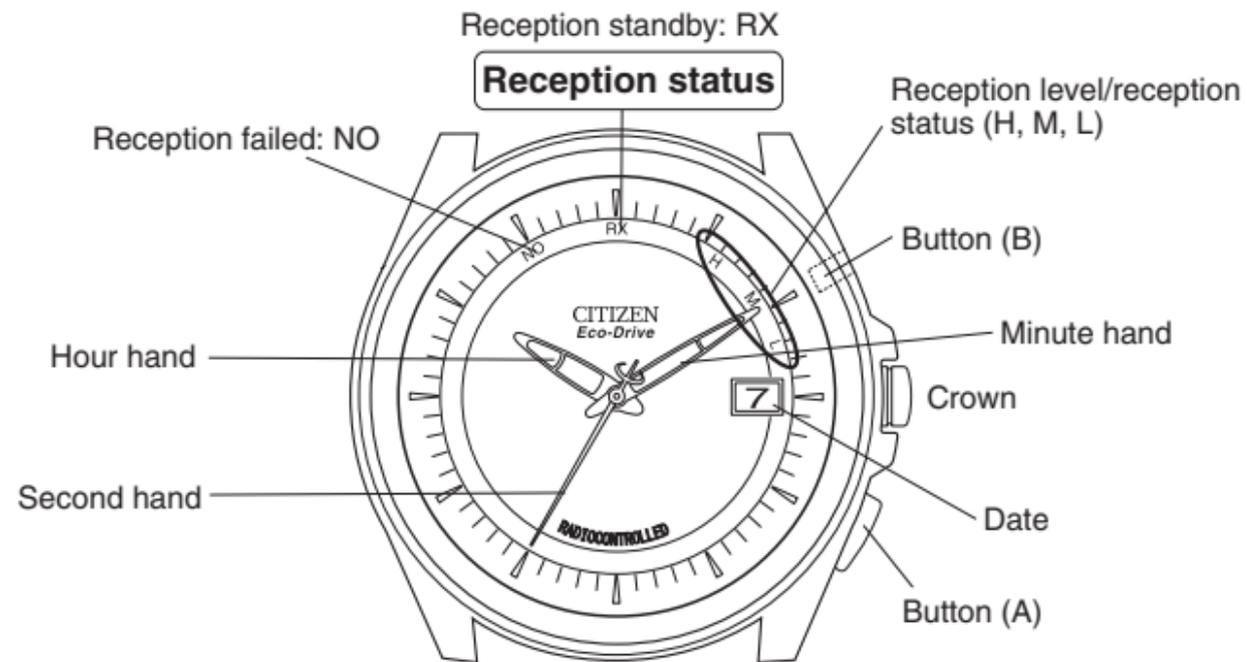


## Notice

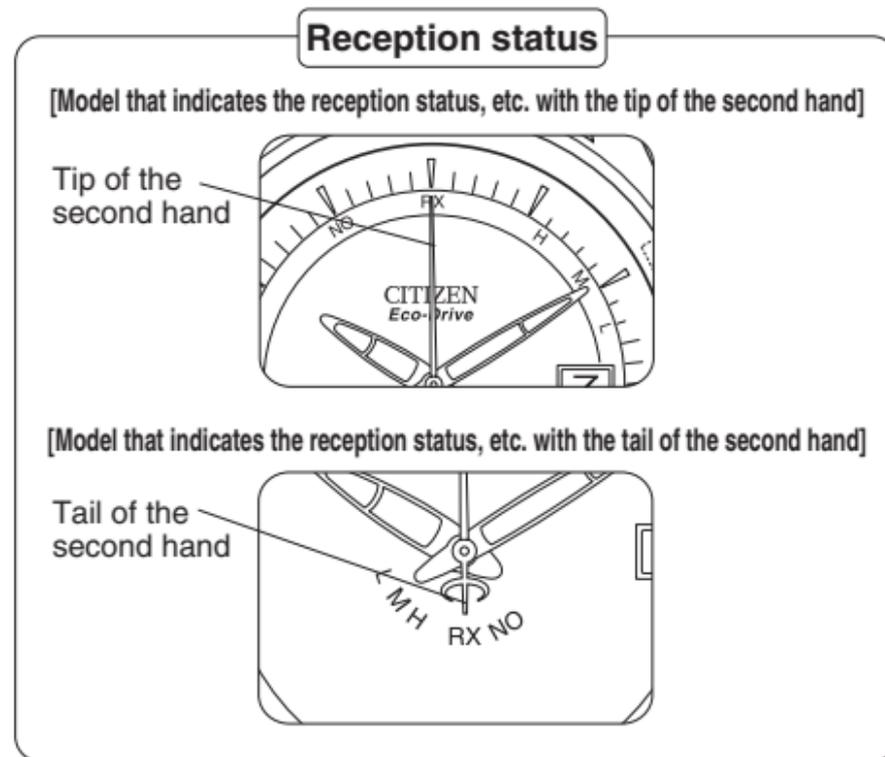
All parts of this watch, except for the band, are to be repaired only at CITIZEN. This is because special technology and equipment are required to perform repairs, inspections and maintenance. When desiring to have your watch repaired or inspected, please contact the Citizen Service Center.

## Part Names



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

- Depending on the particular watch model, some indicate the reception status with the tip of the second hand, while others indicate with the tail of the second hand.



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## Solar Power

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# 1. Your Watch

This watch provides the following functions:

## ☉ **Radio wave reception function**

This watch can receive standard time radio waves broadcast from Shangqiu (Henan, China), and automatically adjusts the date and time.

## ☉ **Eco-Drive function**

This watch is equipped with a solar power function for powering the watch by converting light energy into electric energy. The watch incorporates a power saving function that reduces the power consumption when the watch face is not exposed to light.

## ☉ **Time difference correction function**

The watch incorporates a convenient time difference adjustment function. A simple method is available for changing to the local time if you are going to an area in a different time zone.

Also, the following functions are provided to improve the accuracy of the watch.

## ● **Shock detection function**

This function prevents unwanted movement of the minute and second hands when the watch receives an impact.

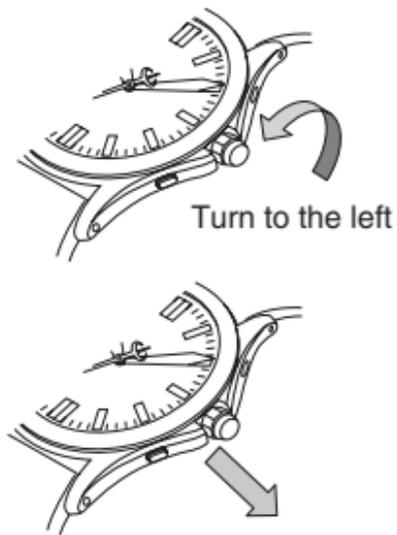
## ● **Hand correction function**

This feature checks the accuracy of the reference position of the hands at regular intervals. If any misalignment is detected, the minute and second hands are rapidly corrected to maintain the correct time.

