



Replacing Wristwatch Batteries

Before Opening the Watch Case

If the watch has an endless strap, such as many metal bands, unhook one end so that the watch can be placed face down on the work surface. As a rule, there is a spring bar somewhere in the band that can be removed.

Carefully clean the edge around the case back since it usually collects dirt, which definitely should not enter the open movement! Check with a clockmaker's loupe. Carefully dust the working area.

Opening the Watch Case

Suitable tools are needed for screwed-down backs, e.g., Case Openers No. 380-078-300/380-236-200 or 386-385-800.

Pressed on backs can be pried open with a sharp blade, e.g., Case Openers No. 388-112-400, 382-383-900 or 384-189-100. The blade has to be applied at the recess that is cut into the case back (use a loupe to find it). When using the blade, make sure that it does not slip and cause injuries or damage to the case! In many watches, the highly sensitive coil is unprotected. Even the smallest damage to it – possibly only visible under a loupe – will stop the movement. In most cases, the repair of such a coil is not possible!

Caution: Some watches with an acoustic alarm have a small spring between movement and case back to provide contact between the movement and the alarm beeper. These springs can have many different shapes and are loosely held in a recess. Such watches should not be turned over after the back has been removed since the tiny contact spring can fall out and get lost.

After Opening the Watch Case

Please keep away from dust! Do not touch the movement. It could cause static, which in turn could damage the movement's electronics.

Pull the hand setter out to its stop. There are many different types of battery contact springs. Some simply have to be unhooked, most of them are held by a screw. Always use a screwdriver with a sharp blade to avoid damage the screw's head.

Caution: The contact springs are under tension and can fling away their small hold-down screw. Remove the battery.

Caution: Quite often, a thin insulating shim is fitted underneath the battery. Be sure not lose this part. If a dead battery has not been removed from the

watch or if a faulty or poor battery has been fitted, corrosion can occur. In this case, the battery contacts have to be cleaned. Please scrape the contacts with a screwdriver or a glass-fibre pencil brush rather than using emery paper. Use an eye loupe! Do not blow any residue into the movement. Use a »Rodico« rubber stick to pick up any dirt particles. If air is needed, use a blower such as SELVA No. 388-991-000

Generally, a new battery should have the same number and specifications as the one being replaced.

Fitting the New Battery

Do not handle the battery with fingers or metal tools since this would cause the battery to instantly discharge. Fingerprints can be like printed circuits and cause current leakage, which will substantially shorten battery life. Suitable plastic tweezers can be found in the SELVA Catalogue.

When fitting the new battery, please make sure that any previously installed insulating shim is placed back into the bottom of the battery hold. Fit the contact spring, push it down and secure it with the screw. A finger can be used to push the spring and battery down, since the negative pole can no longer be touched.

Push the hand setter in and check if the watch movement runs. Use a loupe to once more check for any foreign particles or dust. If necessary, use a blower or »Rodico«, then fit the back cover.

If the watch does not work, the problem is probably not the battery but a more serious damage in the electronics or the mechanical parts.

It is difficult to make any recommendations. Sometimes, a thorough cleaning will solve the problem. Done by a professional watchmaker, it may, however, be more expensive than a new quartz watch. Spare parts for no-name movements are virtually unavailable.

Please note: Some watches with lithium batteries may not start or have a dead display. In this case, please look for a »Reset« contact. This can be a small contact spring that has to be pushed down or two solder points, which have to be shorted

out with tweezers. Quite often, the »Reset« contact is marked with »C« or »CLR« (= »Clear«).

Fitting the Case Back

Place a screwed-down back on the case and turn it carefully in a clockwise direction to find the thread and then use a case opener tool to screw it down. Please make absolutely sure that any synthetic or rubber O-ring fits properly into its groove.

A pressed-on back usually has a groove for the hand setter. Place this groove over the hand setter's stem, then press down using both thumbs. The back will close easier if pressed down along the outer edge rather than at its centre.

Not mentioned so far are cases where it is almost impossible to remove the back and close it again.

