



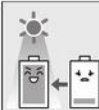




## Before using this watch

The following three operations must be done before using the watch:

- 1 **Checking the current power reserve** (page 3)
- 2 **Setting the time zone** (page 3)
- 3 **Checking the reception result of the time signal** (page 5)



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 page 8.

## 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 (excluding products containing the band adjustment tool).

Consult an authorized 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.

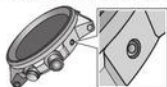
### ■ Screw down crown/button

Unlock the crown/button prior to operate your watch.

	Unlock	Lock
<b>Screw down crown</b>	Rotate the crown counterclockwise until it releases from the case.	Push the crown into the case. With gentle pressure towards the case, rotate the crown clockwise to secure it to the case. Be sure to tighten firmly.
<b>Screw down push button</b>	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.

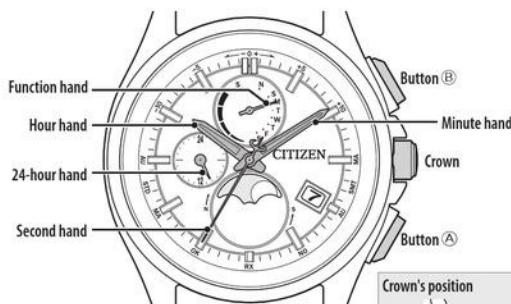


- Metal objects may cause marring or scratching of the button.

## Component identification

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

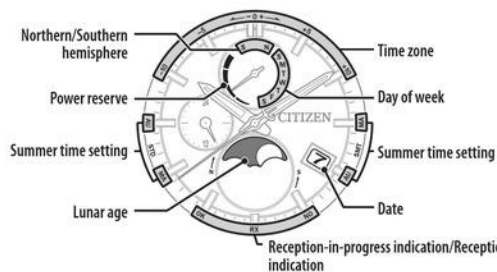
## Hands and buttons



Crown's position



## Indication



- A solar cell is placed under the dial.



## Summer time

### About summer time

Summer time is a system adopted in some countries/areas to gain an extra daylight during summer.

- The summer time period varies depending on the country or area.
- The summer time rules may change depending on the country or area.

### About summer time setting

- The standard time signals contain summer time signals, which tells it is summer time or not now.
- This watch can change summer time/standard time indication automatically by receiving summer time signals.
- You can set summer time on or off for each time zone.

### Checking the summer time setting

#### 1 Pull the crown out to position 2.

The second hand indicates the current summer time setting.  
Ex.: "SMT AU" is set



Indication of the second hand	Time currently indicated	Switching summer time and standard time
	Summer time	Manual • Summer time is always indicated regardless what summer time signals tell.
		Automatic • When summer time signals tells it is not summer time, the watch automatically indicates standard time and setting status switches to STD AU.
	Standard time	Manual • Standard time is always indicated regardless what summer time signals tell.
		Automatic • When summer time signals tells it is summer time, the watch automatically indicates summer time and setting status switches to SMT AU.

#### 2 Push the crown in to position 0 to finish the procedure.

The watch returns to normal indication.

## Changing the summer time setting

When standard time signals are available and automatic switching is preferable	→ Choose "SMT AU" or "STD AU".
When standard time signals are not available and summer time is adopted	→ Choose "SMT MA" or "STD MA". Change the setting to "SMT MA" when summer time starts and to "STD MA" when summer time ends.
When summer time is not adopted	→ Choose "STD MA".

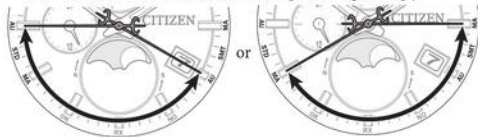
### Switching summer time and standard time

#### 1 Pull the crown out to position 2.

The second hand indicates the current summer time setting.

#### 2 Rotate the crown to select time to be indicated.

- When you rotate the crown, the setting switches from "SMT" to "STD" or from "STD" to "SMT" and time indicated changes correspondingly.



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

The watch returns to normal indication.

