CITIZEN®

INSTRUCTION MANUAL

Eco-Drive®

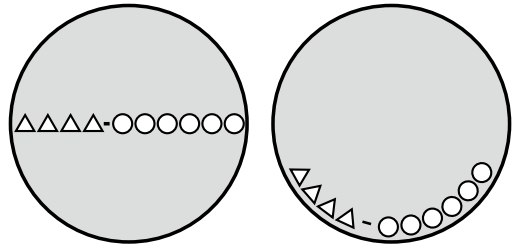
Thank you for your purchase of this Citizen watch.
Before using the watch, read this instruction manual carefully to ensure correct use.
After reading the manual, store it in a safe place for future reference.
Be sure to visit the Citizen website at http://www.citizenwatch-global.com/ .
Here you will 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 ***74*** to ***85***) 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 Wave-GPS
Receives location and time information sent from GPS satellites and adjusts the time and calendar on the watch automatically.

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

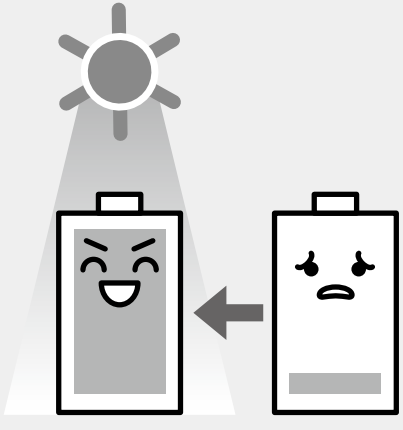
Before using this watch

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 signal (page *46*)**



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*.

- Especially, satellite signal reception is power-consuming. Be sure to keep your watch sufficiently charged.

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

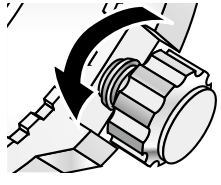
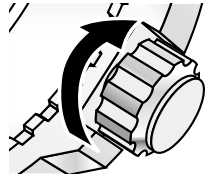
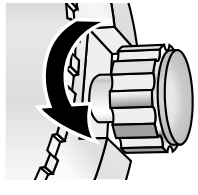
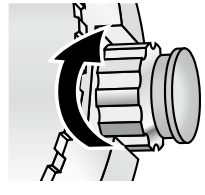
Be sure to remove any protective stickers that may be on your watch (case back, band, clasp, etc.). Otherwise, perspiration or moisture may enter the gaps between the protective stickers and the parts, which may result in a skin rash and/or corrosion of the metal parts.

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.

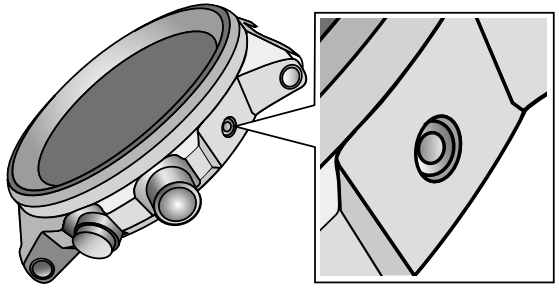
Screw down crown/button

Unlock the crown/button prior to operate your watch.

	Unlock		Lock	
Screw down crown		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.

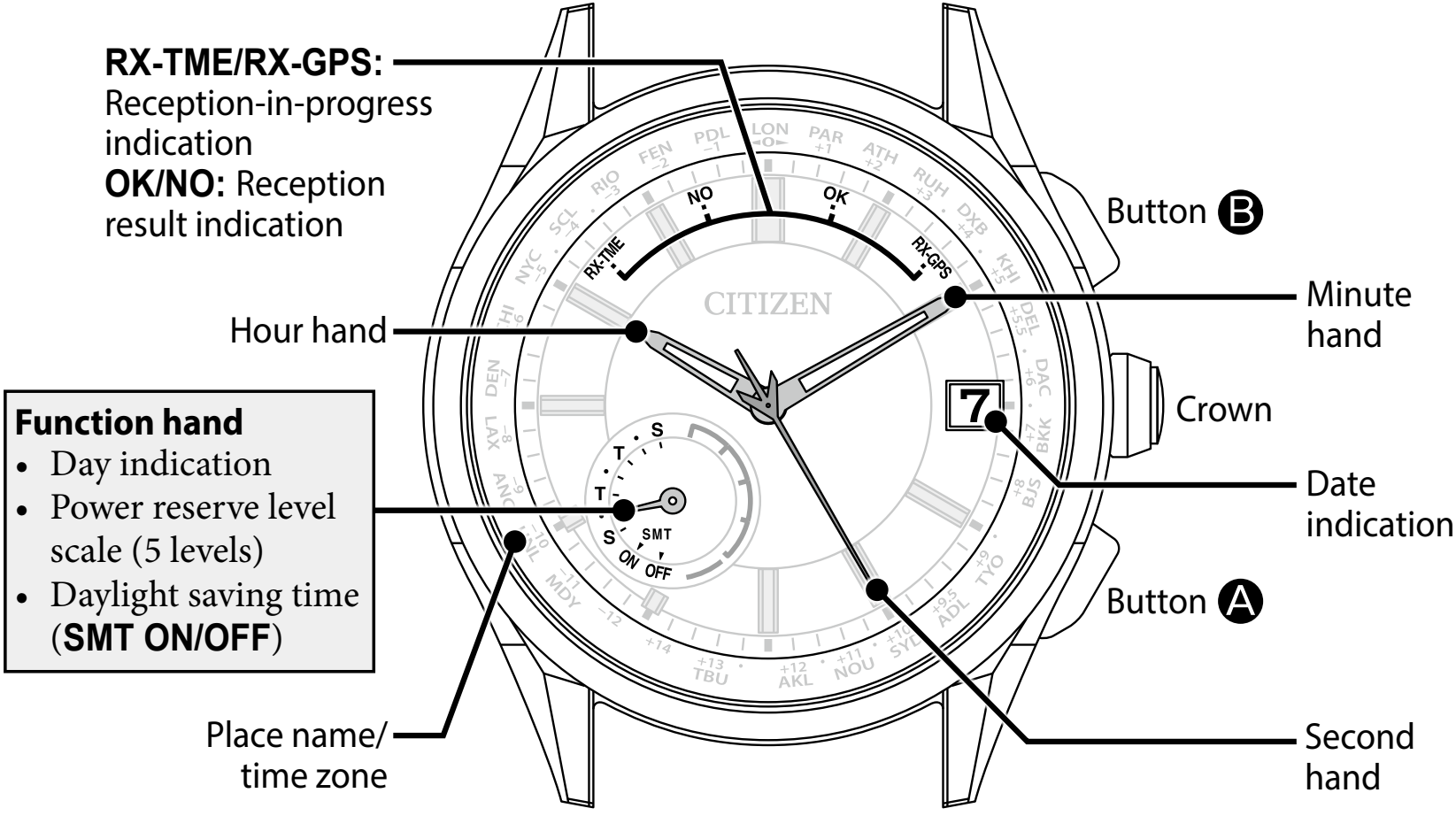
Recessed button

Use a thing with a thin end to press and release the button.



