX0037)
- b) Stator Plate (STA00163) round printed circuit with two coils
- c) Magnetic Rotor (ROT00112) round plated steel unit with two magnets fitted
- d) Two 5mm flat washers, two spring washers.
- e) Plastic straps, 2 large, 2 small
- f) Piggyback spade connector

Fitting instructions:

Tools required are the standard tool kit plus a strobe timing lamp for final timing. (Suppressed spark plug caps must be used with this ignition).

- 1) Open seat and remove tool tray.
- 2) Undo the two wingnuts holding the rear of the petrol tank.
- 3) Turn off both petrol taps and undo the pipes from the bottom of each using the 24mm end of the large "C" spanner, or slide the pipes off.
- 4) Remove petrol tank by sliding back and lifting.
- 5) Remove the positive battery terminal.
(FAILING TO DO THIS COULD ELECTRICALLY DAMAGE THE ALTERNATOR CONTROL UNIT WHILST REMOVING THE ENGINE FRONT COVER)
- 6) Remove engine front cover by undoing the three caphead screws. (YOU MAY HAVE TO REMOVE THE HORN)
- 7) Remove contact breaker and auto-advance unit by undoing the two holding screws and single 10mm fitting nut on the end of the shaft.
- 8) Disconnect the points wire from the condenser unit and pull out of the long rubber grommet.
- 9) Feed the wires on the ignition stator plate through the long rubber grommet (from the large end, female connector first).
- 10) Fit the stator plate into the contact breaker housing with its 'TOP' marking above the camshaft. Use two screws and four washers to secure halfway along the adjustment slots. (See Fig.1.)
- 11) Refit rubber grommet into mounting bracket and crankcase.
- 12) Slide the rotor unit onto the end of the "D" shaped contact breaker shaft with the magnets facing the stator plate (take care not to damage the "D" hole in the tab washer as it is a tight fit). Testing its fit with it facing the wrong way is a good idea. If too tight, remove the plating on the inside of the hole with a file.
- 13) Lightly bias the rotor anticlockwise on the shaft and secure using the 10mm fitting nut and washer, tighten carefully to avoid stripping thread.
- 14) Referring to Fig.2, fit the electronic box behind the ignition coil with the wires on the left hand side, secure to the frame tube using a strap.
- 15) Remove the large black wire from the right hand ignition coil (no longer used) and disconnect the green wire from the left hand ignition coil.
- 16) Reconnect the same green wire to the new green wire of the electronic box.
- 17) Connect the black wire from the electronic box to the negative (-) terminal of the right hand ignition coil.
- 18) Route the sleeved black/white and black/yellow wires from the box over the rubber air intake. Remove the rubber grommet at the top of the front engine case, run through the grommet slot, replace the grommet. Orientate and connect to the same bi-colour wires from the stator plate.
- 19) Connect the brown wire from the ignition box to the main wiring loom earth on the ignition coil mounting.
- 20) Connect the 1/4" female receptacle end of the new sleeved red wire to the Positive (+) terminal of the left hand ignition coil.
- 21) Connect the ring terminal (fuse end) of the red wire to the positive (+) battery terminal along with the original wire.
- 22) Check the original coil link wire for condition and security, then all other connections are good and tight. Check the wires are dressed neatly and then secure using the small tie straps supplied.
- 23) Refit petrol tank and pipes.
- 24) Remove rubber timing hole bung in left hand engine side casting.
- 25) Start engine and run for three to five minutes for the engine and ignition system to warm up.
- 26) Connect the strobe lamp and time through the timing hole to the Full Advance Mark (F) dot with the engine running at 3500-4000 RPM. This final position is obtained by moving the stator plate on its slotted holes; movements should be done with the engine stationary, the screws being tightened after each adjustment. The timing mark should be seen to advance as the engine speeds up. Anticlockwise movement of the stator plate will advance the ignition timing, clockwise will retard.
- 27) Remove the battery earth wire from the rear engine case, and refit the front engine cover and horn.
- 28) Refit the battery earth wire, timing hole bung and tool kit. The ignition is now set and needs no maintenance.