## 2. Operating the Crown

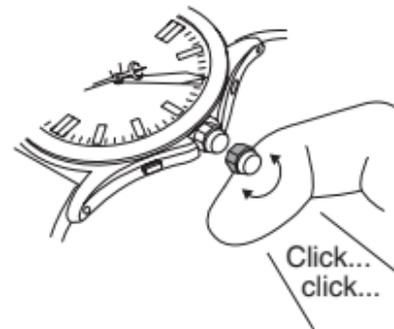
There are two models available for the crown: normal and screw lock.  
In the case of normal crown watch, the crown has simply to be pulled out.

### <Operating the screw lock crown>



1. Turn the crown to the left.
2. When the screw lock is released, the crown pops out a little and stops in the normal position.
3. After using the crown, push it in gently while turning it to the right to lock it.

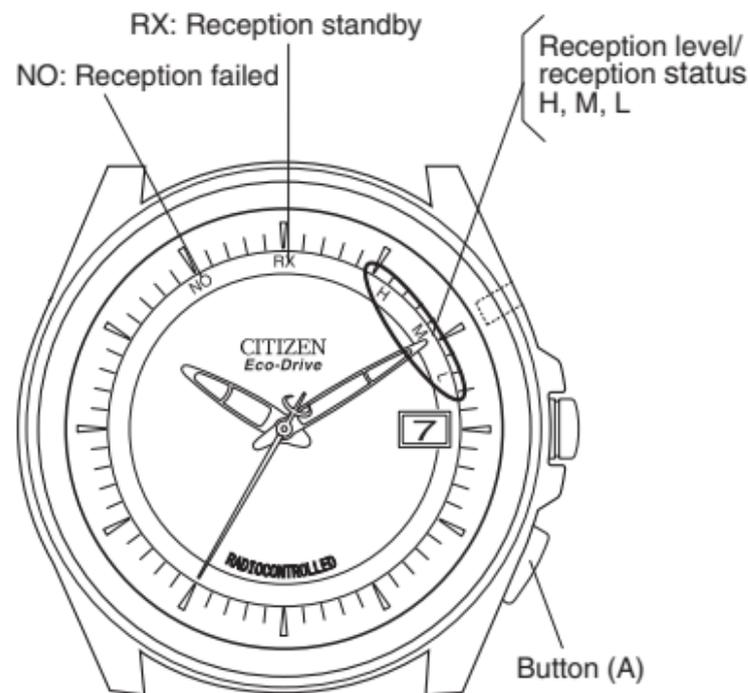
### <To move the hands and date continuously>



Turn the crown quickly (more than 2 clicks).

1. Pull out the crown to the position 1 or 2. Rapidly turn the crown to the left or right (more than 2 clicks) to move the hands and date continuously. Fine adjustment can be achieved by turning it 1 click at a time.
2. To stop the continuous movement of the hands, turn the crown to the left or right by 1 click.

### 3. Before Use



#### Check the movement of the second hand.

The second hand is moving at 1-second intervals.

The second hand is moving at 2-second intervals or is stopped.

Charge watch by placing it in direct sunlight.

Check the reception status by pressing the lower right button (A) once.

The second hand indicates a reception status of H, M or L.

The second hand indicates a reception status of NO.

**Your watch is correctly receiving the standard time radio wave. It is ready to use.**

Refer to "On Demand Reception" (p.136) to perform the radio wave reception.

The second hand starts to move at 1-second intervals.

## Checking the Reference Position

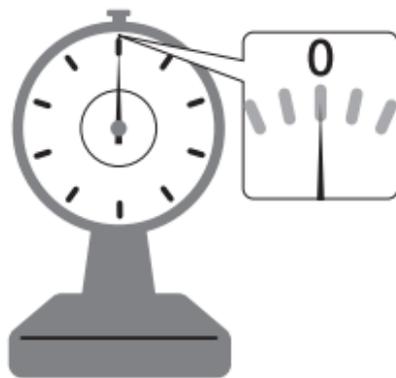
<Before using the watch, confirm that the hands are aligned with "0", similar to when setting weighing scales>

◎ The reference position may become misaligned when the watch is exposed to strong magnetism, static electricity or impacts. Even if radio waves are received, the correct time will not be indicated unless the watch hands are aligned to the correct reference position. Check that the hands are properly aligned with "0".

### Examples of magnetic products that can affect the watch

- Health products (for example, medical necklaces and waist bands that have magnetic fields)
- Refrigerators (magnetic part of the door)
- Bags (with magnet fasteners)
- Electromagnetic cookers
- Mobile phones (speaker part)

Keep the watch away from items similar to those above.



This radio controlled watch displays the received standard time and date based on the hand reference position "12:00:00", and the date "1st".

### Correct reference position indication

Time: 12:00:00  
Date: 1st

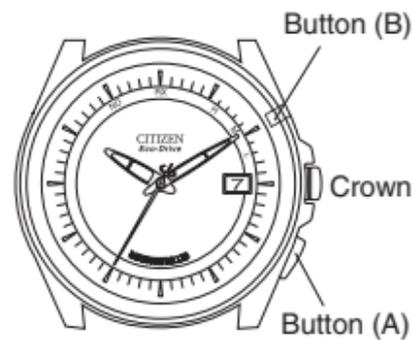


### <Checking the Reference Position>

1. With the crown in the normal position, press the upper right button (B) for more than 5 seconds. Release the button when the second hand begins to move rapidly either clockwise or counterclockwise.
2. All hands and date will move to the reference position recorded in the watch memory.  
\* This could take up to a maximum of about 7 minutes.
3. Press the upper right button (B) for 2 seconds to complete the checking. The watch will return to normal display.

The correction is required in case where a reference position described above is not displayed, as this means the reference position has shifted. Refer to "Correcting the Reference Position" (p.147).

## 4. Functions List



Function		Button or Crown Operation
<b>On demand reception</b>	 (see p.136)	Press the lower right button (A) for more than 2 seconds and release when the second hand stops at the RX position.
<b>Confirming the reception status</b>	 (see p.139)	Press the lower right button (A) once.
<b>Time difference setting</b>	 (see p.145)	Press the upper right button (B) once and turn the crown.
<b>Setting the time manually</b>	 (see p.140)	Pull out the crown to position 2.
<b>Setting the date manually</b> (Elapsed years after the most recent leap year)	 (see p.142)	Pull out the crown to position 1. * The item being corrected changes each time the lower right button (A) is pressed. (Switches between leap year correction and date correction.)