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

Component identification

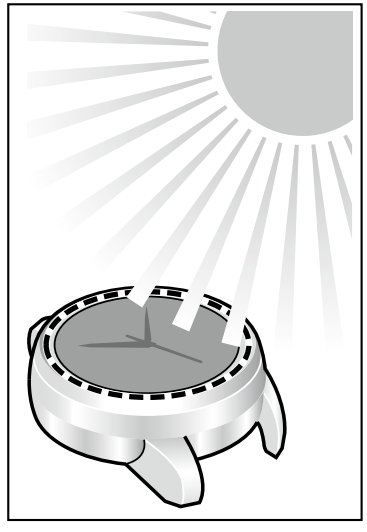


- The illustrations in this instruction manual may differ from the actual appearance of your watch.
- A solar cell is under the dial.

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 for long periods of time.**

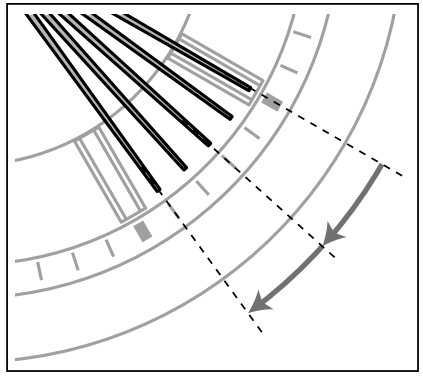


CAUTION

- 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 obtainment of location information or reception of satellite 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	4.5 hours	30 hours
Outdoors (cloudy)	10 000	25 minutes	45 hours	300 hours
20 cm (8 inches) away from a fluorescent lamp (30 W)	3 000	1.5 hours	160 hours	1040 hours
Interior lighting	500	7.5 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.

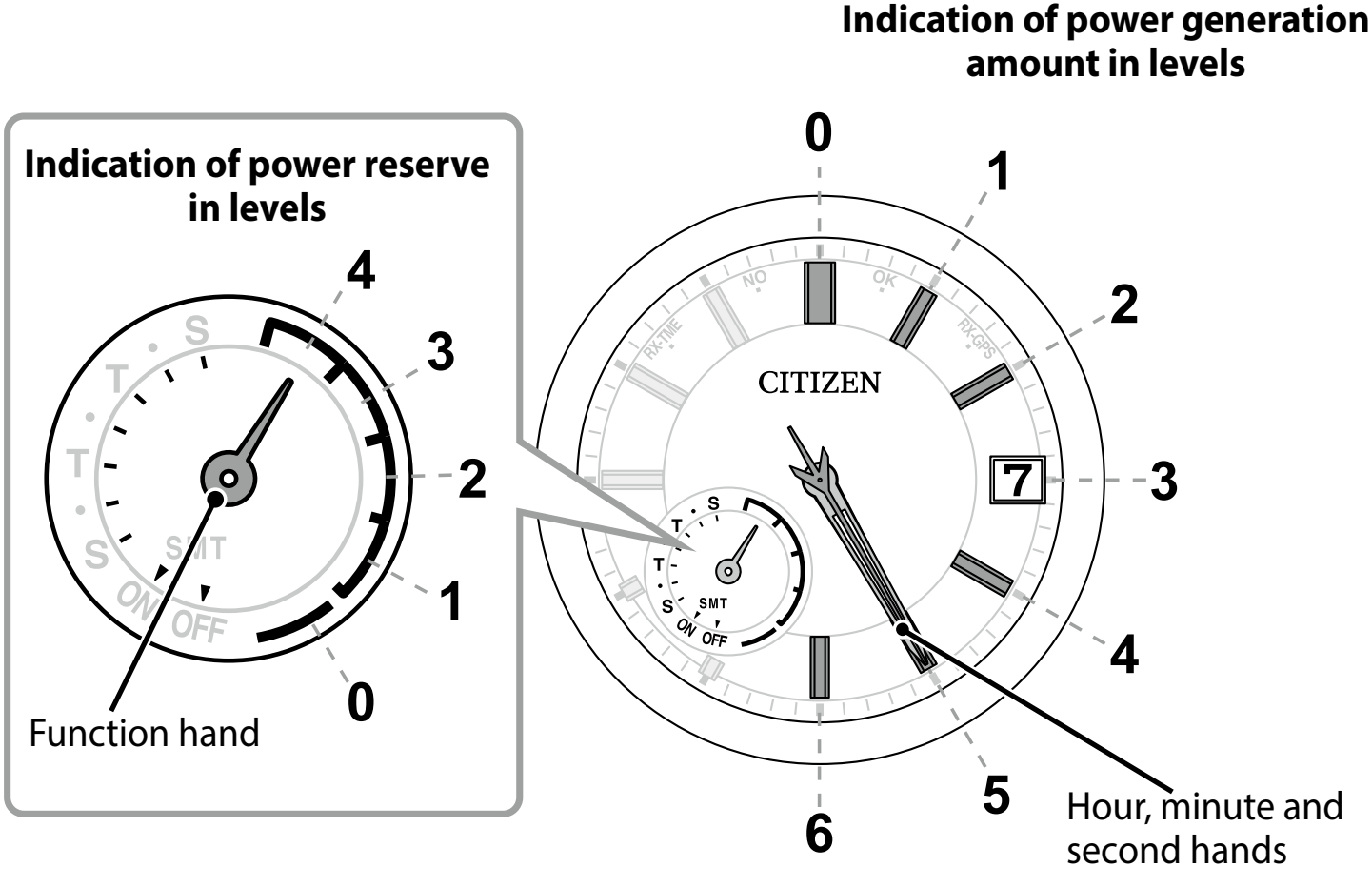
Duration without additional charging after charging the watch fully

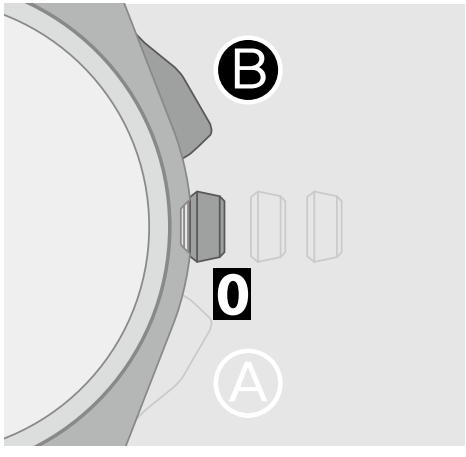
About 2 years in normal use.

- When receiving time signals every 6 days.
- The watch will keep running internally for up to 7 years with the power save function.

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 levels.

