CITIZEN®

INSTRUCTION MANUAL

Eco-Drive®

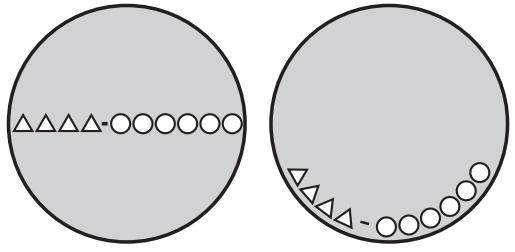
Thank you for your purchase of this Citizen watch.
Before using the watch, read this instruction manual carefully to ensure correct use.
After reading the manual, store it in a safe place for future reference.
Be sure to visit the Citizen website at http://www.citizenwatch-global.com/ .
Here you will 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 ***66*** to ***79***) 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: (Following symbols are examples of Pictograms.)

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

Features

Satellite synchronized watch
Receives the time information sent from the satellite and adjusts the time and calendar on the watch.

* **Location information is not acquired.**

Light-Level Indicator
Indicates current power generation amount in 7 levels.
It can be used as a reference for choosing a good charging place.

- **Eco-Drive**
  Never needs a new battery. This watch is fueled by light.
- **World time**
  Indicates the time around the world by choosing one of 40 time zones.
- **±5-second average monthly accuracy**
  Keeps high accuracy without time signal reception.
- **Perpetual calendar**
  No need for monthly and leap-year date correction until February 28, 2100.

* "Eco-Drive" is an original technology of Citizen.

CONTENTS

Before using this watch 7

Band adjustment 8

Protective stickers 8

How to use a specially designed crown/button 9

Component identification . . . 11

Charging your watch 12

Checking the current power reserve and power generation amount 18

Setting the world time 24

Switching daylight saving time and standard time 30

Before receiving the satellite time signal 32

Receiving the satellite time signal 37

Reception methods of the satellite time signal 37

Checking the previous reception result of the satellite time signal 42

English

Continued on the next page

Checking and adjusting leap second setting 44

Checking and adjusting the rollover number setting 47

Adjusting the time and calendar manually. 50

Checking and correcting the reference position 54

Troubleshooting 58

Eco-Drive watch handling precautions. 66

Water resistance 70

Precautionary items and usage limitations 73

Specifications 80

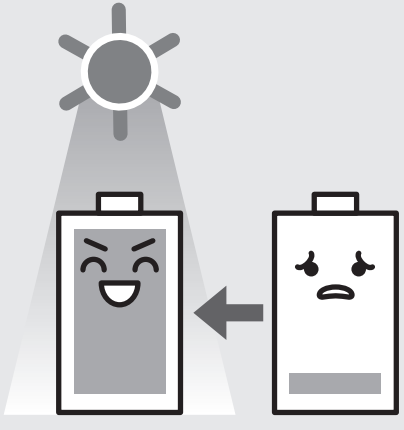
Before using this watch

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

1 Checking the current power reserve (page *12*)

2 Setting the world time (page *24*)

3 Receiving the satellite time signal (page *32*)



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*.

English

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. Other shops may charge for, or may not provide, the service.

Protective stickers

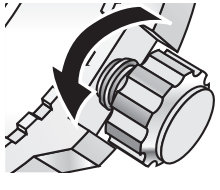
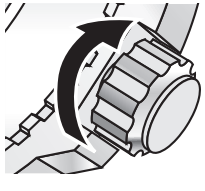
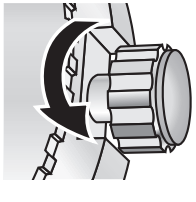
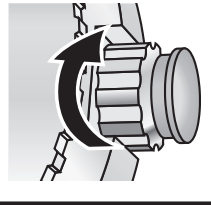
Be sure to remove any protective stickers that may be on your watch (case back, band, clasp, etc.). Otherwise, perspiration or moisture may enter the gaps between the protective stickers and the parts, which may result in a skin rash and/or corrosion of the metal parts.

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.

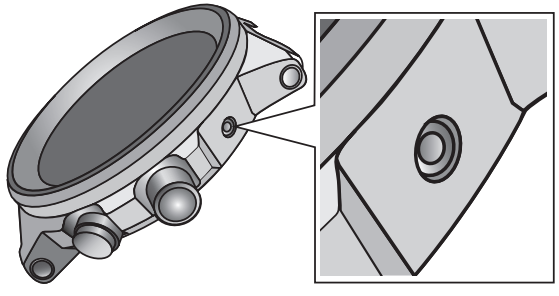
Screw down crown/button

Unlock the crown/button prior to operate your watch.

	Unlock		Lock	
Screw down crown		Rotate the crown counterclockwise until it releases from the case.		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.
Screw down push button		Rotate the locking screw counterclockwise, and loosen until it stops.		Rotate the locking screw clockwise, and tighten firmly.

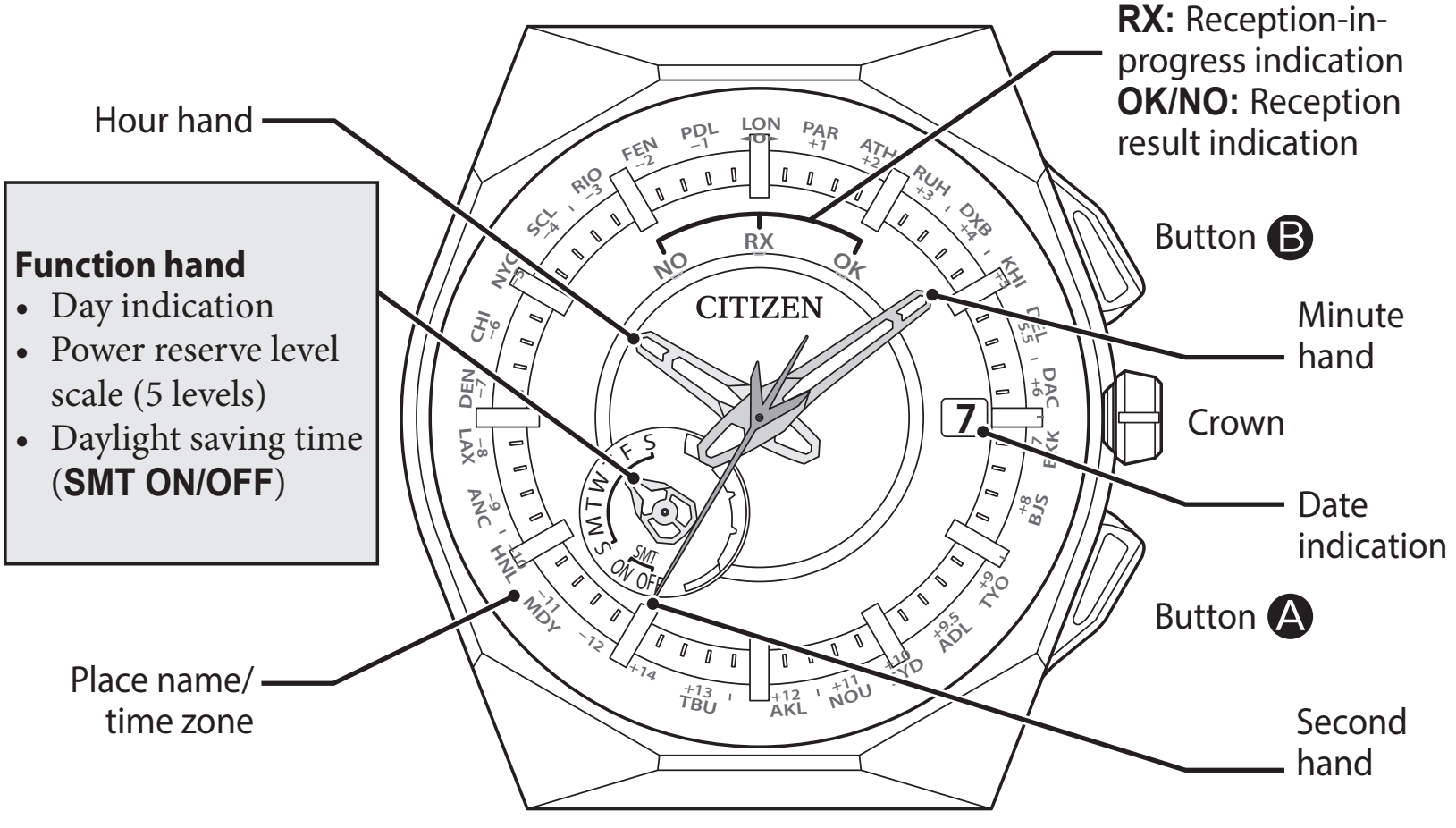
Recessed button

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.