Hand movement
The second hand will stop at the RX position and then move to the reception level (H, M or L). If the reception level is not indicated, reception failed and the hands will return to their normal movement.
The second hand stops at the H, M or L position when the radio wave is received properly, or at NO position when reception fails.
The second hand will stop at the 12:00 position. (If a time difference setting has been made, it will stop at the position appropriate for the time difference.) The second hand at the 12:00 position indicates time difference of $\pm 0$ hours. One step of the second hand indicates a one hour time difference.
Turn the crown to the right by 1 click to rotate the second hand clockwise once and move the minute hand ahead by 1 minute. Turn the crown to the left by 1 click to rotate the second hand counterclockwise once and move the minute hand back by 1 minute. Continuously turn the crown quickly by 2 or more clicks to move the hour and minute hands continuously. * When the date changes, it is 0:00 a.m. (midnight).
The second hand will move to the "elapsed years after the most recent leap year" recorded in the watch memory, and stop. Date: Turn the crown to the right to progress the date by 1 day. Turn the crown to the left to move the date back. Leap year: Turn the crown to the right to move the second hand one step forward. Turn the crown to the left to move the second hand back.

## Radio Wave Reception

### 5. Reception Area Guidelines

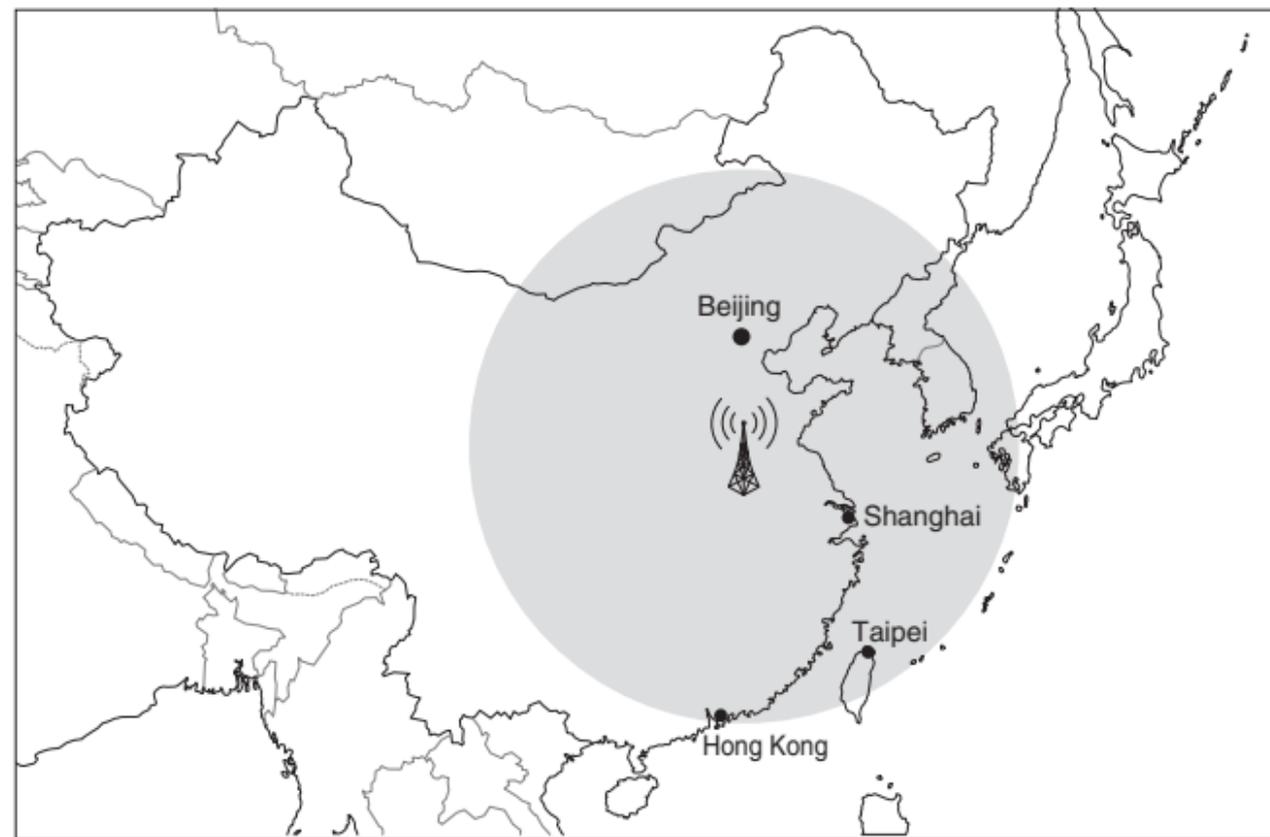
The map shows the approximate reception area. However, reception areas may vary according to changes in conditions for the radio wave due to factors including time, season and weather.

The reception area on the map is only guideline, and it may be difficult to receive the radio wave even within the areas indicated on the map.

Standard time radio wave	Radio wave transmitter
BPC	Shangqiu, Henan

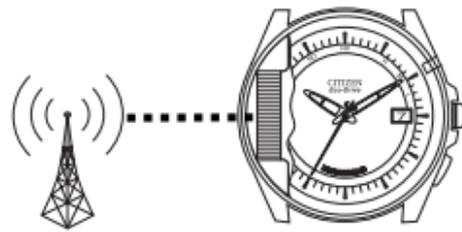
The standard time radio wave used by this radio controlled watch is broadcast constantly, but may be interrupted occasionally due to special circumstances at the radio wave transmitter.

Radio waves cannot be received during this period.



## 6. For Best Reception

This watch incorporates a radio antenna (9:00 position). To achieve the best reception, remove the watch from the wrist, point the 9:00 position of the watch towards the radio wave transmitter, place the watch in a stable place where reception is good such as near a window. Do not move the watch while it is receiving the radio wave.

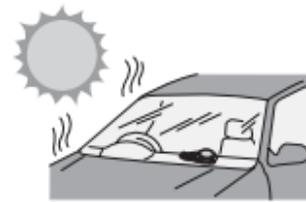


For details on the direction of the transmitter, refer to the "Reception Area Guidelines"  (p.132).

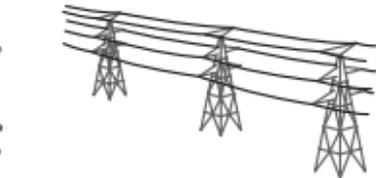
The reception level may change depending on the surrounding environment. Place the watch in different locations and directions while paying attention to the reception level (H, M or L) to find the most receptive location or orientation to give a reception level of H or M.

