

Pazon
IGNITIONS WITH THE 7½ YEAR WARRANTY

Sure-Fire™

TRIUMPH **BSA** **Norton**

**ELECTRONIC IGNITION
FOR UNIT CONSTRUCTION
TWIN CYLINDER MOTORCYCLES
WITH POINTS IN THE SIDE CASING
& 6 VOLT ELECTRICS
POSITIVE OR NEGATIVE GROUND**



SYSTEM TYPE: PA2-6

6. Remove auto-advance unit.
7. Disconnect the remaining wires from the ignition coils. These come from the ignition switch supply. The colour of this ignition supply wire may vary between machines; check using a test lamp or meter to find the live wire when the ignition is switched on.
8. Find a suitable place for the ignition module, preferably near to the ignition coils. Secure the ignition module to the frame using one or more large cable ties. An adhesive mounting base is provided; this can be affixed to the underside of the module and the cable tie passed through and around the module and frame.
Do not completely wrap the module in foam rubber.
9. Using the black coil link wire, connect the negative (—) terminal of one ignition coil to the positive (+) terminal of the other ignition coil. See figs. 1/2 on page 7.
10. Take the violet wire from the ignition module, cut to length and fit an insulator and female spade connector to the end. Connect to the negative (—) terminal on ignition coil #1. See figs. 1/2 on page 7.
11. Take the red wire from the ignition module, cut to length and fit an insulator and female spade connector to the end. Connect to the positive (+) terminal on ignition coil #2. See figs. 1/2 on page 7.
12. For NEGATIVE GROUND electrics go to step 15.
13. For POSITIVE GROUND electrics (standard):
Take the white wire from the ignition module, cut to length and fit an insulator and male spade connector to the end. Connect to one of the negative ignition feed wires previously removed in step 7. The other wire (if fitted) is spare and should be covered with insulation to prevent shorting to the frame etc.
14. Take the red grounding wire, fit an insulator and female spade connector on one end and connect to the positive (+) terminal on ignition coil #2. Cut to length and fit a ring terminal on the other end and connect to a good grounding point on the frame, ideally the battery positive (+) terminal. See fig.1 GOTO STEP 17.
15. For NEGATIVE GROUND electrics:
Connect one of the positive ignition feed wires previously removed from the ignition coils in step 7 to the positive terminal of ignition coil #2. See fig. 2. Any other wires are spare and should be covered with insulation to prevent shorting to the frame etc.
16. Take the white wire from the ignition module, cut to length and fit a ring terminal connector to the end. Connect to a good grounding point on the frame, ideally the battery negative (—) terminal. See fig. 2
17. Remove the two sleeved wires (black-white & black-yellow), previously disconnected in step 5.
18. Feed the two sleeved wires (black-white & black-yellow) from the ignition

strippers/cutters, carefully remove 4-5mm of insulation from the ends of the two wires. Insert the yellow-black wire into the left-hand screw terminal and the white-black wire into the right-hand screw terminal. The connector block terminals are marked on the trigger plate "Y/B" and "W/B". Tighten the two screws. Secure the wires and sleeving with the cable tie, fitted in step 23. If preferred, the two wires can be soldered directly to the trigger using the two solder pads provided in front of the connector block. It is essential that these two wires are connected the right way around for correct operation of the ignition system. Reversed connections will give very retarded ignition timing.

25. Re-check all connections are good and tight; any loose crimps should be removed, slightly closed up and refitted, or preferably replaced.
26. Refit tank, fuel lines, battery & seat.
27. Start engine and run for 4-5 minutes to warm up. Using a white light strobe, time the engine to the full advance mark (previously used in step 19) with the engine running up to 4000rpm. If running in, you may strobe time at 3000rpm to the full advance figure less 2°. Adjust the timing by making very small movements of the ignition trigger on its slotted holes; moving the trigger by 1° is equivalent to 2° of the crankshaft. The trigger has calibration marks (equivalent to crankshaft degrees) marked on the outer edge to assist with the timing adjustment. When using a strobe light, you may see a small amount of advance above 4000rpm, this is normal. For high revving engines you may wish to strobe at 5000+ rpm for best results. To advance the timing, turn the trigger against the direction of the magnetic rotor. To retard the timing, turn the trigger in the same direction as the magnetic rotor. In the unlikely event that the timing cannot be obtained before the end of the adjustment slots, the magnetic rotor will need to be slackened off and repositioned slightly. If no timing mark is available, road test the machine and adjust (if necessary) for optimum performance.
28. Refit timing/contact-breaker cover.
29. The timing is now set and requires no further adjustment. However, please note that for satisfactory operation of this ignition system it is important that the wiring, ignition coils, switch, battery, h.t. leads, plugs and plug caps are in good order.

