

Silverdollar Productions, Inc.

UNPACKING INSTRUCTIONS! PLEASE READ CAREFULLY!

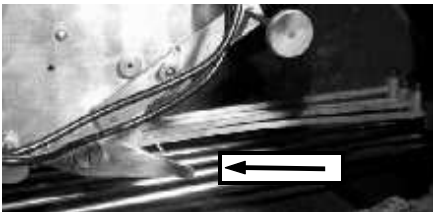
**PACKING MATERIAL LEFT INSIDE THE CLOCK WILL CAUSE THE CLOCK TO
RUN IMPROPERLY!**

Check, and then check again to make sure all packing material is fully removed!

Your clock was set for 12:00 to help assist you in testing and set-up. Please continue with this section to test for shipping damage and to properly set your clock keeping the chimes in sync!

Before being sent, your clock was set to 12:00, and the chimes/Strike allowed to play. At this point, the full chiming sequence is completely finished, and ready to move to the next quarter hour.

If your clock is so equipped, you need to unlock and lower your chime hammers. The lock lever is located on the back of your movement. Push this lever fully downward.



After being fully depressed, the hammer arms should move freely and strike the chime rods as you move the clock around.

THE FIRST THING WE NEED TO DO IS TO TEST THE CLOCK TO MAKE SURE IT WASN'T DAMAGED IN SHIPPING!

To do this, you need to plug your clock in. Currently, your dial should look like this:



After plugging the clock in, you should notice that the second hand moves, and the clock begins to operate. Allow it to run for a minute before proceeding.

Most clocks have a handset knob on the back to adjust the time. Some have opening glass doors on the front in which you need to use your fingers to advance the hands. Please take note as to which kind you have.

Once you are satisfied the clock appears to be running, advance your minute hand to 12:15. When you hear a "Click", **stop**.

After a couple of seconds, you should hear the chimes play. The correct number of notes to be played for this position is 4. After the chimes play, you should hear another click indicating they have shut off. **IF YOUR CHIMES DO NOT SHUT OFF, THIS COULD INDICATE DAMAGE!** If so far, so good, continue to the next section.



How to quickly and properly set your clock and keep the chimes in sync!

There are two ways you can set the time on your clock.

The first is the very slow way. Here, you advance the hands to each quarter hour, stop, allow the chimes to play, then go to the next quarter hour. This is fine if your current time is say 1:20. But if your current time is like 8:35, this could take a while, and you may want to try to use the rapid method shown next.

Important note for top of the hour chiming and strike! All clocks made after 1933 used a different strike wheel than clocks made prior. If you have an early 1928-1933 Revere, then this won't apply to you!

At the top of the hour, your clock will play 16-notes before starting to count the hours! At 1:00, the clock will strike once. IT IS IMPORTANT TO NOTE THAT ALTHOUGH THE STRIKE HAS STOPPED, THE BIG WHEELS IN THE BACK OF THE CLOCK ARE STILL TURNING! YOU CANNOT ADVANCE TO THE NEXT QUARTER HOUR UNTIL ALL THE WHEELS HAVE STOPPED! AN AUDIO SIGNAL TO HELP DETERMINE THIS IS A SERIES OF CLICKING SOUNDS. IF YOU ADVANCE TO THE NEXT QUARTER HOUR WHILE THE BIG WHEELS ARE STILL TURNING, YOU WILL TEMPORARILY PUT YOUR CHIMES OUT OF SYNC! IF SO, THEY MAY PLAY IMPROPERLY, OR NOT PLAY AT ALL UNTIL THE CLOCK CORRECTS ITSELF!

To use the **"Rapid Method"** of setting your time, the first thing to do is **UNPLUG THE CLOCK!**



So now, take a look at your current time. For this example, we'll assume the time is 9:05. However, your clock is set at 12:15.



Regardless what time your actual time is, when advancing the hands on your Revere/GE, you must stop the minute hand at the :30 mark in order to keep your chimes in sync! So now, advance your hands. Since your clock is unplugged, you'll hear clicking as you turn the hands, but nothing happening. This is normal.



Now, once you get to the :30 mark before your actual time, **PLUG THE CLOCK BACK IN!**

After plugging the clock in, the clock will chime and play 8-notes. Once the clock has played those 8-notes, advance to the next quarter and stop. At the $\frac{3}{4}$ hour mark, the clock will play 12-notes. Once it has played the 12-notes, turn the hands to the top of the hour.



