

# CITIZEN®

## INSTRUCTION MANUAL



***Eco-Drive***®

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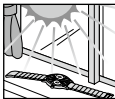
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# Notes Before Use

## Notes on charging your watch

This watch has a rechargeable cell which is charged by exposing the dial to light such as direct sunlight or fluorescent lamps.



Environment	Charging Environment Illumination (lx)	Charging Time (approximate)		
		Charging time required to maintain normal operation for 1 day	Charging time required to return to normal operation after the watch stops	Time required to reach full charging after the watch stops
Direct sunlight (Outdoors)	100,000	2 minutes	50 minutes	13 hours
Cloudy (Outdoors)	10,000	10 minutes	5 hours	35 hours
Less than 20 cm from 30 W fluorescent light	3,000	35 minutes	17 hours	120 hours
Indoor	500	3.5 hours	120 hours	800 hours

## For optimal performance

- Expose the watch with the dial towards direct sunlight for several hours at least once a month.
- After taking off the watch, put it in a position so that the dial is exposed to bright light, such as by a window.
- Before storing the watch in a dark place for an extended period of time, be sure to charge it fully.

When the watch is regularly covered with long sleeves, it may not be charged sufficiently. Try to keep the watch exposed to light sufficient for charging.

Do not charge the watch at a high temperature (about 60°C/140°F or higher).

# Your Watch

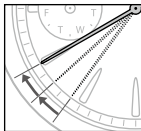
## Eco-Drive (solar powered) watch

The watch operates by converting sunlight and other light into electrical energy. Once the rechargeable cell is fully charged, the watch will function for approximately 6 months.

## Insufficient charge warning

If the power becomes very low, the second hand advances at 2-second intervals, indicating that charging is necessary.

When the second hand starts to advance at 2-second intervals, expose the watch to light until it is fully charged.



- ❗ If the watch is not exposed to light within approximately 4 days after the insufficient charge warning starts, the watch will stop.

## Quick start function

When the stopped watch is exposed to light, it starts operating again immediately.

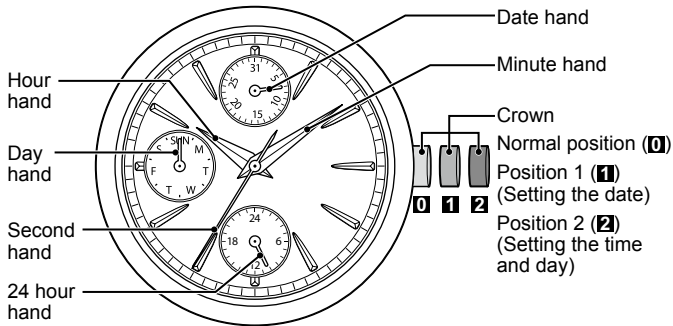
- ❗ After quick start, expose the watch to light until it is fully charged. Set the correct time before using the watch.

## Overcharging prevention function

Once the watch is fully charged, an overcharging prevention function will automatically activate so that it is not charged any further.

No matter how much the watch is charged, it will not affect the rechargeable cell, time accuracy, functions or other performance.

# Name of Components



⚠ The illustrations shown in this manual may differ from the actual watch you have purchased.

## About the crown

Some models use screw down system for the crown. Accidental operations can be prevented when the watch is not being operated by locking the crown. To operate the watch, release the lock.

### Before operation

#### Unlock the crown

Rotate the crown to the left (counterclockwise).

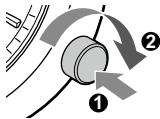


When the screw lock is released, the crown extends to the normal position.

### After operation

#### Lock the crown

Press the crown and rotate it to the right (clockwise) to tighten the screw lock.



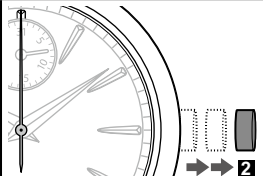


# Setting the Time and Calendar

## 1) Setting the time and day

• The 24 hour hand moves together with the hour hand and minute hand

### Pull out the crown



With the second hand in the 0-second position, pull the crown out two 'steps' to position 2.

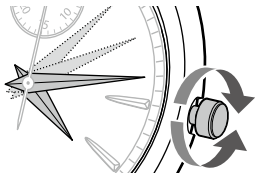
### Set the day



Rotate the crown to the right (clockwise) to set the day. (The day hand moves when the hour hand is indicating between 0 a.m. and 5 a.m.)

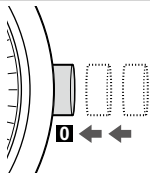
The day hand advances together with the hour hand and minute hand, so set the day first, and then set the time.

### Set the time



Rotate the crown to set the time, paying attention to a.m. and p.m.

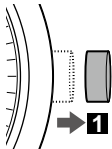
### Return the crown



Return the crown to the normal position (**0**) in sync with a reliable time source.

