



CAUTION

- Before using the watch, read this instruction manual carefully for safe and correct use.
- After reading this manual, keep it handy for future reference.

Safety Precautions

(Instructions to be followed at all times)

This manual contains the following instructions that should be strictly followed at all times to prevent injury to yourself and other persons as well as damage to property.

Injuries and damage that might be caused by using the watch improperly or neglecting any of the instructions or precautions contained in this manual are classified with the following symbols.



WARNING

Can cause serious injury or death



CAUTION

Can or will cause minor or moderate injury or damage

Important instructions that should be followed are classified with the following symbol.



Warning (caution) symbol followed by instructions that should be followed or precautions that should be observed.

Charging Times

Since charging times vary according to the model of watch, refer to the table below to get a general idea of charging times after checking the model of the watch you are using. Since charging time may also vary according to the watch design (color of the face and so on), the times shown in the table should only be used as a reference for estimating charging time.

<Charging Times (according to model number)>

Illuminance (lux)	Environment	Model No.	A160			A270		
			For one day's use	After stopping until one-second movement	For full charge	For one day's use	After stopping until one-second movement	For full charge
500	Interior lamp		2 hours	12 days	55 days	3 hours	19 days	85 days
1,000	60-70 cm away from fluorescent desk lamp (30W)		1 hour	6 days	27 days	1.5 hours	9 days	41 days
3,000	20 cm away from fluorescent desk lamp (30W)		20 min.	46 hours	9 days	30 min.	70 hours	14 days
10,000	Outside, cloudy conditions		6 min.	14 hours	64 hours	9 min.	21 hours	96 hours
100,000	Outside, sunny conditions		2 min.	4.5 hours	22 hours	3 min.	7 hours	32 hours

- * Time required for full charge: Time from the state in which the watch has stopped until fully charged.
- * Time required for one day's use: Time required for the watch to run at one-second intervals for one day.

* Charging times are shown for the case of continuous illumination.

<Determining the Model of your Watch>

The model number is stamped on the back of the watch as shown in the figure at right. Look on the back of your watch to determine the model number.

Example: Model No. A160



Precautionary Items and Usage Limitations

WARNING Water Resistance

- Water-resistance for daily use (to 3 atmospheres) means that the watch may be worn while washing your face or in the rain, but is not to be immersed in water.
- Upgraded water-resistance for daily use (to 5 atmospheres) means that the watch may be worn while swimming, but is not to be worn while skin diving.
- Upgraded water-resistance for daily use (to 10/20 atmospheres) means that the watch may be worn while skin diving, but not while scuba or saturated diving using helium gas.

Water Resistance:

Refer to the watch dial and the case back for the indication of the water resistance of your watch. The following chart provides examples of use for reference to ensure that your watch is used properly. (The unit "bar" is roughly equal to 1 atmosphere.)

Name	Indication		Specification
	Dial	Case (Case back)	
Everyday-use water-resistant watch	No indication	WATER RESIST (ANT)	Water-resistant to 3 atmospheres
Upgraded everyday-use water-resistant watch	WATER RESIST 5bar or no indication	WATER RESIST (ANT) 5bar or WATER RESIST (ANT)	Water-resistant to 5 atmospheres
Upgraded everyday-use water-resistant watch	WATER RESIST 10/20bar or no indication	WATER RESIST (ANT) 10/20bar or WATER RESIST (ANT)	Water-resistant to 10 or 20 atmospheres

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



CAUTION

- Always use the watch with the crown pushed in (normal position). If the crown is of the screw-lock type, make sure it is securely locked.
- Do NOT operate the crown when the watch is wet. Water may penetrate into the watch, causing deterioration of water resistance.
- The durability of a leather band may be affected when wet, owing to the properties of the material. In the case of a watch of upgraded water resistance for daily use that is frequently used in water, fading, peeling of adhesive or other problems may occur. It is therefore recommended to use another type of band (metal or rubber watchband).
- If a watch of upgraded water resistance for daily use is immersed in sea water or subjected to excessive perspiration, thoroughly rinse with fresh water and wipe completely dry with a soft cloth.
- If water enters the watch or the watch fogs up and does not clear up even after a long time, consult your dealer or Citizen Service Center for inspection and/or repair.
- 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 When Wearing your Watch

- Be particularly careful when wearing your watch while holding a small child, to avoid injury.
- Be particularly careful when engaged in strenuous exercise or work, to avoid injury to yourself and others.
- Do NOT wear your watch while in a sauna or other location where your watch may become excessively hot, since there is the risk of burns.
- The rubber (urethane) band may be stained by dyes or soil present in or on clothing or other accessories. Since these stains may not be able to be removed, caution is required when wearing your watch with articles that tend to easily transfer color (articles of clothing, purses, etc.).