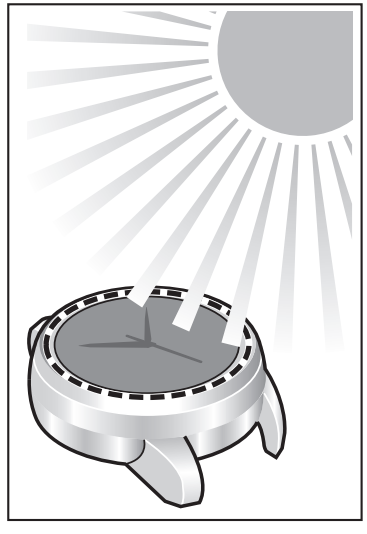
Component identification



- The illustrations in this instruction manual may differ from the actual appearance of your watch.
- A solar cell is under the dial.

English

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 page ***16*** for charging guidelines).
For optimal performance, be sure to:

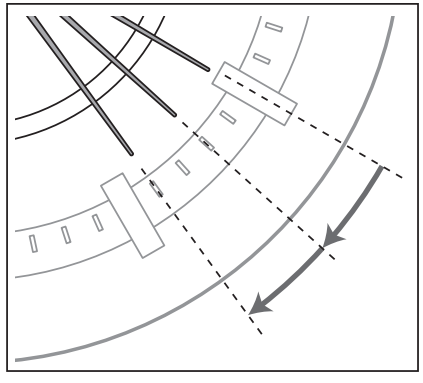
- **Put the watch in a location where the dial is exposed to bright light such as by the window even when it is not used.**
- **Expose its dial to direct sunlight for 5 or 6 hours at least every half-a-month.**
- **Avoid leaving it in dark places such as in a drawer for long periods of time.**

CAUTION

- This watch contains a large-capacity rechargeable cell for performing power-consuming satellite signal reception. This large capacity cell takes more time to charge than those found in other Eco-Drive watches.
- If the surrounding temperature falls below 0°C (32°F) or exceeds 40°C (104°F), the "**Charge suspension temperature detection function**" will activate and charging will not be possible.
- Do not charge the watch at a high temperature (about 60°C (140°F) or higher) as doing so may cause movement malfunction.
- If the watch is obscured from light by long sleeves frequently, supplemental charging may be needed to ensure continual operation.

- The watch stops charging automatically after finishing (overcharging prevention function). The function prevents damage to performance of the watch and rechargeable cell due to overcharging.

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 page ***16***.

- When the watch is sufficiently charged, the second hand will move normally.
- If you do not charge the watch for 5 days or longer after the insufficient charge warning movement has begun, the watch will be depleted of all power and stop.

CAUTION

- **If you do not charge the watch for 30 days after it has stopped, recharging will not be possible (over discharge detection function).**
  Consult your nearest authorized Citizen service center if no hands start to move even after charging a stopped watch for one day or more exposing to direct sunlight.

During the insufficient charge warning state

The time and date is indicated correctly.
Operations below are available:

- Checking power generation amount
- Setting the world time
- Adjusting the time and calendar manually

You cannot execute operations other than above such as reception of satellite time signals.

Charging time by environment

Below are the approximate charging times when exposing 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	5 hours	35 hours
Outdoors (cloudy)	10 000	25 minutes	50 hours	330 hours
20 cm (8 inches) away from a fluorescent lamp (30 W)	3 000	1.5 hours	170 hours	1 120 hours
Interior lighting	500	8 hours	–	–

- **Exposing to direct sunlight is recommended to charge your watch.** A fluorescent lamp or interior lighting does not have sufficient illumination to charge the rechargeable cell efficiently.

Power save function

The hour, minute, and second hands stop automatically to save power as 3 days passed after stopping power generation.

- The watch is still running internally to keep the time and calendar correctly even after the power save function has activated.
- The power save function does not activate when the position of the crown is 1 or 2.
- The power save status ends and the hands return to indicate the current time as the watch is operated or the dial is exposed to light and power generation starts.

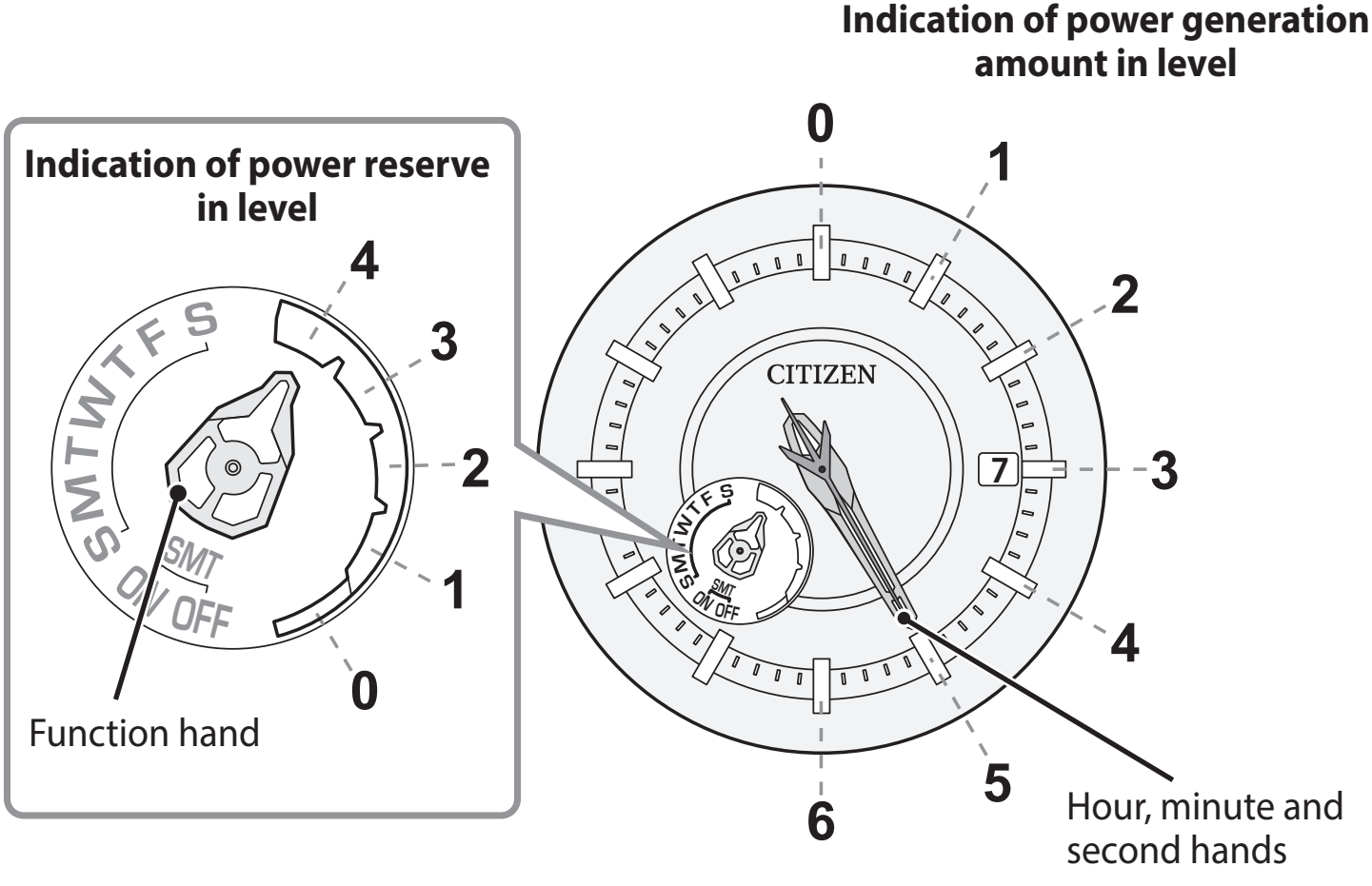
Duration without additional charging after charging the watch fully

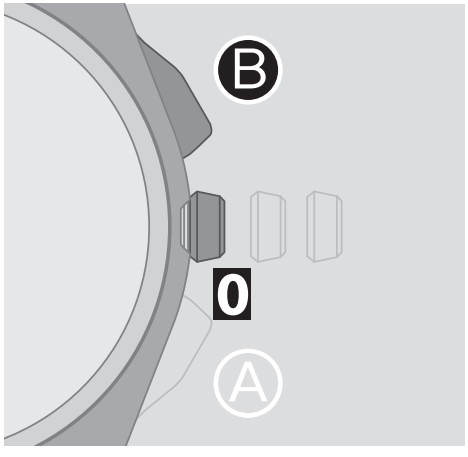
About 2 years in normal use.

- When receiving satellite time signals every 6 days.
- With a power save function activated, the watch will run for about 7 years.

Checking the current power reserve and power generation amount

Always care about the current power reserve and charging environment of the watch to be sure it is charged sufficiently.





1 Push the crown in to position 0.

2 Press and release the upper right button B.

The power reserve and power generation amount at the moment of pressing the button are indicated in level.