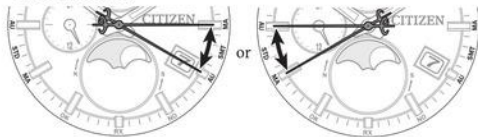
### Changing the way to switch summer time and standard time

#### 1 Pull the crown out to position 2.

The second hand indicates the current summer time setting.

#### 2 Press and hold the lower right button (A) for 2 seconds to choose the way to switch the setting.

- Each time you press and hold the lower right button (A) for 2 seconds, "AU" and "MA" switch alternately.



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

The watch returns to normal indication.

### For users in North America and Europe

In time zones on the following table, receiving summer time signals in one of them automatically changes indication to summer time/standard time in the other zones covered by the same signal station.

- Nevertheless, if you change the summer time setting to "SMT MA" or "STD MA" in a time zone, the watch does not change indication automatically in the zone even after receiving summer time signals.

Signal station	Time zone
United States	-9/-8/-7/-6/-5
Germany	-1/0/+1/+2



## Receiving the time signal

### Checking the previous signal reception result

#### 1 Push the crown in to position $\text{0}$ .

#### 2 Press and release the lower right button $\text{A}$ .

The second hand indicates the result of the last signal reception.

OK		Reception was successful.
NO		Reception failed.

- Press the button again to return to normal indication. The hand returns to normal indication automatically in 10 seconds without pressing the button.
- If you had operated the crown after the previous signal reception, the second hand points "NO" regardless the reception result.

### Receiving the time signal manually

- It takes 2 - 30 minutes to finish signal reception.

#### 1 Push the crown in to position $\text{0}$ .

#### 2 Press and hold the lower right button $\text{A}$ for 2 seconds.

The second hand indicates the result of the last signal reception.

After that, the second hand points "RX" and signal reception starts.

#### 3 Put the watch in the place with good conditions for time signal reception.

- Do not move the watch as far as possible while the second hand points "RX".
- The watch returns to normal indication after the reception finished.

#### ■ To cancel signal reception

Pressing and holding the lower right button  $\text{A}$  for 2 seconds while the second hand points "RX" cancels signal reception and the watch returns to normal indication.

## Moon phase indication



### Choosing a hemisphere

Waxing and waning of the moon look different depending whether you are in the Northern or the Southern hemisphere. Change the hemisphere setting according to the place where you use this watch.

- When using in a place near the equator, choose "N" if the moon is found in the southern sky; choose "S" if found in the northern sky.

#### 1 Pull the crown out to position $\text{1}$ .

The function hand points the current setting.









N		Northern hemisphere
S		Southern hemisphere

#### 2 Press and release the upper right button $\text{B}$ .

- Each time you press the upper right button  $\text{B}$ , the setting changes alternately.

#### 3 Push the crown in to position $\text{0}$ to finish the procedure.

### How to read moon phase indication

Northern hemisphere				
Southern hemisphere				
Lunar age (days after the last new moon)	0	About 7	About 15	About 23
Moon phase	New moon	First quarter moon	Full moon	Last quarter moon

- The moon phase indication does not represent detailed form of the moon. Please use the indication only as a reference for moon phase.

### Calibrating moon phase indication

When you find difference between moon phase indication and actual appearance, you can adjust the indication within the range of  $\pm 2$  days.

- It is recommended that the calibration is executed at a new moon or full moon, at which you can distinguish moon phase easily.

#### 1 Pull the crown out to position $\text{1}$ .

The function hand points the current hemisphere setting.

#### 2 Press and hold the lower right button $\text{A}$ for 2 seconds.

- Each time you press and hold the lower right button  $\text{A}$  for 2 seconds, moon phase indication is adjusted as below.  
 $+1 \rightarrow +2 \rightarrow -2 \rightarrow -1 \rightarrow \pm 0$  (back to the top)
- Press the lower right button  $\text{A}$  and release immediately to reset calibration value to  $\pm 0$ .

#### 3 Push the crown in to position $\text{0}$ to finish the procedure.



## About signal reception


### Types of signal reception

There are three ways to receive the time signal.

