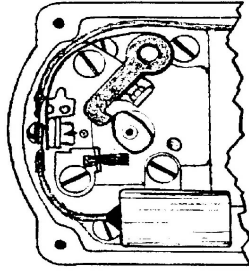


G5 Instructions, '36-'69 Big Twins



Set your engine on the correct stroke & position for installation, as follows: (motor not completely assembled, use conventional 'front valves closed' method);

motor fully assembled, you may find the following method easier...

Set your engine on the correct stroke & position for installation, as follows:

- a) Remove your **rear** spark plug only.
- b) Kick until you feel **front** cylinder compression; rear piston will be on the way up.
- c) Continue turning the motor until the rear piston gets to the top.

At this point, the correct front cylinder advanced timing mark will be just appearing in the back of the inspection hole. Continue until it is centered.

2. Remove drive housing plate, spiral ring, spacer and gear. Determine which pair of bolts provided (1/4-20 or 1/4-24) fit your engine. Slip housing into distributor hole; with bolt holes aligned, check for clearance in front, sliding a piece of paper through. It should clear your crankcase as is, but engine case castings can vary somewhat; remove any interfering high spots from your cases. When bolting down drive housing, hold-down bolts must not bottom out in your cases; tighten one at a time and check. While you're at it, tighten then back off bolts a few times to seat the boltheads in the housing. On some late H-D stock Shovelhead cases, second 'hold-down' screw hole may not be tapped. We can furnish tech tips on how to proceed; angle drill may be required.

3. Clean all threads and securely tighten down the drive housing bolts, using loctite. Reinstall the gear, spacer and spiral ring. Pour light oil (such as ATF) into the housing, up to the middle step (bike up, off kickstand); do not overfill. Now put on the gasket, housing plate and back bolt, just snug for now.

4. If your magneto cap is not clear see-thru, remove it. Set magneto rotor so points are just opening on the narrow lobe; this is the proper advanced timing position (note that this mag turns backward compared to your old ignition; that is, narrow cam lobe is just clockwise of the cam follower, as in picture). While your thumb is holding points cam in this position, place your flange gasket and mag head on the studs and plate, securing with the nuts and heavy washers provided. Visual 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. Finish tightening the back plate bolt. **NOTE:** Once you have turned your motor, unit will be in 'wind-up' phase; to re-check timing, you will need to go past your timing mark until magneto clicks (on narrow lobe), indicating that the impulse spring has been tripped (at approximately 3/8" or 10mm 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 no more than 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 (clatter) while running.

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, specify left-hand points, Morris p/n **P5L** and condenser p/n **P6**. Gap accurately. Use only Morris original **P2** (black) or **P2T** (clear) cap & gasket.

Initial spark plug gap, .025". Due to the hot spark, you can expect the plug 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 all ?76 -up stock H-D heads. Use copper or stainless steel core (non-suppression) spark plug wires (Morris p/n **MWS**). US Patents 4191157, D375509, applicable pat's pend.