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## A. BEFORE USING

This watch is an analog solar-powered watch having a transparent solar cell located beneath the crystal that converts light energy into electrical energy to power the watch.

**Before using, expose the watch (solar cell) to light to make sure it is sufficiently charged.**  
**Since it takes time to recharge the watch until it starts running again once it has stopped, try to make sure the watch is charged everyday.**  
**If the watch has stopped running, expose it to intense light such as sunlight to recharge. When recharging using light of low illuminance of 3,000 lx or less, pull out the crown before charging. After charging, always make sure to correctly set the time and return the crown to the normal position before using the watch.**

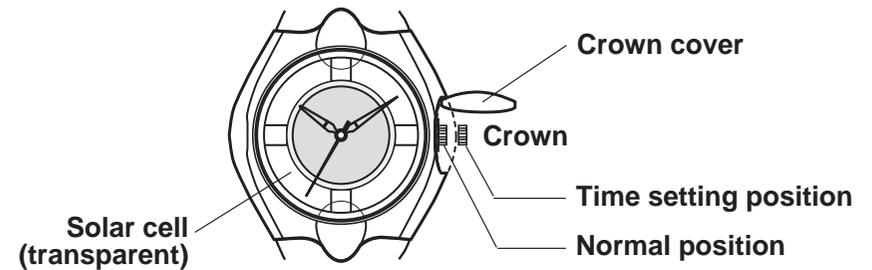
A secondary battery is used in this watch to store electrical energy. **This secondary battery is a clean energy battery which does not use any toxic substances such as mercury. Once fully charged, the watch will continue to run for about 4.5 months without further charging.**

To use this watch comfortably, **make sure that the watch is always recharged before it stops.**

There is no risk of overcharging this watch. (Overcharge Prevention Function is included)

## B. SETTING THE TIME

For models in which the crown is provided with a cover, open the crown cover to set the time. Once the time has been set, securely close the crown cover.

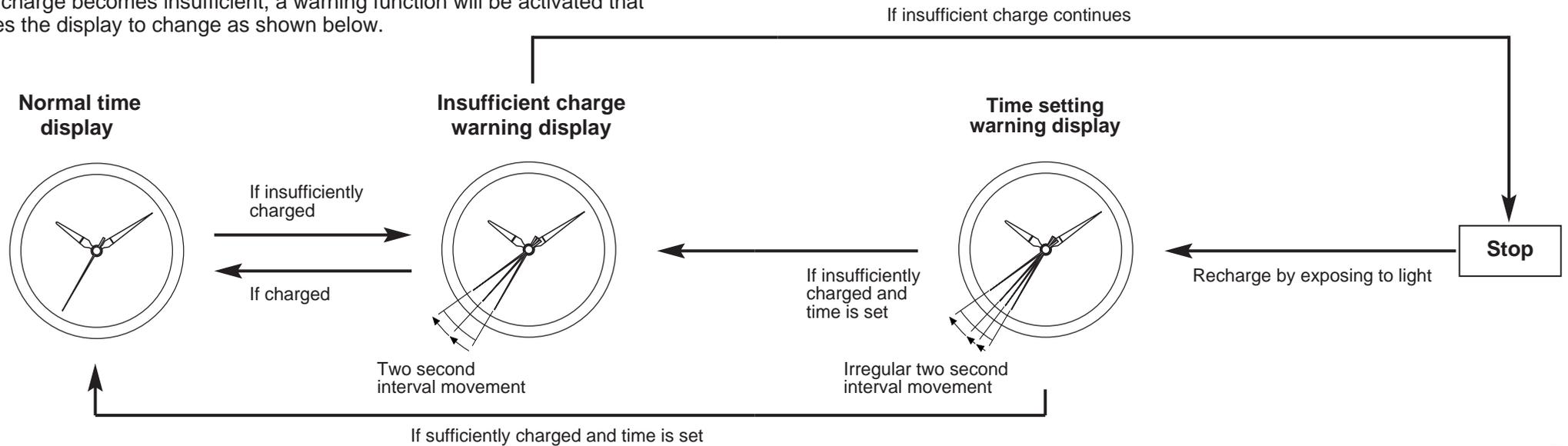


### ■ Setting the time

1. Pull the crown out to the time setting position (the second hand will stop when the crown is pulled out).
2. Turn the crown to set the time.
3. After setting the time, firmly push the crown back in to the normal position.

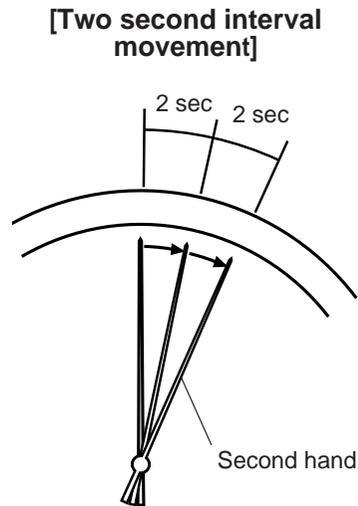
### C. FUNCTIONS OF SOLAR POWERED WATCH

If the charge becomes insufficient, a warning function will be activated that causes the display to change as shown below.



