

CITIZEN®

INSTRUCTION MANUAL



Eco-Drive®



ENGLISH

FRANÇAIS

ESPAÑOL

DEUTSCH

ITALIANO

PORTUGUÊS

中文(繁体字)

中文(简体字)

Thank you for your purchase of this Citizen watch.

Before using the watch, read this instruction manual carefully to ensure correct use. After reading the manual, store it in a safe place for future reference.

Be sure to visit the Citizen website at <http://www.citizenwatch-global.com/> . Here you will find a variety of information such as electronic setting guides, answers to frequently asked questions, Eco-Drive recharging information and more.

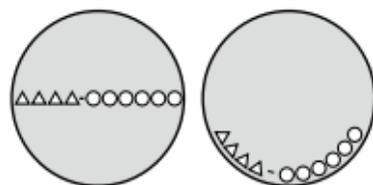
To check the movement number

A case number—4 alphanumeric characters and 6 or more alphanumeric characters—is engraved on the case back. (Figure on the right)

The first 4 characters of the case number represent the movement number of the watch.

In the example on the right, “△△△△” is the movement number.

Engraving position example



The engraving position may differ depending on watch model.

Safety precautions — IMPORTANT

This manual contains instructions that should be strictly followed at all times not only for optimal use, but to prevent any injuries to yourself, other persons or property. We encourage you to read the entire booklet (especially, pages **3**, **4**, and **58** to **71**) and understand the meaning of the following symbols:

- Safety advisories are categorized and depicted in this manual as follows:

 DANGER	Highly likely to cause death or serious injury
 WARNING	Can cause serious injury or death
 CAUTION	Can or will cause minor or moderate injury or damage

- Important instructions are categorized and depicted in this manual as follows:

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

About altitude measurement

This watch does not function as a specialized altitude-measuring equipment certified by any authority or regulating standards. Use the indicated altitude only as a reference.

 WARNING	<p>Do not use the altitude measurement function of this watch in the following cases:</p> <ul style="list-style-type: none">• When actions or situation judgments involving risks are required.• When rapid changes in altitude occur such as when skydiving or hang-gliding.• When wearing the watch under water such as in skin diving.• When the situation requires special treatments.
 CAUTION	<p>Altitude may be measured improperly in the following cases:</p> <ul style="list-style-type: none">• When air temperature changes sharply.• When atmospheric pressure largely changes accompanying with changes of weather conditions.• When the function is used in places where atmospheric pressure is conditioned constant (such as in an airplane).

Before using this watch

About the compass

This watch does not function as a specialized compass instrument certified by any authority or regulating standards. Use the indicated compass direction only as a reference.

 WARNING	Do not use the compass function of this watch in the following cases: <ul style="list-style-type: none">• When precise directional indication is required for navigational or other activities with serious risks.
 CAUTION	Compass direction may be measured improperly in the following cases: <ul style="list-style-type: none">• When the watch is not kept level.• When the surrounding magnetic field is disturbed.• When air temperature changes sharply.• When surrounded by reinforced concrete wall or things made of iron.• When electric cables, electric trains or electric products exist around.

When storing the watch

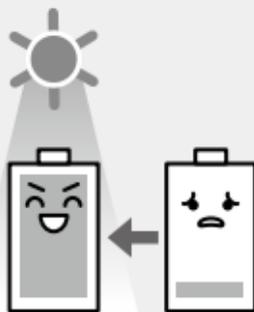
Avoid places or things with strong magnetism when storing this watch.

Before using this watch

After unpacking, the following must be done before using the watch:

- **Checking the power reserve** → see page 16

For optimal performance, ensure your watch is fully charged prior to use. Refer to pages 12 to 15 for charging procedures and times.



This watch has a rechargeable cell which is charged by exposing the dial to light.

Expose the dial to direct sunlight regularly to charge the watch.

For details of charging, see pages 12 to 17.

Before using this watch

Band adjustment

We recommend seeking the assistance of an experienced watch technician for sizing of your watch. If adjustment is not done correctly, the bracelet may unexpectedly become detached leading to loss of your watch or injury.

Consult your nearest authorized Citizen service center.

Protective stickers

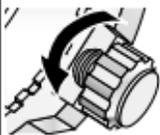
Be sure to remove any protective stickers that may be on your watch (case back, band, clasp, etc.). Otherwise, perspiration or moisture may enter the gaps between the protective stickers and the parts, which may result in a skin rash and/or corrosion of the metal parts.

How to use a specially designed crown/button

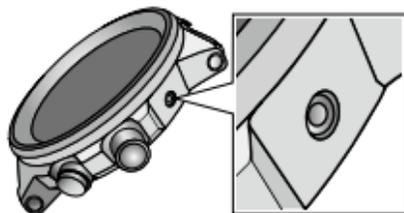
Some models are equipped with a specially designed crown and/or push button to prevent accidental operation.

Screw down crown/button

Unlock the crown/button prior to operate your watch.

	Unlock	Lock
Screw down crown	 <p>Rotate the crown counterclockwise until it releases from the case.</p>	 <p>Push the crown in to the case. With gentle pressure towards the case, rotate the crown clockwise to secure it to the case. Be sure to tighten firmly.</p>
Screw down push button	 <p>Rotate the locking screw counterclockwise, and loosen until it stops.</p>	 <p>Rotate the locking screw clockwise, and tighten firmly.</p>

Recessed buttons



Press the button with a non-marring narrow-tipped object such as a wooden toothpick.

- Metal objects may cause marring or scratching of the button.

Features



Altitude measurement
Indicates altitude by measuring atmospheric pressure with a sensor



Compass function
Indicates compass direction by measuring geomagnetism with the built-in magnetism sensor



Eco-Drive
Never needs a new battery.
This watch is fueled by light.

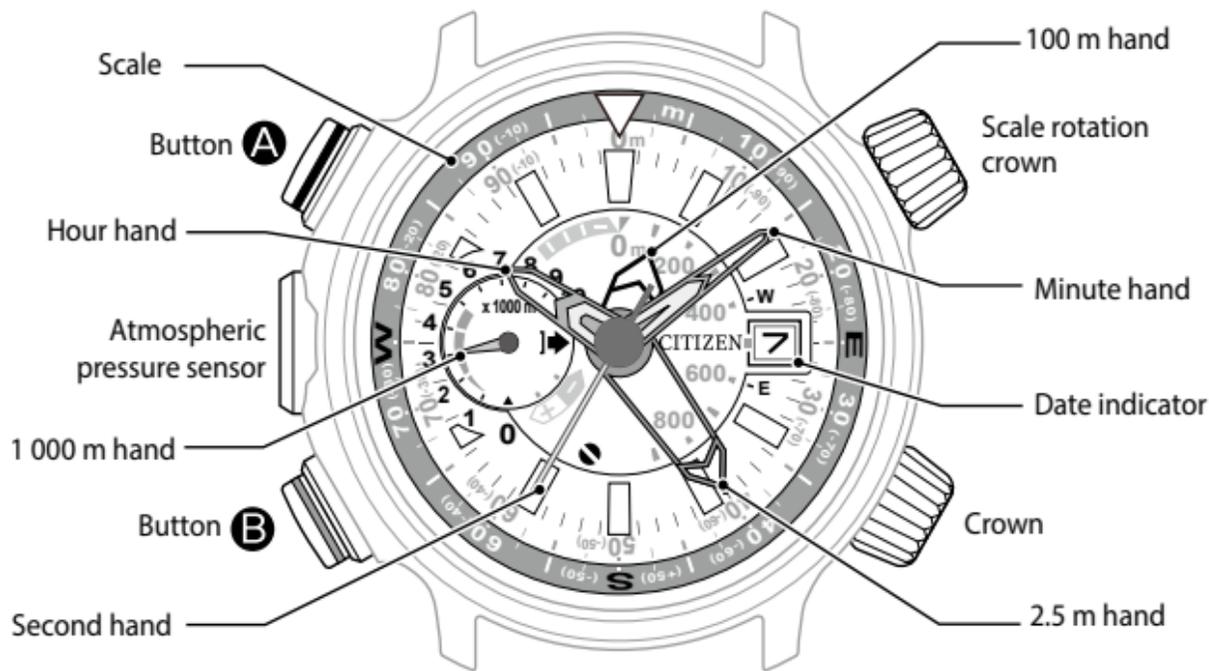
“Eco-Drive” is an original technology of Citizen.