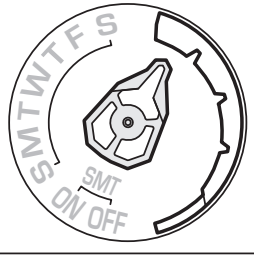
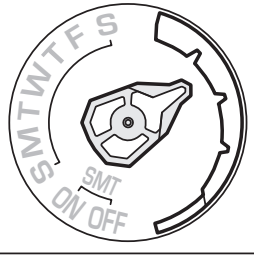
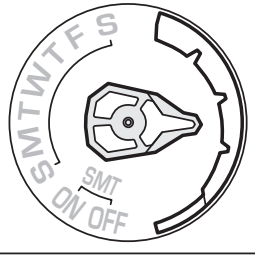
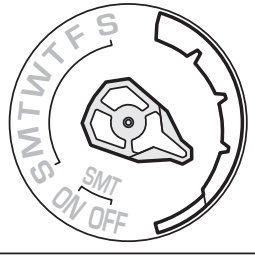
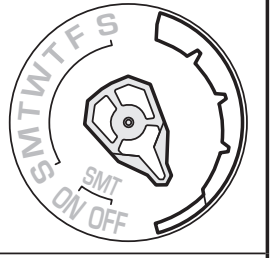
- **Power reserve level**: page ***20***
- **Level of power generation amount**: page ***22***

3 Press and release the upper right button B to finish the procedure.

The hands returns to current time indication.

- They returns to current time indication automatically in about 10 seconds.

Indication of power reserve in level

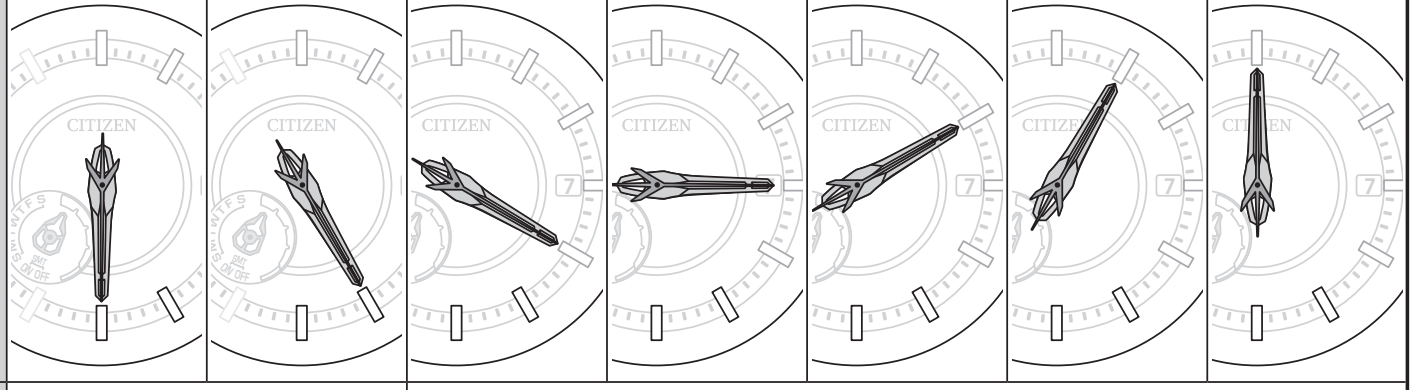
Level	4	3	2	1	0
Power reserve level scale					
Duration (approx.)	24 - 20 months	20 - 14 months	14 - 5 months	5 months - 5 days	5 days or shorter
Meaning	Power reserve is sufficient.	Power reserve is OK.		Power reserve is getting low.	Insufficient charge warning has started.
	OK for normal use			**Charge immediately.**	

CAUTION

- At the level 0, the second hand starts to move once every two seconds (insufficient charge warning function, page ***14***). Some functions become unavailable while the function is activated. For details, see page ***15***.
- The level of power reserve is not indicated when temperature of the watch is too high or too low (non-chargeable state). Check it again at a location of suitable temperature.

Indication of power generation amount in level

The level of power generation amount means power being generated by the solar cell represented in 7 levels (0 - 6).

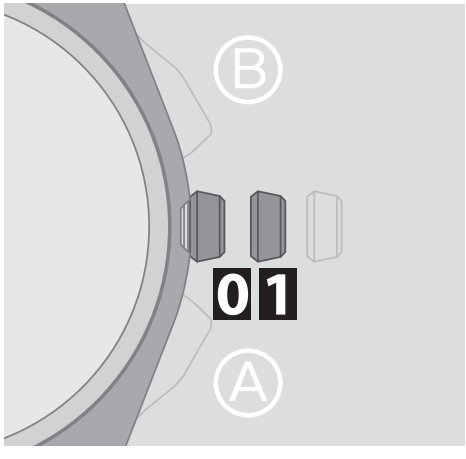
Level	6	5	4	3	2	1	0
Level scale of power generation amount							
Meaning	Sufficient power generation for charging.		Charge in a brighter location where the level of power generation amount reaches “5” or “6”.				

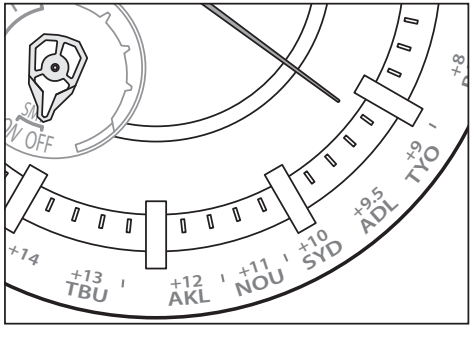
CAUTION

- The level of power generation amount indicated is that of the moment you engage this function. The level indication does not reflect any change in power generation after engaging this function.
- The level may vary even under the same brightness due to the entry angle of light to the dial of the watch or other elements. The level may also vary depending on difference of models.
- The indication level “6” of power generation amount corresponds to generation in cloudy outdoors (about 10 000 lx illuminance) or a brighter location.
- Use the level of power generation shown as general reference only.

Setting the world time

This watch can indicate the time around the world according to which of 40 time zones (offsets from UTC—Coordinated Universal Time) is chosen.





1 Pull the crown out to position 1.

The second hand indicates the current time zone and the function hand indicates the daylight saving time setting (page ***30***).

2 Rotate the crown to choose a time zone.

Time indication changes.

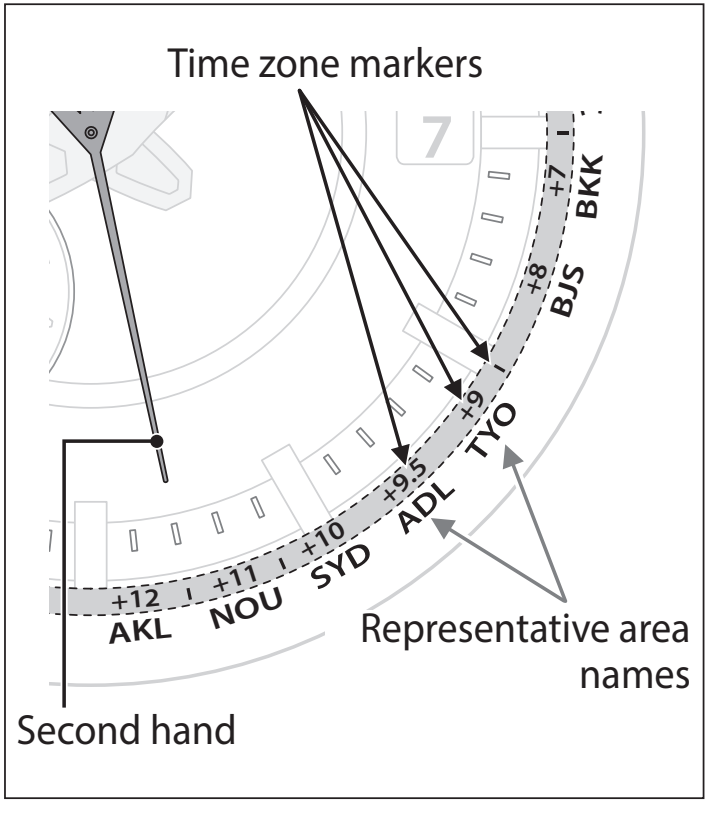
- See also “How to read indication of the world time setting” on page ***25*** and “Table of time zones and representative areas” on page ***26*** for time zone setting.

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

The watch resumes normal operation.

How to read indication of the world time setting

The watch has 40 time zone markers with several representative area names. A time zone is set by pointing the second hand at one of the markers.



In the illustration on the left, the second hand points to 28 seconds and time zone setting is "+11.5".

- Time zones are represented by offsets from UTC (Coordinated Universal Time).
- Time zone markers and area names may differ from the illustration in some models.

Table of time zones and representative areas

• Countries or regions may change time zones for various reasons.