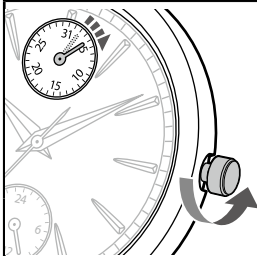
## 2) Setting the date

Pull out the crown



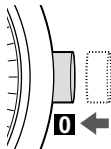
Pull the crown out one 'step' to position 1.

Set the date



Rotate the crown to the left (counterclockwise) to set the date. (The date does not change when you rotate the crown to the right (clockwise).)

## Return the crown



Return the crown to the normal position (0).

## About the screw down crown

Release the screw lock before rotating the crown to set the time and calendar. After setting the time and calendar, be sure to press and rotate the crown to tighten the screw lock (p.7). If your watch does not have a screw down crown, operations can be performed without locking or unlocking the crown.



### Note

## Setting the day

The day hand moves when the hour hand is indicating between 0 a.m. and 5 a.m. Pay attention to a.m. and p.m. when setting the time.

## Setting the date

Do not change the date while the hour hand is indicating between 9 p.m. and 1 a.m. If you change the date during this time, the date may not change the following day.



### Tips

#### **Setting the time**

- When setting the time, determine a.m. and p.m. by the time period when the day hand moves.
- Advance the minute hand by 4 or 5 minutes past the correct time, and then return it to the correct time in order to set the time more accurately.

#### **Setting the date**

The date has a 31-day cycle. Re-set the correct date at the start of March, May, July, October and December.

# Troubleshooting

Problem	Cause and remedy
<ul style="list-style-type: none"> <li>● The second hand moves at 2-second intervals.</li> <li>● The watch has stopped.</li> </ul>	<p>The charge is insufficient.</p> <p>➔ Charge the watch until the second hand moves at 1-second intervals (p.2).</p>
<ul style="list-style-type: none"> <li>● The day and date change around noon.</li> </ul>	<p>The a.m. and p.m. are reversed.</p> <p>➔ Set the correct time (a.m. or p.m.), paying attention to the time period when the day hand moves (p.8, 11).</p>
<ul style="list-style-type: none"> <li>● The second hand does not move at 1-second intervals, even when the watch is charged.</li> <li>● The watch does not operate even when charged.</li> <li>● The watch stops soon even when charged.</li> </ul>	<p>➔ Contact your dealer or Citizen Service Center.</p>

# Precautions

## WARNING

### Water-resistance performance

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

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

## 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 or button with moisture visible

OK

NO

NO

NO

NO

OK

OK

NO

NO

NO

OK

OK

OK

NO

NO

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



### **WARNING Water-resistance performance**

- 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 down crown, be sure to tighten the crown completely.
- Do NOT operate the crown or button 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 damage 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.

## Precautions

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- 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 benzine, 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.

### **WARNING Handling the rechargeable cell**

- Do not remove the rechargeable cell from the watch yourself. If you must remove the cell, store it out of reach of children to avoid accidental ingestion.
- If the rechargeable cell is ingested, consult a doctor immediately.
- Do not throw away with regular trash. Please follow your local government disposal regulations to prevent the risk of fire or environmental contaminations.

### **WARNING Do not use anything other than the specified rechargeable cell**

- The watch will not operate if incorrect battery types are inserted.
- Never use a regular silver battery. The battery could overcharge during the charging process and burst, causing damage to the watch or injuries to the wearer.

## **CAUTION** Charging precautions

- Do not charge the watch in a high-temperature environment (about 60°C/140°F or more). Overheating while charging can cause the watch exterior to become discolored, the watch to deform or the movement to be damaged.  
Example)
  - Charging close to incandescent lighting, halogen lamps, or other lighting sources that easily become hot.
    - Charging on surfaces that can easily become hot, such as a car dashboard.
- When charging with incandescent lighting, halogen lamps, or other lighting sources that easily become hot, place the watch at least 50 cm (20 in.) away from the source to avoid overheating.



# Specifications

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Cal. No.: 8637

Type: Analogue solar powered watch

Time accuracy: Average monthly deviation:  $\pm 15$  seconds

(When used at normal temperature ( $+5^{\circ}\text{C}$  to  $+35^{\circ}\text{C}/+41^{\circ}\text{F}$  to  $+95^{\circ}\text{F}$ ))

Operational temperature range:  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}/+14^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$

Display functions: Time: Hour, minute, second, and 24-hour

Calendar: date, day

Additional functions: Calendar function

Insufficient charge warning function (second hand 2-second movement interval)

Quick start function

Overcharging prevention function

Operation time: Time until stop from full charged status without additional charging:

Approx. 6 months

Time until stop from activation of insufficient charge warning function:

Approx. 4 days

Battery: Rechargeable cell 1 pc.

CE

Model No.AP4\*・FD1\*

Cal.8637

CTZ-B8160①