At the top of the hour, your clock will play 16-notes followed by a count of the hours. In this example, the clock will strike 9-times to indicate 9:00. PLEASE REMEMBER! Clocks made after 1933 will need to continue to run, even if the striking stops. Allow the clock to run until you hear a series of clicking before continuing!

Once you are sure the strike sequence has fully stopped, advance the hands to match the correct time, and

YOU ARE DONE!



**“I screwed up! My chimes are out of sync!
Tell me how the SELF-CORRECTING FEATURE works!”**

Hey, I understand that sometimes setting the clock can be a little confusing, and mistakes happen. If by chance you made an error, and now the chimes aren't playing right, DON'T WORRY! Your Telechron movement has you covered!

One nifty feature built into all Telechron movements is a self-correcting feature that will automatically put your chimes back into sync. This feature comes into play if you make a mistake, or, if the clock skips a chime during normal operation.

If your chimes go out of sync, it is possible that they won't play right, or even play at all! You may hear clicking, but nothing happens. If you think your clock is out of sync, simply set your time, plug it in, and leave it alone. The self-correcting feature may take up to 90-minutes to work, but the clock will eventually re-set itself and you'll be as good as new!



“What is this POWER-EYE thingy on the front of my dial, and how does it work?”

Since electricity was an unreliable power source early on, power failures were quite common. Telechron came up with another nifty idea to inform you that the power was cut, **The Power Outage Indicator**, and that your time maybe incorrect! If the power on your clock is cut, the indicator should turn red as shown in the photo on the left. Check to make sure the time is correct, and then re-set your

power-eye back to white. Turning a long stem that protrudes through the back of the clock usually does this (Above photo right). However, clocks with opening doors don't have a stem. You open the door, and use your finger to push the indicator back to white.



Notes on the Power-eye: Not all clocks had this feature! So, you may not have a power-eye at all. Also, many designs were poorly made, and the power-eyes very difficult to see. Since they operate by the use of a magnet, they may not be all that reliable to begin with

**“Hey! The insides of my clock are hot and I'm getting some strange noises!
What's that all about?”**

Keeping in mind that your clock runs on electricity, you need to remember that electricity generates heat! Since your clock is running on the original coil and rotor, it is the coil itself that takes the electricity. The coil takes 120 volts and reduces it to something not so dangerous, therefore becoming hot to the touch! Hot meaning it will not burn you if you touch it, and it does not make a safety hazard.

Different types of noises from inside the clock are quite common. One noise you'll especially notice is “Clicking” right before and after your chimes and/or strike operate.

HOWEVER, certain rotors may also produce an audible gear noise or light hum. Generally, the aluminum rotors made after 1944 were not oil filled, and slightly noisier than their predecessors. Older rotors were brass constructed, and filled with oil to help dampen the sound. Even rebuilt rotors can produce a slight gear noise or hum.

“I’m getting a loud buzz from my clock! Is something wrong?”

If you have a GE or Revere clock with a power-eye, it may be that! Since the entire mechanism is set loosely, the magnetic field generated by the coil may cause it to vibrate fiercely! This vibration may cause a loud, obnoxious sound possibly leading you to believe something is wrong with the clock.

Normally, this problem is quickly and easily cured by simply turning the stem, which protrudes through the back.

It is also possible there is a loosened screw or piece of stray metal that is causing the vibration. A quick visual inspection can resolve these problems.



“My chimes sound terrible! How can I correct that?”

The packing and shipping of your clock may often upset the delicate settings of your chimes. FOR THIS WE APOLOGIZE, BUT PLEASE UNDERSTAND IT IS AN UNAVOIDABLE SITUATION!

We have a Web Page dedicated to the correction of most sound-quality problems that come up

**GO to www.RevereClocks.com or www.SilverdollarProductions.net
and click on the link for instructional videos**

Care of your wood case

Almost all Revere and GE clocks were made up of mainly mahogany. Mahogany is considered to be a hardwood. Although of all the hardwoods in its category, it is the softest, and does have a tendency to dry and age. The wood on your clock has been treated the old-fashioned way using rich oils to give back the moisture the wood craves. You can prolong the look and condition of your wood by wiping down in a quality cleaner enriched with OIL! (A favorite of ours is Formby's Lemon Oil Treatment available at Wal-Mart or Ace Hardware). Do not clean with any type of abrasive. We do not recommend the use of wax, polyurethane, varnish or any other product that would seal over the pores of the wood.