Time zone (UTC offset)	Second hand position	Area name	Representative area
0	0 sec.	**LON**	London
+1	2 sec.	**PAR**	Paris
+2	4 sec.	**ATH**	Athens
+3	6 sec.	**RUH**	Riyadh
+3.5	7 sec.	**—**	Tehran
+4	8 sec.	**DXB**	Dubai
+4.5	9 sec.	**—**	Kabul
+5	10 sec.	**KHI**	Karachi
+5.5	12 sec.	**DEL**	Delhi
+5.75	13 sec.	**—**	Kathmandu

Time zone (UTC offset)	Second hand position	Area name	Representative area
+6	14 sec.	**DAC**	Dhaka
+6.5	15 sec.	**—**	Yangon
+7	16 sec.	**BKK**	Bangkok
+8	18 sec.	**BJS (HKG)**	Beijing/Hong Kong
+8.75	20 sec.	**—**	Eucla
+9	21 sec.	**TYO**	Tokyo
+9.5	23 sec.	**ADL**	Adelaide
+10	25 sec.	**SYD**	Sydney
+10.5	26 sec.	**—**	Lord Howe Island
+11	27 sec.	**NOU**	Noumea
+11.5	28 sec.	**—**	Norfolk Island
+12	29 sec.	**AKL**	Auckland

Time zone (UTC offset)	Second hand position	Area name	Representative area
+12.75	31 sec.	**—**	Chatham Islands
+13	32 sec.	**TBU**	Nukuʻalofa
+14	34 sec.	**—**	Kiritimati
-12	36 sec.	**—**	Baker Island
-11	38 sec.	**MDY**	Midway
-10	40 sec.	**HNL**	Honolulu
-9.5	41 sec.	**—**	Marquesas Islands
-9	42 sec.	**ANC**	Anchorage
-8	44 sec.	**LAX**	Los Angeles
-7	46 sec.	**DEN**	Denver
-6	48 sec.	**CHI**	Chicago
-5	50 sec.	**NYC**	New York

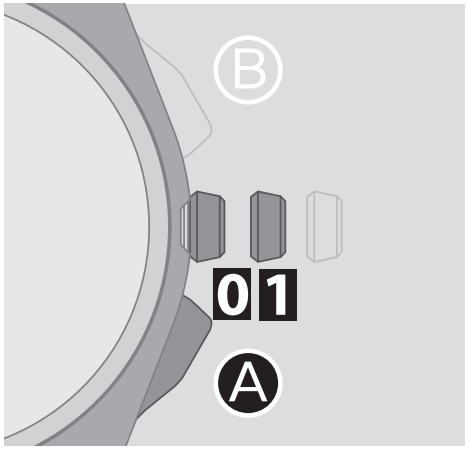
Time zone (UTC offset)	Second hand position	Area name	Representative area
-4.5	51 sec.	**—**	Caracas
-4	52 sec.	**SCL**	Santiago
-3.5	53 sec.	**—**	St. John's
-3	54 sec.	**RIO**	Rio de Janeiro
-2	56 sec.	**FEN**	Fernando de Noronha
-1	58 sec.	**PDL**	Azores

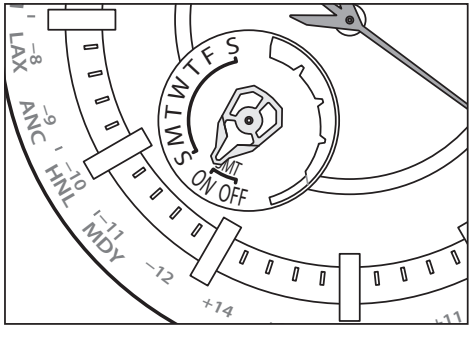
- The offsets in the table are based on the standard time.
- When choosing a time zone for a country or area that observes daylight saving time during the summer period, first apply its standard offset from UTC then activate the daylight saving time setting as outlined on page ***30***.

Switching daylight saving time and standard time

Daylight saving time is a system adopted in some countries/areas to gain an extra daylight during summer.
This watch can display the daylight saving time or the standard time according to the area selected for world time.

- Daylight saving time information is not contained in the satellite time signal. Adjust the setting manually before and after the daylight saving time period.
- The daylight saving time period varies depending on the country or area.
- The daylight saving time rules may change depending on the country or area.





1 Pull the crown out to position 1.

The second hand indicates the current world time setting and the function hand indicates the current daylight saving time setting.

2 Press and release the lower right button A.

SMT ON	SMT OFF
The daylight saving time is indicated.	The standard time is indicated.

- Each time you press the button, ON and OFF changes alternately.

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

The watch resumes normal operation.

Before receiving the satellite time signal

This watch receives time information from satellites to adjust the time and calendar automatically.

This watch only receives time information. Location information is not acquired.

For receiving the satellite time signal smoothly

The average monthly accuracy of this watch is ±5 seconds even if a satellite time signal is not received.
The accuracy does not require frequent reception of the satellite time signal.
Weekly reception is recommended.

- Use the function to see the result of the previous reception (success or fail) (page ***42***) effectively to execute reception in best frequency and save power consumption.

Cautions regarding receiving the satellite time signal

Do not perform satellite time signal reception while operating a vehicle as doing so is extremely dangerous.

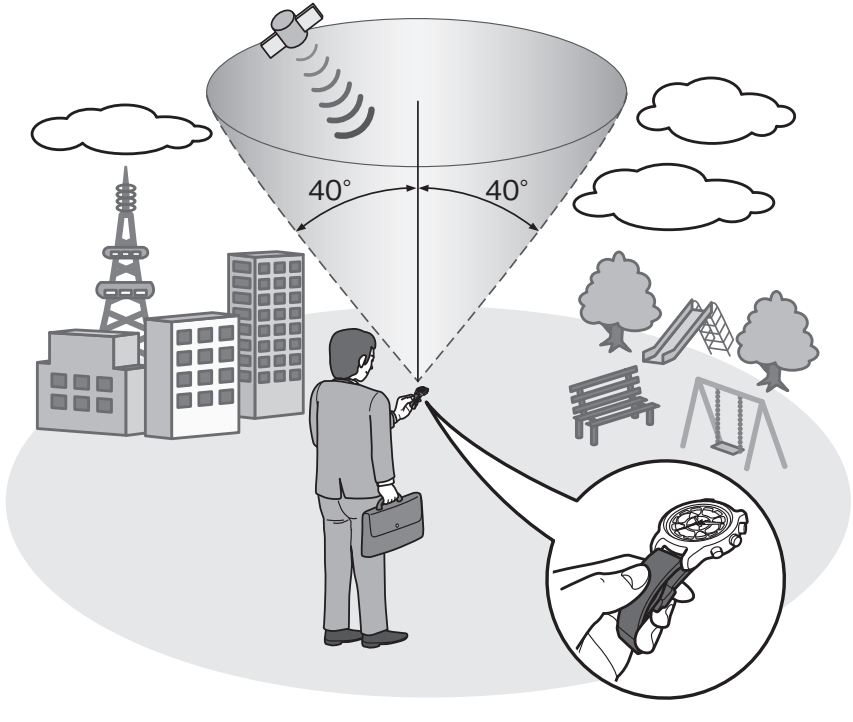
- If the second hand is moving once every two seconds (insufficient charge warning function), you cannot perform satellite time signal reception. Charge the watch sufficiently before attempting time signal reception.
- Even when this watch receives the time signal successfully, the accuracy of the displayed time will be dependent on the reception environment and internal processing.

- The automatic correction feature of this watch is supported until 28/2/2100.
- Daylight saving time information is not contained in the satellite time signal. Adjust the setting manually before and after the daylight saving time period. (page ***30***)

When receiving the satellite time signal

As shown in the picture below, make sure you are in an area with few surrounding trees, buildings, or other objects with may obstruct the satellite time signal. Face the dial towards the sky and perform time signal reception.

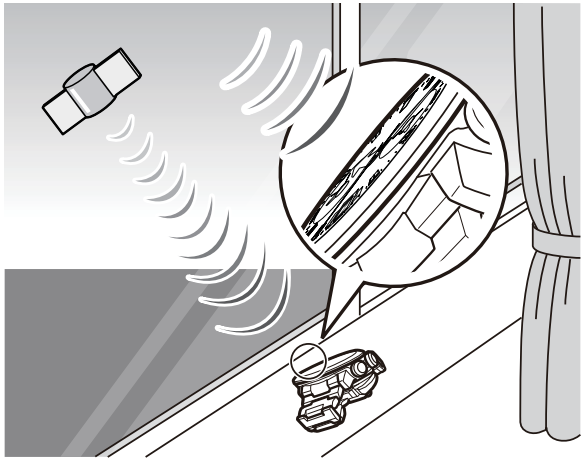
- Ideally, the sky directly above you should be clear (approx. 80° as shown on the right) when attempting to receive the satellite time signal.
- If you will perform time signal reception with the watch on your wrist, keep it as far away from your body as possible.
- When the reception is difficult, take off the watch from your wrist and try again.



Receiving signals indoors near a window

Place the watch near a window with a wide view of the sky and orient the dial in an obliquely upward direction (approximately 45°).

- If there are buildings, trees, or other obstacles above the window, satellite signals may not be able to be received.
- Directions which allow signal reception may be limited depending on the direction the window faces to. Find a direction suitable for reception.
- Satellite signals may not be able to be received through wire-reinforced glass or heat reflective glass (or film).
- If the watch cannot receive satellite signals, we recommend that you take your watch outdoors for successful reception.



Poor reception areas

It may be difficult to receive the satellite time signal under certain environmental conditions or in certain areas.

