

Lighting The Fires

Perhaps owing to their reliability, magnetos aren't that complicated. Which is a good thing, since the average pilot only interacts with them during the pre-flight run-up. But they aren't modern technology, either, and incorporate basic components long ago abandoned for use in automotive and similar engines in favor of solid-state ignition systems. Similar technology for aircraft is available for experimental-category engines and in a few certified products.

In a magneto, rather than depend on electronics to generate a spark and decide when it should go to the plugs, it's all mechanical. As such, a magneto is susceptible to wear and can drift out of tolerance. Internal timing, mag-to-engine timing and the magneto's overall condition are things a technician checks during regular inspections.

Some of the major ignition-system components in the average personal airplane can be found at right, including a magneto coil (top), harness cap (middle) and spark plugs (bottom).

Most of us will never need to open up a magneto, but we should know our ignition system's components and their role.

