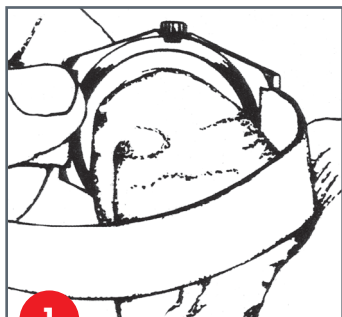
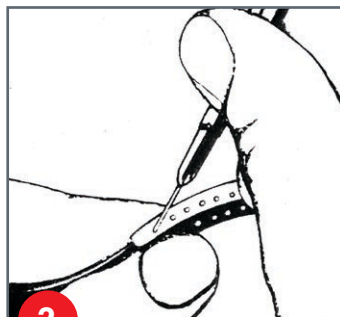


Kessler Batteries and Murata Present THE AWC1 WATCH BATTERY CHANGE INSTRUCTIONS



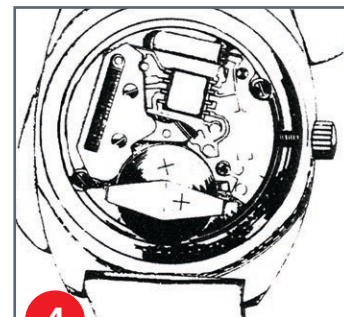
1
Clean the outside of the watch with a soft cloth while at the same time checking to see how it should be opened.



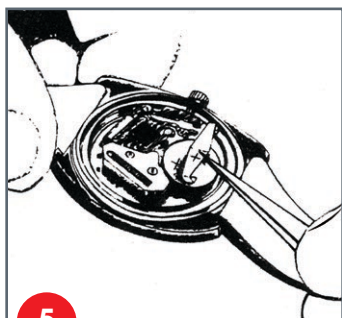
2
If the watch has a continuous bracelet, use a spring bar tool to release the spring bar in the clasp, separating the bracelet into two sections.



3
Using a case-wrench or knife, gently and carefully open the case and take the back off of the watch.



4
Note which way up the old battery was inserted.



5
If applicable, loosen or unfasten the battery clamp. Careful! They are usually spring-loaded!



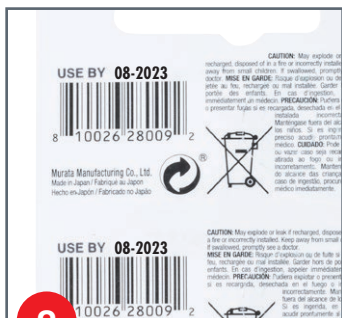
6
Turn the watch gently onto its side, and with the help of plastic tweezers, ease the battery out.



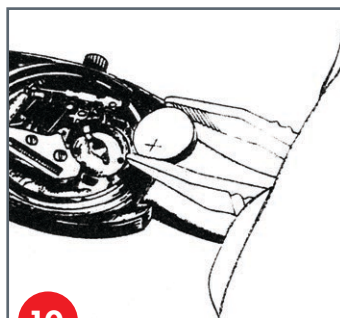
7
If the contacts are dirty, clean them with a buff-stick and remove any debris with some fresh Rodico.



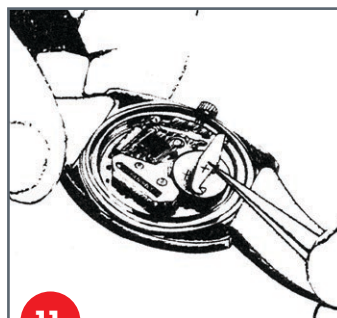
8
Referring to the operating instructions, the movement, or a cross-reference guide, determine the replacement battery type number which should be used.



9
Take a new battery from your stock, and make sure it has not aged beyond its "best before" (use by) date and remove it from its package.



10
Using plastic tweezers, insert the new battery into the watch.



11
If applicable, replace and tighten the battery clamp.



12
Turn the watch over and look at the hands to make sure the watch is running.



13
If the watch has a gasket, check that it is in good condition and place it in position. If it is not in good condition, replace it with a new one.



14
Check the cleanliness of the inner side of the case-back and clean as necessary. Align the notch in the case-back with the stem. Replace the case-back on the watch while being careful to avoid placing pressure on the crystal.