Type	Use
Automatic reception	The watch receives time signals once a day automatically.
Manual reception (On demand reception)	You can perform signal reception manually when required.
Recovery automatic reception	The watch automatically receives time signals when it is charged enough after it stopped due to insufficient charge.

- Even when this watch receives the signal successfully, the accuracy of the displayed time will be dependent on the reception environment and internal processing.
- This watch keeps  $\pm 15$ -second monthly accuracy even if no time signal is received.

### When receiving the time signal

Take off the watch with pushing the crown in to position  and place it on a stable surface where it can receive the signal better, such as next to a window.

- When wire glass is used for the window, open it or change the reception place.
- The reception antenna is located at the 9:00 position of the watch. Place the watch with the 9:00 position facing toward the station.
- Do not move the watch during time signal reception.
- When the second hand is moving once every two seconds (during insufficient charge warning), time signal reception is not executed. Charge the watch before trying reception.



### Poor reception areas

It may be difficult to receive the time signal properly under certain environmental conditions or in areas susceptible to radio noise.

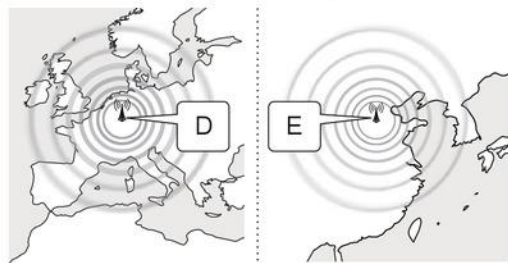
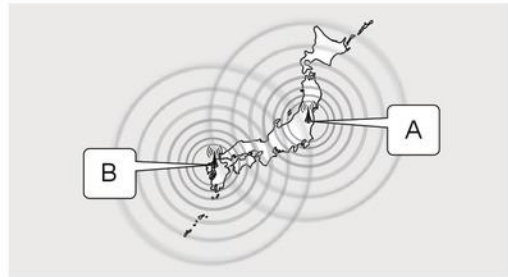
- Extremely hot or cold locations
- Inside vehicles
- Electrical appliances and OA equipment
- Near high-voltage electric cables, railway overhead cables, airports (transmission facilities)
- Inside reinforced concrete buildings, between tall buildings, mountains, or underground
- Near mobile phones or smartphones that are in use

### Note on the time signal

This watch receives time signals from the five signal stations located in four regions in the world to adjust time, calendar and moon phase indication automatically.

Signal stations	Kind of the time signal	Receivable distance
A Fukushima station (Japan)	JJY	Approx. 1500km
B Kyushu station (Japan)		Approx. 2000km
C Fort Collins station (Denver, United States)	WWVB	Approx. 3000km
D Mainflingen station (Germany)	DCF77	Approx. 1500km
E Shangqiu station (Henan, China)	BPC	Approx. 1500km

- The distance of receivable range is only used as an approximate value. The receivable range is often affected by the following conditions: receiving environment, time, weather, (lightning), and so on.



## Adjusting the time and calendar manually

### 1 Pull the crown out to position 1.

The second hand indicates the current time zone setting.



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

The second hand points 23 seconds.



### 3 Pull the crown out to position 2.

The second hand points 0 second and the minute hand slightly moves.



### 4 Press and release the upper right button B repeatedly to change the hand/indication to be corrected.

- Each time you press the upper right button B, the target changes as follows:  
Hour/minute → date → day of week → year/month for calendar → year for moon phase → (back to the top)
- The hands and indications slightly move when selected to show they become adjustable.

### 5 Rotate the crown to adjust the hand/indication.

- The hour, minute and 24-hour hands move synchronously.
- Check AM/PM referring to the 24-hour hand.
- Date indication changes to the next as the function hand rotates 5 times.
- When you rotate the crown quickly a few times, the hands and date indication will move continuously. To stop the rapid movement, rotate the crown in either direction.

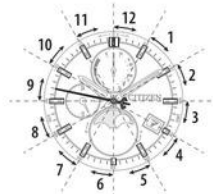
### 6 Repeat steps 4 and 5.