Areas with obstructions above the watch	Nearby objects which emit magnetism or noise
• Indoors or underground • Areas surrounded by tall buildings or trees • When the weather is cloudy or rainy, or during a thunderstorm	• High-voltage electric cables, railway lines / overhead cables, airports, and transmission facilities. • Electrical appliances and OA equipment • Mobile telephones in the process of calling/ transmitting • Mobile telephone base stations

Receiving the satellite time signal

Reception methods of the satellite time signal

You can use the two reception methods below. You can also check the previous reception result (success or fail). (page ***42***)

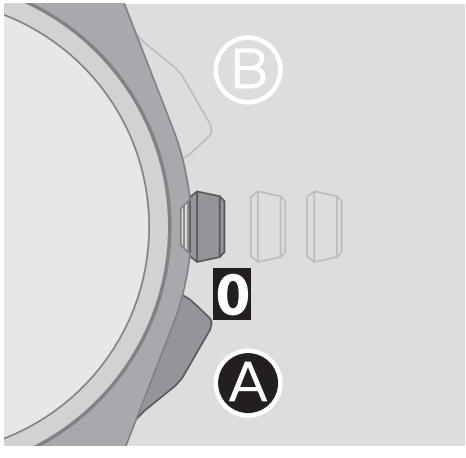
Method	Use	Time required (approx.)
Manual reception 1 (page *38*)	Normal reception for time and calendar adjustment	3 - 20* seconds * It may take up to 70 seconds after adjusting calendar or some other cases.
Manual reception 2 (page *40*)	Reception when the leap second has been updated	21 seconds - 13 minutes

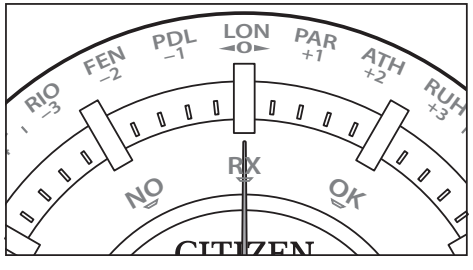
• Reception is not executed automatically.

Manual reception 1 (time required: 3 - 20 seconds)

Reception for time and calendar adjustment. Use this method normally.

• It may take up to 70 seconds after adjusting calendar or some other cases.





1 Push the crown in to position 0 .

2 Press and hold the lower right button A until the second hand points "RX".

The previous reception result is first indicated and signal reception starts.

- To cancel the reception, press and hold the lower right button A until the second hand returns to normal movement.
- The reception-in-progress indication (RX) and the reception result (OK/NO) are indicated by the tail of the second hand in some models.

After finishing reception, the second hand indicates the reception result (page **42**) for 2 seconds and returns to normal movement.

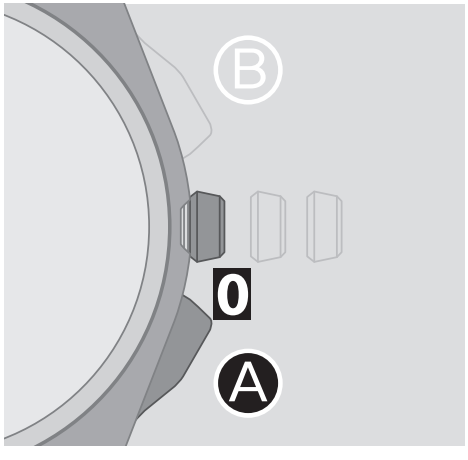
When the time or calendar is incorrect even after successful reception

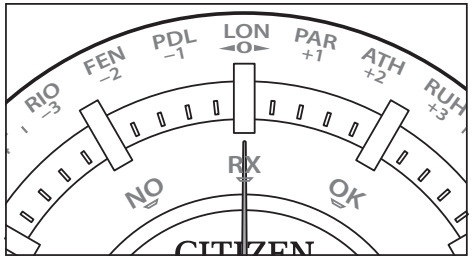
Check the settings of world time (page **24**) and daylight saving time (page **30**).
If the time or calendar is still incorrect after that, execute manual reception 2 (page **40**). The leap second may be updated.

- Daylight saving time information is not contained in the satellite time signal.

Manual reception 2 (time required: about 21 seconds - 13 minutes)

Reception to adjust the time and calendar when the leap second has been updated.





1 Push the crown in to position 0 .

2 Press and hold the lower right button A for 7 seconds.

Reception starts after the second hand points “RX” and turn fully around to points “RX” again.

- To cancel the reception, press and hold the lower right button A until the second hand returns to normal movement.
- The reception-in-progress indication (RX) and the reception result (OK/NO) are indicated by the tail of the second hand in some models.

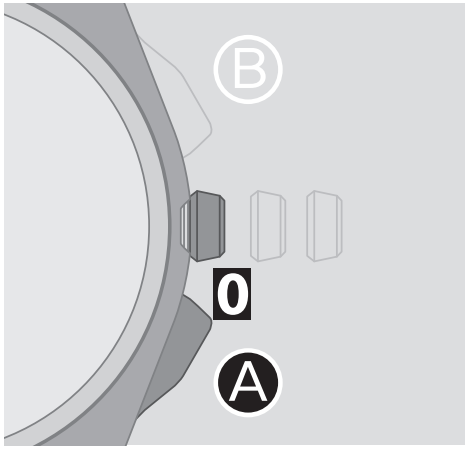
After finishing reception, the second hand indicates the reception result (page **42**) for 2 seconds and returns to normal movement.

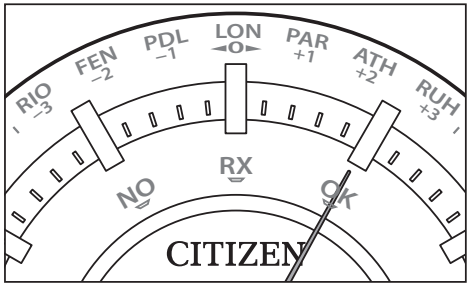
When the time or calendar is incorrect even after successful reception

Check the settings of world time (page **24**) and daylight saving time (page **30**).

- Daylight saving time information is not contained in the satellite time signal.

Checking the previous reception result of the satellite time signal

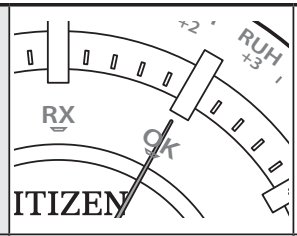




1 Push the crown in to position 0 .

2 Press and release the lower right button Ⓐ .

The previous reception result is indicated.

OK		The reception succeeded. The time and calendar have been corrected.
NO		The reception failed. The time and calendar was not corrected and the time indication returns to the status before the reception.

- The reception-in-progress indication (RX) and the reception result (OK/NO) are indicated by the tail of the second hand in some models.

3 Press and release the lower right button Ⓐ to finish the procedure.

The hands returns to current time indication.

- They returns to current time indication automatically in about 10 seconds.

About the reception result

The previous reception result is stored for 6 days. After that “NO” is indicated regardless of the previous reception result.

The result “OK” means that the previous reception was successful within the past 6 days and no reception is recommended at this time.

You can use the reception result to avoid too frequent reception.

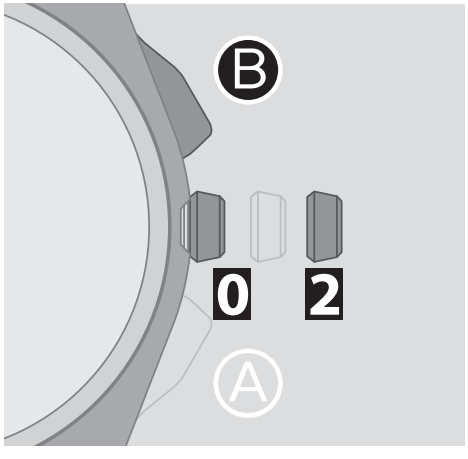
Checking and adjusting leap second setting

This watch displays the time information by setting the leap second and time difference (manual adjustment) to the International Atomic Time information received from the satellite.

- Leap second setting can automatically be adjusted by executing manual reception 2 (page ***40***) and using leap second information.
- The leap second setting can also be adjusted manually.
- The leap second setting at shipping of this product (as of September 2014) is "−35 seconds".

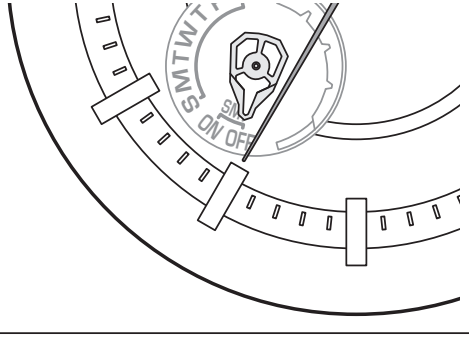
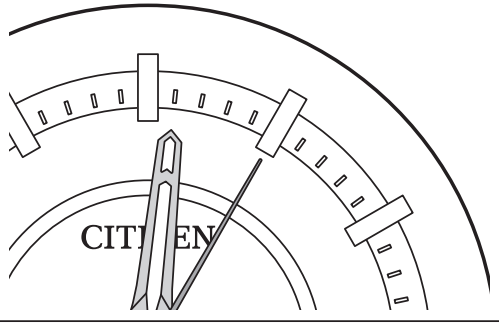
You can find a list of leap seconds at the homepage of IERS (INTERNATIONAL EARTH ROTATION & REFERENCE SYSTEMS SERVICE).

