

*お買い上げいただいた時計と取扱説明書のイラストは異なる場合があります。

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

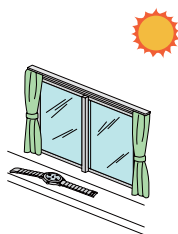
■ This watch is a radio wave watch that receives Japan standard radio waves ■

This watch is equipped with an Automatic Tuning Function that receives radio waves by automatically selecting the station with the strongest signal, a Regular Automatic Reception Function that sets the time and date by automatically receiving radio waves at 2:00 AM, or at 4:00 AM when radio waves are unable to be received at 2:00 AM, each day, and a Free Reception Function that allows you set the time and date by arbitrarily receiving radio waves at any time.

- Standard time waves can only be received in Japan. (Radio waves cannot be received overseas.
- This radio wave watch can be used without concern over effects on the body or medical devices.

■ Please fully charge your watch before use by exposing it to light ■

If the second hand of the watch is moving at 2-second intervals during use, this means that the watch is insufficiently charged. Use the watch after charging by referring to page 98 on "General Reference for Charging Times". Since the watch may be covered by clothing and so forth particularly during the winter preventing it from being exposed to light, charge the watch once a month by exposing to direct sunlight. In order to ensure that the watch is used comfortably, it is recommended to try to keep the watch charged at all times.



Thank you for your purchase of this Citizen watch. Before using this watch, read this instruction manual carefully to ensure correct use. After reading this manual, store it in a safe place for future reference.


In addition, you can view animated explanations of the operation of this watch by accessing the Citizen web site and viewing the "Watch Operating Guide". URL: <http://citizen.jp/support.html>

Safety precautions (Instructions to be followed at all times)


This manual contains the following instructions that should be strictly followed at all times to prevent injury to yourself and other persons as well as damage to property.

■ **Injuries and damage that might be caused by using the watch improperly or neglecting any of the instructions or precautions contained in this manual are classified with the following symbols.**

 **WARNING** Can cause serious injury or death

 **CAUTION** Can or will cause minor or moderate injury or damage

■ **Important instructions that should be followed are classified with the following symbol.**

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

Features

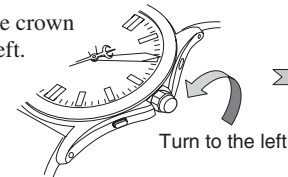
This watch cannot be used without concern over having effects on the body or medical devices (radio waves are not emitted from the watch).

- ◎ This watch is a radio wave watch that automatically corrects the time and date by automatically selecting the radio wave transmitter station having the optimum reception environment and receiving a standard time radio wave (time information) transmitted from two radio wave transmitter stations located in Fukushima and Kyushu.
- ◎ This watch is also an Eco-Drive radio wave watch provided with a photoelectric power generation function that converts light energy into electrical energy to drive the watch. It is also equipped with a power save function that reduces the power consumption of the watch when light does not shine onto the watch dial.
- ◎ This watch is equipped with a "Hand Correction Function" that automatically corrects the time if it has become incorrect due to external factors such as strong impacts or magnetism.
- ◎ This watch is equipped with a time difference correction function that is convenient when using the watch overseas. This function lets you easily set the watch to the local time when traveling to a region or country in a different time zone.

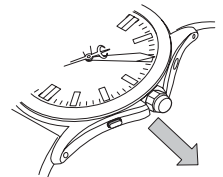
Operating the Crown

<Operating Procedure in the case of a Screw-Lock Crown>

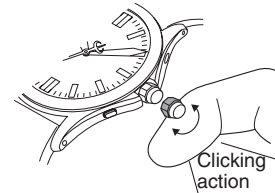
- Turn the crown to the left.



- When the screw locking mechanism is released, the crown pops out a little to the normal position.



