WHAT IS Quartz Accutron Electric Electronic

Quartz Accutron Electric Electronic Watches

A simple explanation of battery powered watches

Quartz vs Accutron Magnetic vs Electric/Electronic

QUARTZ
Quartz watches are powered by a quartz impulse system. The battery powers a quartz module which impulse’s sending impulsing power to a coil. This coil is then charged by impulse; each time the quartz sends an impulse, the coils magnetic field “moves” a magnetized wheel/gear -like when you place two opposing magnets side by side – this opposing force turns the wheel/gear and it, in turn, drives the wheel train. So only the singular coil utilizes power. There are no parts that move through direct electric power of battery. batteries can last 2 to 5 years.

ACCUTRON
Accutron Movements operate similar to quartz, but do not utilize a quartz module, rather, two POWERFUL opposing magnets create opposing force to send impulses to drive train and are controlled by transistors. This system uses more power than quartz but they have no direct battery powered moving parts. battery life averages 2 to 4 years

ELECTRIC
“Electric” watches are the oldest battery powered wrist watches. Hamilton introduced the first movement around 1957. These systems utilize a transistorized system to control & operate a balance. This balance is similar to the mechanical wrist watch. The escapement – wheels/gears and pallet fork drive train– are actually like a mechanical watch, but without a main spring. So the battery actually powers the balance wheel, making it spin. The motion of balance is controlled by transistors and, like all three of these watches, a magnetic field ultimately controls operation. Batteries last average of 2 to 4 years.

The difference in time of battery life is based on conditions and quality of battery