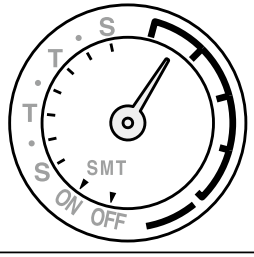
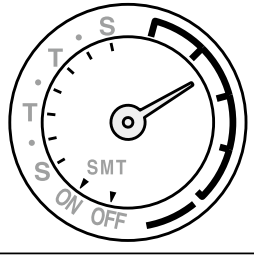
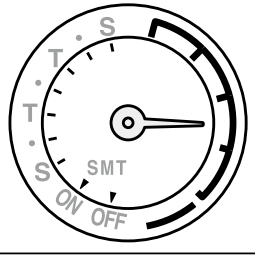
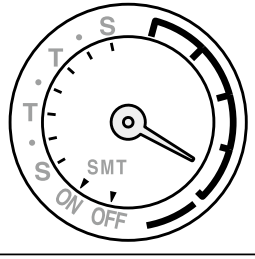
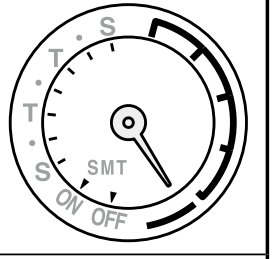
- **Power reserve level**: page ***20***
- **Level of power generation amount**: page ***22***

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 levels

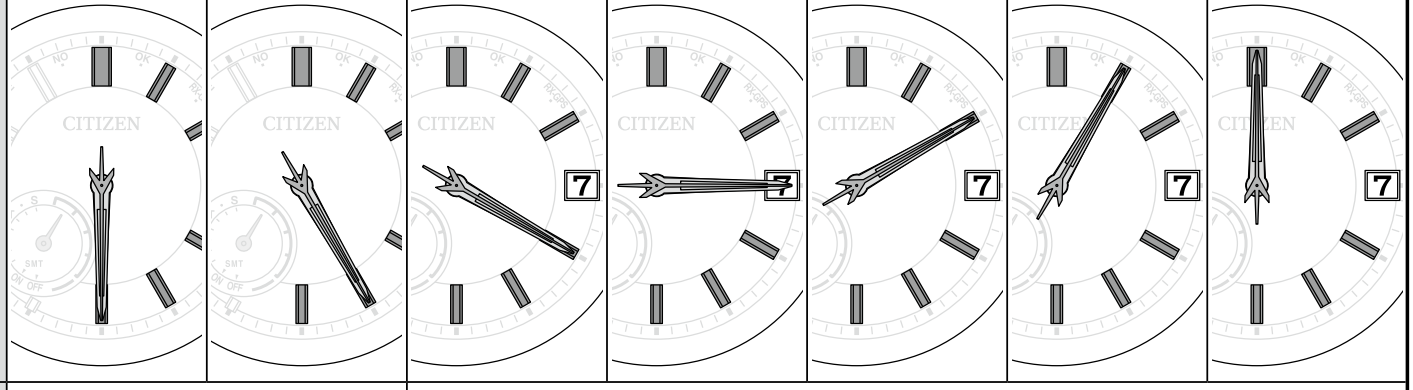
Level	4	3	2	1	0
Power reserve level scale					
Duration (approx.)	24 - 19 months	19 - 14 months	14 - 5 months	5 months - 5 days	5 days or shorter
Meaning	Power reserve is sufficient.	Power reserve is OK.		Power reserve is getting low.	Insufficient charge warning has started.
	OK for normal use			**Charge 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 function hand points to “OFF” and does not indicate the level of power reserve 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 levels

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

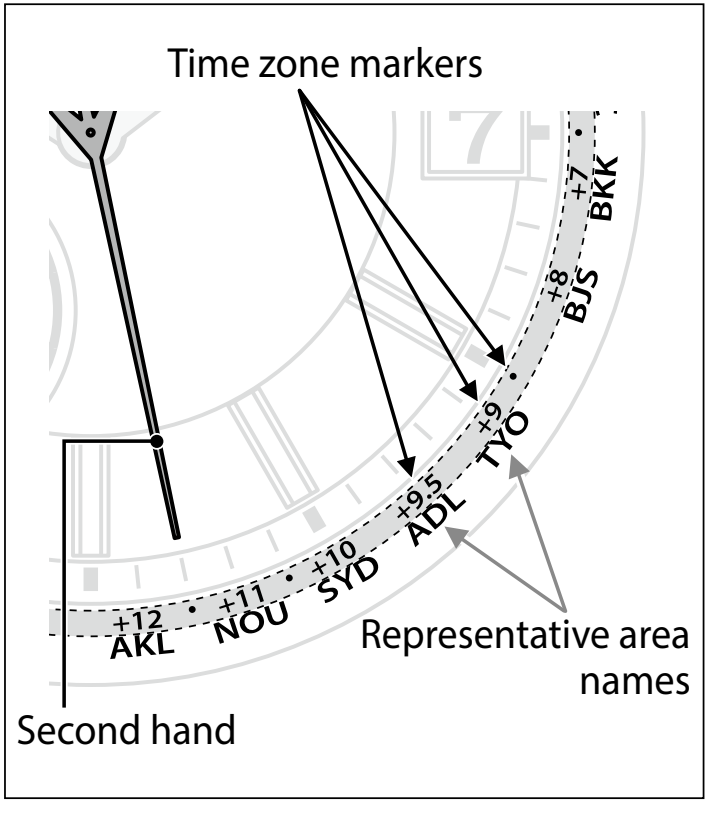
This watch can indicate the time around the world according to which of 40 time zones (offsets from UTC—Coordinated Universal Time) is chosen.
You can set offsets from UTC through any of the two ways below.

Method	What to set
Obtaining location information from satellite signal (page 31)	A time zone is set automatically and time and calendar are adjusted based on the chosen zone.
Setting the time zone manually (page 33)	A time zone is chosen manually.

- Daylight saving time information is not contained in the satellite signal. Adjust the setting manually before and after the daylight saving time period (page ***44***).

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.
- Time zone markers and area names may differ from the illustration in some models.

Table of time zones and representative places

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

Time zone	Second hand	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	Second hand	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
+12.75	31 sec.	**—**	Chatham Islands

Time zone	Second hand	Area name	Representative area
+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
-4.5	51 sec.	**—**	Caracas
-4	52 sec.	**SCL**	Santiago
-3.5	53 sec.	**—**	St. John's

Time zone	Second hand	Area name	Representative area
-3	54 sec.	**RIO**	Rio de Janeiro
-2	56 sec.	**FEN**	Fernando de Noronha
-1	58 sec.	**PDL**	Azores

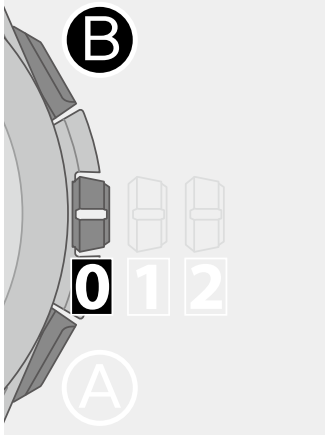
- The offsets in the table are based on the standard time.
- When choosing a time zone for a country or area that observes summer time during the summer period, first apply its time zone then activate the summer time setting (page ***44***).

Obtaining location information from satellite signal

It is recommended to receive the satellite signals outdoors with the wide-open sky. For details, see "Information on satellite signal reception" (page *46*).

A time zone is set automatically by obtaining location information and time and calendar are consequently adjusted based on the chosen zone.