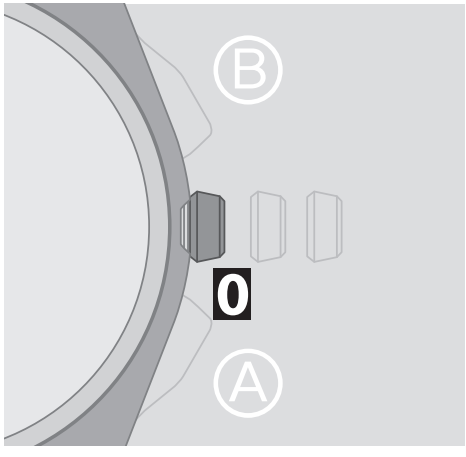
http://hpiers.obspm.fr/eop-pc/earthor/utc/TAI-UTC_tab.html



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

2 Press and release the upper right button B.
Using 0 minute/second position as the starting point, the minute and second hands indicate the leap second setting.

When the leap second setting is "-35 seconds"	When the leap second setting is "-65 seconds"
	
The hands point to "0 minute 35 seconds".	The hands point to "1 minute 5 seconds".



3 Turn the crown to adjust the setting if the leap second is not correct.

- Adjustable range is from 0 to −90 seconds.

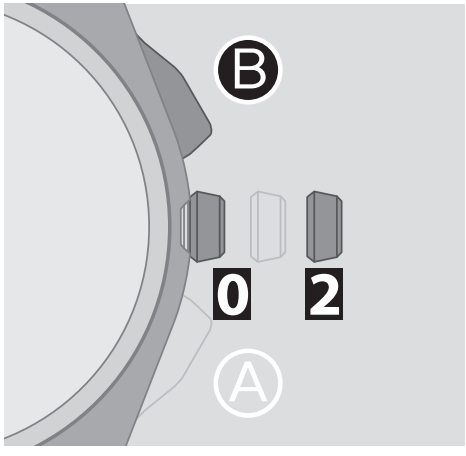
4 Push the crown in to position 0 to finish the procedure.

Checking and adjusting the rollover number setting

In order for this watch to correctly process the week information* received from the satellite, a rollover number for each time period is set. The rollover numbers will be updated automatically.
If the rollover number setting is incorrect, the time and date may not be indicated accurately. Check the rollover number setting and adjust it if it is incorrect.

- The rollover setting at shipping of this product (as of September 2014) is “0”.

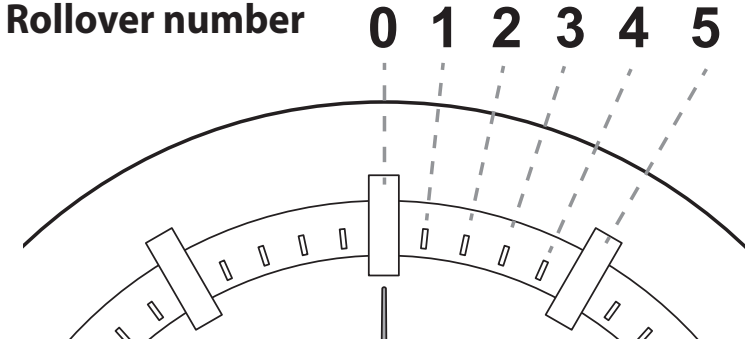
* Called “Week number”. Weeks are represented with numbers from 0 to 1023 (approx. 20-year cycle).

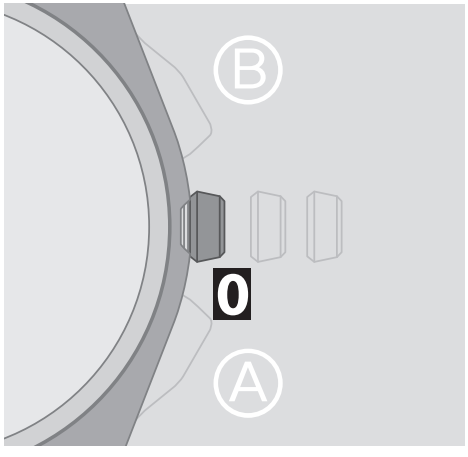


1 Pull the crown out to position 2.
The second hand points to 0 second.

2 Press and release the upper right button B.
The second and minute hands indicate the leap second setting.

3 Press and hold the upper right button B for 5 seconds or more.
The second hand indicates the current rollover number setting.





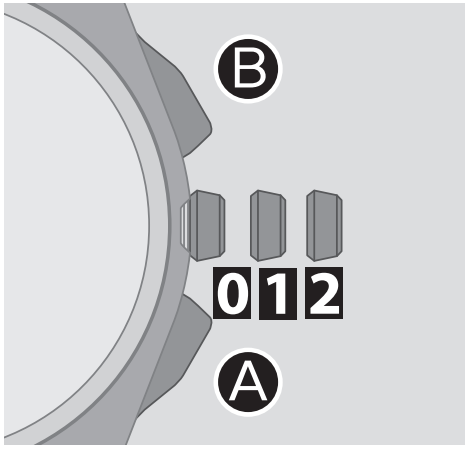
4 Turn the crown to adjust the setting if it is not correct.

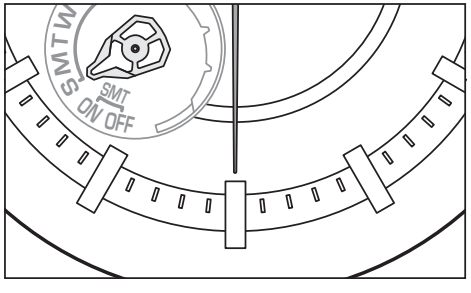
- Adjustable range is from “0” to “5”.
- See the table below and set the correct rollover number.

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

Time period (Coordinated Universal Time, GMT)	Rollover number
22/8/1999 (Sun) 0:00 –	0
7/4/2019 (Sun) 0:00 –	1
21/11/2038 (Sun) 0:00 –	2
7/7/2058 (Sun) 0:00 –	3
20/2/2078 (Sun) 0:00 –	4
6/10/2097 (Sun) 0:00 – 22/5/2117 (Sat) 23:59	5

Adjusting the time and calendar manually





1 Pull the crown out to position 1 .

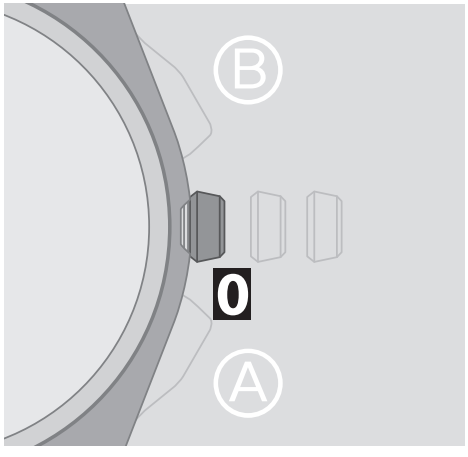
2 Press and hold the upper right button B until the second hand points to the 30 seconds position.

3 Pull the crown out to position 2 .

The second hand points to 0 second.

4 Press and release the lower right button A repeatedly to change the hand/indication to be corrected.

- Each time you press the button, the target changes as follows:
  Minute hand → hour hand → date → year/month → day → (back to the top)
- The hands and indications slightly moves when selected to show they become adjustable.



5 Rotate the crown to adjust the hand/indication.

- Year and month are indicated with the second hand. Set them referring to the next page.
- The function hand rotates 5 times for each change of date.
- When you rotate the crown quickly a few times, the hand/indication will move continuously. To stop the rapid movement, rotate the crown in either direction.

6 Repeat steps 4 and 5.

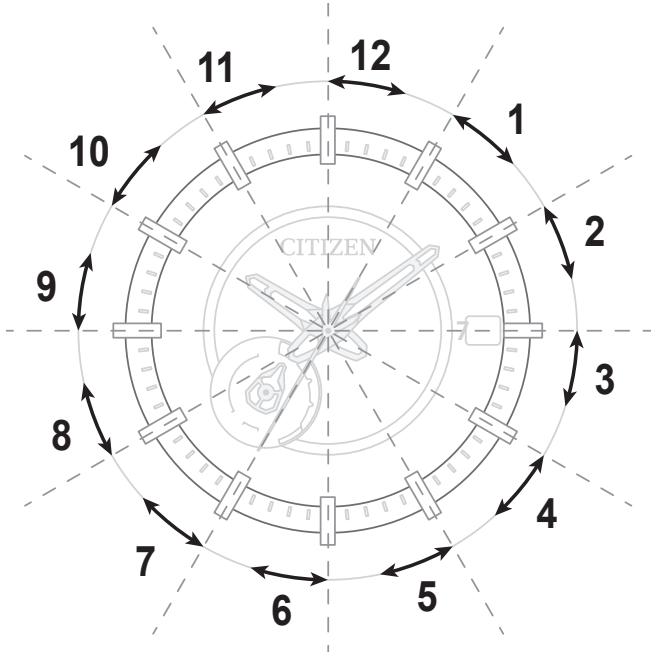
7 Push the crown in to position 0 in accordance with a reliable time source to finish the procedure.