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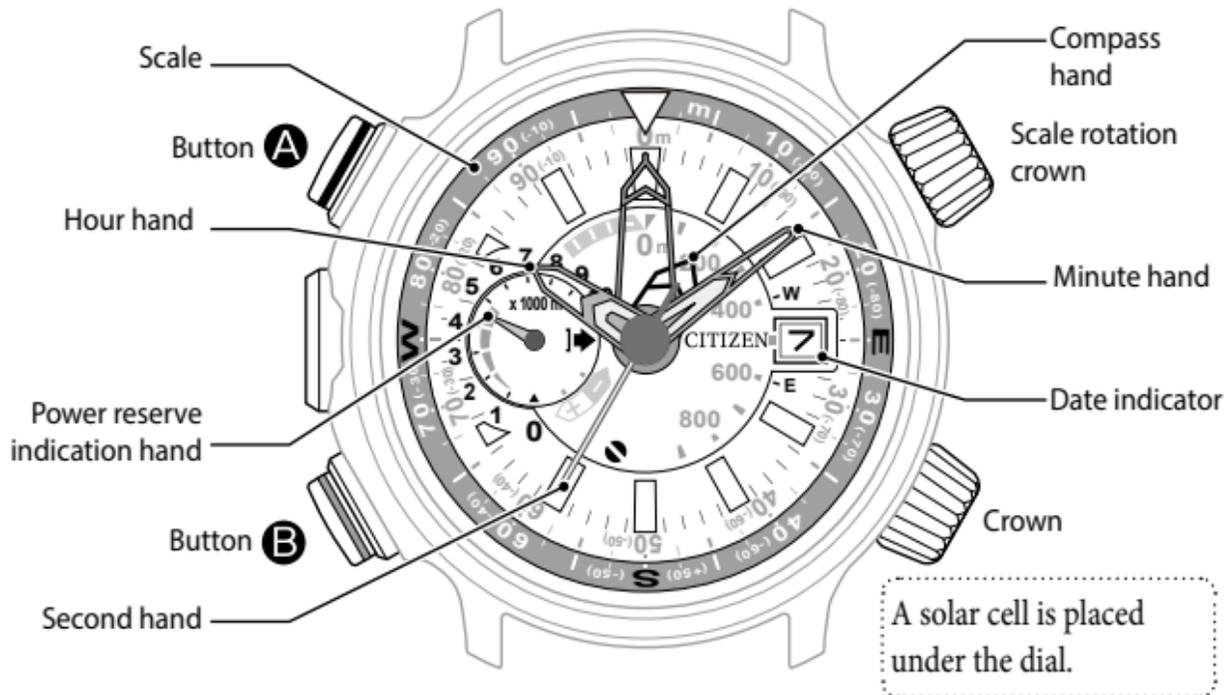
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Parts identification (when measuring altitude)



- Some models are not equipped with the scale and the scale rotation crown.

Parts identification (when using the compass)



- The illustrations in this instruction manual may differ from the actual appearance of your watch.

Charging your watch

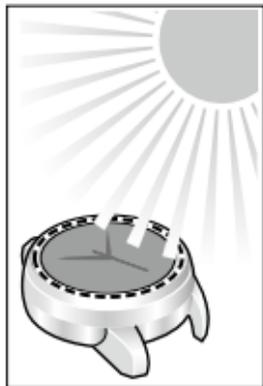
This watch has a rechargeable cell which is charged by exposing the dial to light, such as direct sunlight or fluorescent lamps (refer to pages 14 and 15 for charging guidelines).

After taking off the watch, put it in a location where the dial is exposed to bright light, such as by a window.

For optimal performance, be sure to:

Expose it to direct sunlight for 5 or 6 hours at least once a month.

Avoid leaving the watch in dark places for long periods of time.



Caution

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

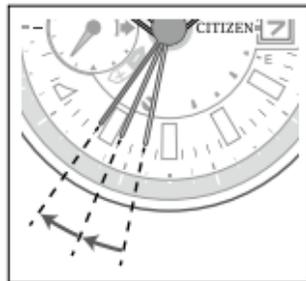
If the watch is obscured from light by long sleeves frequently, supplemental charging may be needed to ensure continual operation. Refer to pages 14 and 15.

When the watch reaches a low charge state (insufficient charge warning function)

When the power reserve becomes low, the second hand moves once every two seconds. This is the insufficient charge warning function. Be sure to fully charge your watch as outlined on pages **14** and **15**.

When the watch is sufficiently charged, the second hand will move normally.

If you do not charge the watch for 4 days or longer after the insufficient charge warning movement has begun, the watch will be depleted of all power and stop.



Caution

When in the insufficient charge warning state, the current time and date are indicated. However, measurement functions of the watch will not be available for use.

Charging your watch

Charging time by environment

Below are the approximate times required for charging when exposing the watch dial to light continuously. Please use this table as a reference only.

Environment	Illuminance (lx)	Charging time (approx.)		
		To work for one day	To start working normally when the cell is discharged	To become fully charged when the cell is discharged
Outdoors (sunny)	100 000	3 minutes	2 hours	35 hours
Outdoors (cloudy)	10 000	12 minutes	3.5 hours	90 hours
20 cm (8 inches) away from a fluorescent lamp (30 W)	3 000	40 minutes	8 hours	290 hours
Interior lighting	500	4 hours	50 hours	–

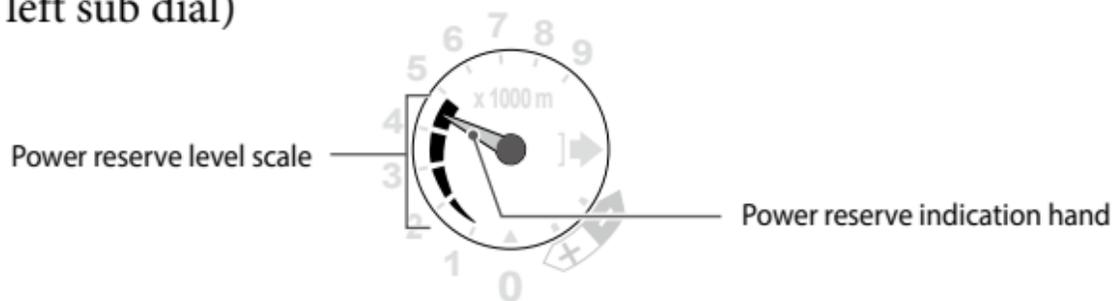
To charge your watch, it is recommended to expose the dial to direct sunlight.

Optimal charging is achieved by exposing the dial to direct sunlight outdoors for a short time each day.

After charged fully, the watch runs without additional charging for about 11 months.

Checking the current power reserve

Power reserve indication (Power reserve indication hand on the left sub dial)



Power reserve is not indicated during altitude measurement (page **18**) or altitude calibration (page **28**).

The power reserve level

Level	3	2	1	0
Level indication				
Approximate duration	340 - 280 days	280 - 180 days	180 - 4 days	4 days or less
Meaning of the level indication	Power reserve is sufficient for all features and functions.	Power reserve is sufficient for all operations at this level.	Power reserve is getting low.	Power reserve is not sufficient for normal operation.
	OK for normal use		Charge immediately.	