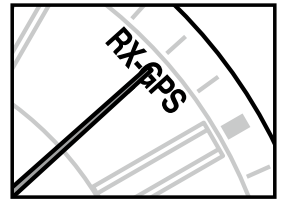
• It may take 30 seconds - 2 minutes to obtain location information.



1 Push the crown in to position 0.

2 Press and hold the upper right button B until the second hand points "RX-GPS" (about 4 seconds).

The current time zone setting is indicated and signal reception starts.



After finishing the reception, the second hand indicates the new setting and returns to indicate the second.

- To cancel the reception, press and hold any button until the second hand returns to indicate the second.

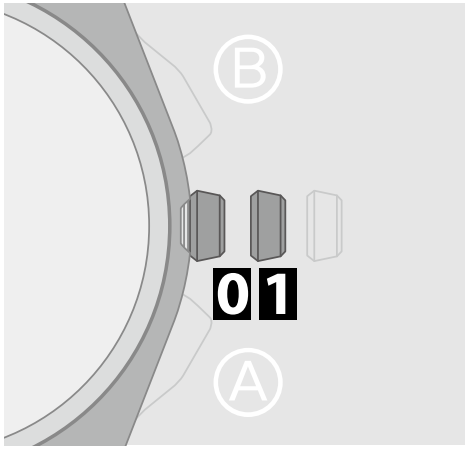
About obtaining location information

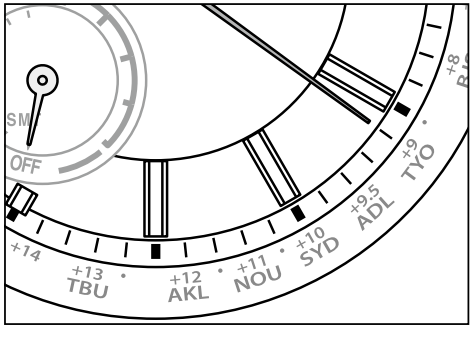
The time zone may not set appropriately when location information is obtained in a border of time zones, even if the information is correct.

- You can also execute time zone setting manually. (page ***33***)

* Each time zone is based on data as of January 2015.

Setting the time zone manually





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 ***44***).

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 second hand returns to indicate the second.

Receiving time information

It is recommended to receive the satellite signals outdoors with the wide-open sky. For details, see "Information on satellite signal reception" (page *46*).

You can use the three types of reception below to receive time information. You can also check the result of the previous reception (success or fail). (page ***42***)

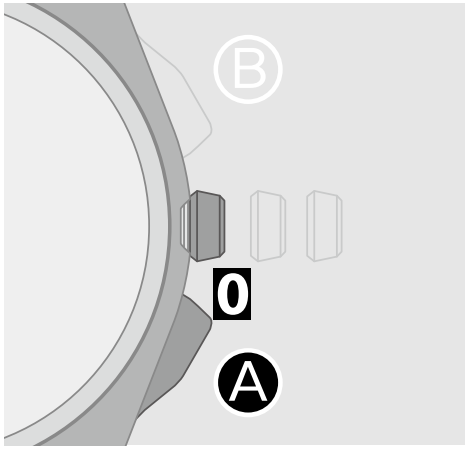
Type	Use	Time required (approx.)
Time reception (page 36)	Normal reception for time and calendar adjustment	3 - 30 seconds
Leap second reception (page 38)	Reception when the leap second has been updated	36 seconds - 13 minutes
Automatic time reception (page 40)	Reception executed automatically when some conditions are fulfilled.	3 - 30 seconds

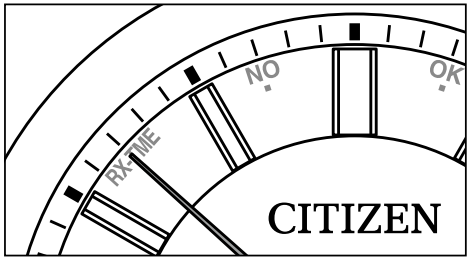
- Location information is not obtained while receiving time information. Execute world time setting (page ***24***) beforehand.

Time reception (time required: about 3 - 30 seconds)

Reception for time and calendar adjustment.

- It may take more time for reception when difference in time is large or calendar was set manually.





1 Push the crown in to position 0 .

2 Press and hold the lower right button A until the second hand points "RX-TME" (about 2 seconds).

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

- To cancel the reception, press and hold any button until the second hand returns to normal movement.

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

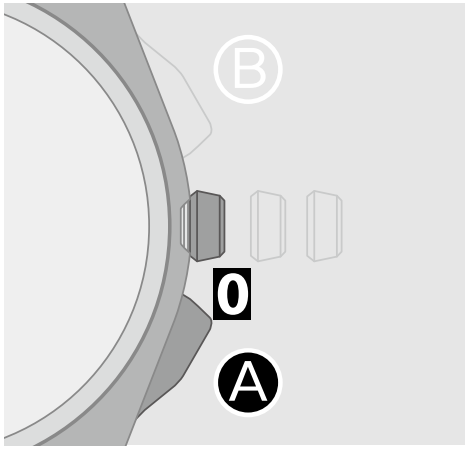
Check the settings of world time (page ***24***) and daylight saving time (page ***44***). If the time or calendar is still incorrect after that, execute leap second reception (page ***38***). The leap second may be updated.

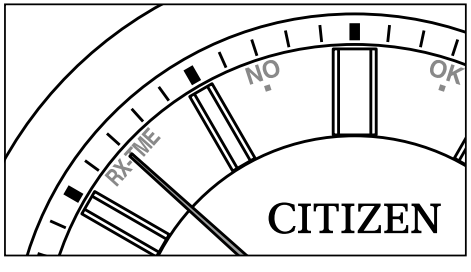
- Daylight saving time information is not contained in the satellite signal.

Leap second reception (time required: about 36 seconds - 13 minutes)

Reception to be executed when the leap second has been updated.

- You can also execute leap second setting manually. (page ***52***)





1 Push the crown in to position 0 .

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

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

- To cancel the reception, press and hold any button until the second hand returns to normal movement.

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 ***44***).

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

Automatic time reception

The watch starts time reception automatically when the conditions below are fulfilled:

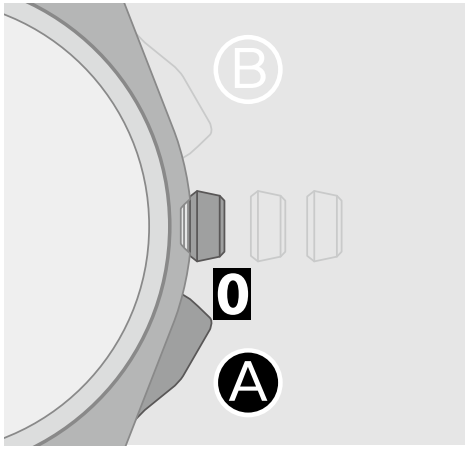
- The watch has not received satellite signals for 6 or more days.
- The watch dial is being exposed to strong direct sunlight for 20 seconds or more.
- The time on it is between 6:00AM and 6:00PM.
- The second hand does not move in two-second interval (page ***14***).