## 7. Poor Reception Areas

It may not be possible to receive radio waves under environmental conditions where reception is difficult or in areas susceptible to radio noise, such as those shown in the illustrations below.



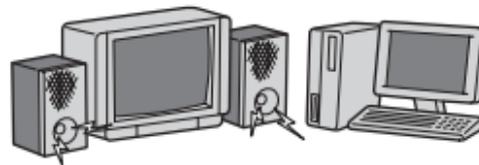
◆ Extremely hot or cold locations



◆ Near high-tension electrical lines, railway overhead wires or communication facilities



◆ Inside vehicles, including cars, trains and aero planes



◆ Near TVs, refrigerators, computers, fax machines and other home electronics or office appliances



◆ Near cellular phones in use



◆ Inside reinforced concrete buildings or underground

## 8. Receiving the Radio Waves

Three types of radio wave reception are possible: Automatic reception, on demand reception and recovery automatic reception. When the radio wave has been properly received, your watch will automatically adjust the time and date.

### Automatic reception

- **It is not necessary to operate buttons to perform automatic reception.**

Place the watch in a stable location near a window where the radio wave can be easily received with the 9:00 position (antenna for receiving the radio waves) pointing towards the transmitter. The watch will receive the radio waves automatically at 2 a.m. every day. If the radio wave cannot be received at 2 a.m., it will try again at 4 a.m.

### On demand reception (manual reception)

- **Radio waves can be received at any time.**

Use this function when automatic reception is impossible.

1. Remove the watch from the wrist, then press the lower right button (A) for more than 2 seconds and release it when the second hand rapidly moves and stops at the RX position.

2. Place the watch in a stable location near a window where the radio wave can be easily received with the 9:00 position pointing towards the transmitter.

- Subsequently, the second hand will move from the RX position to the H, M, or L position during reception.
- When reception is finished, the second hand will move from the H, M, or L position and return to 1-second interval movement.

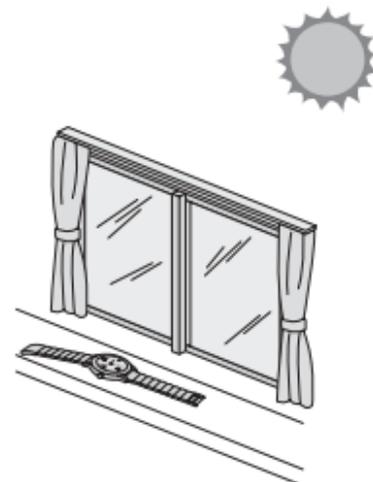
(This may take up to approx. 13 minutes.)

Refer to “**Confirming the Reception Status**”  (p.139) to check the reception status.

### Recovery automatic reception

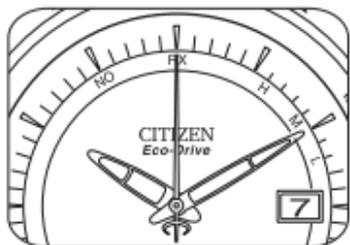
If the watch stops due to insufficient charging, expose the watch to sunlight to recharge it. When the watch is recharged sufficiently, it will automatically receive the radio wave once. Regularly charge your watch so it does not become insufficiently charged.

- \* If the lower right button (A) is pressed for more than 1 seconds during reception, the reception will be cancelled and the hands will return to the current time.



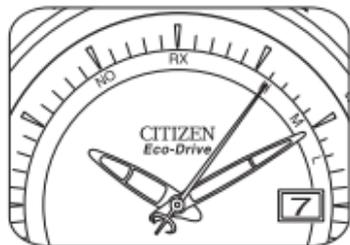
## A. Position of the Second Hand During Reception

[During reception standby]



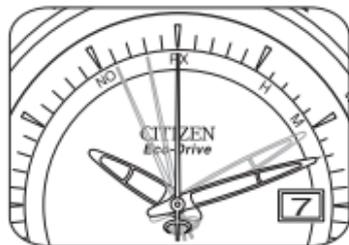
- ◆ Second hand moves to RX and stops.

[During reception]



- ◆ The second hand moves from RX to reception level H, M or L and reception starts.

[Reception completed]



- ◆ When reception is successful, the second hand will return to 1-second interval movement and the positions of the other hands will be automatically adjusted.

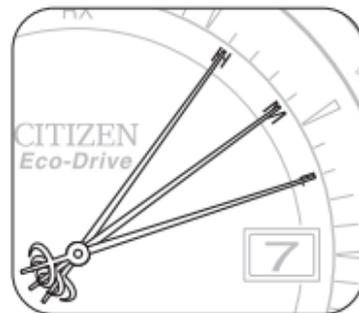
### <Time required for reception>

Reception can take from about 2 minutes to a maximum of 13 minutes, depending on factors such as the weather or noise. There are also occasions when the second hand remains aligned to the reception standby position (RX), does not move to H, M or L, the watch returns to normal display after about 60 seconds.

**[NOTE]** There are cases during reception when the radio wave is interrupted due to environmental changes, and the second hand will make one full rotation and then indicate the reception level once again. Do not move the watch until the second hand has returned to 1-second interval movement.

## B. Confirming the Reception Status

- The reception status (reception successful or failed) can be confirmed.
  1. Press the lower right button (A) once. The second hand will rapidly move to either H, M, L or NO to indicate the reception status.
  2. The reception status will be indicated for 10 seconds, then the watch automatically returns to normal hand movement. You can also press the lower right button (A) again while the reception status is indicated to return to 1-second interval movement.
- If NO is indicated, find a location or direction where the reception is better and perform "On Demand Reception" again.



H, M and L only indicate the reception level, and do not affect the performance.

Reception Level	Reception status
H	Radio wave reception environment was very good
M	Radio wave reception environment was good
L	Radio wave reception environment was not very good
NO	Reception failed

<The time display may shift slightly depending on the reception environment and internal watch processing even if radio waves are properly received.>

## Setting the Time and Date Manually

### 9. Setting the Time

When this watch has received the radio wave, it automatically adjusts the date and time. If the watch is used overseas or in a location where the radio wave cannot reach, the date and time can be set manually. When returning to a region where the radio wave can be received, perform the automatic reception or on demand reception.

[Normal hand movement]

[Date correction]

[Time correction]



Button (A) ◆ The month, year (elapsed years after the most recent leap year), and date can be corrected. ◆ Each hand can be corrected.

○ Corrections can be made by turning the crown in each of these conditions. When setting the calendar, pressing the lower right button (A) will switch between month correction and leap year correction.