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

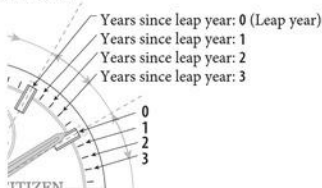
## Setting of month and year for the calendar

Set the year and month for the calendar with the position of the second hand to indicate date and days of week correctly.

“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 is indicated with markers in the zone of each month.



Year	Years since leap year	Second hand position
2020 2024 2028 2032	0 (Leap year)	Hour marker
2021 2025 2029 2033	1	1st min. marker
2022 2026 2030 2034	2	2nd min. marker
2023 2027 2031 2035	3	3rd min. marker

Ex.: Position of the second hand when setting June 2023

You can find that the years since leap year of 2023 is “3” from the table and the second hand must be set to the 3rd minute marker of June zone.



## Setting of year for moon phase

Set the year for moon phase with the position of the second hand to indicate moon phase correctly.

Year	Second hand position	Year	Second hand position	Year	Second hand position
2023	17	2031	6	2039	14
2024	18	2032	7	2040	15
2025	0	2033	8	2041	16
2026	1	2034	9	2042	17
2027	2	2035	10	2043	18
2028	3	2036	11	2044	0
2029	4	2037	12	2045	1
2030	5	2038	13	2046	2

- For 2047 and after, set the year following the 19-year cycle you can find on the table above.

Ex.: Position of the second hand when setting 2023

You can find that the second hand must be set to 17 seconds on the table.





## Checking and correcting the reference position

If the time or calendar is not shown correctly even after proper reception of the time info, 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 time info is received.

### What is the reference position?

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

- Moon phase indication: Full moon
- Function hand: "S" (Sunday)
- Date indication: midway between "31" and "1"
- Hour, minute and second hands: 0 hour 00 minute 0 second
- Position of the 24-hour hand: "24"

### Correct reference positions



### 1 Push the crown in to position ①.

### 2 Press and hold the upper right button ② for 10 seconds or more.

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

- Release the button as the hands start to move.

### 3 Check the reference positions of them referring to the illustration above.

Correct	Press and release the upper right button ② to finish the procedure.
Wrong	Proceed to step 4 and correct the reference position.

### 4 Pull the crown out to position ③.

The moon phase indication slightly moves and reference position of the indication becomes adjustable.



### 5 Press and release the upper right button ② repeatedly to change the hand/indication to be corrected.

- Each time you press the button, the target changes as follows:  
Moon phase indication → function hand/date indication → hour, minute and 24-hour hands → second hand → (back to the top)
- The hands and indications slightly move when selected to show they become adjustable.

### 6 Rotate the crown to adjust the hand/indication.

- The hour, minute and 24-hour hands move synchronously.
- Rotate the crown clockwise to adjust reference position of the function hand and date indication.
- Date indication changes to the next as the function hand rotates 5 times.
- 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 ①.

### 9 Press and release the upper right button ② to finish the procedure.

The watch returns to normal indication.

## 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 All Reset, the watch is in the reference position adjustment mode. Refer to step 5 and after on page 9.

### 2 Set the time zone.

See page 3.

### 3 Adjust the time and calendar.

When adjusting them by receiving signals manually → page 5  
When adjusting them manually → page 7

### 1 Pull the crown out to position ②.

The second hand and the function hand indicate the summer time setting and power reserve respectively.



### 2 Press and release the upper right button ② for 2 seconds.

The second hand points to 0 second.



### 3 Press and hold buttons ④ and ⑤ at the same time for 4 seconds or more and release them.

The hands and indication start moving and All Reset is executed. Wait until movement of the hands and indication stops.

### The setting values after All Reset

Time	0:00:00 AM
Month and year for the calendar	January of the second year since a leap year (second hand position: 7 seconds)
Date	1
Day of week	S (Sunday)
World time	Time zone 0
Summer time	"STD AU" at all time zone
Northern/Southern hemisphere	Northern hemisphere
Year for moon phase	2010 (second hand position: 4)
Lunar age	15 (full moon)
Calibration value for moon phase indication	±0







