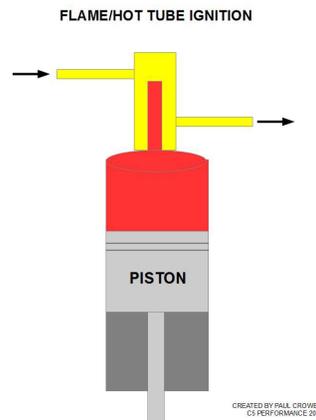


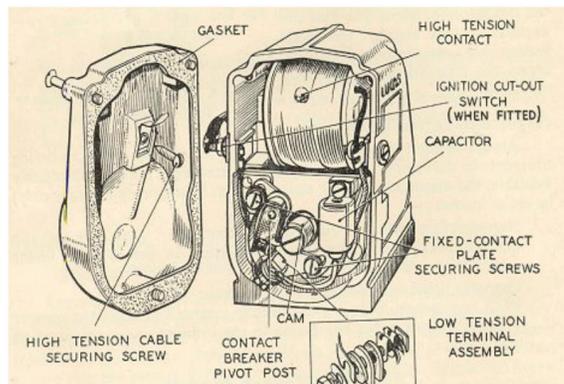
IGNITION SYSTEM HISTORY

To understand what is available today and the direction we are headed, it is wise to look back to where we came from. Since the 1800's there have been four basic forms of ignition for internal combustion engines. These are Flame and Hot Tube, Magneto, Battery, and Computerized ignitions.

Flame ignition used an open flame ignition source that was exposed to the cylinder using a valve or similar means. Hot Tube improved the process by introducing super heated air surrounding a closed chamber. As the piston rose, compression increased and eventually the air/fuel mixture ignited. The length of the chamber and temperature of the surrounding air determined the “timing” of the event.



The first “spark plug” was invented in 1839 and by 1883 Siegfried Marcus patented an ignition that used a small generator to produce spark via magnets...and the Magneto ignition became the new standard. This introduced the Coil, Trembler, and Sparkplug into our lives. Magnetos cannot be advanced or retarded like a modern ignition but are still used today for racing.



In 1908 a man named Charles Kettering was hired by Ernest Sweet to produce 8,000 new ignition systems for the upcoming 1910 Cadillac cars. This radically new ignition combined four induction coils into one armored and vibration resistant case, and reduced the four “tremblers” into one contact point, adding a condenser to draw excess current away from the points to extend their life.

This was to change the industry for the next 70 years! The brilliant Mr. Kettering began the Dayton Engineering Laboratories Co = DELCO.



The quest for hotter spark, cooler coils, longer lasting points, and less maintenance brought the modern electronic ignitions into our lives. A few advantages are less maintenance, reliable coil triggering, and improved operation in high rpm engines. Precision and tunability are important items in today's world.

Today ignition manufacturers work hard to produce reliable and powerful ignitions that work with modern fuels. Timing accuracy and engine efficiency have become the focus. We moved from open flames and heat tubes to ticklers and breaker points. Today we use Hall Effect (magnetic) and Optical (light beam) triggers. What will the future bring us for new technology?