15
If necessary, replace the spring bar back into the clasp. Set the watch and give it a final polish with a GemOro Mega-Sparkle cloth before handing it over to the customer.



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Kessler Batteries (sponsor) and Murata Batteries Present:
WATCH BATTERY REPLACEMENT INSTRUCTIONS

Created by: The American Watchmakers – Clockmakers Institute

To view this instructional video, simply visit:
kesslerbatteries.com

**SUGGESTED TIPS AND INSTRUCTIONS
 FOR BATTERY REPLACEMENT IN COMMON WATCHES**

1. Examine the watch before doing anything!
2. "Function" the settings to be sure that the associated parts, i.e. crown, stem, hands, etc. are working.
3. Observe any water resistance ratings or symbols.
4. Observe the brand of the watch—some require special tooling, etc. As a rule, it is best to leave high-grade (valuable) watches to certified watchmakers.
5. When possible, pre-test the water resistance before opening the watch—especially if you are not equipped to replace the gaskets. Dry pressure testing may be the best choice at this stage.
6. Observe how the case is to be opened and control any possible damage by using the proper tools and methods.
7. Clean the case with a stiff brush before removing the back. This helps to prevent debris from falling into the watch case once it has been opened.
8. Observe the battery before removing. Does it have a limiting spring? Is the positive up or down? Is it dated? Are there indications that a previous battery leaked?
9. Remove the battery and handle it with plastic battery tweezers for testing. Sometimes this involves a cell strap which can be under pressure. Handle carefully—a buff stick is helpful. Check status and condition of the insulator—if one was used.
10. Identify the battery by the type number. Is the cell a 1.55V (Silver Oxide—generally a 300 series or SR number) or 3.00V (Lithium—generally a CR number) or is it something else. Capacitors are not interchangeable with batteries, and often found in "solar" or "kinetic" powered watches.
11. Check the battery:
 - A. If the voltage tests good—yet the watch is not functioning, further testing and evaluation may be required by a watchmaker.
 - B. If the voltage tests low (below the acceptable ratings) you can replace the battery and check to make sure that the watch is running.
 - C. If the battery is completely dead—this could be the result of high consumption due to a problem or simply because the battery may not have been changed for a prolonged period of time after it had "stopped."
 - D. If the battery was dated—does the date make sense compared to the size and type of watch it is in? If the battery is only 3 months old, the problem is generally not the battery.
 - E. It is always preferable to check the consumption with a proper instrument, but if this is not possible, you should at a minimum date the battery as a reference.
 - F. Optionally—if it is possible to check the battery voltage while the battery is in the watch, it can indicate whether the battery connection is good or not.
 Note: If the battery contacts are corroded, they can be lightly cleaned—DO NOT rub off the plating.
12. Select the proper replacement battery by using a cross reference guide, battery size selector tool, or by measurements if necessary. If the watch has an alarm or back-light function, make sure a high-drain or multidrain battery is being used. Consider indicating the date inside the case. Install the proper Sony brand replacement battery in the same position as you noted when you first examined the inside of the watch.
13. **AVOID TOUCHING** the battery with your fingers; oils and moisture remnants left on the cell could cause damage to the cell and contacts over time. Use a specially designed tweezers or finger cots when installing the battery.
14. Install or tighten the cell strap as applicable. Remember, screws are often electrical connectors and need to be tightened appropriately.
15. Verify that the watch is running. Make sure no parts were inadvertently left out!
16. Check positioning and condition of gasket.
17. Re-install the case-back. Screw type, press type or back with screws.
18. Set the watch hands in a clockwise direction. If you have a calendar, continue to turn until the date changes and midnight has been established. Set the time and then the date via the Quick Setting.
19. After setting of the hands we must quality control the repair by:
 - A. Monitor that the watch is running
 - B. Properly position the crown (screw down type)
 - C. Make sure the back is positioned correctly (if applicable)
 - D. Check the water resistance if possible.
 - E. Lightly clean to wipe off any fingerprints, especially those on the crystal.
20. Deliver the watch to the customer with appropriate charges.

DISCLAIMER:

This booklet contains general information that is correct and accurate at the time the presentation was put together in 2012. The values and guidelines are only general and for the purpose of instructional information. For specific values and guidelines refer to the brand and caliber specific technical guides of the watch manufacturer.

We proudly stock the full line of Murata Batteries, the world's leading watch battery brand, at very competitive prices.

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