### <Correcting the time>

1. Pull out the crown to position 2.
  - The second hand moves to the 12:00 position, and then stops after moving left and right.
2. Turn the crown to set the minute hand.
  - ① Turn the crown to the right by 1 click to move the minute hand ahead by 1 minute.
  - ② Turn the crown to the left by 1 click to move the minute hand back by 1 minute.
3. Press the lower right button (A). The hour hand moves left and right. (Hour correction status)  
Turn the crown to set the hour hand.
  - ① Turn the crown to the right by 1 click to move the hour hand ahead by 1 hour.
  - ② Turn the crown to the left by 1 click to move the hour hand back by 1 hour.
  - Continuously turn the crown by 2 or more clicks to make the hands move continuously.
  - Turn the crown to the left or right to stop the continuous movement of the hands.

[NOTE] When the date changes, it is 0:00 a.m. (midnight). Take care to observe whether it is a.m. or p.m.

3. Set the time by using a time signal, and then press the crown back into its normal position.
  - After pulling out the crown to position 2, press the lower right button (A) to select correction mode (minute or hour). The changing correction mode will be indicated by the hand moving.

## 10. Setting the Date

### <Correcting the date>

1. Pull out the crown to position 1.

The watch will enter the date correction mode and the second hand will stop at the current month and elapsed year position recorded in the watch memory.

2. Turn the crown to set the date.

- Turn the crown to the right by 1 click to advance the date by one day.
- Turn the crown to the left by 1 click to move the date back by one day.

3. Press the lower right button (A) once, and turn the crown to set the month and elapsed years after the most recent leap year, referring to "**Quick reference for the elapsed years after the most recent leap year**"  (p.143).

Refer to the example on **page 144** and set the second hand.

4. Refer to "Quick reference for the elapsed years after the most recent leap year" to confirm the number of elapsed years, and turn the crown to the right by 1 click to align the second hand with the position for the correct month and elapsed years. Turn the crown to the left by 1 click to move the second hand counterclockwise.

5. Press the crown back into its normal position.

- After pulling out the crown to position 1, press the lower right button (A) to select correction mode (date or month/year). The changing correction mode will be indicated by the hand and date moving.

### <Month and year (elapsed years after the most recent leap year) indication by the second hand>

#### ☆Month indication by the second hand

Second hand between 1:00 and 2:00: January

Second hand between 2:00 and 3:00: February

⋮

Second hand between 12:00 and 1:00: December

#### ☆Elapsed years indication by the second hand

Leap year: The second hand points to the start position of each month zone

1st year after the most recent leap year: The second hand points to the 1st position in each month zone

2nd year after the most recent leap year: The second hand points to the 2nd position in each month zone

3rd year after the most recent leap year: The second hand points to the 3rd position in each month zone

### Quick reference for the elapsed years after the most recent leap year

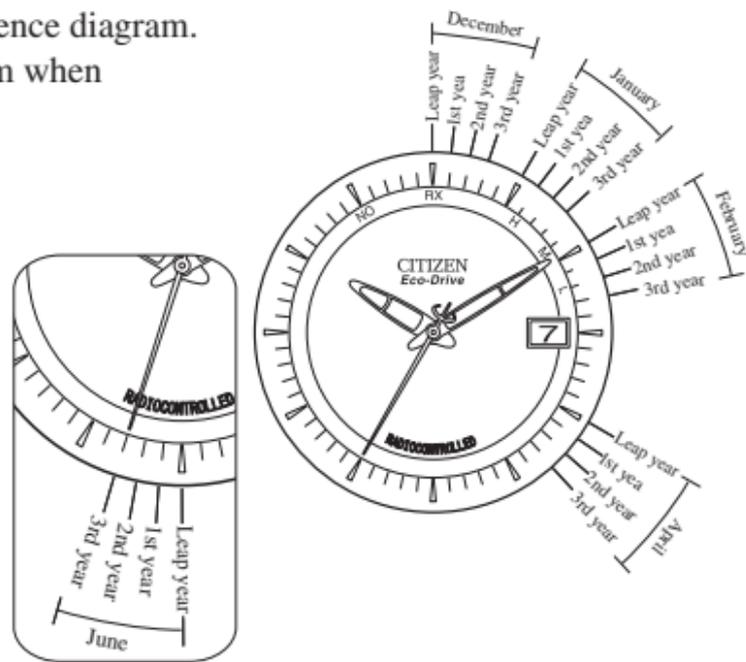
Year	Elapsed years	Year	Elapsed years	Year	Elapsed years
2008	Leap year	2012	Leap year	2016	Leap year
2009	1st year	2013	1st year	2017	1st year
2010	2nd year	2014	2nd year	2018	2nd year
2011	3rd year	2015	3rd year	2019	3rd year

The figure on the right is a zone reference diagram. Refer to the example below to confirm when correcting.

### <Example>

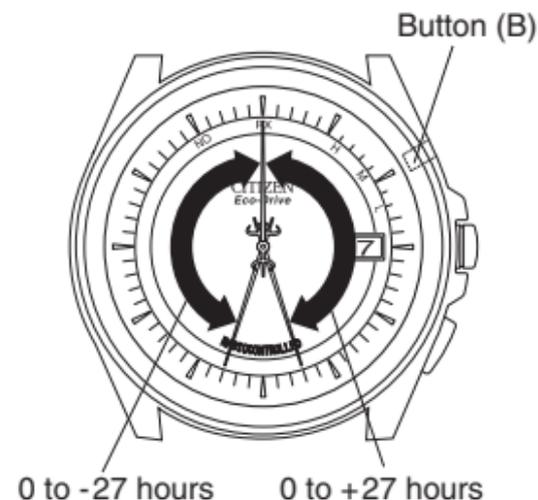
When the second hand is pointing at 33 seconds, it is between the 6:00 position and the 7:00 position, thus indicating June.

Also, the fact that it is pointing at 3 seconds after the 6:00 position indicates that it is in the 3rd year after the most recent leap year.



## 11. Correcting the Time Difference

The watch can be adjusted to the local time when going to an area in a different time zone, by using the second hand to set the time difference in units of 1 hour.



(Example) When going to an area with a time difference of +1 hour relative to China, align the second hand with the 1 second position.