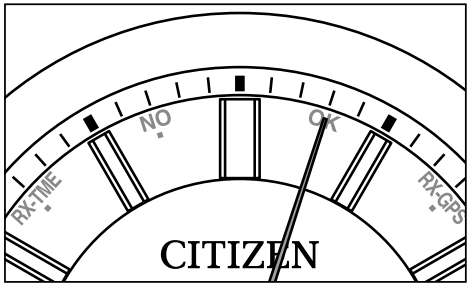
About automatic time reception

Automatic time reception may be delayed in the following cases:

- The second hand started to move once every two seconds (insufficient charge warning) after the last time reception.
  Automatic time reception is executed 6 days or more after the insufficient charge warning stopped by charging the watch.
- Time zone setting was changed.
  Automatic time reception is executed 6 days or more after the moment of the changing of the setting.

Checking the previous reception result of the satellite signal

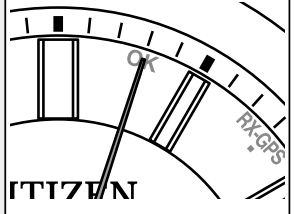
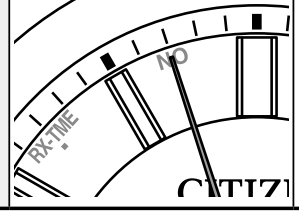




1 Push the crown in to position 0.

2 Press and release the lower right button A.

The previous reception result is indicated.

OK		Reception was successful.
NO		Reception failed.

- The indication shows the result of the last reception, regardless types of received information or information of location or time.

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.

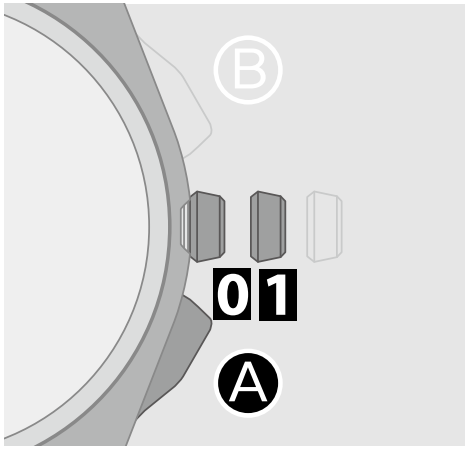
About the reception result

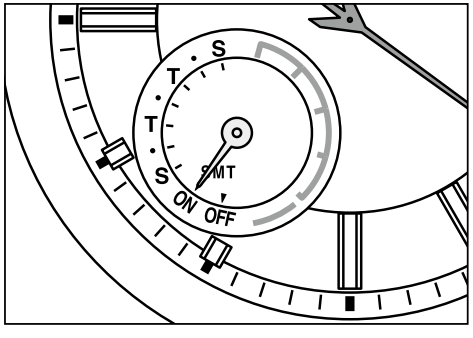
The previous reception result is stored for 6 days and “NO” is indicated after that.

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 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.

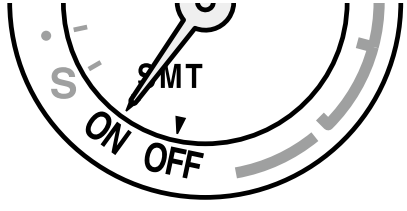
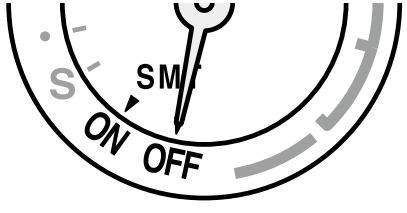




1 Pull the crown out to position 1.

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 second hand returns to indicate the second.

Information on satellite signal reception

This watch receives time information from satellites to indicate the time and calendar.
It also obtains location information from them to indicate time appropriate in the area where it is actually used.

For receiving the satellite signal

Satellite signal reception is power-consuming. Be sure your watch has a sufficient charge before executing reception.

- This watch keeps moving in average monthly accuracy of ±5 seconds even without receiving the satellite signal.
- Use the function to see the result of the previous reception (success or fail) (page ***42***) effectively to try to execute reception in best frequency.

Cautions regarding receiving the satellite signal

Do not perform 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 signal reception. Charge the watch sufficiently before attempting signal reception.
- Even when this watch receives the 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.
- Summer time information is not contained in the satellite signal. Adjust the setting manually before and after the summer time period. (page ***44***)

When receiving the satellite signal

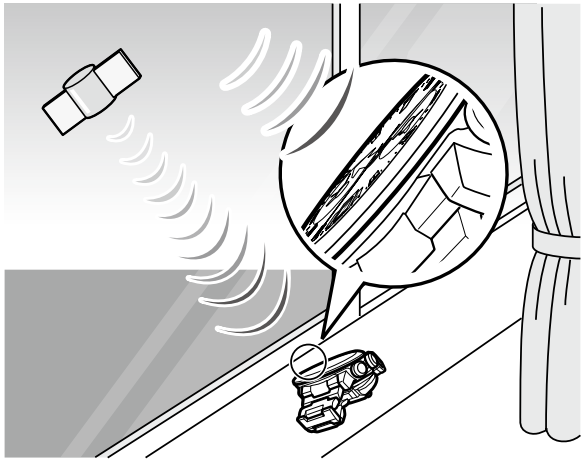
As shown in the picture below, make sure you are in an area with few surrounding trees, buildings, or other objects which may obstruct the satellite signal. Face the dial towards the sky and perform signal reception.

- For successful reception there should be a clear view of the sky as depicted in the illustration when attempting to receive the satellite signal.
- Reception may fail due to the positions of satellites when you try to receive their signals.

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 to the sky.

- Signal reception from some satellites is required for obtaining location information. It is possible that location information cannot be obtained while time information can be received in the same place.
  Outdoor signal reception is recommended for obtaining location information.
- It may be difficult to receive satellite signals through special types of window glass.



Poor reception areas

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

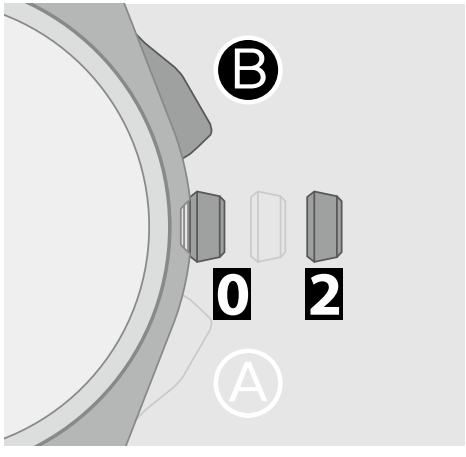
Areas with obstructions above the watch	Nearby objects which emit magnetism or electrical interference
• Indoors or underground • Areas surrounded by tall buildings or trees • When the weather is cloudy or rainy, or during a thunderstorm etc.	• High-voltage electric cables, railway lines / overhead cables,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

Checking and adjusting leap second setting

This watch displays the time by applying the leap second to the International Atomic Time information received from satellites.
The leap second may be applied once per some years and the leap second setting on the watch must be adjusted each time it applied.