<Continuously Moving the Hands>

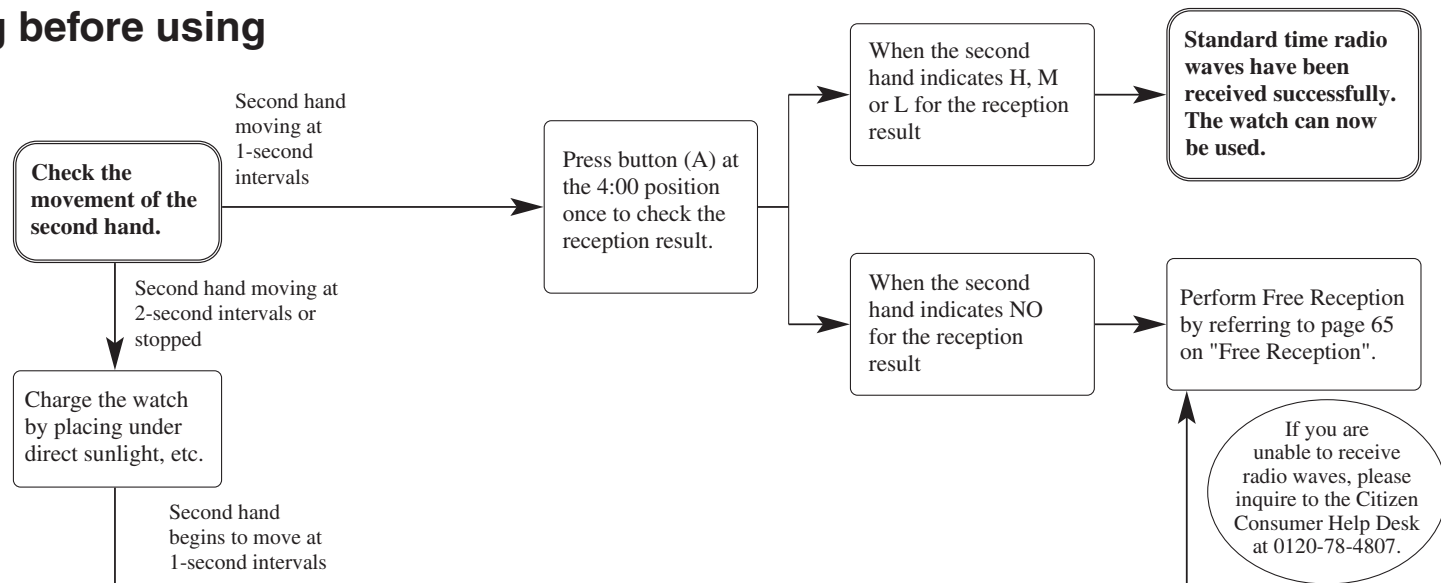
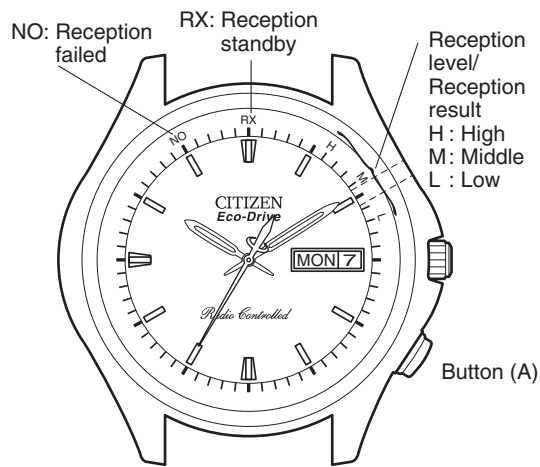


Rapidly turn the crown continuously (by 2 clicks or more)

Rapidly turn the crown continuously to the right or left (by two clicks or more) while at Position 1 or Position 2 to continuously move the hands (hour hand, minute hand or second hand) and the calendar (day, date). Click the crown once (by one click) to the right or left to stop the hands from moving.

*** A gentle clicking action can be felt on your fingertip when turning the crown.**

■ Please check the following before using your watch ■



Please check the following before using your watch

■ Please remember the following about receiving radio waves ■

Regular Automatic Reception

(Automatic reception of radio waves)

- Regular automatic reception does not require any buttons to be pressed.

Radio waves are received at 2:00 AM each day, or radio waves are automatically attempted to be received again at 4:00 AM when they are unable to be received at 2:00 AM, to set the time and date.

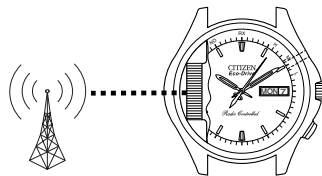
<Reception Procedure>

- Take the watch off of your wrist, face the 9:00 position (location of the reception antenna) towards the radio wave transmitter station and place the watch in a stable location that allows radio waves to be received easily such as near a window.

<Confirmation of Reception>

You can check the reception result anytime after the regular automatic reception time.

- Press button (A) once.
 - If the second hand points to "H, M or L", this indicates that radio waves have been received.
 - If the second hand points to "NO", this indicates that radio waves were unable to be received. If the reception result is "NO", refer to the next page for the procedure for performing free reception.



Refer to the section entitled "General Reference for Receiving Areas" on p.66 for information the direction of the transmitter station.

Free Reception (Manual reception of radio waves)

- This function allows radio waves to be received at any time.

Perform free reception when the reception environment has changed and radio waves are unable to be received by Regular Automatic Reception.