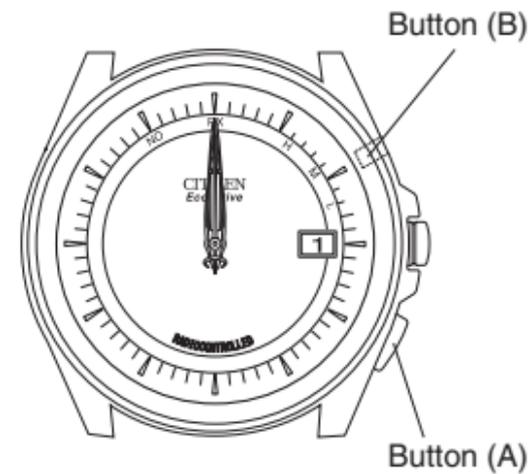
1. If the upper right button (B) is pressed once with the crown in the normal position, the second hand will stop at the 12:00 position, this is the time difference  $\pm 0$  hours position.
  - \* If a time difference setting has been made, it will stop at the position appropriate for the time difference.
2. Turn the crown to the right by 1 click with the crown in the normal position to move the second hand ahead by 1 step. Time difference of +1 hour is set. Turn the crown to the left by 1 click to move the second hand back by 1 step. Time difference of -1 hour is set.
  - The second hand in the 12:00 position indicates China time. With China time as the reference time, a time difference of up to " $\pm 27$  hours" can be set.

\* In cases where the date changes when the time difference is adjusted, this is automatically calculated.

3. When the upper right button (B) is pressed once after setting the time difference or not perform any operations for 10 seconds, the setting is complete and then the watch rapidly return to 1-second interval movement.

● When the radio wave is received with the time difference set, the time displayed will then reflect the time difference that has been set.

## 12. Correcting the Reference Position



### Correct reference position indication

Time: 12:00:00

Date: 1st

If the reference position is incorrect, it may result in the wrong time and date being displayed. Be sure to correct the reference position if this happens.

### <Correcting the hour, minute, second hands and date reference position>

1. Press the upper right button (B) for more than 5 seconds while the crown is in the normal position, and release when the second hand begins rapid movement. While the seconds hand is moving, pull out the crown to position 2 and wait.

2. Turn the crown to set the date to "1".
  - ① Turn the crown continuously (2 clicks or more) to the left or right to change the date continuously. Turn the crown to the left or right to move it back.
    - Turn the crown to the left or right to stop the continuous change.
  - ② When "1" appears in the date window, turn the crown to the left or right to stop. Fine adjustment can be achieved by turning the crown by 1 click.
    - Press the lower right button (A) to change the correction mode (date → hour → minute/second → date).  
The changing correction mode will be indicated by the hand or date moving.
3. Press the lower right button (A) once, and turn the crown to align the hour hand with the 12:00 position.
  - ① Turn the crown to the right by 1 click to move the hour hand ahead and turn it to the left to move it back.
  - ② Turn the crown by 2 or more clicks to make the hour hand move continuously. Turn the crown to the left or right to move them back.

4. Press the lower right button (A) once, and turn the crown to align the minute hand and second hand to 0 minute 0 second position.
  - ① Turn the crown to the right by 1 click to move the hand ahead by 1 minute and turn it to the left to move it back.
  - ② Turn the crown continuously by 2 or more clicks to rapidly rotate the second hand. Since the minute hand and the second hand are linked together, the minute hand will move continuously. Turn the crown to the left or right to move them back.
5. After setting the reference position, return the crown to its normal position, and press the upper right button (B) once, or leave the watch for about 2 minutes, and the hands and date will rapidly return to the current time and date.
  - This concludes correcting the reference position. If the current time is not displayed, perform on demand reception before using the watch.

## Solar Power

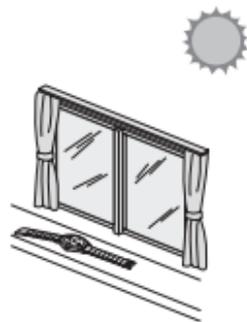
### 13. Solar Power Function

This watch uses a secondary battery to store electrical energy. When the watch is fully charged, it will maintain its accuracy for about 7 months.

#### <Ensuring best operation of the watch>

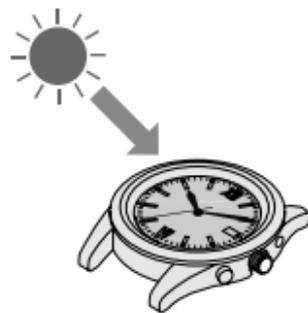
Always store the watch in a bright location for best results.

- ◆ Placing the watch near a window where its face can receive sunlight or near another source of light when you are not wearing it will ensure that the watch is regularly charged, allowing it to maintain its accuracy.



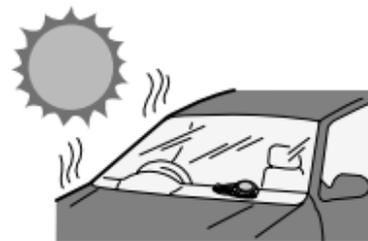
- ◆ Wearing clothes with long sleeves makes it difficult for the watch to get the necessary light, resulting in insufficient charging.

It is recommended to charge the watch by exposing to direct sunlight for a long time once a month.



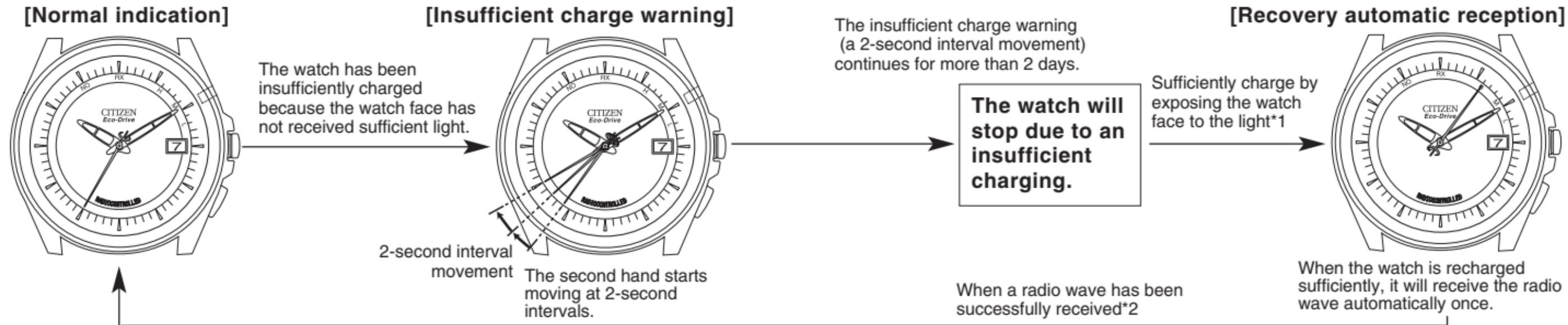
#### [NOTE]

Do not charge on surfaces that can easily become hot, such as a car dashboard.



## 14. Characteristics of the Solar Powered Watch

When the watch is insufficiently charged, the indication will be changed as follows:



### \*1. When the watch stopped due to an insufficient charging

It takes at least 40 minutes to recharge sufficiently to perform recovery automatic reception, even if the watch is being exposed to light.

After recovery, refer to “Guide to Charging Time” and sufficiently charge the watch.

