

MAGNETO STATIC TIMING LIGHT

The very best performance from an engine can only be obtained if the ignition timing is correctly set. Over-advanced ignition will make the engine difficult to start and will refuse to run evenly at low speeds. In extreme cases, pre-ignition may occur which will rapidly destroy the piston crown(s). Retarded ignition can result in overheating, sluggish performance, poor fuel consumption and starting may become more difficult.

The Magneto Static Timing Light uses a custom designed electronic circuit and an LED indicator to show exactly when the points are starting to open. This makes setting the ignition timing an easy, precise operation. Powered by 3 AA batteries (included), the unit comes ready to use and will work on all types of magneto and battery ignition circuits too.



Why can't a simple battery and bulb be used to do the same job?

In a magneto ignition circuit the points, condenser and primary winding of the magneto armature are all in parallel. Current in a circuit will always flow via the easiest path. This will be through the points if they are closed, or through the primary winding if they are open. Either way, the bulb will stay on whether the points are open or not! Try it and see!

Yes, the battery and bulb method can be used on a coil ignition system provided the wire from the points to the HT coil is disconnected first – use this magneto static timing light instead and leave the wiring alone!

Why can't I use a piece of cigarette paper between the points?

Well, you can – but you need an extra hand to tell when the paper has come loose and will never be as accurate as this Magneto Static Timing Light. The LED will be on when the points are open and will be off when they are closed– it's as simple as that!

Instructions for use

- **Remove the points cover from the magneto, clean and adjust the points gap.**
- **Connect the two croc clips to each side of the points and switch on the timing light.**
- **Rotate the engine to get the piston in the correct position for setting the ignition timing.** This may be achieved by lining up timing marks, using a timing disc or measuring the distance before TDC – refer to the manual for your particular engine.
- **Set the magneto on full advance.** Advance and retard control could be manually operated which in turn could be by 'tight' or 'slack' wire control, or it could be automatic, in which case bob weights may need to be temporarily locked out - refer to the manual for your particular engine.
- **Slowly rotate the magneto armature shaft until the red LED lights up.** This is the precise point at which the points start to open.
- **The engine and magneto are now both in the correct position and need to be locked together.** This could be done by pressing the magneto pinion or sprocket onto a taper, inserting an intermediate gear or tightening a clamp screw – again, refer to the manual for your particular engine. On a twin magneto/engine it is a good idea to check the timing of the second cylinder. Don't forget to unlock the auto. advance/retard.
- **Switch off the timing light and remove the croc clips.** Remember to switch off in order to conserve the batteries – the circuit in the timing light still consumes power even if the LED is off.
- **Replace the points cover.**

Designed and Manufactured in the UK by:

The Magneto Guys – all types of magnetos repaired and dynamos too!

Westdowne Saltmarsh Lane Downash Hailsham East Sussex BN27 2RJ England

Tel: +44 (0)1323 840203

Email: workshop@themagnetoguy.co.uk

Web: www.themagnetoguy.co.uk