## The Model 1900 Series: No. 6 look-alikes, faux, or the New Standard?

We periodically hear our Model 1900 series products referred to as "No. 6 Look alikes" or "Faux" batteries. In fact, the Model 1900 Series should *not* be considered simply "look alikes" or "Faux" No. 6 units. They are the new standard; the No. 6 battery family of the 21<sup>st</sup> Century. Perhaps a bit of history is in order, to put these products in perspective.





DER TERMINAL AT INVOLUTION DER TERMINAL AT INVOL The birth of the No. 6 battery began in 1896 when National Carbon Company introduced the "Columbia" battery. This unit was originally used to power electric doorbells, lighting, telephones, as an ignition source to start automobiles, and of course, as a power source for self-winding clocks. It has probably been about 50 years since manufacture of the traditional No. 6 battery ceased. They are now obsolete, and have been for almost half a century. The original unit was filled completely with chemicals with a carbon rod in the center for the positive terminal and a drawn outside can of zinc for the negative terminal. Around the zinc can was a roll printed cardboard/paper covering which acted as an insulator for the negative terminal, and gave the product its identity. Underneath was a glued-on paper "cap." These units would leak and create an environmental mess when improperly disposed of given that they contained well over 10x the chemical content of a present-day D battery.

Then, at about the same time the original No. 6 unit became obsolete, Eveready (now Energizer) introduced the LR-40 style EN6, also in the No. 6 format to replace the original No. 6. This product used a pair of 3-306 alkaline cells (roughly the same size and capacity as a pair of D cells) strapped to the internal lid of the unit. The casing was a thin ABS plastic molded package. Most of the internal space was empty air. The A-Hr capacity was actually better than the originals due to the improvement in cell technology. This A-Hr capacity is about equivalent to a pair of standard alkaline flashlight D cells in parallel. Over the years, as volume dropped, the price on these units skyrocketed. They were single use; eg, disposable. Around the 2007 timeframe these were also obsolete. Some remained in distributor stock but well past the unit's shelf life. Some alternate LR-40 styles (such as the HO-40) are still available overseas, generally available with expensive international shipping charges. It is not clear how long these will be available either.

Let's take a detailed look at a few examples of our 1900 family shown to the left. Our renewable Model 1900L is virtually identical electrically to the EN-6. The only difference is we added protection circuitry so if someone installs the cells backwards by accident, or shorts the terminals, the cells don't get hot and leak all over, ruining the cell, the holder, and its surroundings. Thus, they're not actually "look-a-likes" as they're actually a substantial improvement over the original No. 6 and EN-6. They are renewable for a fraction of the price of the original EN6 and offer a layer of protection to the user.

Similarly, the renewable Model 1900GS Kit is far from simply a "FAUX" battery kit. It is made up of two units: The G cell and the S cell. Yes, both contain internal alkaline batteries but the kit does much more, both powering and synchronizing the clock.

Consider the G section. The letter "G" stands for Green Technology. With its internal electronic regulator and Ultracapacitor technology, it more than emulates a pair of original No. 6 cells long since obsolete. In fact, for purposes of powering clocks, it's like owning a pair of original No. 6 cells, which remain like new for the entire life of the internal chemistry! The unit stretches the life of the internal cells, utilizing electronics to extract all the stored chemical energy. Thus, the unit is more efficient with the stored energy of the cells than any previous battery.

Next, consider the S section. The letter "S" stands for Synchronization. This unit

outputs the required pulse to synchronize self-winding clocks once per hour (clocks which are equipped with synchronization mechanics), just as they were originally intended. Its accuracy is well respected and unquestioned. The result is a vintage clock that is accurate to within a few seconds per month, competing with the best electronic watches available. The Model 1900GS Kit has become a very popular commodity among serious self-winding clock collectors. It is affordable, renewable, powers any self-winding clock, and brings back the accuracy and nostalgia of hourly synchronization to these clocks, which has been lost for over 50 years. The full capability of the clock is resurrected. It is a real favorite among owners of 37-SS Broadcast Studio clocks, among others. Again, the Model 1900GS Kit is warranted for 5 years and comes with full color instructions and wire for straightforward installation.



Other improvements (most apply to the entire Model 1900 family): The outside can is 1/4 inch thick compared to the EN-6 which was paper thin. The terminals are high-quality nickel plated with stainless steel screws vs. unplated thin brass on the EN-6. The 1900L are also available with choice of two paper label styles. These are first rate, high quality units. They are PROUDLY manufactured here in the USA, not the typical low-quality import we are accustomed to as consumers. In addition they are warranted for 5 years. Neither the original No. 6, the EN-6, nor any international knock-offs ever offered any warranty. (Incidentally we have run across many LR-40 units over the years that were DOA.) Finally, the 1900 family is substantially more environmentally friendly than any of its predecessors.

Of course, there are several import sources for "original" No. 6 batteries, which pop up on eBay and elsewhere. Unfortunately, many are of poor quality and manufacture, and sellers come and go. And since they are based on the original carbon-zinc chemistry, they are apt to leak just as the originals did. This is a roll of the dice; some may be fine; others not so much, but none will be renewable or warrantied.

Above: The Model 1900GS Kit

**Conclusion.** Without question, the (relatively) new Model 1900 family sets a new standard for the No.6 battery. For all the reasons stated above, we submit that the Model 1900 family is the No. 6 battery family of the 21<sup>st</sup> Century. In fact, all others available since the original No. 6 unit became obsolete (including all LR-40 series including the EN-6) might be considered "faux" No. 6 batteries.