- The leap second setting can be adjusted by executing leap second reception (page ***38***). It can also be set manually.

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

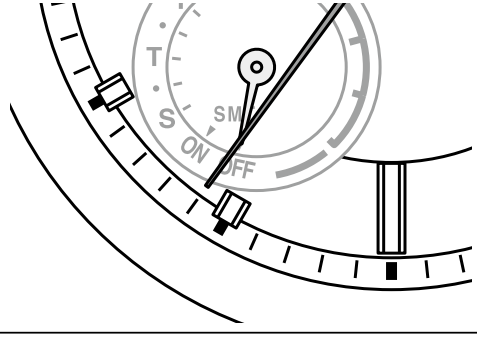
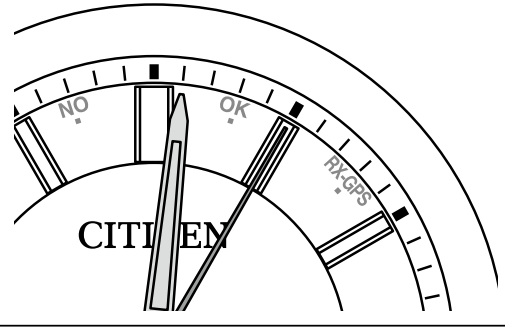


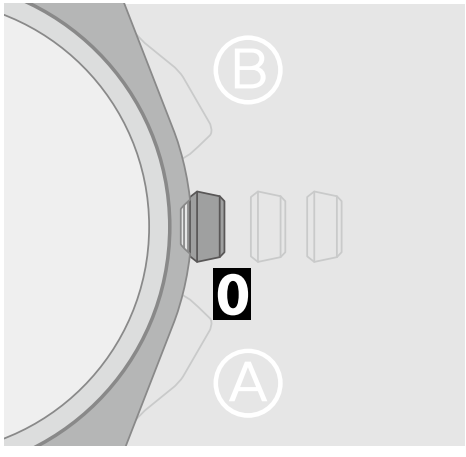
1 Pull the crown out to position 2.

The second hand points to the 0 second.

2 Press and hold upper right button B for 2 seconds or more.

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 "-36 seconds"	When the leap second setting is "-65 seconds"
	
The hands point to "0 minute 36 seconds".	The hands point to "1 minute 5 seconds".



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

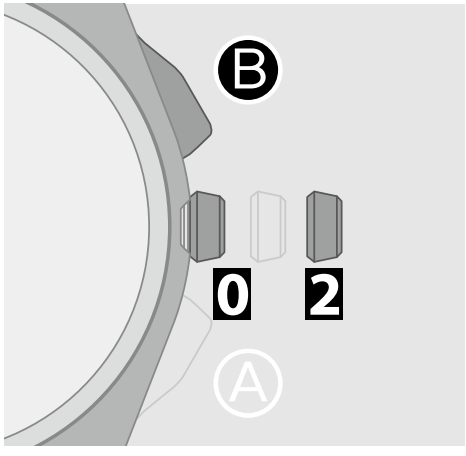
- Adjustable range is from 0 to −90 seconds.

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 are normally 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.

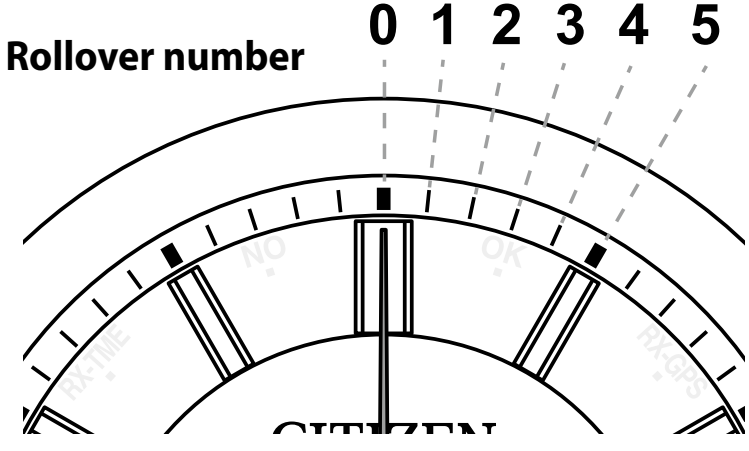
* Called “Week number”. Weeks are represented with numbers from 0 to 1023 (approx. 20-year cycle).

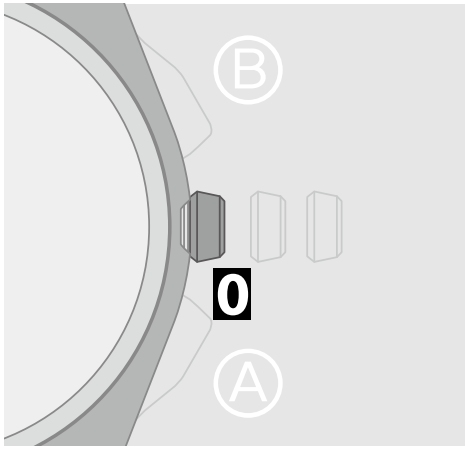


1 Pull the crown out to position 2.
The second hand points to 0 second.

2 Press and hold upper right button B for 2 seconds or more.
The second and minute hands indicate the leap second setting.

3 Press and hold the upper right button B for 7 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.

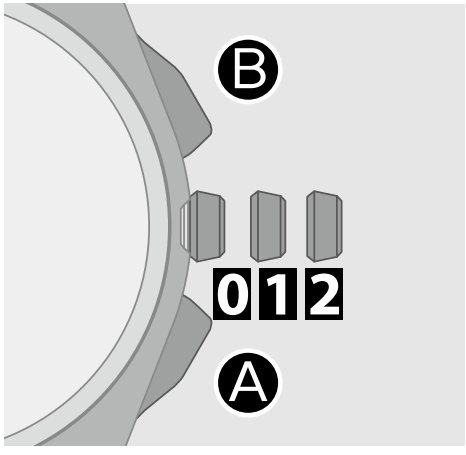
- Adjustable range is from “0” to “5”.
- See the table below and set the correct rollover number.

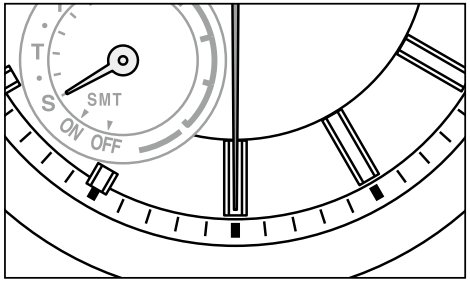
5 Push the crown in to position 0 to finish the procedure.

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

• Execute world time setting (page ***24***) beforehand.





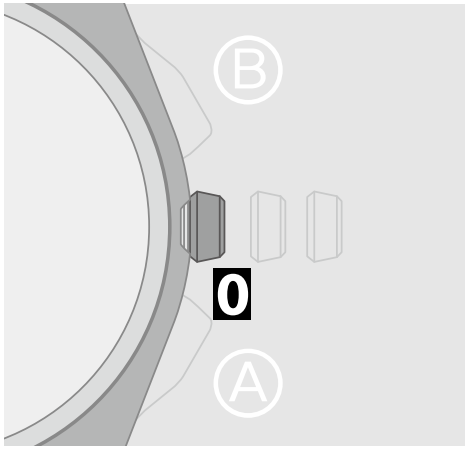
1 Pull the crown out to position 1.

