



## BOYER BRANSDEN ELECTRONICS LTD

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# YAMAHA XS650 MICRO-POWER IGNITION

## FITTING INSTRUCTIONS

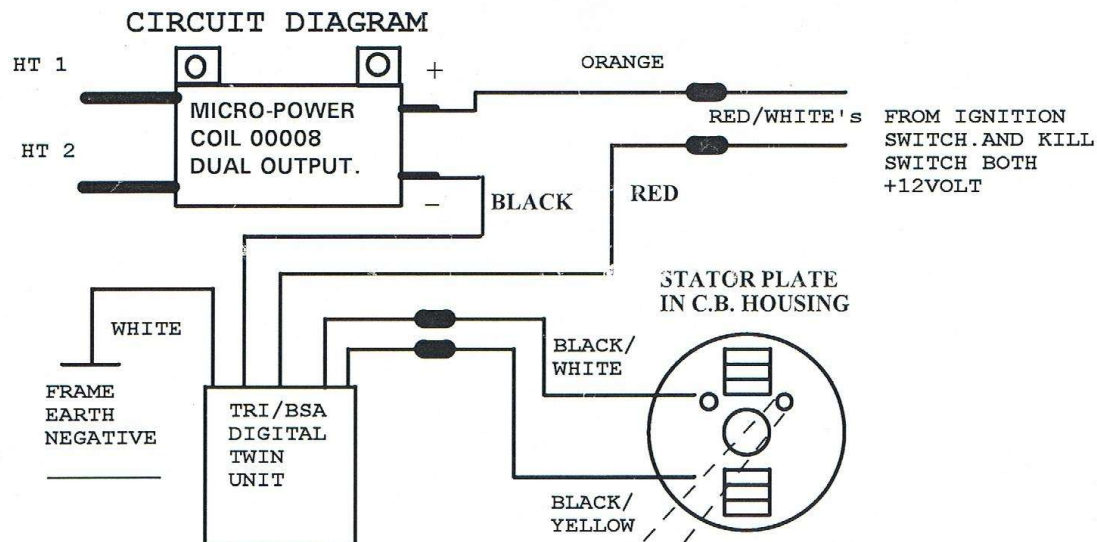
- 1) REMOVE THE COVERS FROM THE C.B. UNIT AND ADVANCER UNIT ON THE CYLINDER HEAD. DISMANTLE AND REMOVE THE CONTACT BREAKER, CAM, AND ALL OF THE ADVANCER MECHANISM, INCLUDING THE SHAFT THROUGH THE CENTRE OF THE CAMSHAFT.
- 2) SCREW THE MAGNETIC ROTOR ON TO THE 8mm STUD WITH LOCTITE, UNTIL THE THREAD IN THE ROTOR IS FULLY USED. ALLOW TEN MINUTES TO DRY.
- 3) PASS THE 8mm STUD AND ROTOR THROUGH THE CAMSHAFT FROM THE LEFT SIDE. FIT THE 8mm STEPPED SPACER, WASHER, LOCK WASHER ON TO THE RIGHT SIDE, FIT THE 8mm NUT, AND HAND TIGHTEN. SEE FIG. 1. PLACE A 13mm SOCKET OVER THE NUT AND SHARPLY TAP THE END, THIS WILL DRIVE THE RIGHT HAND BEARING BUSH HOME INTO THE CAMSHAFT BEFORE FULLY TIGHTENING THE ROTOR STUD.
- 4) FEED THE TWO 6mmx30mm CAP SCREWS AND WASHERS THROUGH THE HOLES IN THE STATOR PLATE FROM THE COIL SIDE. PLACE THE TWO ALUMINIUM SPACERS OVER THE SCREWS AND OFFER THE UNIT UP TO THE LEFT HAND CONTACT BREAKER HOUSING AND HAND TIGHTEN. SEE FIG 1.
- 5) REMOVE THE SPARK PLUGS AND ALTERNATOR COVER TO REVEAL THE TIMING MARKS. USING A 17mm SOCKET SPANNER ON THE ALTERNATOR CENTRE BOLT TURN THE ENGINE ANTICLOCKWISE UNTIL THE FIRST OR FRONT OF THE THREE TIMING MARKS LINES UP WITH THE TIMING MARK ON THE ALTERNATOR ROTOR. PLEASE NOTE: THIS IS THE FULL ADVANCE MARK-IT IS NOT MARKED WITH ANY ADJACENT LETTER. CONTINUING ANTI-CLOCKWISE, THE NEXT MARK IS F, WHICH IS THE LOW SPEED (FULL RETARD) MARK AND LASTLY T (TOP DEAD CENTRE).
- 6) WITH THE ENGINE SET IN THE FULL ADVANCE POSITION, SET THE STATOR PLATE HALF WAY ALONG THE SLOTTED HOLES AND TIGHTEN. LOOSEN THE 8mm NUT ON THE ROTOR STUD AND MOVE IT ROUND UNTIL ONE OF THE MAGNETS IS UNDER THE ANTICLOCKWISE (RIGHT HAND) TIMING HOLE, OFFSET AS IN FIG 1. FULLY TIGHTEN THE NUT.
- 7) REMOVE THE PETROL TANK. DISCONNECT AND REMOVE THE IGNITION COILS. MOUNT THE NEW COIL IN PLACE USING ONE OF THE ORIGINAL HOLES AND DRILLING A SECOND HOLE TO USE BOTH MOUNTINGS. FIT THE HT LEADS AND PLUG CAPS TO THE NEW COIL, THESE MUST BE THE SUPPRESSED TYPE AND IN GOOD ORDER (5000 OHM RESISTANCE NGK TYPE) ROUTE TO THE SPARK PLUG POSITIONS. SOME CUSTOMERS MAY FIND IT NECESSARY TO RE-POSITION THE HORN DURING THIS INSTALLATION.
- 8) THE IGNITION UNIT CAN BE TIE STRAPPED TO THE TOP OF THE COIL MOUNTING FRAME TUBE, WITH THE WIRES ON THE LEFT. WIRE AS PER THE DIAGRAM. CUT WIRES AND FIT TERMINALS, MAKE GOOD CONNECTIONS AND TAPE UP WIRES.
- 9) REFIT PLUGS AND FUEL TANK. CONNECT STROBE LAMP AND START ENGINE. WARM UP AND STROBE TIME ON THE FRONT OR FULL ADVANCE MARK BY REVVING UP THE ENGINE AND WATCHING THE TIMING MOVE UP TO THE MARK. ADJUST BY MOVING THE STATOR PLATE, IF NECESSARY MOVE THE ROTOR A LITTLE AND RETIGHTEN.
- 10) REMOVE STROBE AND REFIT ALL COVERS. THE TIMING IS NOW SET AND REQUIRES NO MAINTENANCE. SMALL ADJUSTMENT CAN BE MADE TO THE CARBURATION TO SET IDLE SPEED.

