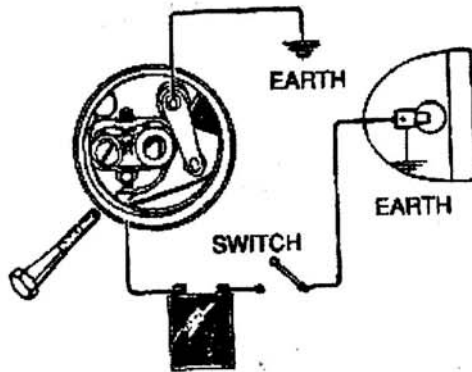


Magneto Weaknesses: a magneto produces its weakest voltage at kickstart speeds. If the mag is not in good condition due to maintenance not being performed, it will fail to produce a spark sufficient to start the engine. Most vintage magnetos were produced with rotating coils. The wires are subject to heating and cooling cycles, centrifugal forces that expand and contract the wires, heat and vibration. This heating/cooling, expansion/contraction, eventually hardens the wire and/or breaks it or the insulation in the secondary coil. Magnetism is lost over time. Condensers – especially original Lucas condensers – fail. Later magnetos were produced with rotating magnets and stationary coils – the SR1 for example – and about the only component that fails on them is the condenser – and it is easily replace in minutes. If your magneto will consistently fire a spark across a ¼” gap in open air, this is a rough indication that all is well.

Spark Plug Wire: Use only stranded, copper cored wire. Tinned wire is fine, so long as it is copper cored. Do not use the modern carbon string type wires, they will cause misfiring or failure to start.

Timing: One way of adjusting the timing on your bike is to use the lighting system as a test light. You can do this by taking out the center bolt holding the points plate (leave the plate in place), disconnecting the battery earth or ground (-) and connecting a lead between this ground wire and the insulated or stationary part of the points or contact breaker. Make sure no contact is made with any other part. Switch on the lights and check that they go on and off when the points open and close. If they do, the exact instant of opening is given by the lights dimming visibly just before they go out and with a little practice, you can get your timing exactly on the mark.



Using the Bike as a Timing Light

Lubrication. Pivoting arm type contacts or points should have the moveable contact arm lubricated at 3000 mile increments. Light machine oil (sewing machine oil), is used for this and for lubricating the wiper or wick found in most mags, to provide lubrication for the face plate or ring type points cams. One or two drops on the wick will do it. When assembling the cam ring or face cam, a thin smear of light grease on both sides is OK.