CAUTION Handling the Band (Putting on and Taking off Band)

- Be careful when putting on and taking off your watch, since there is a risk of damaging your fingernails, depending on the manner in which the band is fastened.

Feature

This is an analog solar-powered watch that is equipped with a solar cell incorporated in its face to convert solar energy into electricity.

Before Using

Sufficiently Recharge by Placing in Light Before Use

A secondary battery is used in this watch to store electrical energy. This secondary battery is a clean energy battery that does not contain mercury or other toxic substances. Once fully charged, the watch will continue to run for about 1.3 years without additional charging.

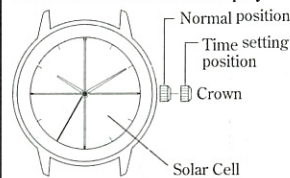
<How to Use this Solar Watch Properly>

To use this watch comfortably, make sure to recharge the watch before it stops running completely. Since there is no risk of overcharging (Overcharging Prevention Feature), it is recommended that the watch be recharged everyday.

Setting the Time and Calendar

In the case of a screw lock-type crown, turn the crown after first loosening the screw. Securely retighten the screw when finished.

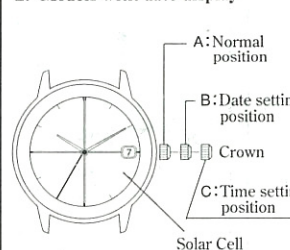
1. Models without date display



<Setting the Time>

- Pull the crown out to the time setting position when the second hand reaches the 0 second position.
- Turn the crown to set the time.
- Make sure to return the crown to its normal position in accordance with a time signal.

2. Models with date display



<Setting the Time>

- Pull the crown out to the time setting position (C) when the second hand reaches the 0 second position.
- Turn the crown to set the time.
- Make sure to return the crown to its normal position (A) in accordance with a time signal.

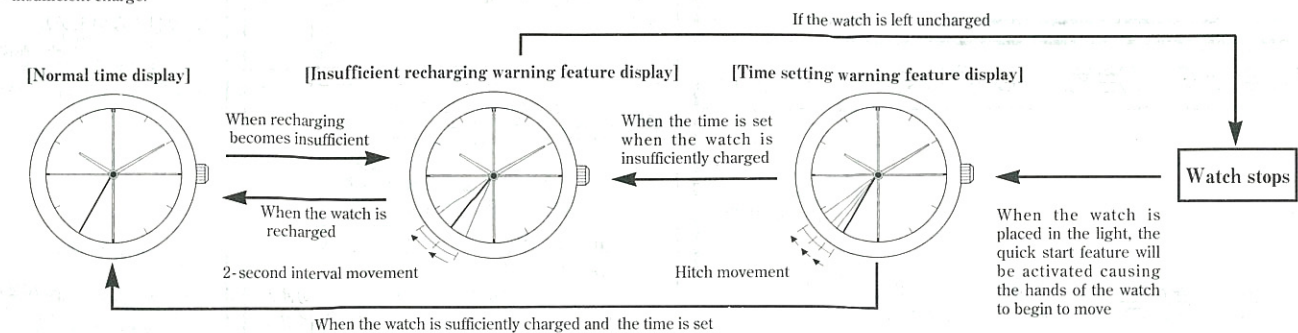
<Setting the Date>

- Pull the crown out to the date setting position (B).
- Turn the crown to set the date. The date will advance by 1 day when the crown is turned towards you (to the left). Nothing will happen when the crown is turned in the opposite direction.
- After you have set the date, be sure to firmly return the crown to its normal position (A).

** If you adjust the date when the watch display is reading between 9:00 pm and 1:00 am, the date may not change on the following day.

