

The Digital Camera as a Repair Tool

By Dave Coatsworth

Sitting alongside my many vintage and antique watch repair tools is one very modern tool: my digital camera.

The first use of the digital camera is as an aid in re-assembly of the watch. Most early watch repair books suggest making sketches of the movement as you take it apart. For those of us who are artistically challenged, this may prove to be of very little help when it comes time to reassemble the watch, especially if several weeks or months have passed while you searched for a hard-to-find replacement part. Instead of sketching, I simply have my digital camera ready as I disassemble the movement and snap photos as I expose hidden areas of the watch. Perfect lighting and a perfect camera angle is not important here. These photos are for your own use and are only intended to jog your memory as you are reassembling the watch. I just snap photos of the movement as it lies on my bench. The photos below show typical train and pillar plate photos that I take during disassembly.



The second use of the digital camera is for documentation. Whenever I repair or restore a watch, I take two photos that will become part of that watch's records. The first is of the parts after cleaning but before any reassembly has taken place. I also write the date on this photo. This proves to a future owner of the watch that it was serviced properly (by complete disassembly instead of just dunking the movement) and provides a reminder of when it was serviced.

The next photo is a photo of all of the serial numbers. At minimum, all major plates and bridges of an American pocket watch will have at least the last several digits of the serial number stamped on them. In some watches, you may also find numbers on the mainspring barrel, pallet bridge, hour wheel and other parts. The serial number will also be scribed on the underside of the balance wheel arms, but this can be difficult to photograph. The purpose of the serial number photograph is to document that the watch is not a 'marriage' of parts.



Lighting and camera position are more important with these photos as you want to provide a clear image of the parts and of the serial numbers. I take these photos against a white background and under my photo lights.

Finally, a digital camera may allow you, in certain cases, to get a better look at a small part if the camera has a good macro capability. The photo below is of a pallet fork from a 0-size Waltham watch. I had suspected that the guard finger was slightly off-center but was having trouble getting a stable and perfectly perpendicular look at this with a loupe. Instead, I positioned the pallet fork where I could a photo from directly overhead to clearly see the relationship between the guard finger and the fork slot.



Another useful example is the case where you need to count the number of teeth on a wheel. In this case, you can take a photo directly above the wheel, blow it up with your favorite photo editor and print it.

The camera I use is the Nikon Coolpix 4800. The Nikon family of digital cameras seem to be one of the most appropriate choices for watch collectors due to their extraordinary macro capabilities. The Coolpix 4800 allows me to get within one-half inch of my subject. ■