Sometimes the case opener has to be driven into the gap between case and back with soft blows of a hammer (four hands are needed!). Or the watch has a



These products from the SELVA Programme help you to do a professional job:

Tools	Page	Illus.	Order No.
Press	56	8	380-238-000
Press	56	9	384-182-800
Loupes	57		
Clamping Fixtures	58		
Holding Clamps	58		
Case Openers	58-59		
Battery Testers	60		
Plastic Tweezers	60		
Pencil Brush	64	20/21	387-569-400
»Rodico« Rubber Eraser	68	3	092-318-400
Silicone Grease	68	12	096-030-200
Blower	69	5	388-991-000

screwed-down back that cannot be opened with a regular case opener. When pressing down the back, it might become necessary to clamp the case in a vice taking special care not to put pressure on the watch crystal. Special presses with a number of inserts for various case and back shapes can be found in the SELVA programme.

Battery Exchange Chart

Catalogue 2017

SONY	MAXELL NATIONAL UCAR ENERGIZER EVEREADY	PANASONIC SONY TOSHIBA	VARTA	RAYOVAC	DURA- CELL	PHILIPS	TIMEX	CITIZEN	SEIKO	SELVA Order No.
301/386**	386	SR43W	V386	386	D386	386	H	280-41	SB-B8	097-667-000
303/357**	303	SR44SW	V303	303	—	—	A	280-08	SB-A9	097-678-700
313	313	—	V313	313	—	—	—	280-06	—	Use 303/357
317	317	SR516SW	V317	317	—	—	CA	280-58	SB-AR	099-202-800
319	319	SR527SW	V319	319	—	—		280-60	SB-AE/DE	097-328-100
321	321	SR616SW	V321	321	D321	—	DA	280-73	SB-AF/DE	099-203-700
329	329	SR731SW	V329	329	D329	329	—	—	—	097-329-000
341	341	SR714SW	V341	341	—	—	—	—	—	090-619-400
344	344	SR1136SW	V344	344	—	—	—	—	—	097-663-400
362	362	SR721SW	V362	362	D362	362	S	280-29	SB-AK/DK	097-664-300
364	364	SR621SW	V364	364	D364	364	T	280-34	SB-AG/DG	097-665-200
370*	370	SR920W	V370	370	—	—	Z	280-51	SB-BN	099-204-600
371	371	SR920SW	V371	371	D371	—	—	280-31	SB-AN	097-674-100
373	373	SR916SW	V373	373	—	—	WA	280-45	SB-AJ/DJ	099-205-500
377	377	SR626SW	V377	377	D377	377	BA	280-39	SB-AW	097-675-000
379	379	SR521SW	V379	379	D379	—	JA	280-59	SB-AC/DC	099-206-400
381/391**	381	SR1120SW	V381	381	—	317	—	280-27	SB-AS/DS	097-669-800
384/392**	384	SR41SW	V384	384	D384	—	—	280-18	SB-A1/D1	097-666-100
389/390**	389	SR1130W	V389	389	D389	389	M	280-15	SB-BU	097-668-900
394	394	SR936SW	V394	394	D394	—	—	—	SB-A4	091-321-100
395	395	SR927SW	V395	395	D395	—	LA	280-48	SB-AP/DP	097-672-300
396*	396	SR726W	V396	396	D396	396	V	280-52	SB-BL	099-208-200
397	397	SR726SW	V397	397	D397	—	N	280-28	SB-AL	097-673-200
399*	399	SR927W	V399	399	D399	—	W	280-44	SB-BP/EP	091-322-000
LR44	A76	LR44	V13GA	RW82	LR44	A76	—	—	—	097-676-900
CR1220	CR1220	CR/BR1220	CR1220	CR1220	—	—	—	—	SB-T13	091-323-900
CR1616	CR/BR1616	CR/BR1616	—	BR1616	DL1616	—	—	—	—	096-094-500
CR1620	CR1620	CR1620	CR1620	CR1620	DL1620	CR1620	—	280-208	—	099-726-500
CR2016	CR/BR2016	CR/BR2016	CR2016	CR/BR2016	DL2016	CR2016	FA	280-202/4/6	SB-T11	096-095-400
CR2025	CR2025	CR2025	CR2025	CR2025	DL2025	CR2025	NA	280-205	SB-T14	096-096-300
CR2032	SR/BR2032	CR/BR2032	CR2032	CR2032	DL2032	CR2032	—	—	SB-T15	096-097-200
CR2430	CR2430	CR2430	CR2430	CR2430	DL2430	CR2430	—	—	—	095-867-200
CR2450	—	CR2450	—	—	DL2450	—	—	—	—	095-868-100

* = »High Drain« for watches with additional functions (backlight, alarm, etc.)

** = »Multi Drain« for low- as well as high-drain applications