### ■ Insufficient Charge Warning Function

The second hand moves by two second interval movement to indicate insufficient charging. Although the watch keeps the correct time when this happens, the watch will stop after about 1 week after the start of two second interval movement. Recharge the watch by exposing to light. The watch will then begin to run normally again.



### ■ Time Setting Warning Function

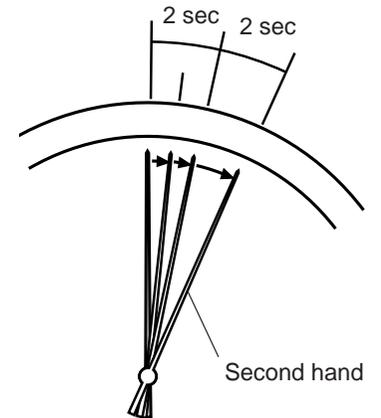
Although the watch hands will begin to move when the watch is charged after stopping, since the time is incorrect, the second hand will move by irregular two second interval movement to indicate that the time is incorrect. When this happens, fully recharge the watch and reset the time. The watch will continue to run by irregular two second interval movement until the time is reset even if fully charged.

### ■ Overcharge Prevention Function

**You can recharge without worry.**

Once the secondary battery is fully recharged, the overcharging prevention feature comes into operation and prevents over-recharging.

### [Irregular two second interval movement]



## D. CARE AND HANDLING DURING CHARGING

### ■Notes on use

#### Take care to charge your watch during use.

Please note that if you wear long sleeves, the watch can easily become insufficiently charged because it is hidden and not exposed to light.

- When you take the watch off, place it in as bright a place as possible, and it will always continue to run properly.

### ■Notes on recharging

- Avoid recharging at high temperatures (over about 60°C/140°F), otherwise the watch will be damaged during recharging.  
(eg) Charging the watch near a light source that easily becomes hot, such as an incandescent lamp or a halogen lamp.  
Charging in a place that easily becomes hot, such as a dashboard.

When you charge the watch by an incandescent lamp, take a distance about 50cm (20in.) from the light source to prevent extremely high temperature.

## E. REPLACING THE SECONDARY BATTERY

**Unlike ordinary batteries, the secondary battery used in this watch doesn't have to be periodically replaced due to repeated charging and discharging.**

### CAUTION

Never use another battery different from the secondary battery used in this watch.

The watch structure is so designed that a different kind of battery other than that specified cannot be used to operate it. In case a different kind of battery such as a silver battery is used by some chance, there is a danger that it will be overcharged to burst, causing damage to the watch and even to the human body.

## F. TIME REQUIRED FOR CHARGING

Time required for recharging may vary according to the design and operating environment. The following table will serve as a rough reference.

Illuminance (lux)	Environment	Charging time		
		One day usage	From the stop state to one second movement	Full charge time
500	Inside an ordinary office	3 hours 30 minutes	(60 hours)	(570 hours)
1,000	60-70cm (24-28in.) under a fluorescent light (30W)	2 hours	(30 hours)	(300 hours)
3,000	20cm (8in.) under a fluorescent light (30W)	40 minutes	(9 hours 30 minutes)	(100 hours)
10,000	Outdoors, cloudy	10 minutes	3 hours 30 minutes	30 hours
100,000	Outdoors, summer, sunny	2 minutes	1 hour	6 hours

When recharging using light of low illuminance of 3,000 lx or less, pull out the crown before charging. Figures in parentheses in the table indicate charging times with the crown pulled out.

\* The recharging time is the time when the watch is continuously exposed to light.

Full charge time ..... The time to fully recharge after the watch has stopped.  
 One day usage ..... The time required for the watch to run for one day with one second interval movement

## G. PRECAUTIONS

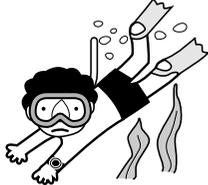
### CAUTION: Water-resistance performance

There are several types of water-resistant watches, as shown in the following table.

Indication		Specifications
Dial	Case (case back)	
WATER RESIST or no indication	WATER RESIST(ANT)	Water-resistant to 3 atmospheres
WR 50 or WATER RESIST 50	WATER RESIST(ANT) 5 bar or WATER RESIST(ANT)	Water-resistant to 5 atmospheres
WR 100/200 or WATER RESIST 100/200	WATER RESIST(ANT) 10bar/20 bar or WATER RESIST(ANT)	Water-resistant to 10/20 atmospheres

The unit "bar" is roughly equal to 1 atmosphere.

For correct use within the design limits of the watch, confirm the level of water-resistance of your watch, as indicated on the dial and case, and consult the table.

