

## **BOYER BRANSDEN ELECTRONICS LTD**

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### **KIT00064 - MKIV IGNITION SYSTEM FOR ENFIELD 350/500cc INDIA BULLET**

#### **COMPRISING:-**

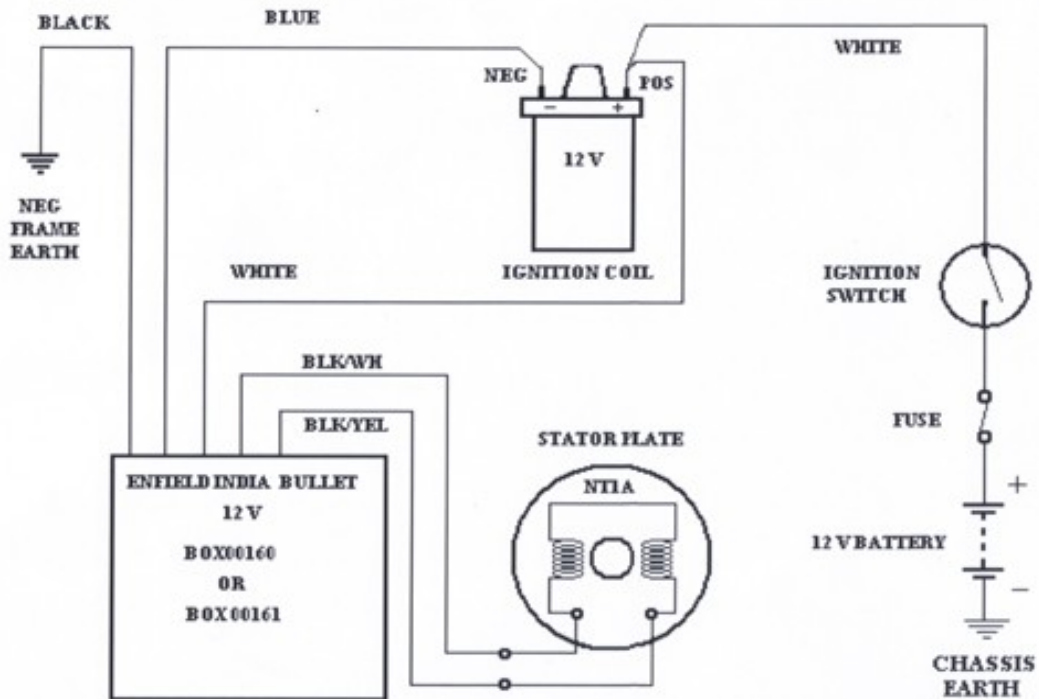
- A. IGNITION UNIT (BLACK UNIT WITH WIRES)
- B. STATOR PLATE (CIRCUIT BOARD WITH TWO COILS)
- C. MAGNETIC ROTOR (ROUND PLATED STEEL UNIT WITH TWO MAGNETS).
- D. 6mmX25mm, CAPSCREW.