FIG.1

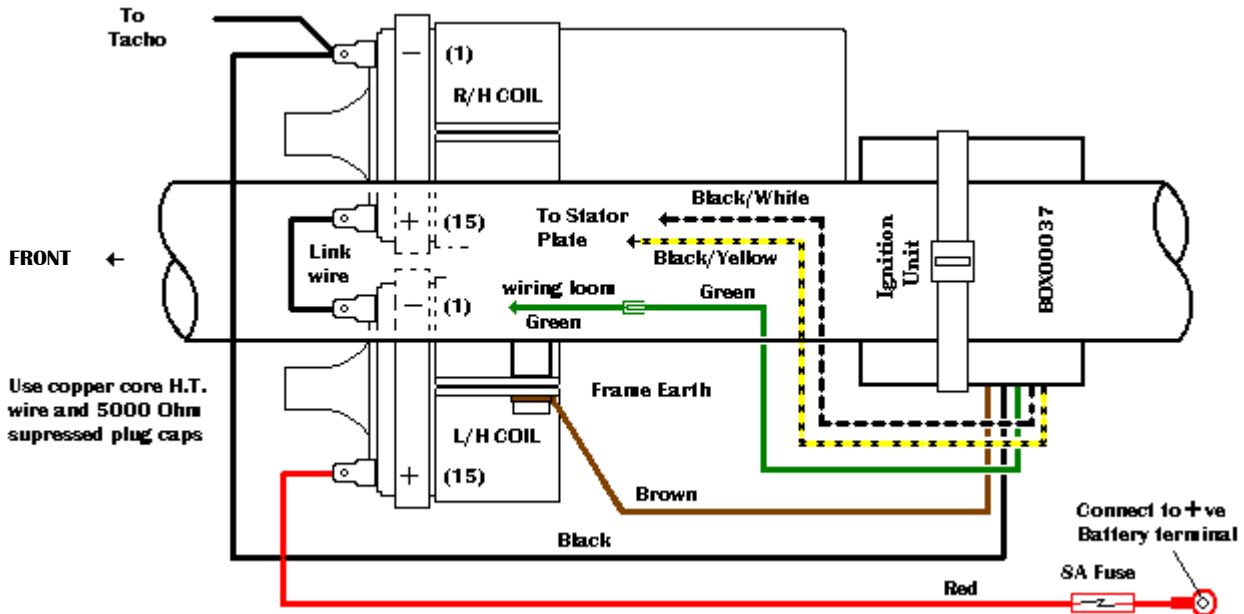


PLEASE TURN OVER

WARNING

HIGH VOLTAGES DEVELOPED BY THIS UNIT CAN BE VERY DANGEROUS,
ALWAYS SWITCH OFF BEFORE WORKING ON THE SYSTEM.

FIG.2.



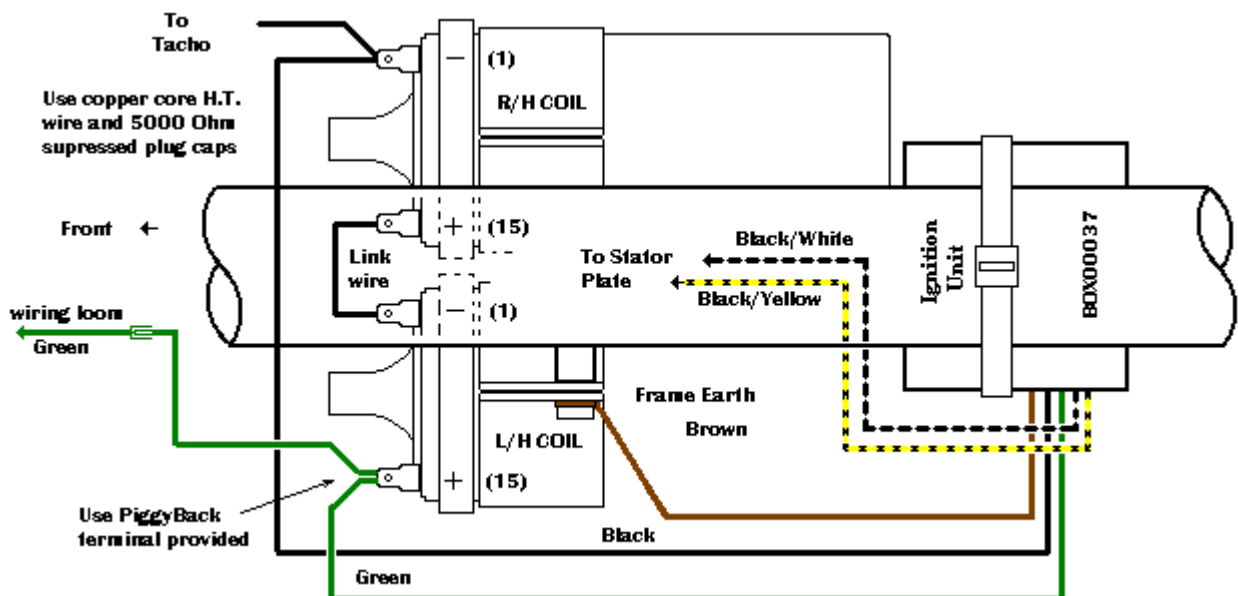
NOTE

The standard Fig.2. installation (above) keeps the electrical loading on the ignition switch to a minimum to improve reliability.

We have found that some pre-79 BMW models, when wired this way, fail to stop running when the kill switch is operated. This is due to the very small current required to keep the electronics running in the ignition unit.

To overcome this problem the brake light can be operated or the system can be wired as below for the ignition coil to also take all of its power from the standard ignition switch supply as Fig.3 below.

FIG.3.



Alternative wiring allowing original ignition switch to supply complete ignition system