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.

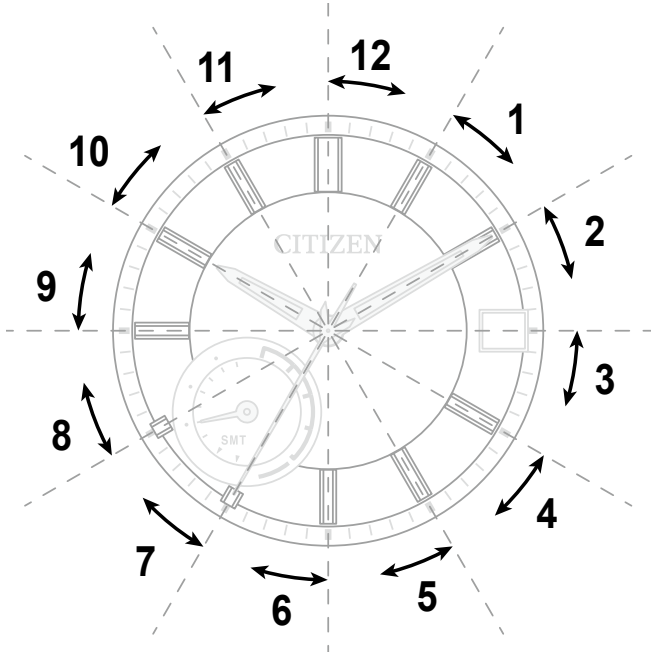
7 Push the crown in to position 0 in accordance with a reliable time source to finish the procedure.

The second hand starts moving from 0 second.

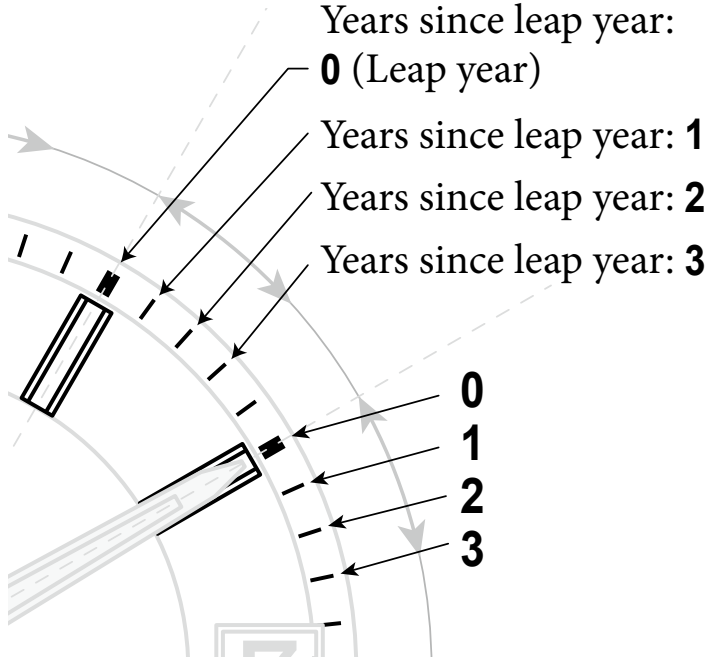
Month and year indications

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

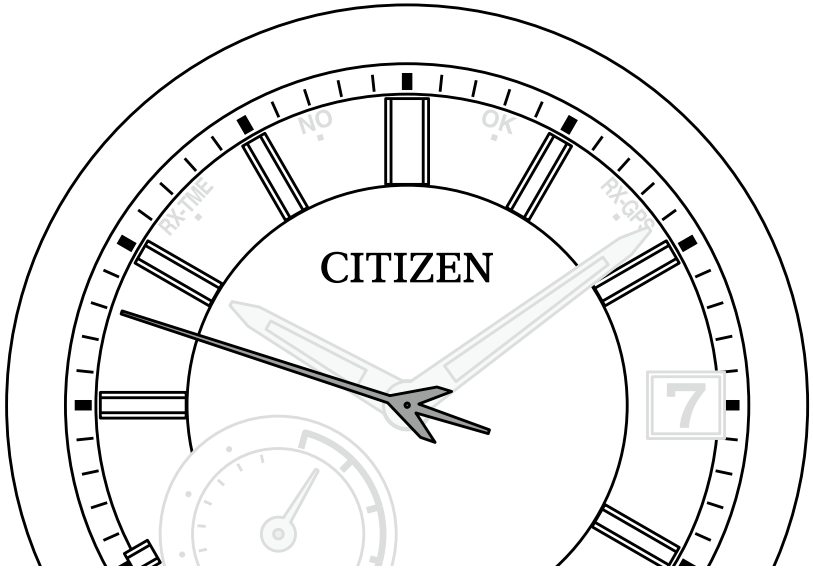
"Month" corresponds to one of the 12 zones shown in the figure below. Each number means month.



"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
— 2016 2020 2024	**0 (Leap year)**	Hour marker
— 2017 2021 2025	**1**	1st min. marker
— 2018 2022 2026	**2**	2nd min. marker
2015 2019 2023 2027	**3**	3rd min. marker



Examples: Position of the second hand when setting September 2015
You can find that the years since leap year of 2015 is “3” from the table and the second hand must be set to the 3rd 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.

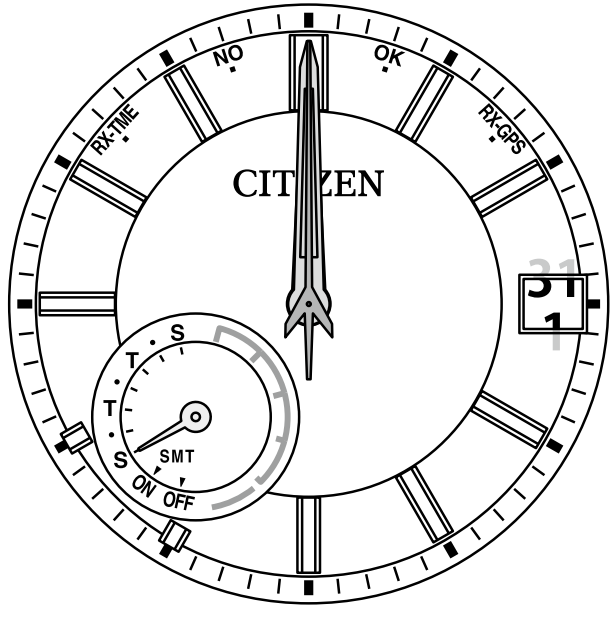
- If the hands and indication do not reflect the correct reference position, the time and calendar will not be indicated accurately even if the satellite signal is received.