Table 1

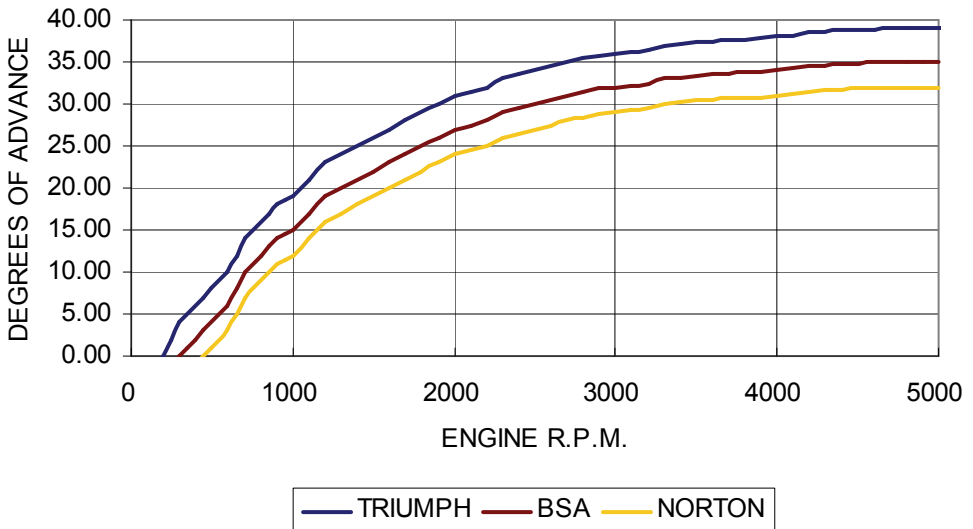
MOTORCYCLE	TIMING HOLE	FULL ADVANCE TIMING
TRIUMPH TWIN	CLOCKWISE	38°
BSA TWIN	ANTI-CLOCKWISE	34° (37° STANDARD*)
NORTON ATLAS	CLOCKWISE	31° (28° STANDARD*)

* STANDARD REFERS TO ORIGINAL IGNITION SETTING WITH MECHANICAL ADVANCE

NOTE: IF USING A DEGREE DISC ATTACHED TO THE CAMSHAFT, THE FULL ADVANCE FIGURE READING ON THE DISC MUST BE HALVED. E.G. FOR 38°, SET ENGINE TO T.D.C., ZERO DEGREE DISC AND ROTATE ENGINE BACKWARDS UNTIL DEGREE DISC HAS TRAVELLED 19°



Sure-Fire Ignition Timing BRITISH TWINS



Ignition Coils

When using the standard arrangement of two ignition coils (whether 6 Volt or 3 Volt), they must be connected in series, as shown in the wiring diagrams on page 7.

Do not connect the coils in parallel.

For low compression ratio engines (less than 9:1), two 6 volt coils connected in series can be used, but for best results (especially important on racing or high compression ratio engines) use two 3 volt coils (Pazon part# IC13) connected in series or one 6 volt dual output coil with a primary resistance of 1.5 to 2.5 ohms.

CDI type and some electronic ignition coils are incompatible with this system; for suitability check the primary resistance is 1.5 ohms or more (measure across the + and — terminals with a multimeter).

Ignition coils can develop a short circuit to ground through the case, especially if the clamps are too tight. This can cause overheating of the affected coil and can also produce misfiring/bad running on one or both cylinders. Slacken the clamps and examine the coil casing for heavy crease marks. If in doubt replace the coils.

Recommended ignition coils (available from PAZON) for this system are:

- 2 x IC13 3 VOLT PVL SINGLE OUTPUT COIL (LUCAS TYPE)
- 1 x IC03 6 VOLT DUAL OUTPUT COIL (2.2 OHM PRIMARY)
- 1 x HSK HEATSINK KIT FOR IC03/IC05

HT Leads, Spark Plugs & Plug Caps

Always use copper cored ht leads. Do not use carbon-fibre (resistive) leads.

Provided you have the correct grade of plugs for your engine and that they are in good order, there is no need to change them when fitting this system. The spark plug gaps can be left as standard, as a guide 0.025"-0.028" should be sufficient.

We recommend fitting NGK 5K resistor (suppressor) type plug caps (or similar good quality make), but you can also fit non-resistor caps.