<Reception Procedure>

- Take the watch off of your wrist, face the 9:00 position towards the radio wave transmitter station and place the watch in a stable location that allows radio waves to be received easily such as near a window. Do not move the watch during radio wave reception.
 1. Press button (A) for at least 2 seconds, and release your finger after the second hand has stopped at the RX (12:00) position.
 2. The second hand then moves from RX to H, M or L to indicate that reception is in progress.
 3. When reception is completed, the second hand returns from H, M or L and resumes 1-second interval movement (within a maximum of 15 minutes).

[Reception Standby]



[Reception in Progress]



[Reception Completed]



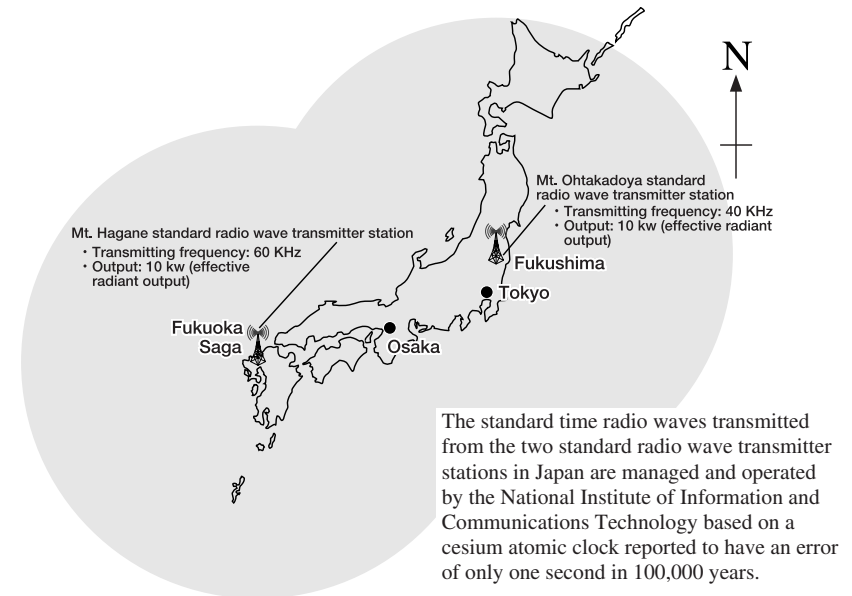
* Refer to page 76 on "Reception of Radio Waves" for further details on the reception procedure.

General Reference for Receiving Areas

This watch is provided with an automatic tuning feature that automatically selects the station to be used for reception of standard time radio waves. A general reference for the areas where the watch can receive standard time radio waves is as follows. However, reception status in these areas may vary due to the times of sunrise and sunset, seasonal changes, weather conditions (presence of lightning, etc.). Since this map only provides a general reference of the standard receiving areas, it may not apply in some particular locations even within the range shown in the map.

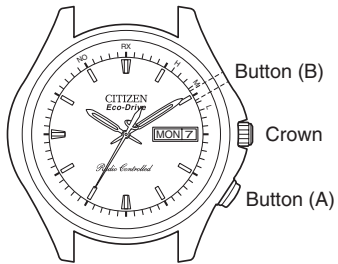
Radio wave transmitter station	Standard time radio wave	Location of transmitter station
Mt. Ohtakadoya standard radio wave transmitter station (Fukushima Station)	JJY (long-wave standard radio wave)	Near the top of Mt. Ohtakadoya located on the border between Miyakoji-mura, Tamura-gun, Fukushima prefecture and Kawauchi-mura, Futaba-gun, Fukushima prefecture
Mt. Hagane standard radio wave transmitter station (Kyushu Station)	JJY (long-wave standard radio wave)	Near the top of Mt. Hagane located on the border between Fujii-machi, Saga prefecture and Maehara-shi, Fukuoka prefecture






Although the standard time radio waves used this watch are transmitted continuously nearly 24 hours a day, there are times when transmission is interrupted for maintenance, inspections and so forth. This watch will continue to run at an accuracy of within ± 15 seconds per month even when standard time radio waves are unable to be received. You can confirm the transmission status of standard time radio waves by viewing our web site or contacting the Citizen Consumer Help Desk.



Please remember the following about receiving radio waves

[List of Functions of Each Component]



Function	Button or Crown Operation
Free reception  (see p.76)	Press button (A) for 2 seconds or more and then release when the second hand has stopped at RX.
Confirmation of reception result  (see p.79)	Press button (A) once.
Time difference correction  (see p.85)	Press button (B) once and turn the crown. After setting, press button (B) once again.
Setting the time  (see p.80)	Pull the crown out to Position 2.
Setting the date (No. of years elapsed from most recent leap year)  (see p.82)	Pull the crown out to Position 1. * The corrected parameter changes in the order of the day, number of years elapsed from most recent leap year and date each time button (A) is pressed once.