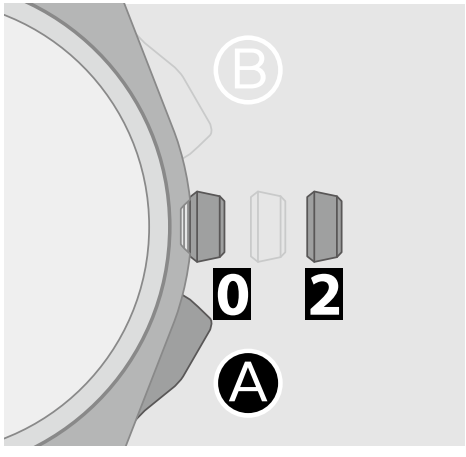
What is the reference position?

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 Pull the crown out to position 2.

2 Press and hold the lower right button Ⓐ for 4 seconds.

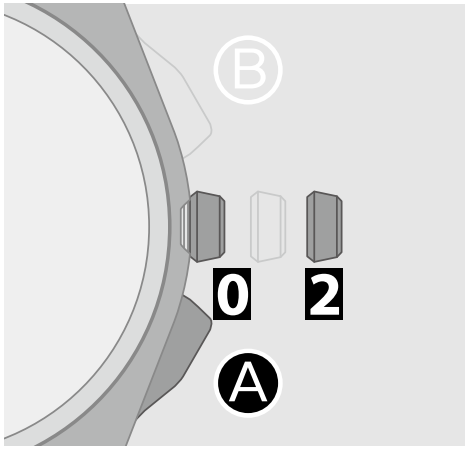
The hands and date start to move to the current reference positions stored in memory.

- Release the button as the hands start to move.
- Some hands shows special movement to adjust their position.

3 Check the current reference position.

Refer to the figure on the previous page.

Correct	**Push the crown in to position 0 and press and release the lower right button Ⓐ to finish the procedure.**
Wrong	Proceed to step 4 in the next page and correct the reference position.



4 Press and release the lower right button Ⓐ.

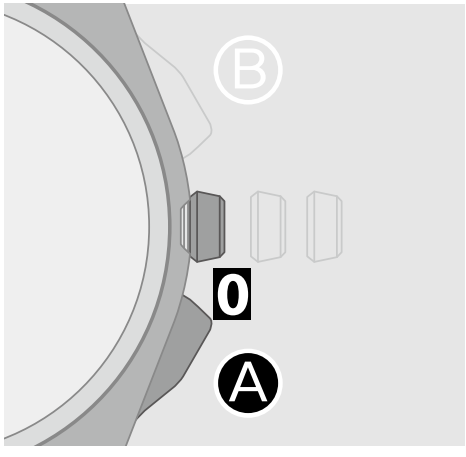
The function hands move slightly.

5 Press and release the lower right button Ⓐ 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 lower right button Ⓐ 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 satellite signal reception		
Reception is unsuccessful.	When the second hand moves once every two seconds, the watch cannot receive the 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.	***51***
	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.	***51***

Symptom	Remedies	Page
Problems with satellite signal reception (continued)		
Reception is unsuccessful.	If the remedies above do not solve the problems, consult your nearest Customer 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.	***44***
	Execute leap second reception if the time and calendar is still incorrect even after executing time reception.	***38***
	Check and adjust the settings of leap second and rollover number.	***52,55***
	Check and correct the reference position.	***62***

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.	***58***
	Charge the watch in direct sunlight until the second hand moves normally.	***16***
	If the remedies above do not solve the problems, consult your nearest Customer 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.	**44**
	Receive the satellite signal to adjust the time and calendar.	**34**
	Check and correct the reference position.	**62**
	Adjust the time and calendar manually.	**58**
Time is incorrect even though the world time setting is correct and reception of the satellite signal succeeded.	Check the daylight saving time setting.	**44**
	Check and correct the leap second setting.	**52,55**
	Check and correct the reference position.	**62**

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.	***13***
	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 your nearest Customer 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 in 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 no change can be seen, consult your nearest Customer 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.

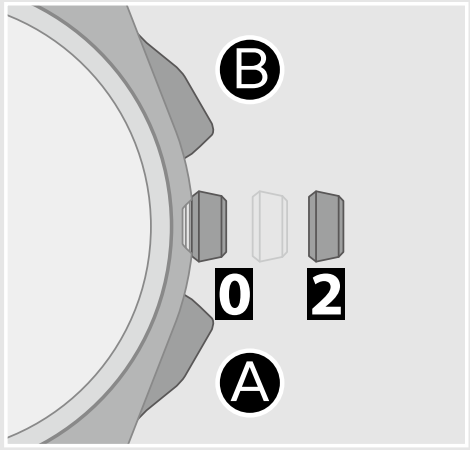
Be sure to perform the following operations after All Reset.

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 ***64***.

2 Set the world time.

Obtaining location information: See page ***24***.
When you set it manually, execute also time and calendar setting (page ***34*** or ***58***).



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>

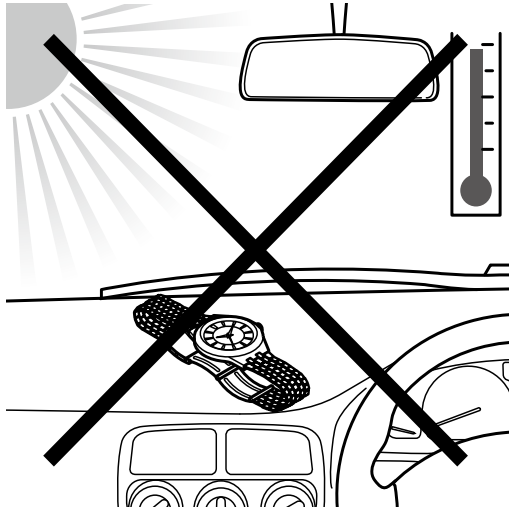
- **For optimal performance, your watch should remain fully charged.**
- **Long sleeves may inhibit light transmission to your watch. This may result in your watch loosing charge. In these cases supplemental charging may be necessary.**
- **When you take off the watch, place it in a bright location to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

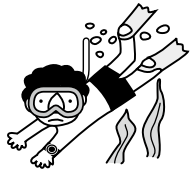
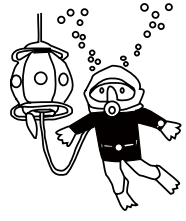
Water resistance

⚠ 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.
- 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.

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

- 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.

	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**

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.

- 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.

⚠ 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	F150	**Type**	Analog solar-powered watch
Timekeeping accuracy (without reception)	Average monthly accuracy: ±5 seconds when worn at normal operating 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	• When fully charged, 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 signal reception function • Location information obtainment function	• Confirming reception status (RX-TME/RX-GPS) • 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) • Antimagnetic feature/ Impact detection function/ Automatic hand correction function (for hour, minute and second hands)

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

European Union directives conformance statement

CE Hereby, CITIZEN WATCH CO.,LTD. declares that this product is in compliance with the essential requirements and other relevant provisions of directive 2014/53/EU and all other relevant EU directives.
You can find your product's Declaration of Conformity at "http://www.citizenwatch-global.com/ ".

Model No.CC30*
Cal.F150
CTZ-B8183①