Special Functions of Solar-Powered Watches

This watch is provided with a function that causes a warning function to be activated when the watch is insufficiently charged that alters the display to inform the wearer of insufficient charge.



Insufficient Recharging Warning Feature

The second hand changes to two-second interval movement to inform the wearer of insufficient recharging. Although the watch will keep the correct time when this happens, the watch will stop when two-second interval movement continues for about 20 days. Place the watch in light to recharge. The watch will return to one-second interval movement.

Time Setting Warning Feature

Although the watch hands will begin to move when the quick start feature is activated, since the time will be incorrect, the second hand moves with a hitch movement to indicate that the displayed time is incorrect. When this happens, fully recharge the watch and reset the time. The second hand will continue to move with a hitch movement until the time is reset.

Quick Start Feature

The watch will stop when it is completely discharged. When placed in light, the hands will begin to move after about 10 seconds. (The time until the hands begin to move varies according to the model and brightness of the light.) Please note that if the light is blocked, the watch may stop again as a result of being insufficiently recharged.

Overcharging Prevention Feature

When the secondary battery is fully charged, the overcharging prevention feature is activated to prevent further recharging. This enables the wearer to recharge without risk of damage to the watch.

Notes Regarding Handling of Solar-Powered Watches

<Always make sure to recharge frequently>

- Please note that if you wear long sleeves, the watch may stop as a result of being covered by your sleeve and blocked from the light.
- When you take off the watch, try to place it in as bright a location as possible. This will ensure that it will continue to run properly.

CAUTION Recharging Precautions

- The watch will be damaged during recharging if it becomes excessively hot (60°C and above). Avoid recharging when the watch is hot. Examples: Recharging when the watch is in close proximity to an incandescent lamp, halogen lamp or other light source that generates considerable heat, or recharging the watch while placed on the dashboard of an automobile or other locations subject to excessively high temperatures.
- When you charge the watch by an incandescent lamp, take a distance about 50 cm from the light source to prevent extremely high temperature.

<Replacement of Secondary Battery>

Since the secondary battery used in this watch is able to be charged and discharged repeatedly, it does not have to be replaced periodically in the manner of ordinary batteries.

WARNING Handling of Secondary Battery

- The secondary battery should never be removed from the watch.
- If for any reason it becomes necessary to remove the secondary battery from the watch, keep out of the reach of children to prevent accidental swallowing.
- If the secondary battery is accidentally swallowed, consult a doctor immediately.

WARNING Use Only the Specified Battery

Never use a battery other than the secondary battery specified for use in this watch. Although the watch structure is designed so that it will not operate when another type of battery is installed, if a silver battery or other type of battery is installed in the watch and the watch is recharged, there is the risk of overcharging which may cause the battery to rupture. This can cause damage to the watch and injury to the wearer. When replacing the secondary battery, always make sure to use the designated secondary battery.

Specifications

- Caliber No.: A160/A270
 - Type: Analog solar-powered watch
 - Quartz oscillation frequency: 32,768 Hz (Hz = number of oscillations in 1 second)
 - Accuracy: Within ±15 seconds per month on average (when worn at normal temperatures of +5°C to +35°C)
 - Operating temperature range: -10°C to +60°C
 - Additional functions: Insufficient recharging warning feature, Quick start feature, Time setting warning feature, Overcharging prevention feature
 - Continuous operating times: Fully charged to stopping: Approx. 1.3 years, 2 second interval movement to stopping: Approx. 20 days
 - Secondary battery used: Secondary battery, 1 pc.
- * Specifications are subject to change without notice.

Warranty and Service

1. Free Guarantee

In the case a malfunction has occurred during the course of normal use while the watch is still under warranty, the watch will be repaired free of charge in accordance with the conditions of the warranty included with this manual.

2. Stock Period of Repair Parts

Citizen's standard period for stocking repair parts for each model is generally seven years. When an exterior part such as the watch case, glass, dial, hand, crown or band is damaged, a spare part with different appearance may sometimes be used.

3. Repair Period

Repairs can be performed on your watch within the repair parts stock period even after the free guarantee has expired. However, you will be charged for these repairs. Please take the watch to the shop where you purchased it and ask whether it can be repaired because the repair period varies according to the conditions of use, environment and so forth. Moreover, there are cases in which it is difficult to restore the watch to its original accuracy when decreased accuracy has resulted from long-term use.