Examples of use				
				
Minor exposure to water (washing face, rain, etc.)	Moderate exposure to water (washing, kitchen work, swimming, etc.)	Marine sports (skin diving)	Scuba diving (with air tank)	Operation of the crown with moisture visible
OK	NO	NO	NO	NO
OK	OK	NO	NO	NO
OK	OK	OK	NO	NO

WATER RESIST(ANT) ×× bar may also be indicated as W.R.×× bar

- Water-resistance for daily use (to 3 atmospheres): This type of watch is water-resistant to minor exposure to water. For example, you may wear the watch while washing your face; however, it is not designed for use underwater.
- Upgraded water-resistance for daily use (to 5 atmospheres): This type of watch is water-resistant to moderate exposure to water. You may wear the watch while swimming; however, it is not designed for use while skin diving.
- Upgraded water-resistance for daily use (to 10/20 atmospheres): This type of watch may be used for skin diving; however, it is not designed for scuba or saturated diving using helium gas.

**CAUTION**

- Be sure to use the watch with the crown pressed in (normal position). If your watch has a screw-type crown, be sure to tighten the crown completely.
- Do NOT operate the crown with wet fingers or when the watch is wet. Water may enter the watch and compromise water-resistance.
- If the watch is used in seawater, rinse with fresh water afterward and wipe with a dry cloth.
- If moisture has entered the watch, or if the inside of the crystal is fogged up and does not become clear within a day, immediately take the watch to your dealer or Citizen Service Center for repair. Leaving the watch in such a state will allow corrosion to form inside.

- If seawater enters the watch, place the watch in a box or plastic bag and immediately take it in for repair. Otherwise, pressure inside the watch will increase, and parts (crystal, crown, buttons, etc.) may come off.

**CAUTION: Keep your watch clean.**

- Leaving dust and dirt deposited between the case and crown may result in difficulty in pulling the crown out. Rotate the crown while in its normal position, from time to time, to loosen dust and dirt and then brush it off.
- Dust and dirt tend to be deposited in gaps in the back of the case or band. Deposited dust and dirt may cause corrosion and soil your clothing. Clean the watch occasionally.

**Cleaning the Watch**

- Use a soft cloth to wipe off dirt, perspiration and water from the case and crystal .
- Use a soft, dry cloth to wipe off perspiration and dirt from the leather band.
- To clean a metal, plastic, or rubber watchband, wash away dirt with mild soap and water. Use a soft brush to remove dust and dirt jammed in the gaps in the metal band. If your watch is not water-resistant, take it to your dealer.

**NOTE:** Avoid using solvents (thinner, benzine, etc.), as they may mar the finish.

**CAUTION: Operating environment**

- Use the watch within the operating-temperature range specified in the instruction manual.  
Using the watch where temperatures are outside the specified range, may result in deterioration of functions or even stoppage of the watch.
- Do NOT use the watch in places where it is exposed to high temperature, such as in a sauna.  
Doing so may result in a skin burn.
- Do NOT leave the watch in a place where it is exposed to high temperature, such as the glove compartment or dash-board of a car.  
Doing so may result in deterioration of the watch, such as deformation of plastic parts.
- Do NOT place the watch close to a magnet.  
Timekeeping will become inaccurate if you place the watch close to magnetic health equipment such as a magnetic necklace or a magnetic latch of a refrigerator door or handbag clasp or the earphone of a mobile phone. If this has occurred, move the watch away from the magnet and reset the time.
- Do NOT place the watch close to household appliances that generate static electricity.  
Timekeeping may become inaccurate if the watch is exposed to strong static electricity, such as is emitted from a TV screen.

- Do NOT subject the watch to a strong shock such as dropping it onto a hard floor.
- Avoid using the watch in an environment where it may be exposed to chemicals or corrosive gases.  
If solvents, such as thinner and benzene, or substances containing such solvents come in contact with the watch, discoloration, melting, cracking, etc. may result. If the watch comes in contact with mercury used in thermometers, the case, band or other parts may become discolored.

**Periodical inspections**

Your watch needs inspection once in every two or three years for safety and long use.

To keep your watch water-resistant, the packing needs to be replaced regularly. Other parts need to be inspected and replaced if necessary.

Ask for Citizen genuine parts upon replacement.

## H. SPECIFICATIONS

1. Type: Analog Quartz watch
2. Caliber No.: B080
3. Accuracy: Within  $\pm 15$ sec/month (within a normal temperature range of  $+5^{\circ}\text{C}/41^{\circ}\text{F}$  to  $+35^{\circ}\text{C}/95^{\circ}\text{F}$ )
4. Quartz oscillator frequency: 32,768Hz
5. IC: C/MOS-LSI (1 pc.)
6. Operating temperature range:  $-10^{\circ}\text{C}/14^{\circ}\text{F}$  to  $+60^{\circ}\text{C}/140^{\circ}\text{F}$
7. Display features: Time: hour, minute, second
8. Additional features: Insufficient charge warning function  
Time setting warning function
9. Continuous operating time: From fully charged to stop:  
Approx. 4.5 months  
From insufficient charge warning display to stop:  
Approx. 1 week
10. Battery: Secondary battery

\*Specifications are subject to change without prior notice.