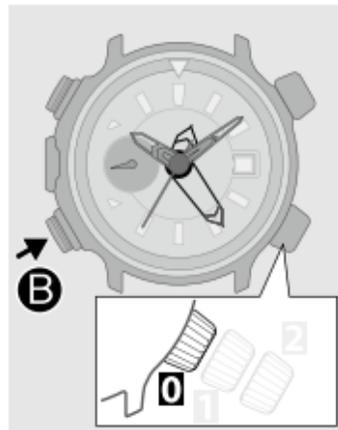
You cannot use measurement functions while the power reserve level is in “0”. However, you can see the current time. Frequent use of measurement functions makes the duration shorter.

Measuring altitude

Use the measuring result only as a reference.

Use a commercial specialized device when highly accurate measurement is required.

Confirm the power reserve is in level “2” or higher before measurement.



1 Press button **B**.

Altitude is indicated.

It may take a moment to indicate altitude. Wait until movement of the hands stop.

If you press button **A** while indicating altitude, the 100 m hand temporarily indicates compass direction (→ page 24).

Press button **A** to return to altitude indication.

2 After finishing altitude measurement, press button **B** to turn off the function.

About altitude measurement

This watch continuously measures altitude during the first 5 minutes of measurement. After that, measurement occurs every 3 minutes for up to 12 hours.

How to read altitude indication

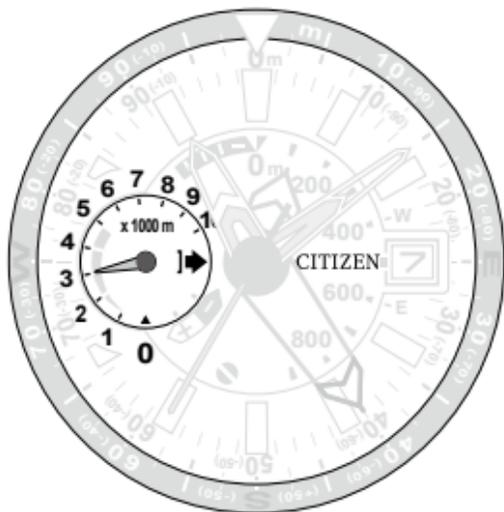
Altitude is indicated by the 3 hands, the 1 000 m, 100 m and 2.5 m hands.

1 000 m hand indication

Indication range: 1 000 m to 10 000 m

The hand points “0” when measured altitude is lower than 1 000 m.

On the example in the left, the measured altitude is indicated as 3 000 m level.



Measuring altitude

How to read altitude indication (continued)

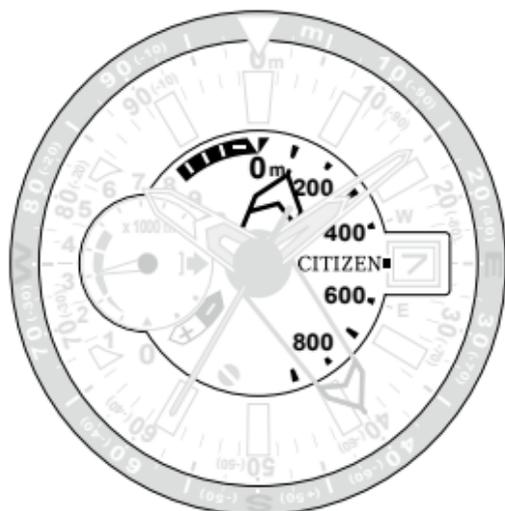
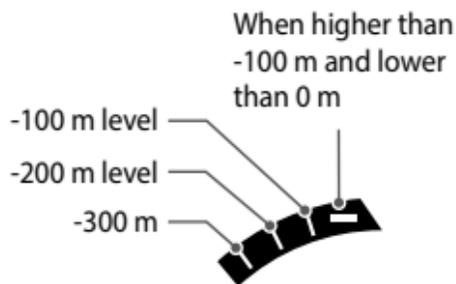
100 m hand indication

Indication range: -300 m to 900 m

The hand points "0" when measured altitude is 0 m or higher and lower than 100 m.

On the example in the left, the measured altitude is indicated as 100 m level.

When measured altitude is lower than 0 m



2.5 m hand indication

Indication range: -97.5 m to 97.5 m

The 100 m hand points minus indication when measured altitude is lower than 0 m. In this case, use figures in parentheses to read the 2.5 m hand.

On the example in the right, the last 2 digits of measured altitude are indicated as “40 m” or “-60 m”.

Measured altitude is indicated in 5.0-m height when it is more than 6 000 m.

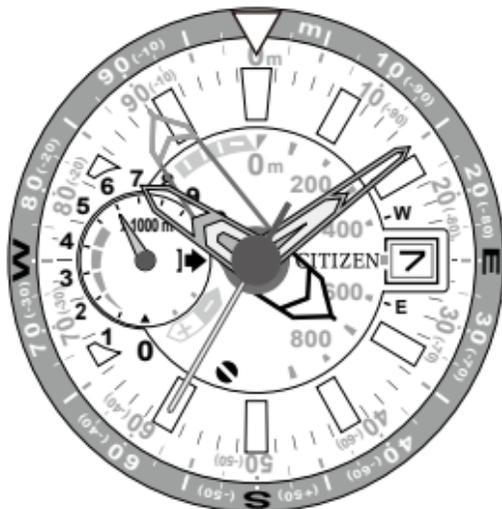
When your watch has the scale, setting the ∇ mark on the scale to the position that the 2.5 m hand points makes it easier to determine altitude difference at the next altitude measurement.



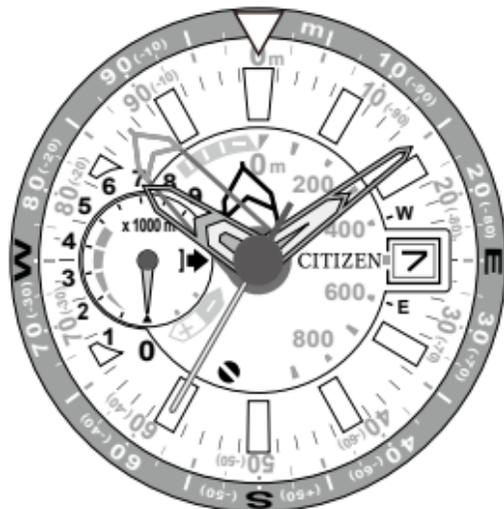
Measuring altitude

How to read altitude indication (continued)

Indication examples



Measured altitude: 6 790.0 m

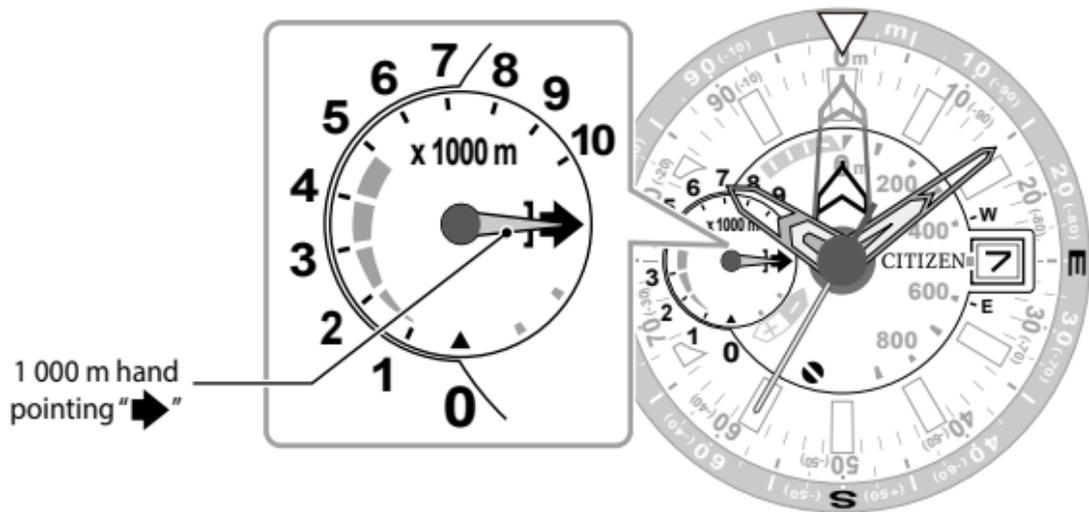


Measured altitude: -12.5 m

When the measured altitude is out of the indication range

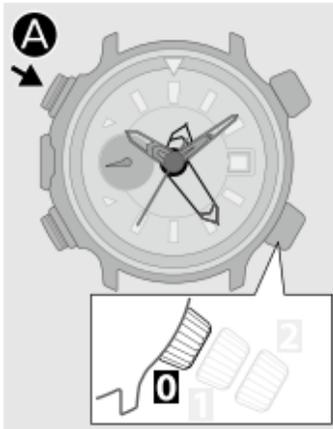
Indication range: -300 m to 10 000 m

When the measured altitude cannot be indicated, the 1 000 m hand points to “▶▶” (3 o'clock position) and stops.