**YOU WILL ALSO REQUIRE THE STANDARD TOOL KIT PLUS A 5mm ALLEN KEY, SMALL SOCKET SPANNER SET, HAMMER.**

1. OPEN BATTERY BOX AND DISCONNECT NEGATIVE BATTERY TERMINAL.
2. REMOVE SEAT TO GAIN ACCESS TO THE IGNITION COIL.
3. CLEAN THE BACK OF THE NEAR SIDE TOOL BOX WITH PETROL OR SOLVENT TO REMOVE DIRT AND GREASE.
4. WARM DOUBLE SIDED TAPE ON IGNITION, BOX REMOVE PAPER COVERS AND FIX TO TOOL BOX IN A POSITION FOR THE WIRES TO REACH THE COIL AND C.B HOUSING.
5. REMOVE THE TERMINAL NUT FROM THE POSITIVE SIDE OF THE IGNITION COIL THIS SHOULD HAVE A WHITE WIRE GOING TO IT.
6. CONNECT THE WHITE WIRE FROM THE IGNITION UNIT TO POSITIVE SIDE OF THE COIL WITH THE WHITE WIRE, AND REFIT TERMINAL NUT.
7. REMOVE BLACK WIRE FROM NEGATIVE TERMINAL OF THE IGNITION COIL AND REPLACE WITH BLUE WIRE FROM IGNITION UNIT.(ON MACHINES FITTED WITH 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 THE SWITCH IS STILL REQUIRED)
8. REMOVE THE IGNITION POINTS COVER ON THE NEAR SIDE OF THE MACHINE AND DISCONNECT BLACK WIRE.
9. REMOVE THE TWO PILLAR SCREWS HOLDING THE CONTACT BREAKER PLATE AND PULL OUT.
10. REMOVE THE NUT HOLDING ADVANCE/RETARD UNIT, TAP ROUND THE UNIT AND PULL OFF. (IF IT DOES NOT COME OFF GO TO 11 AND REMOVE STUD FIRST).
11. REMOVE STUD,THIS CAN BE DONE WITH GRIPS ON THE UNTHREADED PART OR TWO 6mm NUTS DONE UP TOGETHER TO FORM A BOLT HEAD THE SPANNER BEING PLACED ON THE INNER AND TURNED TO REMOVE.
12. REMOVE SPARK PLUG AND ROTATE 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 TURNING THE BACK WHEEL WITH 4th GEAR SELECTED WITH A GUAGE 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.
13. FIT THE MAGNETIC ROTOR IN PLACE OF THE ADVANCE/RETARD UNIT USING THE 6mm CAPSCREW LEAVE THIS LOOSE.
14. FIT THE STATOR PLATE IN PLACE OF THE CONTACT BREAKER PLATE USING THE PILLAR SCREWS SET TO THE LEFT SIDE OF THE LOWER ADJUSTMENT SLOT, SEE FIG 1. 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 CAPSCREW, RECHECK T.D.C.AND ALIGNMENT AND REPEAT IF WRONG.
15. RESET STATOR TO HALF WAY ALONG ITS ADJUSTMENT SLOTS AND TIGHTEN THE PILLAR SCREWS. THE MAGNETIC ROTOR SHOULD HAVE THE LEADING EDGE OF ONE OF THE MAGNETS IN LINE WITH THE FRONT EDGE OF THE STATOR POLE PIECE, SEE FIG 2.
16. CONNECT BLACK/YELLOW AND BLACK/WHITE WIRES FROM THE TRANSISTOR BOX TO THE STATOR, THE CONNECTIONS CAN BE MADE INSIDE THE CAP.THE SLEEVE BEING TRAPPED BY THE CUTOUT IN THE COVER (RECHECK YELLOW TO YELLOW, WHITE TO WHITE) IF THIS IS WRONG THE ENGINE WILL RUN WITH NO POWER, A LOT OF NOISE WITH RETARDED IGNITION.

17. CONNECT BLACK WIRE FROM 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 -NEG.)
  18. REFIT SPARKPLUG, SEAT, BATTERY COVER, SELECT NEUTRAL. THE SYSTEM IS NOW READY TO RUN, START 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 R.P.M. OF THE ENGINE TO APPROX 7000.
  - WRONG BATTERY CONNECTION CAN DAMAGE THE ELECTRONIC IGNITION AND THE CHARGING REGULATOR, SO DOUBLE CHECK WHEN REPLACING OR CHARGING BATTERY.

ENFIELD INDIA BULLET- NEG EARTH



MKIV and MICRO DIGITAL IGNITION SYSTEM WIRING

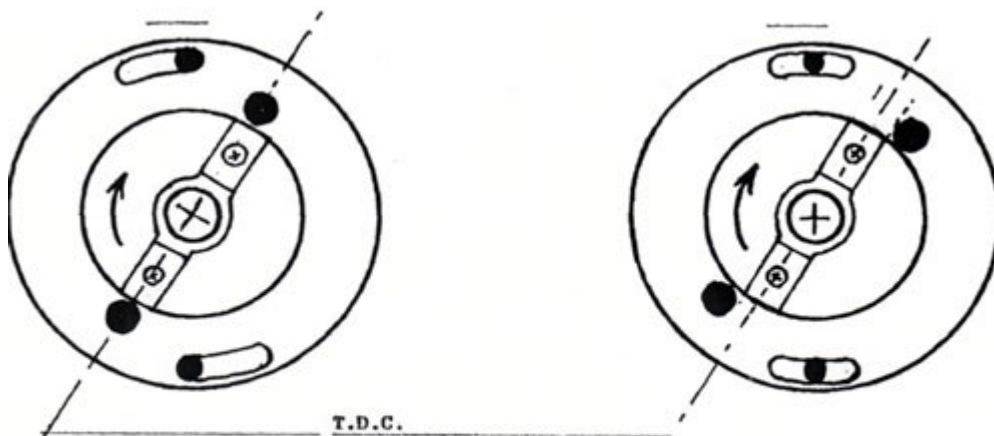


FIG.1

FIG.2