

BOYER BRANSDEN MICRO-POWER DIGITAL IGNITION SYSTEM FOR ENFIELD 350/500cc INDIA BULLET

Comprising:-

- a) Transistor box (rectangular red "Micro-Power" box with wires & adhesive foam backing strips)
- b) Stator plate (round printed circuit with two coils), this replaces the contact-breaker plate.
- c) Magnetic rotor (round plated steel unit with two magnets fitted), this replaces the standard auto-advance
- d) Rotor fixing bolt (25mm x 6mm Allen type)
- e) Terminals: female spade connector
- f) Digital ignition coil (single output)
- g) Ignition coil mounting bolts (M5), nuts & washers (x2)
- h) Copper cored H.T. Lead (1 metre), rubber boot, special crimp connector and small tie straps
- i) Suppressed plug cap

You will also require the standard tool kit plus a 5mm Allen key, small socket spanner set, hammer and pliers or crimping tool.

Fitting instructions:-

- 1) Open the battery box and disconnect the negative battery terminal.
- 2) Remove the seat to gain access to the ignition coil.
- 3) Remove the terminal nut from the positive (+) coil terminal and disconnect the (usually white) supply lead.
- 4) Remove the terminal nut from the negative (-) coil terminal and disconnect the black wire. There should now only be the H.T. lead connected to the coil. Remove the ignition coil and H.T. lead.
- 5) Fit the new digital coil in the position of the original coil (or other convenient place), hanging down from its mountings.
- 6) Slide the rubber boot over one end of the h.t. lead and fit the special crimp connector (provided). Screw the suppressed plug cap (provided) onto the other end. Fit the new H.T. lead to the coil by pushing in the special crimp connector and sliding the rubber boot over the h.t. outlet. Secure the h.t. lead and rubber boot using the small tie-straps.
- 7) Clean the back of the rear side tool box with petrol or solvent, to remove dirt and grease.
- 8) Warm the double-sided tape on the ignition unit, remove paper covers and fix to the tool box in a position that will allow the wires to reach the coil and c.b. housing.
- 9) Connect the white wire from the ignition unit to the positive (+) terminal on the coil. Cut the ring terminal off the (usually white) supply lead previously disconnected in step (3), above. Fit the female spade connector to this wire, using wire strippers and pliers or crimping tool. Connect this wire to the positive (+) terminal on the coil, using the piggyback terminal previously fitted.
- 10) Connect the blue wire from the ignition unit to the negative (-) terminal on the coil.
On machines fitted with an engine cut-off switch: the blue wire must be connected to the black wire coming from the switch to the c.b. points, if the use of this switch is still required.
- 11) Remove the ignition points cover on the near side of the machine and disconnect the black wire.
- 12) Remove the two pillar screws holding the contact breaker plate and pull out.
- 13) Remove the nut holding the advance/retard unit, tap around the unit and pull off.. (If it does not come off, go to step 14 and remove the stud first).
- 14) Remove the stud. This can be done with grips on the unthreaded part, or by using two 6mm nuts tightened together on the thread to form a bolt head, then place a spanner on the inner nut and turn to remove.
- 15) Remove the spark plug and rotate the engine until top dead centre is found. This can be done with the primary drive chain cover removed for greater accuracy and marks put on the alternator, or by turning the back wheel with 4th gear selected with a gauge through the plug hole is the best way. With care, it can be done with a small screwdriver touching the piston top, feeling for maximum height.
- 16) Fit the magnetic rotor in place of the advance/retard unit using the 6mm bolt, leave this loose.
- 17) Fit the stator plate in place of the contact breaker plate, using the pillar screws, set to halfway along its adjustment slots.
Line up the centre of the rotor magnets with the centre line of the two stator coils. Tap the rotor back into its taper and tighten the 6mm bolt. Recheck T.D.C. and alignment and repeat if wrong.
- 18) Connect the black/yellow and black/white wires from the ignition unit to the stator plate (the connections can be made inside the cap), the sleeve being trapped by the cut-out in the cover. (Recheck black/yellow goes to black/yellow and black/white goes to black/white).
If this is wrong, the engine will run with no power and a lot of noise, with retarded ignition.
- 19) Connect the black wire from the ignition unit to the negative terminal of the battery, along with the standard earthing wire. On some machines this could be a red wire, check on the top of the battery for - NEG.
- 20) Refit the sparkplug, seat, battery cover and select neutral. The system is now ready to run, start the engine and warm up.
Slow running and mixture screws can now be fine-tuned on the carburettor.
The timing is now set and will not move, but a small amount of adjustment can be tried on the slotted holes. Any adjustment is magnified by two on the crankshaft, so mark the case to stator with a scribe line and make just a small change at any one time.

- This ignition is fitted with a special ignition coil control circuit that will limit the engine to approx. 5800 rpm.
- Wrong battery connections can damage the electronic ignition and the charging regulator, so double check when replacing or charging battery.



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