Using the compass

Use the compass direction result only as a reference.
Use a commercial specialized device when highly accurate measurement is required.
Confirm the power reserve is in level “2” or higher before measurement.



1 Press button **A** while keeping the watch's dial level.

Compass function starts.
It may take a moment to indicate the compass direction. Wait until movement of the hands stop.

Keep the watch as level and still as possible until compass direction finishes.

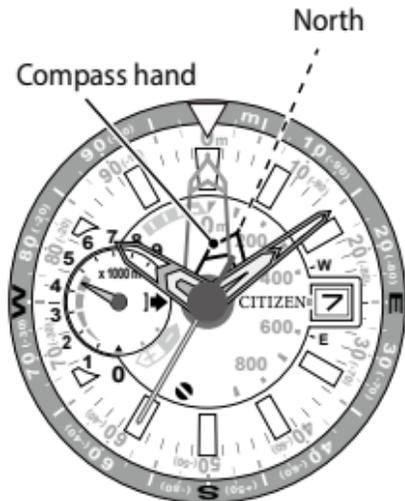


2 After finishing measurement, press button **A** to turn off the function.

Compass indication ends in 30 seconds without pressing the button.

How to read the compass indication

The compass hand points north.



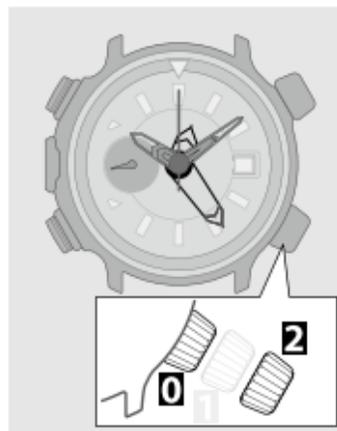
Compass direction result may become significantly inaccurate near things which generate strong magnetic fields.

Confirm there are no things or places such as following ones before using the compass.

- High-tension electrical lines, railway overhead wires or airport
- Inside a car or electric train
- Cellular phones, electric equipment or office appliances
- Magnets

It is recommended to calibrate (→ page 32) frequently for better compass direction.

Setting the time



1 Pull the crown out to position 2 as the second hand points 0 second.

2 Rotate the crown to set the time.

Take care the time set is AM or PM.

Date indicator starts to change to the next as the setting passes 10PM. Rotating the crown counterclockwise does not turn back date indicator.

3 Push the crown in to position 0 in accordance with a reliable time source to finish the procedure.

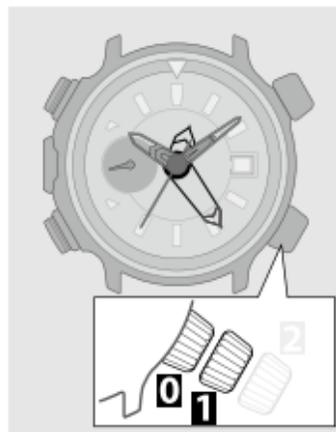
Adjusting the calendar

You must correct the date on the first day of March, May, July, October and December.

Do not set the date during the period below as the date indicator is changing.

Otherwise the date indicator may change improperly.

Period of time: From 10PM to 0AM (12:00AM)



- 1 Pull the crown out to position 1.**
- 2 Rotate the crown clockwise to set the date.**
- 3 Push the crown in to position 0 to finish the procedure.**

Calibrating altitude indication

About altitude indication

This watch measures atmospheric pressure with a specialized sensor and calculates altitude by applying the standard atmosphere model (set by ICAO, International Civil Aviation Organization) used for altitude measurement of civil aircrafts.

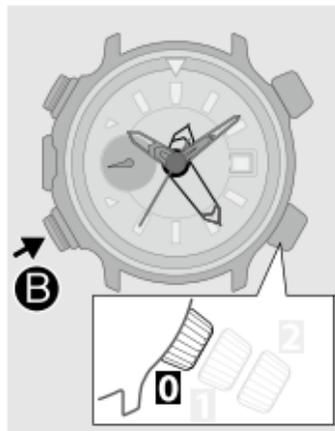
The standard atmosphere model sets a theoretical atmosphere and how pressure, temperature, density and viscosity vary accompanying with change of altitude in it. Therefore, expected altitude may significantly differ from actual one when the weather changes drastically such as in climbing.

You can calibrate altitude indication by entering altitude already known.

You can calibrate the value in the range of $\pm 1\ 000$ m of currently measured altitude.

Calibrating altitude indication

You can correct altitude measured by the watch when you know the actual height from map, sign or other sources for future measurement.



1 Press button **B**.

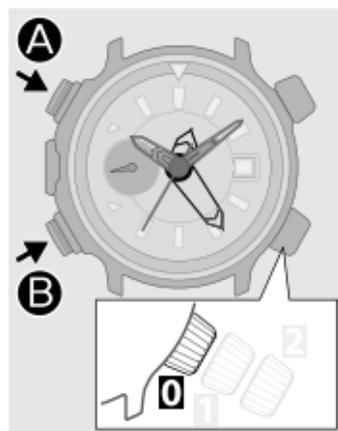
The measured altitude is indicated.

It may take a moment to indicate altitude. Wait until movement of the hands stop.

2 Press and hold button **B** for 3 seconds or more.

The 1 000 m hand points “+” and calibration of altitude indication becomes available.

Calibrating altitude indication



3 Press button **B** to choose + or -.

	Choose this when the actual altitude is higher than the measured one.
	Choose this when the actual altitude is lower than the measured one.

Each time you press the button, choice of “+” and “-” changes alternately.

Repeat steps 3 and 4 to control the altitude value after calibration.

4 Press button **A to correct the indication to the actual altitude.**

Move the 100 m and 2.5 m hands to indicate an approximate value of the altitude.

Indication keeps changing while you are pressing and holding the button.

Press button **A** and button **B** at the same time to reset the calibration value.

5 Press and hold button **B for 3 seconds or more.**

The corrected altitude is set as the current one and the hands return to measured altitude indication.

The corrected altitude is set as the current one and the hands return to measured altitude indication in 1 minute without any operation.

6 Press button **B to finish the procedure.**

Calibrating compass indication

About compass indication

This watch measures earth magnetism directly with the built-in magnetic sensor for compass indication.

Earth magnetism measurement is apt to be easily affected by environmental conditions near a magnet or thing emitting strong electromagnetic waves.

In addition, generally, the north which a compass points to (magnetic north) is different from that on a map (true north). You can determine the true north through the compass function by calibration and adjustment of the watch.

You can use 2 methods to calibrate the compass of this watch: 2 point correction (page 34) and declination correction (page 40).

Take care not to try to find compass direction around things generating strong magnetic fields same as using an ordinary compass.

Avoid such an environment also while calibrating the compass.

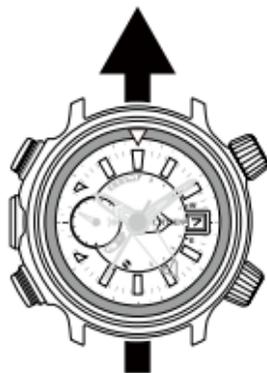
About 2 point correction

2 point correction adjust the watch's status according to the surrounding environment.

