Instruction of Watch Movement

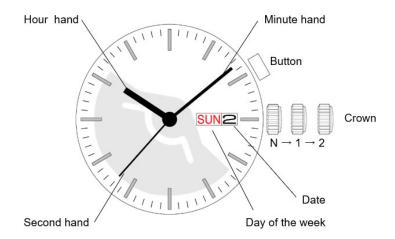


Cal. PX83A

Hybrid Automatic

- 3 hands / Day / Date

Display



Crown and button operation

	Crown position		
	N : normal	1 : 1st click	2 : 2nd click
Crown	Free	Turn clockwise for date change Turn counterclockwise for day of the week change	Time setting
Button	Power storage indicator		Free (No effect)

How to set time

- (1) Pull the crown out to the 2nd click position when the second hand is at the 12 o'clock position.
- (2) Turn the crown to set the hour and minute hands.
 - Take a.m./p.m. into consideration when setting the hour and minute hands to the desired time.
 - When setting the minute hand, advance it 4 to 5 minutes ahead of the desired time and then turn it back to the exact time.
- (3) Push the crown back to the normal position.

How to set date and day of the week

- (1) Pull the crown out to the 1st click position.
- (2) Turn the crown to set the date and the day of the week.
 Do not set the date and day of the week between 9:00 p.m. and 4:00 a.m..
- (3) Push the crown back to the normal position.

Tips: When the date and day of the week changes during daytime, it happens when a.m./p.m. is wrongly set. Advance the hour hand by 12 hours.

Features of the Hybrid Automatic watch

This is an analogue quartz watch equipped with an Automatic power generating system.

It generates the electric energy to power the watch, utilizing the movement of the arm, and stores it in the rechargeable unit.

Unlike conventional quartz watches, this watch does not use a silver oxide battery, thus eliminating the need for battery replacement.

Running time

Expected running time from full charge to stoppage will be around 6 months.

■ Instant-start function

When a long time has passed since the watch stopped, you can get it started quickly with only a few swings. This function is available as long as the watch has been stopped for less than a year.

Over charge prevent function

If the rechargeable unit is charged more than predetermined voltage, over charge prevent function is operated to prevent the rechargeable unit deterioration and breakage.

Even if it is further swung after being fully charged, no malfunction will result.

■ Power depletion warning function

When the second hand is moving at two-second intervals, the watch may stop within approximately 24 hours.

In this case, swing the watch from side to side to enough charge it.

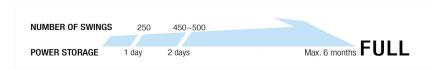
How to get started with the watch

- (1) Swing the watch from side to side. The watch will start with the instant-start function.
 - Swing rhythmically at a rate of twice a second.
- (2) Swing the watch until the hand moves normally.
 - If the watch stops and is left for more than 1 year, the second hand may not move normally. In this case, swing the watch further until the second hand starts moving at one-second intervals.
- (3) Set the time and calendar, use it.

How to charge

- To charge efficiency, swing the watch from side to side, making an arc of about 20 cm. Shaking the watch extremely fast or shaking it has no effect on charging.
- You may hear a sound when you shake the watch. This is the sound of the vibrating weight of the power generation system rotating. This is not a malfunction.
- It is not necessary to charge the watch fully, as it is charged automatically while it is worn on your wrist. Even if the watch is worn on your arm, it will not be charged while your arm is not in motion.
- Recommend to wear the watch daily for at least 10 hours, for storing enough energy.

Number of swings and power storage

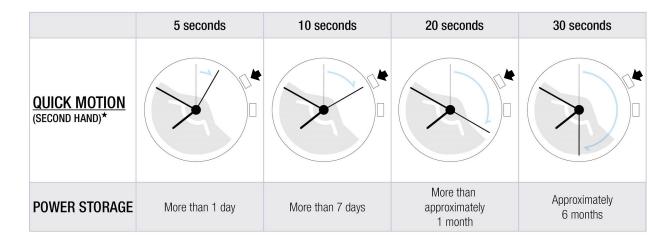


- (1) When the watch stops completely, or if you find the seconds hand moving at two-seconds intervals, swing the watch from side to side at a rate of twice a second.
- (2) Approximately 250 swings will reserve up to 1 day of power. And the second hand will start moving at one-seconds interval.
 - It is recommended that the watch be swung further until 2 days of power is reserved.
 Swing 200-250 add, for a total of about the 450-500 swings to reserve 2 days of power.

Power storage indicator

This watch displays power storage in seconds fast-forwarded by pressing a button. Displayed in 4 levels, you can get a rough idea of the remaining running time.

- (1) Fast-forwarding of the second hand starts from the position where the button was pressed. Press the button when the second hand is at the 0 second position.
- (2) After the power storage is displayed, the second hand returns to normal movement after a certain time.
- (3) The power storage is not displayed when the second hands are moving at two- seconds intervals. And, the watch may stop within approximately 24 hours, so charge the watch. (Power depletion warning function)



Precaution on see-through case-back models

If your watch has a glass case back, do not expose the case back to strong light such as direct sunlight or an incandescent light at close range, as this may temporarily increase the power consumption of the watch circuit, thus reducing the power reserve in the rechargeable unit.

This condition, however, will be corrected when the case back is turned away from the light.

Precaution on battery

Never install a silver oxide battery for conventional watches in place of the rechargeable unit. The battery may burst, become very hot or catch fire.