The second hand starts moving from 0 second.

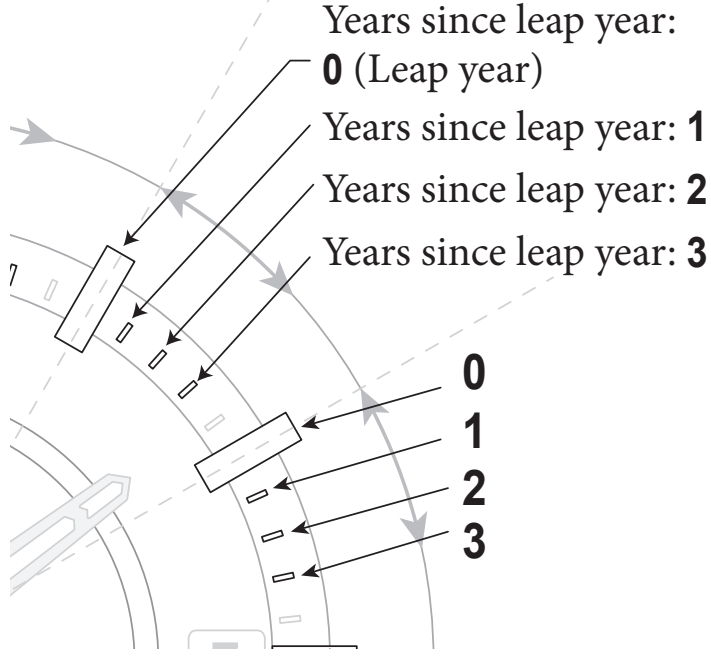
Month and year indications

Set the year and month with the position of the second hand.

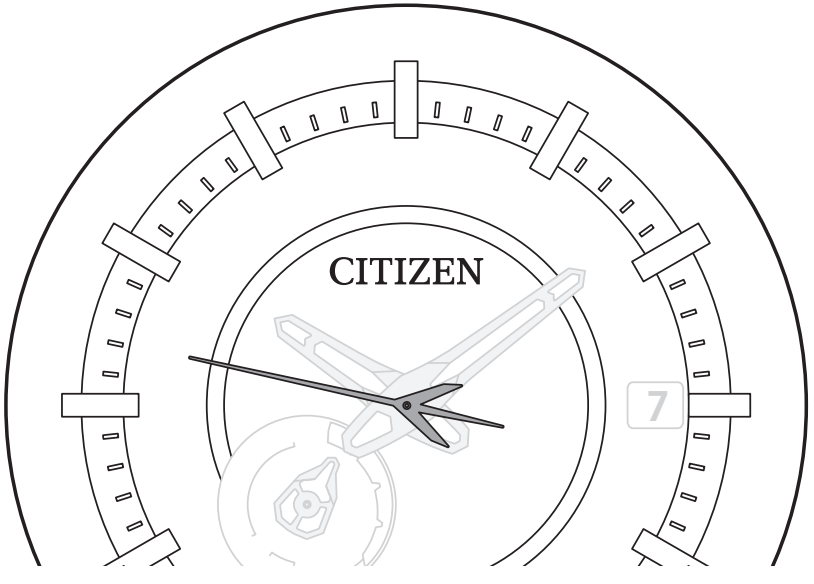
"Month" corresponds to one of the 12 zones shown in the figure below. Each number means month.



"Year" corresponds to the years since leap year and indicated with markers in the zone of each month.



Actual year	Years since leap year	Second hand position
2012, 2016, 2020, 2024	**0 (Leap year)**	Hour marker
2013, 2017, 2021, 2025	**1**	1st min. marker
2014, 2018, 2022, 2026	**2**	2nd min. marker
2015, 2019, 2023, 2027	**3**	3rd min. marker



Examples: Position of the second hand when setting September 2014

You can find that the years since leap year of 2014 is “2” from the table and the second hand must be set to the 2nd minute marker of September zone.

Checking and correcting the reference position

If the time or calender is not shown correctly even after proper reception of the time signal, check whether the reference position is correct.

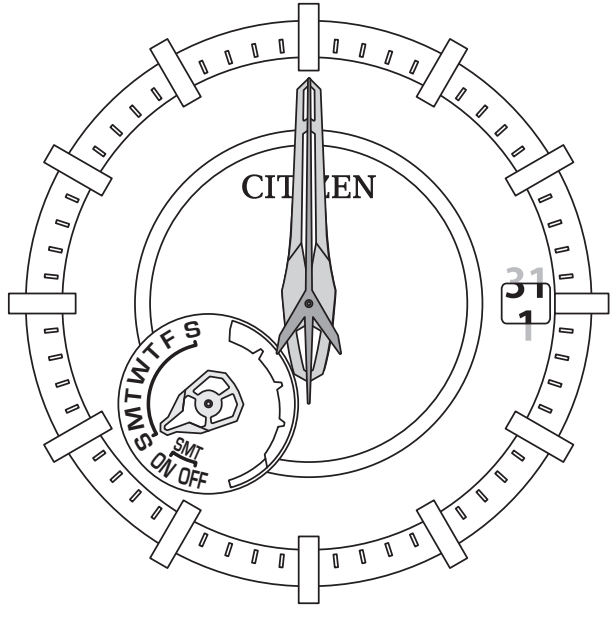
- If the hands and indication do not reflect the correct reference position, the time and calendar will not be indicated accurately even if the satellite time signal is received.

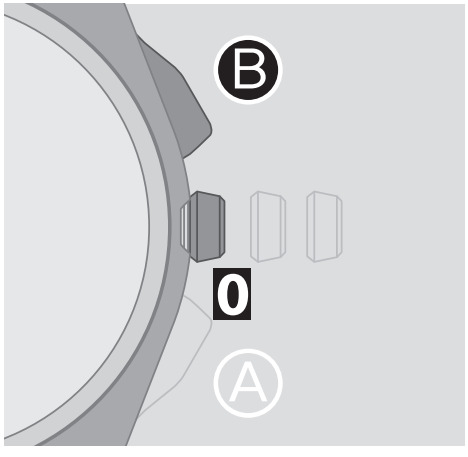
What is the reference position?

The base position of all hands and calendar to properly indicate the various functions of this watch.

- **Position of the hour hand: 0 hour**
- **Position of the minute hand: 0 minute**
- **Position of the second hand: 0 second**
- **Position of date: midway between 31 and 1**
- **Position of day: S (Sunday)**

Correct reference positions





1 Push the crown in to position 0 .

2 Press and hold the upper right button B for 7 seconds.

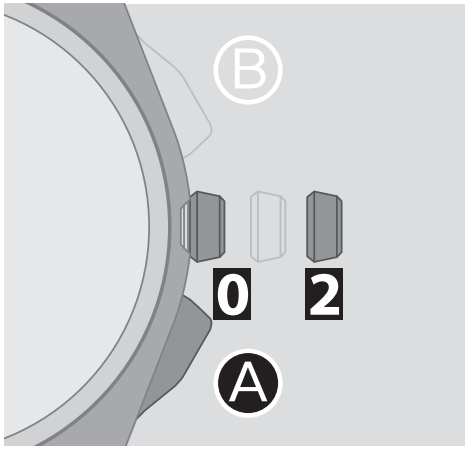
The current reference position is indicated after indicating the power reserve and power generation amount.

3 Check the current reference position.

Refer to the figure on the previous page.

Correct	**Press and release the upper right button B to finish the procedure.**
Wrong	Proceed to step 4 in the next page and correct the reference position.

- The watch returns automatically to the time indication as about 2 minutes passed without any operation.



4 Pull the crown out to position 2.

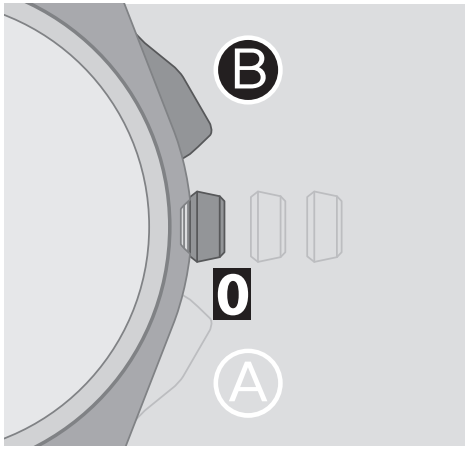
The function hands move slightly.

5 Press and release the lower right button A repeatedly to change the hand/indication to be corrected.

- Each time you press the button, the target changes as follows:
  Date/day → hour hand → minute hand → second hand → (back to the top)
- The hands slightly moves when selected to show they become adjustable.