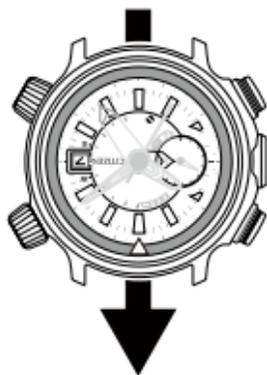
Use it when temperature drastically changed or the watch itself may be magnetized.

2 point correction is more effective if you do it before using the compass.

First point of correction



Second point of correction
(Turn the watch by 180°)

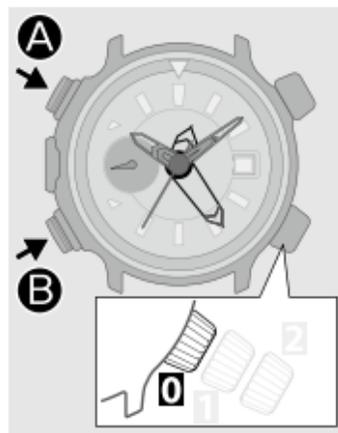


Calibrating compass indication

Executing 2 point correction

When executing 2 point correction, you must turn the watch just 180° while keeping it level. Take enough care of surrounding conditions before starting correction.

Confirm you are not near an item with strong magnetism (electric equipment, magnets, etc.) before starting correction.



1 Press button **A**.

Compass function starts.

It may take a moment to indicate compass direction.

Wait until movement of the hands stop.

2 Press and hold button **A for 3 seconds or more.**

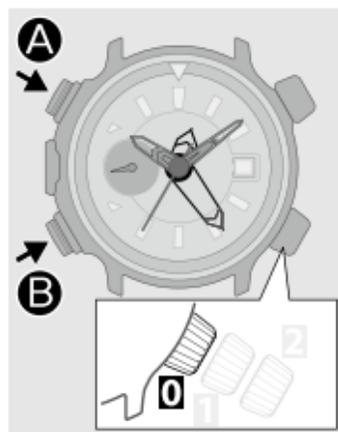
The compass hand points the 3 o'clock position.

**3 Press button **B**.**

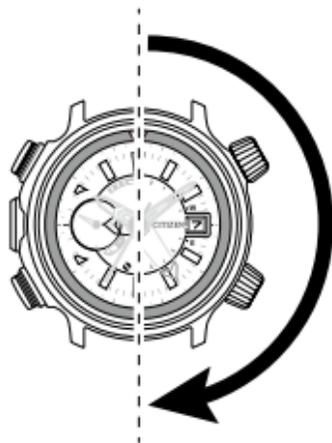
The first surrounding environment data is stored and the compass hand turns 180° to point the 9 o'clock position.



Calibrating compass indication



4 Turn the watch by 180°.



5 Press button **B.**

The second surrounding environment data is stored and the compass hand points the 12 o'clock position. 2 point correction completes and compass function starts.

If the compass hand returns to the 3 o'clock position, try again from step 3.

Press and hold button **A** for 3 seconds or more to cancel the correction. When canceled, no correction is executed and the previous correction result remains effective.

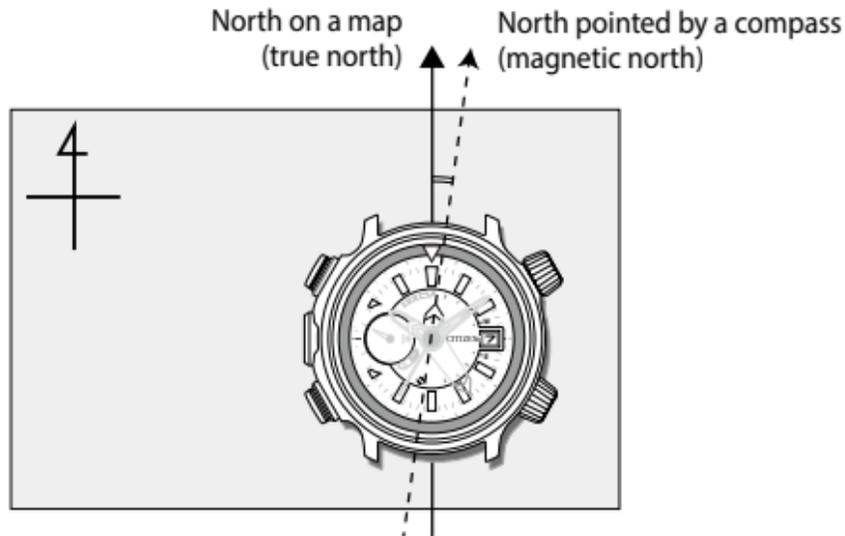
Pressing button **A** and button **B** at the same time before finishing step 5 reset the values of 2 point correction and declination correction and the watch returns to compass function.

6 Press button **A to finish the procedure.**

Calibrating compass indication

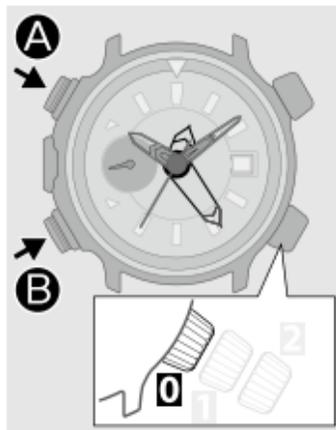
About declination correction

Due to physical characteristics of the Earth as an astronomical body, the magnetic north and true north as indicated on a map are different. The difference is called “declination”. Declination varies by location.



Declination correction is a correction method to adjust the compass of the watch to indicate true north as indicated on a map by setting the declination value of the location where you want to find compass direction on the watch previously. On this watch, declination of 0° to 59° east and west can be set by 1° . You can use the results of geomagnetism survey published by governmental or other organizations.

Executing declination correction



1 Press button **A**.

Compass function starts.

It may take a moment to indicate compass direction.

Wait until movement of the hands stop.

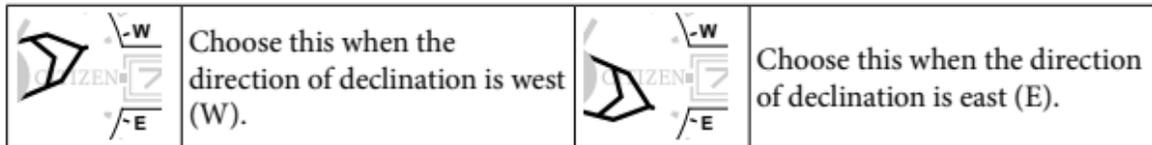
2 Press and hold button **A** for 3 seconds or more.

The compass hand points the 3 o'clock position.

3 Press button **B** for 3 seconds or more.

The compass hand points the direction of declination (east or west) and the 2.5 m hand shows the degree of declination by pointing a second tick mark.

4 Press button **B** to choose east or west.



Each time you press the button, choice of “E” and “W” changes alternately.

5 Press button **A** to set the degree of declination.

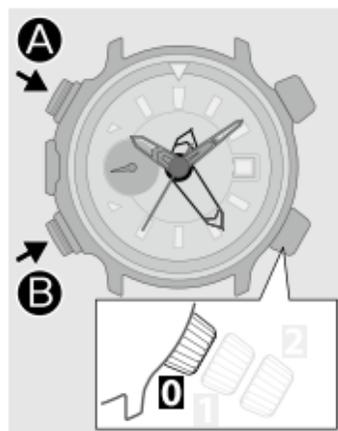
For example, as the declination in Tokyo is “7° W”, set it as shown in the right.

Indication keeps changing while you are pressing and holding the button.

Pressing button **A** and button **B** at the same time before finishing step 5 resets the values of 2 point correction and declination correction and the watch returns to compass indication.