4. Change of Address or Receiving as a Gift

In the event that you have moved or have received your watch as a gift, and are not able to bring your watch to the shop where it was purchased for servicing, please consult your nearest Citizen Service Center.

5. Periodic Inspection

You should have your watch inspected every 2-3 years to extend its life and ensure safety. When replacing parts, always make sure to request genuine parts. When it becomes necessary to replace packings and springs, it may sometimes also be necessary to inspect other parts or to make repairs in addition to replacing the parts. Please ask for more detailed information on repair or replacement expenses at the shop where you purchased your watch or your nearest Citizen Service Center.

6. Other Inquiries

If you have any questions regarding the warranty, repairs or other matters, please inquire at the shop where you purchased your watch or at your nearest Citizen Service Center.

<Magnetism>

- Do NOT allow the watch to come into close proximity to magnets. If the watch is used near a magnetic health device (magnetic necklace, magnetic elastic band, etc.) or the magnets used in the latches of refrigerator doors, earphone of a mobile phone, and so forth, it will not keep time accurately. If this should happen, move the watch away from the magnet and reset it to the correct time.

<Static Electricity>

- The integrated circuits used in the watch are sensitive to static electricity. If exposed to intense static electricity, the watch's display may become incorrect.

<Strong Shock>

- Avoid dropping the watch or subjecting it to other strong impact.

<Chemicals, Corrosive Gases and Mercury>

- If paint thinner, benzene or other solvents or products containing these solvents (including gasoline, nail-polish remover, cresol, bathroom cleaners and adhesives) are allowed to come into contact with the watch, they may discolor, dissolve or crack the materials. Be careful when handling these chemicals. Contact with mercury such as that used in thermometers may also cause discoloration of the band and case.

<Storage>

- If you will not be using your watch for an extended period of time, carefully wipe off any perspiration, dirt or moisture and store in a proper location, avoiding locations subject to excessively high or low temperatures and high humidity.

CAUTION Always Keep your Watch Clean

- Small amounts of dirt may become trapped in the tiny gap between the crown and case, making it difficult to pull out the crown. It is recommended to occasionally turn the crown in its normal position to remove any dirt.
 - The case and band of the watch come into direct contact with the skin in the same manner as undergarments. Corrosion of the metal or unnoticed soiling such as that caused by perspiration and dirt can soil sleeves and other portions of clothing. Keep your watch clean at all times.
 - Wearing this watch may cause itching or rash if you have sensitive skin or certain physical conditions. If you think there is something wrong, discontinue wearing the watch immediately and consult your physician.
- Possible causes of rashes include:
- Allergy to certain metals or leather
 - Rust, dirt or perspiration present on the watch's body or band
- Leather bands may become discolored by perspiration or dirt. Always keep your leather band clean by wiping with a dry cloth.
 - Do NOT wear the band too tightly. Try to leave enough space between the band and your skin to allow adequate ventilation.

<Caring for your Watch>

- Wipe any dirt or moisture such as perspiration from the case and crystal with a soft cloth.
- Remove any dirt from a leather band with a dry cloth.
- For a metallic, plastic or rubber watchband, wash any dirt off with water. Remove the small amounts of dirt trapped between the crevices of the metallic band with a soft brush.
- Do NOT use solvents (such as paint thinner or benzene) for cleaning, since they may mar the surface of the band.

<Natural Light>

- "Natural Light" uses luminous paint that emits no hazardous radiation at all, and is not harmful to human beings or to the environment. It emits light stored during exposure to daylight or artificial light. (For example: if you place the watch under a 500-lux light source, such as an ordinary desk lamp, for more than 10 minutes, it will emit light for about three to five hours.)
- However, the brightness of the light will diminish as the watch remains in darkness. In addition, depending on the brightness of the daytime light source and the distance between the watch and the light source, the length of time the watch emits light will vary. Note that if the light stored in the watch is insufficient, the watch may not emit much light or will lose brightness quickly.
- Watches that use natural light have "N-JAPAN-N" printed on the dial.

<Temperature>

- The function of the watch may be impaired or the watch may even stop if the ambient temperature is outside the range of -10°C to +60°C.