### \*2. If the watch failed to perform recovery automatic reception

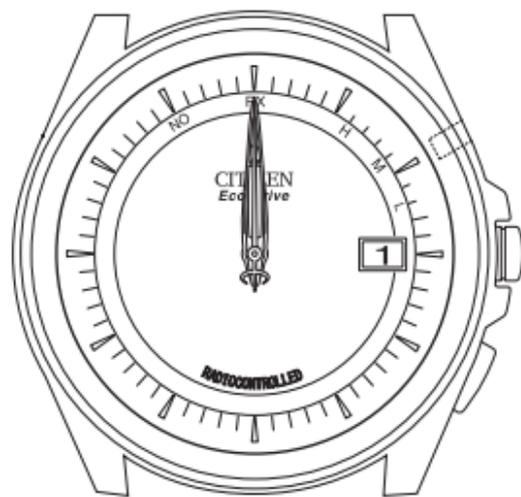
The time is incorrect even if the second hand moves at 2-second intervals, so after fully charging the watch, set the time manually or perform on demand reception.

## A. Power Saving Function

When the watch face is continuously not exposed to light for 1 week or more, each hand stops at the 12:00 position and the watch enters power saving mode (to reduce power consumption).

### [The following functions are available even during power saving mode]

- The time is always being kept inside the watch.
- The calendar will be automatically updated (day, date).



Hands stop at the 12:00 position.

### <Cancelling the power saving function>

The power saving function will be automatically cancelled when the watch face is exposed to light.

- After the power saving function has been cancelled, the hands will rapidly move to the current time and return to 1-second interval movement.
- If the watch is insufficiently charged, the second hand will begin the 2-second interval movement. Once again charge the watch sufficiently to return the second hand to normal movement.

### [NOTE]

The power saving function cannot be cancelled with crown or button operations. Cancel the power saving function by placing the watch in light.

## B. Insufficient Charge Warning Function

The second hand's movement changes from 1-second intervals to 2-second intervals to show that the watch is insufficiently charged.

If the face of the watch is not exposed to light for about 2 days from the beginning of 2-second movement, the hands will stop at the 0:00:00 (midnight) position.

### [NOTE]

If the second hand is moving at 2-second intervals, the time cannot be corrected manually, or by using automatic reception or on demand reception.

2-second interval movement



- ◆ If the charging insufficiency occurs during "Radio wave reception", "Confirming the reception status", "Time difference correction" or "Checking/correcting the reference position", the operation will stop automatically, the watch will return to the time before the operation, and 2-second interval movement will begin. Regularly charge your watch so that it does not become insufficiently charged.

## C. Overcharging Prevention Function

No matter how much the watch is charged, it will not affect the secondary battery, timekeeping, functions or performance of the watch.

When the secondary battery becomes fully charged by exposing the watch face to light, the overcharging prevention function is automatically activated to prevent the battery from being charged further.

## D. Guide to Charging Time

The following values are guidelines for when the watch face is being continuously exposed to the light.

Illuminance (lx)	Environment	Charging time (approximate)	
		For a 1-day movement charging time	Time for full charging
3,000	20 cm (8in.) beneath a 30 W florescent light	40 minutes	-----
10,000	Cloudy sky	12 minutes	45 hours
100,000	Direct summer sunlight	5 minutes	30 hours

The table can be used to find an estimate of the amount of energy that the watch can store depending on the environment and amount of time the watch is charged.

For example, you can see that the energy that can be stored when the watch is subjected to approximately 4 hours of light under cloudy skies is sufficient to operate the watch for about 20 days.

For a 1-day movement charging time... The charging time to run the watch for one day with normal movement.

Time for full charging..... The time for full charging after the watch has stopped due to an insufficient charging.

**[NOTE]** A fully charged battery will run the watch for about 7 months without further charging.

The watch will maintain its accuracy for about 2.5 years when running in the power saving mode. Charge the watch every day, as it will take a long time to recharge it, as is indicated in the table, when it stops due to an insufficient charging. It is recommended to charge the watch by exposing to direct sunlight for a long time once a month.

## E. Handling Your Solar Powered Watch

### **WARNING** Handling the secondary battery

- ◆ Do not remove the secondary battery from the watch yourself, unless unavoidable. If you must remove the battery, store it out of reach of children to avoid accidental ingestion. If the secondary battery is ingested, consult a doctor immediately.
- ◆ Do not throw away with regular trash. Doing so could cause a fire or environmental damage. Follow the collection procedures as specified by your local authority.

### **WARNING** Do not use anything other than the specified secondary battery

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

### **CAUTION** Charging precautions

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

## Troubleshooting

### <Radio Wave Reception Function>

Problem	Check	Remedy
The watch does not receive radio waves.	<ul style="list-style-type: none"> <li>Does the second hand move to the RX (reception standby) position ?</li> </ul>	<ul style="list-style-type: none"> <li>Press and hold the lower right button (A) until the second hand indicates the RX (reception standby) position, and then release.</li> </ul>
The watch can receive the radio wave, but it does not show the correct time.	<ul style="list-style-type: none"> <li>Is the reference position set correctly ? Check the reference position.</li> </ul>  (p.128)	<ul style="list-style-type: none"> <li>If the reference position is not correctly set, correct it as indicated in "Correcting the Reference Position".</li> </ul>  (p.147)

Problem	Check	Remedy
Radio wave cannot be received (where reception is possible).	<ul style="list-style-type: none"> <li>Are there objects nearby that could block radio waves or generate noise?</li> <li>Are you attempting to receive the radio wave in a location far from a window ?</li> </ul>	<ul style="list-style-type: none"> <li>Avoid objects that block radio waves or generate noise. Try to receive radio waves by pointing the 9:00 position of the watch in the direction of the radio wave transmitter. Find a location such as window that is conducive to radio wave reception and change the watch location, direction and angle.</li> </ul>  (p.134)
	<ul style="list-style-type: none"> <li>Are you moving the watch while receiving the radio wave and the second hand is indicating RX, H, M or L ?</li> </ul>	<ul style="list-style-type: none"> <li>Do not move the watch until the radio wave has been properly received (until normal hand movement returns).</li> </ul> (Reception can take from about 2 minutes to a maximum of 13 minutes.)