Calibrating compass indication



6 Press and hold button **B for 3 seconds or more.**

Declination correction completes and compass function starts.

It may take a moment to indicate compass direction.

Wait until movement of the hands stop.

7 Press button **A to finish the procedure.**

About declination correction and 2 point correction

2 point correction is a method to detect earth magnetism surely and declination correction is a method to correct the declination of earth magnetism itself.

Appropriate implementation of the both methods makes the compass function of the watch more accurate.

Checking and correcting the reference position

Check whether the reference position is correct if altitude or compass indication is incorrect even after calibration.

What is the reference position?

The base position of hands to indicate altitude and compass direction.

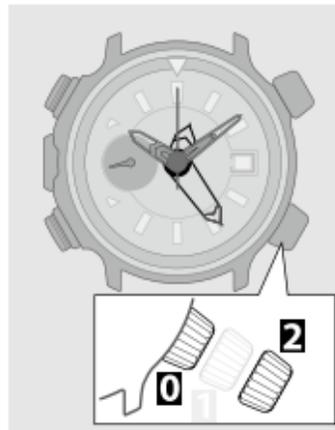
- **Position of the 1 000 m hand: 6:00**
- **Position of the 100 m hand (compass hand): 12:00**
- **Position of the 2.5 m hand: 12:00**
- **The hour, minute and second hands do not have the reference position.**

Correct reference positions



Checking the reference position

Check whether the reference positions of the 1 000 m hand, 100 m hand (compass hand) and 2.5 m hand are correct.



1 Stop altitude measurement or compass function and check the power reserve indication.

Charge the watch if the power reserve is lower than “2”.

2 Pull the crown out to position 2.

The hands move to their reference position.

3 Check the reference positions.

Check the reference positions of the hands by referring to the illustration of the previous page.

If any reference position is incorrect, correct it following step 3 and after on page 46.

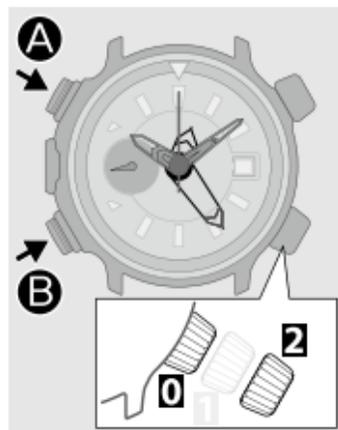
4 Push the crown in to position 0 to finish the procedure.

Checking and correcting the reference position

Correcting the reference position

Correct the hands and indication to make them show their correct reference positions.

Adjust the time after finishing correction of the reference position.



1 Stop altitude measurement or compass function and check the power reserve indication.

Charge the watch if the power reserve is lower than “2”.

2 Pull the crown out to position 2.

The hands move to their reference position.

3 Press and hold button B for 2 seconds or more.

The reference position of the 100 m hand (compass hand) becomes adjustable.

The 100 m hand (compass hand) and the 2.5 m hand move left when other hand is adjusted.

4 Press button A.

Each time you press the button, the hand moves by 1 step.

The hand moves continuously while you are pressing and holding the button.

5 Press button **B to change the hand to be corrected.**

Each time you press the button, the target hand moves slightly to indicate it is adjustable.

The target hand changes in the following order: **100 m hand (compass hand)** → **2.5 m hand** → **1 000 m hand** → (back to the beginning)

6 Repeat steps 4 and 5 to correct the reference positions of all the hands.

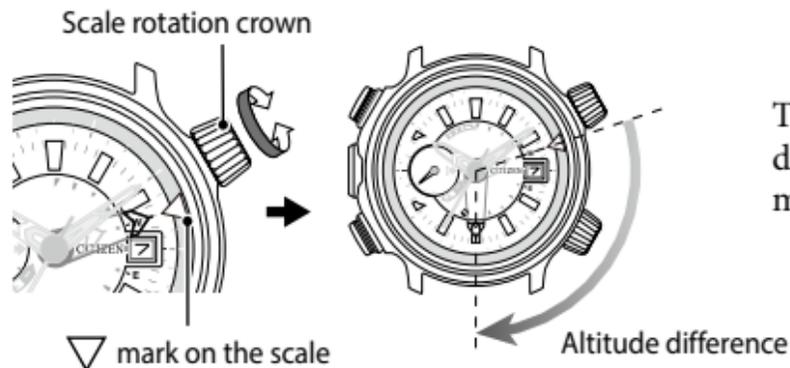
7 Push the crown in to position **0 to finish the procedure.**

Using the scale

Adjust the time after finishing correction of the reference position.

Measuring altitude difference

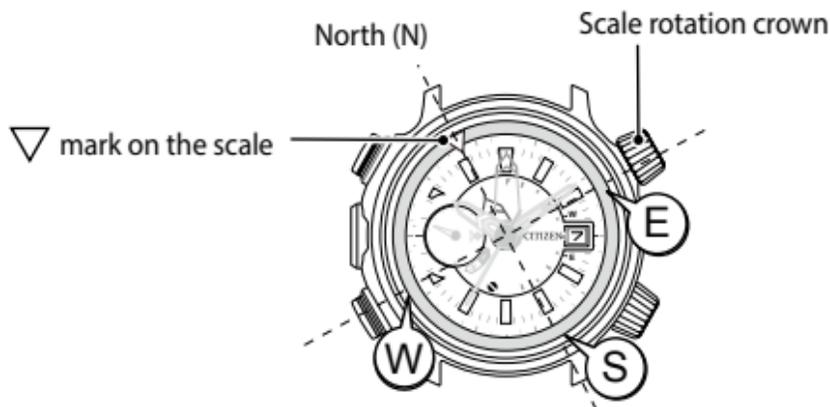
You can see altitude difference by setting the ∇ mark on the scale to the current position of the 2.5 m hand. To move the scale, turn the scale rotation crown.



The scale shows altitude difference of -97.5 m to 97.5 m range by 2.5 m.

Seeing the bearings

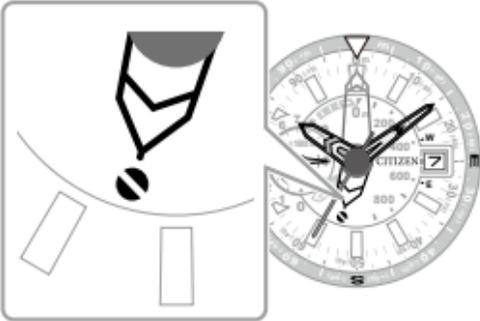
You can see the other bearings than the north by setting the ∇ mark on the scale to the current position of the compass hand. To move the scale, turn the scale rotation crown.

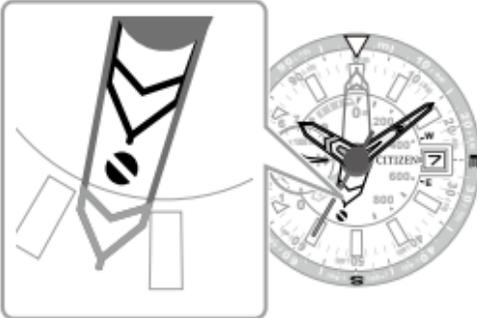


Set the ∇ mark on the scale to the 12 o'clock position after using the scale.

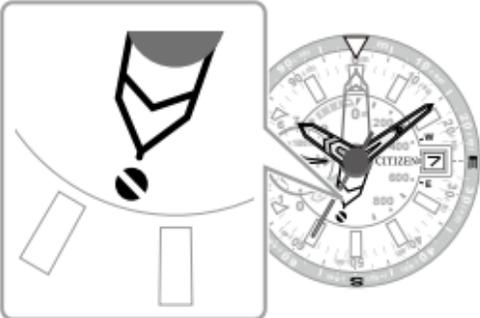
Troubleshooting

If you have a problem with your watch, check the items below.

