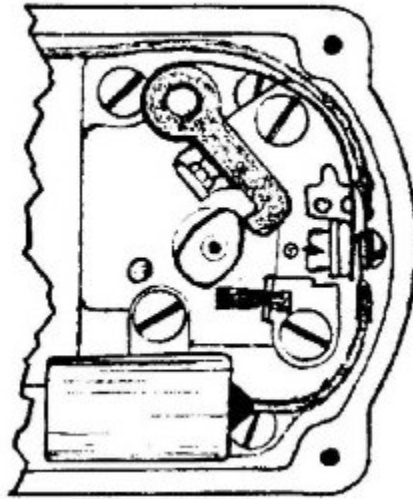

Morris Magneto H5 Instructions, '36-'69 Big Twins Morris Magneto
Telephone 973-540-9171 Fax 973-605-8910



NOTE: If your engine was originally a 6 volt, 3 brush generator type, modifications to the case will be necessary due to: a) the generator cradle; b) the generator hole sizing in your crankcase.

Remove or loosen pushrods. Remove gearcase cover and intermediate gear. Insert new cluster gear, small side in. If gear does not go in flush with the gasket surface, your gearcase cavity has a rib which must be removed sufficiently to clear. You may find that chipping chunks with a sharp wood chisel is easier and cleaner than a dremel.

Remove magneto cap, unless it is clear. Rotate magneto until the small cam is located CCW of the cam follower, and is beginning to break the points, as pictured. This is correct front cylinder advanced timing. Turn your engine until the rear piston *just barely* begins its descent; the mark which appears in the timing inspection hole is the proper front cylinder advanced timing position. If both front tappets are not down on the heel of the cam, you are on the wrong stroke, and will need to rotate the engine another 360 °.

Install cluster gear so that engine position and magneto position are synchronized as per above instructions (temporarily install 'generator' bolts by hand in whichever pair works best for you). Re-assemble gearcase cover and pushrods, install generator bolts taking care to use same pair of bolt holes in the magneto mount. Bolts must not bottom out in holes. Secure the nuts and heavy washers holding the magneto flange in the advanced timing position as shown. Static timing is all that is required, but we suggest using Morris Magneto p/n **KATT** timing and testing tool, as timing can be dialed in exactly. We do NOT recommend the 'cellophane' method. NOTE: If magneto head was previously installed, you will need to go past your timing mark until magneto

clicks, indicating that the impulse spring has been tripped (at approximately 5/16" or 8mm past rear piston TDC, but on front cylinder compression stroke), then back up the motor in high gear and re-locate timing mark. Install cap if off, making sure coil springs line up, and tighten so gasket is 1/8 turn past hand-tight. NOTE: Impulse mechanism is intended for starting only. Maintain a high enough idle so that it does not engage while running. Stud on side of magneto is used to "kill" magneto with a grounding toggle switch or lever (p/n **KSL**). Do not connect to your 12-volt system!

Stuff to know: This magneto was designed to start with a moderate kick; hard kicks may actually hamper starting. Unit is also fully compatible with electric start. The long-lasting OEM-type points in your magneto have been set at .015", and will require no attention for years. When replacement is necessary, use Morris p/n **P5** and condensor p/n **P6**. Gap accurately. Use only original type cap, gasket, points and condenser. Initial spark plug gap, .025". Due to the hot spark, you can expect the gap to burn larger somewhat faster than with a battery ignition. Use of a single-fire module, Morris p/n **MSF**, may help prolong plug life. We recommend Autolite 4275 or 4316 spark plugs for older H-D heads (short reach), or 4265 for long reach, as used on most aftermarket heads, and '76 -up stock H-D heads. Use copper or stainless steel solid core (non-suppression) spark plug wires (Morris p/n **MWS**). US Patents 4191157, D375509, applicable pat's pend.

© Copyright 1997, 2007, 2013 Morris Magneto, Inc.

