

BTH Components Ltd

Ignition systems for the 21st century



FM1R & FM1C Fitting Instructions. e.g. Velocette, Vincent Comet, etc.

Congratulations on buying a new BT-H magneto. This new unit will enable you to enjoy the advantages of advances in electronics combined with the self-contained convenience of a traditional magneto. The new BT-H magneto is designed to make timing your engine as simple as possible. Follow the easy installation steps below and enjoy your motor-cycling.

- 1. Remove your existing ignition system and remove any old gasket or sealing compound from the machined face at the back of the timing case.
- 2. Turn the shaft of your magneto until the arrow on the shaft is at the **top** and in line with the timing hole brass screw (Figure 1.)
- 3. Remove the brass screw and insert the timing rod through the magneto body and the hole in the shaft. You may have to turn the shaft slightly to align the hole. Ensure that the timing rod has passed through the shaft and into the magneto body below. (Figure 2.)
- 4. Fit the "O" ring to the grove machined in the magneto flange. A smear of grease will help to seal and keep the joint in place. (Figure 2.)
- 5. Fit the magneto in place on the three studs. The fixing holes are slotted to allow minor adjustments to be made to your ignition timing without any dismantling. We suggest that you set the holes to the centre of the slots before tightening.
- 6. Set your engine to your required number of degrees or distance before top dead centre on the compression stroke. (Easy check for compression stroke. Both valves will be closed.) (Figure 3.)







- 7. Fit your timing pinion and tighten the nut. We recommend 15 ft-lbs if you have a torque wrench.
- 8. Remove the timing rod and fit the stainless blanking plug. Set spark plugs to 0.018 - 0.020" (0.46 -0.5 mm).
- 9. Refit your timing cover and any other parts you may have removed.
- 10. Check to make sure you have removed the timing rod before starting your engine.

Wiring.

The blue wire goes to the black spade on the H.T. coil.

The brown wire goes to the green spade. The coil does not need to be earthed to the frame. The black wire is for the cut out. It cuts the ignition when earthed. If you do not use this cut out wire make sure that the end is well insulated so that it cannot inadvertently stop the engine.

N.B. It is advisable not to run the black cutout wire alongside H.T. leads as this can sometimes interfere with the performance of the magneto.

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Wrong ignition timing can affect performance or damage your engine. Use of a stroboscope where available is recommended for maximum accuracy.

The timing rod is 6mm diameter. 1/4" diameter rod will not fit It is approximately 0.015" too big.