Symptom	Remedies	Page
<p data-bbox="117 301 646 337">Cannot measure compass direction</p> <p data-bbox="129 360 583 396">A hand points to “” and stays still.</p>  <p>The diagram shows a hand on a watch face pointing to a magnet icon. To the right is a photograph of a Citizen Eco-Drive watch with a compass function. The watch face has a compass scale with letters N, NE, E, SE, S, SW, W, NW, and M. The hand is pointing to the magnet icon.</p>	<p data-bbox="639 360 1087 425">Abnormal magnetism is detected by the sensor.</p> <p data-bbox="639 433 1042 498">Try again in a place with normal magnetism.</p> <p data-bbox="639 505 1087 609">If you cannot solve your problem with the remedy, consult the nearest authorized Citizen service center.</p> <p data-bbox="639 616 1087 681">Press either button to return to time indication.</p>	<p data-bbox="1180 601 1231 638">24</p>

Symptom	Remedies	Page
Cannot perform altitude measurement or compass function		
<p data-bbox="157 252 631 288">Two hands point to “” and stay still.</p> 	<p data-bbox="666 252 1103 314">A malfunction of the measurement system has occurred.</p> <p data-bbox="666 325 1045 387">Consult the nearest authorized Citizen service center.</p> <p data-bbox="666 397 1108 459">Press either button to return to time indication.</p>	<p data-bbox="1220 467 1243 477">-</p>

Troubleshooting

Symptom	Remedies	Page
<p data-bbox="117 194 637 228">Cannot perform 2 point correction</p> <p data-bbox="128 252 583 286">A hand points to “” and stays still.</p> 	<p data-bbox="637 252 1084 394">2 point correction of the compass hand has not finished properly. Execute 2 point correction from the beginning again.</p> <p data-bbox="637 401 1084 543">Press either button to return to time indication. The watch returns to time indication in 30 seconds without any operation.</p>	<p data-bbox="1180 467 1231 505">34</p>

Symptom	Remedies	Page
Movement of a hand seems strange		
Hands move in unexpected directions.	Stop altitude measurement or compass function.	18, 24
Altitude indication is incorrect.	Check and correct the reference position.	44
	Execute altitude calibration.	28
Compass indication is incorrect.	Check and correct the reference position.	44
	Execute compass calibration.	32

Troubleshooting

Symptom	Remedies	Page
Movement of a hand seems strange (continued)		
The second hand moves once every two seconds.	Charge the watch.	12
The second hand does not move.	Push the crown in to position 0 .	—
	It is required to charge in direct sunlight for about 1 hour.	12
Cannot check the power reserve.	Push the crown in to position 0 .	—
	Stop altitude measurement.	18
	Stop altitude calibration.	28
	Stop compass calibration.	32

Symptom	Remedies	Page
Calendar is incorrect		
Date indicator is incorrect.	Adjust the calendar.	27

Troubleshooting

You can reset the watch to the initial status (All Reset).

When you reset the watch, the following values return to the initial.

Calibration value of altitude measurement

Correction value of 2 point correction

Correction value of declination correction

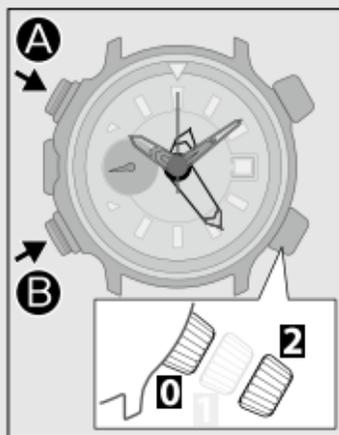
Be sure to perform the following operations after All Reset.

1. Correct the reference positions.

After All Reset, the watch is in the reference position adjustment mode.

Refer to step 3 and after on page 46.

2. Adjust the time and calendar (after correcting the reference position).



1 Stop altitude measurement or compass function and check the power reserve indication.

Charge the watch if the power reserve is lower than “2”.

2 Pull the crown out to position 2.

The 1 000 m hand, 100 m hand (compass hand) and 2.5 m hand move to their current reference positions. Do not execute any operation until all the hands stop.

3 Press and hold button A and button B at the same time for 4 seconds or more.

As you release the buttons, the hands move slightly to indicate that reset completed.

Eco-Drive watch handling precautions

<Always Make Sure to Recharge Frequently>

- For optimal performance, your watch should remain fully charged.
- Long sleeves may inhibit light transmission to your watch. This may result in your watch losing charge. In these cases supplemental charging may be necessary.
- When you take off the watch, place it in a bright location to ensure optimal performance.

CAUTION Recharging Precautions

- Do not charge the watch at a high temperature (about 60 °C (140 °F) or higher) as doing so may cause the movement to malfunction.

Examples:

- Charging the watch too close to a light source which generates a large amount of heat such as an incandescent lamp or halogen lamp.
 - * When charging under an incandescent lamp, be sure to leave 50 cm (20 inches) or more between the lamp and the watch to avoid exposing the watch to excessive heat.
- Charging the watch in a location where the temperature may become extremely high such as on the dashboard of a vehicle.



Eco-Drive watch handling precautions

<Replacement of Rechargeable Cell>

- This watch utilizes a special rechargeable cell that does not require periodical replacement. However power consumption may increase after using the watch for a number of years due to wear of internal components and deterioration of oils. This may cause stored power to be depleted at a faster rate. For optimal performance, we recommend having your watch inspected every 2-3 years for proper operation and condition check.

WARNING Handling of Rechargeable Cell

- The rechargeable cell should never be removed from the watch.
If for any reason it becomes necessary to remove the rechargeable cell from the watch, keep out of the reach of children to prevent accidental swallowing.
If the rechargeable cell is accidentally swallowed, consult a doctor immediately.
- Do not dispose of the rechargeable cell with ordinary garbage. Please follow the instructions of your municipality regarding collection of batteries to prevent the risk of fire or environmental contamination.

WARNING Use Only the Specified Battery

- Never use a battery other than the rechargeable cell 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 conventional watch 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 rechargeable cell, always make sure to use the designated rechargeable cell.

Water resistance

WARNING Water Resistance

- Refer to the watch dial and/or 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 “1 bar” is roughly equal to 1 atmosphere.)
- WATER RESIST(ANT) ×× bar may also be indicated as W. R. ×× bar.

Name	Indication	Specification
	Dial or Case back	
Non-water resistant	—	Non-water resistant
Everyday-use water resistant watch	WATER RESIST	Water-resistant to 3 atmospheres
Upgraded everyday use water-resistant watch	W. R. 5 bar	Water-resistant to 5 atmospheres
	W. R. 10/20 bar	Water-resistant to 10 or 20 atmospheres

Water-related use				
 <p>Minor exposure to water (washing face, rain, etc.)</p>	 <p>Swimming and general washing work</p>	 <p>Skin diving, marine sports</p>	 <p>Scuba diving using an air tank</p>	 <p>Operate the crown or button when the watch is wet</p>
NO	NO	NO	NO	NO
OK	NO	NO	NO	NO
OK	OK	NO	NO	NO
OK	OK	OK	NO	NO

Water resistance

- Non-water resistant models are not designed to come into contact with any moisture. Take care not to expose a watch with this rating to any type of moisture.
- Water resistance for daily use (to 3 atmospheres) means the watch is water resistant for occasional accidental splashing.
- Upgraded water-resistance for daily use (to 5 atmospheres) means that the watch may be worn while swimming, but is not to 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.

Precautionary items and usage limitations

CAUTION To Avoid Injury

- 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.
- 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.
- Take off your watch before going to bed.

Precautionary items and usage limitations

CAUTION Precautions

- 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 or any push buttons when the watch is wet. Water may enter the watch causing damage to vital components.
- If water enters the watch or the watch fogs up and does not clear up even after a long time, consult your dealer or customer support center for inspection and/or repair.
- Even if your watch has a high level of water resistance, please be careful of the following.
 - If your watch is immersed in sea water, rinse thoroughly with fresh water and wipe with a dry cloth.
 - Do not pour water from a tap directly onto your watch.
 - Take off your watch before taking a bath.
- 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, push button, etc.) may come off.