6 Rotate the crown to adjust the hand/indication.

- When you rotate the crown quickly a few times, the hand/indication will move continuously. To stop the rapid movement, rotate the crown in either direction.



7 Repeat steps 5 and 6.

8 Push the crown in to position 0 .

9 Press and release the upper right button B to finish the procedure.

- The watch returns automatically to the time indication as about 2 minutes passed without any operation.

Troubleshooting

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

Symptom	Remedies	Page
Problems with time signal reception		
Reception is unsuccessful.	When the second hand moves once every two seconds, the watch cannot receive the time signal. Charge the watch.	***15***
	Avoiding places where the satellite signal may be obstructed and objects which emit noise. Face the dial towards the sky and start reception.	***36***
	Remove the watch from your wrist and try again.	**–**
	It may sometimes be difficult to receive the signal due to the influence of mobile telephone base stations or transmission facilities. Move away from any base stations and transmission facilities.	***36***

Symptom	Remedies	Page
Problems with time signal reception (continued)		
Reception is unsuccessful.	If the remedies above do not solve the problems, consult your nearest authorized Citizen service center.	–
The correct time and calendar are not indicated after successful reception.	Check the world time setting.	***24***
	Check the daylight saving time setting.	***30***
	Execute manual reception 2 if the time and calendar is still incorrect even after executing manual reception 1.	***37***
	Check and correct the reference position.	***54***
	Check and adjust the settings of leap second and rollover number.	***44, 47***

Symptom	Remedies	Page
Movement of a hand seems strange		
The power reserve is not indicated.	Charging may be stopped (non-chargeable state). Check it again at a location of suitable temperature.	*21*
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.	–
No hands move.	Push the crown in to position 0 and press and release the upper right button B.	*50*
	Charge the watch under direct sunlight until the second hand moves normally.	*16*
	If the remedies above do not solve the problems, consult your nearest authorized Citizen service center.	–

Symptom	Remedies	Page
Time/calendar is abnormal.		
Time/calendar is incorrect.	Check the world time setting.	***24***
	Check the daylight saving time setting.	***30***
	Receive the satellite time signal to adjust the time and calendar.	***37***
	Check and correct the reference position.	***54***
	Adjust the time and calendar manually.	***50***
Time is incorrect even though the world time setting is correct and reception of the satellite time signal succeeded.	Check the daylight saving time setting.	***30***
	Check and correct the reference position.	***54***
	Check and correct the leap second setting.	***44, 47***

Symptom	Remedies	Page
Charging and other problems		
The watch does not work even though it is charged.	If the surrounding temperature falls below 0°C (32°F) or exceeds 40°C (104°F), the "Charge suspension temperature detection function" will activate and charging will not be possible.	12
	If the "Over discharge detection function" is activated, charging is not possible. If the watch does not work after exposing the dial to direct sunlight for more than one day, it is possible that the rechargeable cell has over discharged. Consult the nearest authorized Citizen service center.	14

Symptom	Remedies	Page
Charging and other problems (continued)		
The watch stops immediately after it is charged.	Charge the watch for 2 to 3 days under direct sunlight. If the second hand starts moving once every two seconds the watch is being charged correctly. Continue charging even when the second hand starts moving normally. If there are no other defects, please consult your nearest authorized Citizen service center.	–

Resetting the watch — All Reset

When the watch does not work properly, you can reset all the settings. If the power reserve is insufficient, charge the watch first.

Be sure to perform the following operations after All Reset.

1. Correct the reference positions.

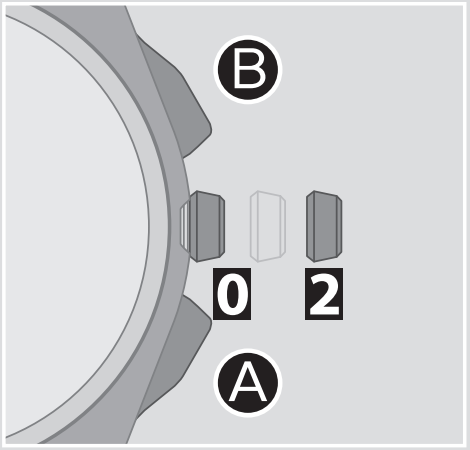
After the All Reset, the watch is in the reference position adjustment mode. Refer to step 4 and after on page ***56***.

2 Change the world time setting.

See page ***24***.

3. Adjust the time and calendar.

Adjustment using satellite time signals: page ***37***
Manual adjustment: page ***50***



1 Pull the crown out to position 2.

2 Press and hold buttons A and B at the same time for 3 seconds or more and release them.

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

The setting values after All Reset	
Calendar	January of leap year (5-second position)
World time	Time zone (offset) 0 (LON), London
Daylight saving time	OFF at all time zones
Leap seconds	No change after All Reset
Rollover number	

Eco-Drive watch handling precautions

<Always Make Sure to Recharge Frequently>

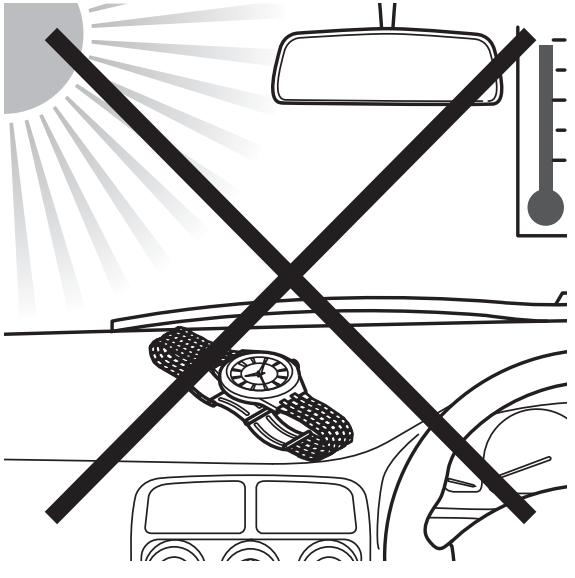
- For optimal performance, your watch should remain fully charged.
- Long sleeves may inhibit light transmission to your watch. This may result in your watch loosing charge. In these cases supplemental charging may be necessary.
- When you take off the watch, place it in a bright location to ensure optimal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



<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

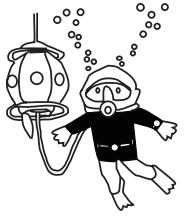
- Never use a battery other than the rechargeable cell specified for use in this watch.
  Although the watch structure is designed so that it will not operate when another type of battery is installed, if a conventional watch battery or other type of battery is installed in the watch and the watch is 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 “1bar” 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					
	Minor exposure to water (washing face, rain, etc.)	Swimming and general washing work	Skin diving, marine sports	Scuba diving using an air tank	 Saturation diving using helium gas	Operate the crown or button when the watch is wet
	NO	**NO**	**NO**	**NO**	**NO**	**NO**
	OK	**NO**	**NO**	**NO**	**NO**	**NO**
	OK	**OK**	**NO**	**NO**	**NO**	**NO**
	OK	**OK**	**OK**	**NO**	**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.

⚠ 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.

⚠ 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. Other shops may charge for, or may not provide, the service.

<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.

⚠ 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.

Specifications

Model	F100	**Type**	Analog solar-powered watch
Timekeeping accuracy (without reception)	Average monthly accuracy: ±5 seconds when worn at normal operation temperatures between +5°C (41°F) and +35°C (95°F)		
Operating temperature range	-10°C (14°F) to +60°C (140°F)		
Display functions	• Time: Hours, minutes, seconds • Calendar: Date, day	• Power reserve: 5 levels • Power generation amount: 7 levels	
Maximum run time from full charge	• After charged fully, the watch runs without additional charging In normal use: Approximately 2 years (When saving power: Approximately 7 years) • Power reserve upon insufficient charge warning function: Approximately 5 days		
Battery	Rechargeable cell (lithium button cell), 1pc.		

Additional functions	• Solar power function • Overcharging prevention function • Insufficient charge warning function (two-second interval movement) • Over discharge detection function • Charge suspension temperature detection function • Uncharged state indication function • Power reserve indication (in five levels) • Light-Level Indicator (power generation amount indication function in seven levels) • Power save function • Satellite time signal reception function (manual reception 1/2)	• Confirming reception status (RX) • Indicating the result of the last reception (OK/NO) • World time (40 time zones (27 place names)) • Daylight saving time (SMT ON/OFF) • Perpetual calendar (until February 28th, 2100)

Specifications and contents of this booklet are subject to change without prior notice.

CE

This product follows the provisions of R&TTE Directive (1999/5/EC) and RoHS Directive (2011/65/EU). You can find your product's Declaration of Conformity at:
http://www.citizenwatch-global.com/declaration/index.html

RF	ETSI EN300 440-2 V1.4.1
EMC	ETSI EN301 489-3 V1.4.1
LVD	EN60950-1 : 2006 +A12 : 2011

Model No.CC2*
Cal.F100
CTZ-B8182