History of your Revere or General Electric Clock

At this point, we hope that you have successfully set up and are currently enjoying your clock! While letting it run for a few minutes, we thought we'd give you some background on how it came to be!

The history of clocks can be traced back centuries. Compared to this History, your Revere or GE clock is considered very young. On the other hand, the development of electricity for use in clocks isn't that old. So don't compare your clock to the history of clocks, but rather to the development of electricity.

Electricity in the very early 1900's was very much undeveloped. Power plants were privately owned, and power was supplied to mainly larger cities. Since electricity was actually targeted toward the well to do, no attempts were made to bring it to the suburbs or out in the country. Even into the 1920's, it was estimated that less than 35% of American homes had electricity.



Henry Warren, the creator of the Telechron movement in your clock, was also greatly responsible for how we receive electricity today. After developing a self-starting electric clock motor in 1915, Henry found out that the clock would either gain time, or lose time. The only explanation for this was because of how the electricity was being delivered to the home. Power companies

were firm on the fact that the electricity was being delivered at 60-cycles per second frequency although, a drop in this would cause a clock to run slow. A delivery of over 60-cycles per second would cause a clock to run fast.

On Oct. 16, 1916, the Boston Edison Power Company stubbornly allowed Henry Warren to prove their electricity was not being delivered at the promised 60-cycle per second frequency rate. He installed the first Master Clock in the power company. This rather large clock was actually used to monitor the cycle frequency by how it kept time. Henry Warren was absolutely correct. The master clock failed to keep proper time. When the clock began to run either fast or slow, this told the power companies that they needed to adjust their generators. When the clock was keeping proper time, Boston Edison was assured they were delivering a proper 60-cycle per second frequency. The use of the Master Clock proved to be a very reliable method of determining exact frequency. So good, as a matter of fact, other power companies were using 400 Master Clocks by 1925. By 1947, it was estimated that 95% of the electricity being provided to America was regulated by Warren's Master Clocks. It was a huge success, and a major stepping-stone in the development of electric clocks. So pretty much, you can compare the age of your clock to 1925. That's the time electric clocks were able to keep proper time.

The **Warren Telechron Company** was actually founded in 1912. But, 1925 was an important pinnacle for Henry Warren. With his motors now keeping absolutely perfect time, he was able to really begin production of a reliable electric clock. Electric clocks began to hit the market.



Two major companies followed Warren's progress with great interest. The first was **General Electric**. General Electric acquired 48% of the company in 1917. They obtained full interest in 1943 when Henry Warren stepped down. General Electric would use Telechron movements in all their clocks.

A second company was the **Revere Clock Company**. The Revere Clock Company was actually started and owned by the famous **Herschede Clock Company**. Revere was created in 1923 for one purpose only. Herschede created top-of-the-line key-wind clocks, and Revere was created just in case this whole idea of electric clocks flopped. This way, it would not damage the good name of Herschede. As time went by and the movements proved successful, Herschede began using them in their floor clocks.



Strangely enough, the Telechron Clock Company made the Westminster Movements, but they never produced a Westminster Clock! General Electric made both Westminster Clocks and a huge variety of time-only clocks. Revere made Westminster Clocks only and no time-only clocks. A 3-digit number stamped on the bottom of the cases identified early Westminster clocks. Ironically, only General Electric gave "Names" to their clocks. Revere clocks were identified by an "R" prefix, even though it does not show up on the bottom of the case. Therefore, you might find a Revere "R-913". Or, you might find a GE model 352, also known as the "Concerto".

Regardless what company used them, all Telechron Westminster movements were numbered. Therefore, production records can be traced as early as 1911. However, only a mere 38,000 movements were produced from 1911 to 1925, mainly because of the problems Henry Warren had with the electric companies. After this problem was solved, 74,000 movements were produced between 1926 and 1929. 1930 appeared to be the first, real production year. 102,600 movements were made this year alone, and the dawn of electric clocks was well underway.

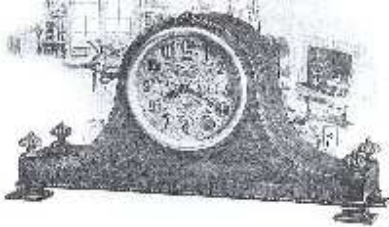
It's not 100% clear what began to unfold in the 1950's as sales began to drop. It is known that Herschede sold out in 1967, and by 1973 clock production was ceased. General Electric sold their share of the company to Timex in 1979. We know for a fact that 626,000 movements were produced up to 1968. After that, it becomes a little sketchy. Best guess up to 1973 would be close to 700,000.