CAUTION When Wearing Your Watch

<Band>

- Leather bands and rubber (urethane) bands will deteriorate over time due to perspiration dirt. Because of the natural materials, leather band will be worn, deformed, and discolored over time. It is recommended to replace the band periodically.
- The durability of a leather band may be affected when wet (fading, peeling of adhesive), owing to the properties of the material. Moreover, wet leather may cause a rash.
- Do not stain a leather band with substances containing volatile materials, bleach, alcohol (including cosmetics). Discoloration and premature aging may be occurred. Ultraviolet light such as direct sunlight may cause discoloration or deformation.
- It is recommended to take off the watch if it gets wet, even if the watch itself is water-resistant.
- Do not wear the band too tightly. Try to leave enough space between the band and your skin to allow adequate ventilation.
- 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 removable, caution is required when wearing your watch with items that tend to easily transfer color (articles of clothing, purses, etc.). In addition, the band may be deteriorated by solvents or moisture in the air. Replace with a new one when it has lost elasticity or become cracked.

Precautionary items and usage limitations

CAUTION When Wearing Your Watch (continued)

- Please request adjustment or repair of the band in the following cases:
 - You notice an abnormality with the band due to corrosion.
 - The pin of the band is protruding.
- We recommend seeking the assistance of an experienced watch technician for sizing of your watch. If adjustment is not done correctly, the bracelet may unexpectedly become detached leading to loss of your watch or injury.
Consult your nearest authorized Citizen service center.

<Temperature>

- The watch may stop or the function of the watch may be impaired in extremely high or low temperature. Do not use the watch in places where the temperature is outside the operating temperature range as stated in the specifications.

<Magnetism>

- Analog quartz watches are powered by a step motor that uses a magnet. Subjecting the watch to strong magnetism from the outside can cause the motor to operate improperly and prevent the watch from keeping time accurately.
Do not allow the watch to come into close proximity to magnetic health devices (magnetic necklaces, magnetic elastic bands, etc.) or the magnets used in the latches of refrigerator doors, clasps used in handbags, the speaker of a cell phone, electromagnetic cooking devices and so on.

<Strong Shock>

- Avoid dropping the watch or subjecting it to other strong impact. It may cause malfunctions and/or performance deterioration as well as damage to the case and bracelet.

<Static Electricity>

- The integrated circuits (IC) used in quartz watches are sensitive to static electricity. Please note the watch may operate erratically or not at all if exposed to intense static electricity.

<Chemicals, Corrosive Gasses and Mercury>

- If paint thinner, benzene or other solvents or products containing these solvents (including gasoline, nail-polish remover, cresol, bathroom cleaners and adhesives, water repellent, etc.) 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.

<Protective Stickers>

- Be sure to remove any protective stickers that may be on your watch (case back, band, clasp, etc.). Otherwise, perspiration or moisture may enter the gaps between the protective stickers and the parts, which may result in a skin rash and/or corrosion of the metal parts.

Precautionary items and usage limitations

CAUTION Always Keep Your Watch Clean

- Rotate the crown while it is pressed in fully and press the buttons periodically so they do not become stuck due to accumulations of foreign matter.
- The case and band of the watch come into direct contact with the skin. Corrosion of the metal or accumulated foreign matter may result in black residue coming from the bracelet when exposed to moisture or perspiration. Be sure to keep your watch clean at all times.
- Be sure to periodically clean the bracelet and case of your watch to remove accumulated dirt and foreign matter. In rare circumstances, accumulated dirt, foreign matter may cause irritation with the skin. If you notice this, discontinue wearing the watch and consult your physician.
- Be sure to periodically clean foreign matter and accumulated materials from the metal band, synthetic rubber strap (polyurethane) and/or metal case using a soft brush and mild soap. Be careful not to allow moisture on the case if your watch is not water resistant.
- Leather bands may become discolored by perspiration or dirt. Always keep your leather band clean by wiping with a dry cloth.

Caring for Your Watch

- Wipe any dirt or moisture such as perspiration from the case and crystal with a soft cloth.
- For metallic, plastic or synthetic rubber (polyurethane) band, clean it with soap and a soft toothbrush. Be sure to thoroughly rinse the band after cleaning to remove any soap residue.
- For a leather band, wipe off dirt using a dry cloth.
- 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.

<When Luminous Paint is used for your watch>

The paint on the dial and hands helps you with reading the time in a dark place. The luminous paint stores light (daylight or artificial light) and glows in a dark place.

It is free from any radioactive substance or any other material harmful to a human body or environment.

- The light emission will appear bright at first and then diminish as time passes.
- The duration of the light (“glow”) will vary depending on the brightness, types of and distance from a light source, exposure time, and the amount of the paint.
- The paint may not glow and/or may dissipate quickly if exposure to light was not sufficient.

Information

Basic information of the altimeter

Measurable range	-300 to 10 000 m	Accuracy assurance temperature	-20 °C (-4 °F) to 40 °C (104 °F)
Unit for indication	Lower than 6 000 m: 2.5 m 6 000 m or higher: 5.0 m	Assured accuracy	\pm ([Altitude difference from the point altitude calibration was executed] x 2% +15) m

- The accuracy is guaranteed when temperature is constant after altitude calibration.
- The assured accuracy is that of altitude difference from the altitude calibration point, not accuracy of measured altitude to actual one.
Example: Error range at 700 m height when altitude was calibrated at a point of 500 m height $(700 - 500) \times 2\% + 15 = 19$ Thus the assured accuracy is ± 19 m and error range is 681 m to 719 m.

Assured accuracy in various altitude and error range

The table shows assured accuracy in various altitude and error range when altitude is calibrated at 0 m height for reference.

Height (m)	Assured accuracy (m)	Error range (m)
-100	± 17	-117 to -83
0	± 15	-15 to 15
100	± 17	83 to 117
1 000	± 35	965 to 1035
5 000	± 115	4 885 to 5 115
10 000	± 215	9 785 to 10 215

Information

Basic information of the compass

Accuracy assurance temperature	-20 °C (-4 °F) to 40 °C (104 °F)
Assured accuracy	±10°

- The accuracy is guaranteed when temperature is constant after 2 point correction.

About the regions where the compass function may be hard to use

In the patterned regions on the next page, the compass accuracy of the watch may not be maintained due to the characteristics of the geomagnetic field. When using the compass function of the watch, check the region.

Patterned regions



Specifications

Model	J280	Type	Analog solar-powered watch
Timekeeping accuracy	Average monthly accuracy: ± 15 seconds when worn at normal operation temperatures between $+5\text{ }^{\circ}\text{C}$ ($41\text{ }^{\circ}\text{F}$) and $+35\text{ }^{\circ}\text{C}$ ($95\text{ }^{\circ}\text{F}$)		
Operating temperature range	$-20\text{ }^{\circ}\text{C}$ ($-4\text{ }^{\circ}\text{F}$) to $+60\text{ }^{\circ}\text{C}$ ($140\text{ }^{\circ}\text{F}$)		
Display functions	<ul style="list-style-type: none">• Time: Hours, minutes, seconds• Calendar: Date• Power reserve: 4 levels		
Maximum run time from full charge	<ul style="list-style-type: none">• After charged fully, the watch runs without additional charging: Approximately 11 months• Power reserve upon insufficient charge warning function: Approximately 4 days		
Battery	Rechargeable cell (lithium button cell), 1 pc.		

Additional functions	<ul style="list-style-type: none">• Solar power function• Power reserve indication (in four levels)• Overcharging prevention function• Insufficient charge warning function (two-second interval movement)• Altitude indication function• Altitude calibration function• Compass indication function• Compass calibration function• Reference position check and adjustment function for altitude/compass indication hands
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Specifications and contents of this booklet are subject to change without prior notice.

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Model No.BN4 *

Cal.J280

CTZ-B8173