**SEE OVER FOR DIAGRAMS**

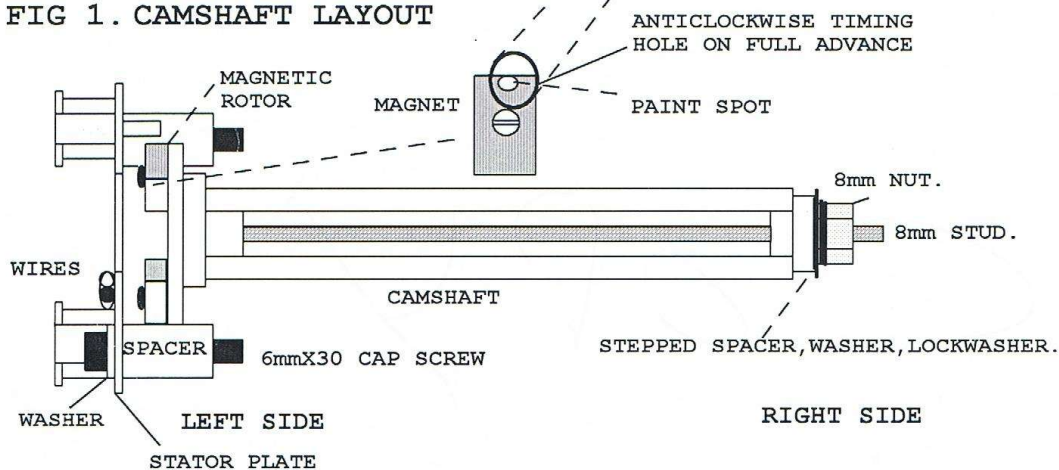
**Boyer Bransden Ignitions**  
*Electrifying Performance*

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**FIG 1. CAMSHAFT LAYOUT**



**PARTS LIST:-**

- 1) TRI/BSA MICRO-POWER IGNITION BOX
  - 2) XS650 STATOR PLATE
  - 3) XS650 MAGNETIC ROTOR
  - 4) 8mm X 240mm LONG STUD
  - 5) TWO 6mm x 30mm SOCKET CAP SCREWS
  - 6) TWO 6mm FLAT WASHERS
  - 7) TWO 11mm x 14mm ALUMINIUM SPACERS
  - 8) ONE STEPPED 8 mm SPACER, WASHER, AND LOCKWASHER.
  - 9) ONE 8mm NUT
  - 10) TWO TIE STRAPS AND TWO BULLET, ONE RING, TWO FEMALE SPADE TERMINALS.
- YOU WILL ALSO REQUIRE A STROBE LAMP, LOCTITE, BLACK PVC TAPE, TERMINAL CRIMPING PLIERS AND TOOLS.