## <Eco-Drive>

Problem	Check	Remedy
<ul style="list-style-type: none"><li>● The second hand is moving at 2-second intervals.</li><li>● The watch has stopped.</li><li>● The watch does not work even after charging.</li></ul>	<ul style="list-style-type: none"><li>● Did you charge the watch sufficiently in sunlight?</li></ul>	<ul style="list-style-type: none"><li>● Charge the watch sufficiently, as indicated in "Guide to Charging Time".  (p.158)</li></ul>

Problem	Check	Remedy
<p>The hands moved forward quickly at the moment that the watch was removed from a desk or drawer.</p>		<ul style="list-style-type: none"><li>● This is because the power saving function was cancelled when the watch was exposed to light, and the hands moved forward quickly to the current time. It is ready to use.  (p.154)</li></ul>

## Precautions

### WARNING: Water-resistance performance

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

The unit "bar" is roughly equal to 1 atmosphere.

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

- For correct use within the design limits of the watch, confirm the level of water-resistance of your watch, as indicated on the dial and case, and consult the table.

Indication		Specifications	Examples of use				
Dial	Case (case back)						
WATER RESIST or no indication	WATER RESIST(ANT)	Water-resistant to 3 atmospheres	OK	NO	NO	NO	NO
WR 50 or WATER RESIST 50	WATER RESIST(ANT) 5 bar or WATER RESIST(ANT)	Water-resistant to 5 atmospheres	OK	OK	NO	NO	NO
WR 100/200 or WATER RESIST 100/200	WATER RESIST(ANT) 10/20 bar or WATER RESIST(ANT)	Water-resistant to 10/20 atmospheres	OK	OK	OK	NO	NO

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

- Water-resistance for daily use (to 3 atmospheres): This type of watch is water-resistant to minor exposure to water. For example, you may wear the watch while washing your face; however, do not use while swimming.
- Upgraded water-resistance for daily use (to 5 atmospheres): This type of watch is water-resistant to moderate exposure to water. You may wear the watch while swimming; however, do not use while skin diving or scuba diving.
- Upgraded water-resistance for daily use (to 10/20 atmospheres): This type of watch may be used for skin diving; however, it is not designed for scuba or saturated diving using helium gas.

### **CAUTION**

- Be sure to use the watch with the crown pressed in (normal position). If your watch has a screw-lock type crown, be sure that the crown is locked securely.
- Do NOT operate the crown or button when the watch is wet. Water may enter the watch and compromise water-resistance.
- The durability of a leather band may be affected when wet, owing to the properties of the material. In the case of a watch of upgraded water resistance for daily use that is frequently used in water, fading, peeling of adhesive or other problems may occur. It is therefore recommended to use another type of band (metal or rubber watchband).
- If the watch is used in seawater, rinse with fresh water afterward and wipe with a dry cloth

- If moisture has entered the watch, or if the inside of the crystal is fogged up and does not become clear within a day, take the watch to your nearest Citizen Service Center for repair. Leaving the watch in such a state will allow corrosion to form inside.
- If seawater enters the watch, place the watch in a box or plastic bag and immediately take it in for repair. Otherwise, pressure inside the watch will increase, and parts (crystal, crown, buttons, etc.) may come off.

### **CAUTION: Keep your watch clean.**

- Leaving dust and dirt deposited between the case and crown may result in difficulty in pulling the crown out. Rotate the crown while in its normal position, from time to time, to loosen dust and dirt and then brush it off.
- Dust and dirt tend to be deposited in gaps in the back of the case or band. Deposited dust and dirt may cause corrosion and soil your clothing. Clean the watch occasionally.

### **Cleaning the Watch**

- Use a soft cloth to wipe off dirt, perspiration and water from the case and crystal .
- Use a soft, dry cloth to wipe off perspiration and dirt from the leather band.
- To clean a metal, plastic, or rubber watchband, wash away dirt with mild soap and water. Use a soft brush to remove dust and dirt jammed in the gaps in the metal band. If your watch is not water-resistant, take it to your dealer.

**NOTE:** Avoid using solvents (thinner, benzene, etc.), as they may damage the finish.

### **CAUTION: Operating environment**

- Use the watch within the operating-temperature range specified in the instruction manual.  
Using the watch where temperatures are outside the specified range, may result in deterioration of functions or even stoppage of the watch.
- Do NOT use the watch in places where it is exposed to high temperature, such as in a sauna.  
Doing so may result in a skin burn.
- Do NOT leave the watch in a place where it is exposed to high temperature, such as the glove compartment or dash-board of a car.  
Doing so may result in deterioration of the watch, such as deformation of plastic parts.
- Do NOT place the watch close to a magnet.  
Timekeeping will become inaccurate if you place the watch close to magnetic health equipment such as a magnetic necklace or a magnetic latch of a refrigerator door or handbag clasp or the earphone of a mobile phone. If this has occurred, move the watch away from the magnet and reset the time.
- Do NOT place the watch close to household appliances that generate static electricity.  
Timekeeping may become inaccurate if the watch is exposed to strong static electricity, such as is emitted from a TV screen.
- Do NOT subject the watch to a strong shock such as dropping it onto a hard floor.

- Avoid using the watch in an environment where it may be exposed to chemicals or corrosive gases.  
If solvents, such as thinner and benzine, or substances containing such solvents come in contact with the watch, discoloration, melting, cracking, etc. may result. If the watch comes in contact with mercury used in thermometers, the case, band or other parts may become discolored.

### **Periodical inspections**

Your watch needs inspection once in every two or three years for safety and long use. To keep your watch water-resistant, the packing needs to be replaced regularly. Other parts need to be inspected and replaced if necessary. Ask for Citizen genuine parts upon replacement.

## 15. Specifications

1. Cal. No.: H18\*
2. Type: Analogue solar powered watch
3. Time accuracy: Without reception (when watch is not receiving a radio wave)  
Average monthly deviation:  $\pm 15$  seconds  
(when used in normal temperature of  $+5^{\circ}\text{C}$  to  $+35^{\circ}\text{C}/41^{\circ}\text{F}$  to  $95^{\circ}\text{F}$ )
4. Acceptable temperature range:  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  ( $14^{\circ}\text{F}$  to  $140^{\circ}\text{F}$ )
5. Display function: ● Time: Hour, minute and second  
● Date
6. Additional functions:
  - Radio wave reception function (automatic reception, on demand reception, recovery automatic reception)
  - Reception standby indication function (RX)
  - Reception level indication function (H, M, L)
  - Reception status confirmation function (H, M, L or NO)
  - Time difference correction function
  - Shock detection function
  - Hand correction function

- Reference position checking/correction function
- Solar power function
- Power saving function
- Insufficient charge warning function (2-second interval movement)
- Overcharging prevention function

### 7. Operation time:

- Time from a full charge until the watch stops without charging:
  - : About 7 months (when not in the power saving mode)
  - : About 2.5 years (when in the power saving mode)The operation time may vary depending on the various factors such as how many times radio wave reception has been performed.
- Time from insufficient charge warning to watch stopping:
  - : About 2 days

### 8. Battery: Secondary battery 1

\* Specifications may change without notice.