There were several factors that made the Telechron Westminster movements far superior over others, and why your clock has endured for so long. The technical designs of these movements were years ahead of their time. The rotors in these clocks were made of brass, filled with oil, and sealed. The rotors did not run off electric, but rather off a magnetic field created by the coil around it. In addition, Telechron clocks were Self-Starting. Meaning, the clock would begin to run as soon as you plugged it in. Other manufactures made Spin-to-Start models that required spinning a knob on the back to get it to run. One of the first competitive clocks in the Westminster field was made by **Sessions** in the early 1930's. This clock was basically a converted Key-Wind movement. Instead of having two springs, the springs were replaced by two electric motors. Despite the fact these were great clocks, the motors proved unreliable compared to the rotors in the Reveres. Replacement motors for these Sessions clocks are nearly impossible to obtain. **Seth Thomas** also made an attempt to enter the Westminster field in the early 1940's. They modified their famous key-wind 124 Westminster movement into what was know as the 1700 series. Compared to the 124 movements, these new 1700 movements were junk. They were problem prone right from the start, and production lasted only a few years before being scrapped. In addition, the thin, steel gearing and plates of these movements could not compare to the brass movements created by Telechron.

Sessions once again attempted to re-enter the Westminster market in the mid-1950's. They introduced a totally redesigned, brass movement powered by the famous Synchron motor. As beautiful as these clocks were, they unfortunately seemed to have an over-abundance of moving gears and levers. Over time, all these gears and levers would begin to wear and stick, causing problems. In addition, they were very hard to service, as you would need to remove the

bottom of the clock to even begin dismantling the movement. With all the complaints they were receiving and rising costs of production, Sessions quickly discontinued these Westminster right around 1958 or 1959. This still left Telechron king of the hill.

Telechron Westminster movements were so well made, that they changed very little for nearly 35 years. There was no trial-and-error. It was a successful design right from the start. This means that if you own a 1942 General Electric Westminster, parts to repair it could be obtained from a 1951 Revere Westminster. The consistency of the movements is one of the reasons we have been able to acquire a stockpile of parts.



Setting aside the quality of the movements, one cannot ignore the beautiful wood on Revere, GE and Herschede clocks themselves. There is a story behind this, too. Before 1932, it was assumed that only the well-to-do would be able to afford electricity. Therefore, the quality of the wood and workmanship was geared toward the imported and of very high grade. Prices for the

rich. All of the mahogany was clocks also kept them out of reach of most Americans. The 1929 R-407 on the previous page had a retail price of \$105 back then. Compare that to the \$30 weekly pay most Americans were making in 1929.

As the Depression approached and the novelty of electric began to diminish, prices did drop. However, the quality did not. All three companies still continued to use the finest materials available. It probably wasn't until the 1960's that a difference could be felt, mainly because the companies were looking for ways to cut costs in order to survive. Still, while other clock companies were working with mainly plastics, Reveres and GE clocks were made from fine veneers, aluminum dials, brass accents, solid brass hands, and glass crystals. As far as we know, there has never been a Westminster made by Revere that had plastic anywhere on the clock.



The era of American Made Clocks is now long past. Some argue that Howard Miller is still an American Producer. I debate this, only due to the fact that the Westminster Movements they use are made by Hermle. Hermle is made in Germany. Other than that, Howard Miller utilizes a lot of battery movements.

As a closing note, the Warren Telechron Company never produced a Westminster clock, just the movements. However, the same, exact quality found in the Westminster clocks could also be found on any Time-Only Telechron clock. Telechron produced some of the finest electric clocks in American History. General Electric shared this passion also. Even though General Electric developed their own design of cases, they also shared many with Telechron. It is not unusual to find a clock with "Telechron" marked on the dial, and then find the same, exact clock marked "General Electric". Nonetheless, any of these fine clocks are quite collectible. It's interesting to point out that most Telechron clocks produced before 1933 were made in very small numbers, some models with fewer than 5,000 total units. This makes them a very rare piece of history to own, especially in working condition. If you are fascinated with your Revere or GE Westminster, we invite you to explore our website for other styles of clocks.

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