

Self Winding Clock Voltage Guide (Non-slave clocks)

Note: This guide is a work in process.

Manufacturer	Clock Type	Voltage	Recommended Power Source	Comments
Self Winding Clock Co.	Style A, C, F with .008" x .220" x 72" spring; 5.6 Ω coil	3 volts	One 1900R or 1900 kit, 1900S Kit (also provides hourly synchronization)	Most common clock; dials 16 inches and smaller. Requires 180-210mA for an 8-15 sec/hour wind for F style and 400mA for 5-6 sec/hr with A or C style rotary motor.
Self Winding Clock Co.	Style A, C, F with .008" x .220" x 72" spring; 200Ω coil	24 volts	Pair of 1900-12V in series, pair of 1900R-12V in series, or single 1900R-24V	Often, but not always, there is a tag on the clock that specifies 24 volts. Style F movements identical to 3 volt unit. Requires 46-50mA for an 8-15 second wind per hour.
Self Winding Clock Co.	Style A, C, F with .010" spring, 5.6 Ω coil	4.5 volts	One 1900-3V and single 1900 in series three 1900 in series (or contact Ken's Clock Clinic for 1900R-4.5V)	Clocks with larger dials or heavy hands; infrequently encountered
Self Winding Clock Co.	Style A, C, F with .012" or .015" spring, 5.6 Ω coil	6-7.5 volts	Two 1900R or two 1900-3V in series	Uncommon
Self Winding Clock Co.	Style E	9 volts	Two 1900R-4.5V or three 1900-3V in series	Uncommon
Self Winding Clock Co.	Some Style F Later Models, S/N 300000 or above with R prefix using enclosed DC motor	3 volts	1900RHC (High current 1900R—Contact Ken's Clock Clinic) or pair of Model 1900L (contains 2 cells in parallel) Note: Starting current of motor will strain standard Model 1900	Self Winding Clock Co. used an enclosed 3 volt motor in some clocks circa 1950 for broadcast studio version. Requires up to 3 amps to start, 1 amp to run, for about 1-2 sec/hour depending on condition of motor
American Clock Co.	Impulse Arm	3 volts	One 1900R, pair of 1900-3V in parallel, or pair of 1900L in series	Requires 0.5-1.5A for about 200ms every 5-7 minutes depending on size of clock.
American Standard Watch Co.	Hipp Toggle Self Winding	3 volts	One 1900R, pair of 1900-3V in parallel, or pair of 1900L in series	Requires 0.5-1A for about 200ms every 5-7 minutes depending on size and condition of movement.
Standard Electric Clock Co.	Units with two electromagnetic coils at base of movement, impulse wound once per minute, helical mainspring	24 volts most common but lower voltage units exist	Model 1900W-24V unit powered by standard 6 volt Alkaline Lantern Battery such as Energizer 528, or Model 1900W-24V No. 6 Kit (D batteries internal and included)	Model 1900W Clock Winder can be connected directly to coil, conserving contacts and greatly improving battery efficiency. It converts the 6 volt lantern battery to 24 volts, and pulses the coil with 24 volts once per minute. If different voltage needed, contact us. We can provide any voltage from 3 volts to 24 volts.
Standard Electric Clock Co.	Motor wound weight driven	24 volts AC, 120 volts or 240 volts AC	No battery solution for these clocks	Requires AC power

Stromberg	Minute Impulse style Vintage Master Clocks w/ .008" x .250" x 40" spring	10 volts most common	Model 1900WS-10V in conjunction with Energizer 521 Alkaline Lantern	The Stromberg units require more power than the Standard Electric so the battery must be larger. The Model 1900WS can be connected directly to the coil, conserving contacts and greatly improving battery efficiency. It converts the 6 volt lantern battery to the required voltage, and pulses the coil once per minute
Stromberg	Same as Above	20 volts	Model 1900WS-20V in conjunction with Energizer 521 Alkaline lantern battery	See comments for Stromberg 10 volt unit.
Synchronome	All A frame movements	3-4.5 volts	1900R (regulated output yields better timekeeping) or contact Ken's Clock Clinic for a regulated 1900R-4.5V special version. Float charge.	Movements virtually the same from 1908 to 1962. Requires 295-320mA for a 5 second per minute impulse. Add 1 volt per slave movement connected in series.
English Clock Systems (ECS)	Smiths Gravity Arm	10-10.5 volts	Three 1900R in series	Requires 300-320mA