Hand Movement

The second hand stops at RX and then moves to the H, M or L to indicate the reception level. When the reception level is not indicated, this means that radio waves were unable to be received, and the second hand resumes normal hand movement.
The second hand indicates H, M, L or NO and stops.
The second hand stops at the 12:00 position. (It stops at the position corresponding to the time difference if a time difference has been set.) The second hand 12:00 position indicates a time difference of ± 0 hours. One step of the second hand indicates a time difference of one hour.
Turning the crown to the right causes the second hand to make one revolution in the clockwise direction and the minute hand to advance by one minute. Turning the crown to the left causes the second hand to make one revolution in the counter-clockwise direction and the minute hand to go back by one minute. Continuously turn the crown quickly to advance the hands rapidly. * The date changes at 12:00 AM.
The second hand moves to the no. of elapsed years from the most recent leap year stored in the memory of the watch and stops. Date: Turning the crown to the right causes the date to advance by one day, while turning the crown to the left causes it to move back by one day. Day: The day changes when button (A) is pressed once and the crown is turned to the right, and changes back when the crown is turned to the left. * The day is switched (between English and Japanese) by pressing button (B) once. Leap year: The second hand advances by one step when button (A) is pressed once and the crown is turned to the right, and goes back when the crown is turned to the left.

CONTENTS

1. Specifications	72
Radio Wave Reception	
2. For Good Reception	74
3. Locations Where Reception May Be Difficult	75
4. Reception of Radio Waves	76
A. Position of the Second Hand During Reception.....	78
B. Confirmation of Reception Result.....	79
Manually Setting the Time and Date	
5. Setting the Time.....	80
6. Setting the Date.....	82
7. Time difference correction procedure.....	85
Checking and Correcting the Reference Position	
8. Hand Correction Function	86
9. Checking the Reference Position.....	87
10. Manually Correcting the Reference Position.....	88

Photoelectric Power Generation

11. Photoelectric Power Generation Function	90
12. Unique Functions of Solar-Powered Watches	92
A. Power Save Function	94
B. Insufficient Charge Warning Function	96
C. Overcharging Prevention Function	97
D. General Reference for Charging Times	98
E. Handling Precautions	100
Troubleshooting	102
Precautionary Items and Usage Limitation	104
Warranty and After-Sales Service	112
For Customers Having Difficulty in Receiving Radio Waves	114
Please Direct Inquiries To:	115

1. Specifications

1. Model: H100
2. Type: Analog solar-powered watch
3. Timekeeping accuracy: Not during reception (when not receiving radio waves)
Within ± 15 seconds per month on average (when worn at normal temperatures of $+5^{\circ}\text{C}$ to $+35^{\circ}\text{C}$ and when not receiving radio waves)
4. Operating temperature range: -10°C to $+60^{\circ}\text{C}$
5. Display functions:
 - Time: Hours, minutes, seconds
 - Calendar (day, date)
6. Additional functions:
 - Radio wave receiving function (regular automatic reception, free reception, recovery automatic reception)
 - Automatic transmitter station selection function (for use exclusively with Japan standard time radio waves)
 - Reception status display function (RX)
 - Reception level display function (H, M, L)

- Reception result confirmation function (H, M, L or NO)
 - Time difference correction function
 - Hand correction function
 - Shock detection function
 - Reference position confirmation/correction function
 - Photoelectric power generation function
 - Power save function (reduces power consumption)
 - Insufficient charge warning function (2-second interval movement)
 - Overcharging prevention function
7. Continuous operation times:
 - Time until watch stops without charging after being fully charged:
 - : Approx. 1 years (when power save function is operating)
 - : Approx. 6 months (when power save function is not operating)Furthermore, continuous operating times vary depending on the number of times radio waves have been received and so forth.
 - Insufficient charge warning display to stopped: Approx. 2 days
 8. Battery: Secondary battery, 1 pc.

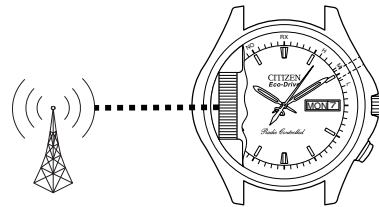
* Specifications are subject to change without notice.

Radio Wave Reception

2. For Good Reception

This watch incorporates an antenna for receiving radio waves inside the watch case (at the 9:00 position). For good reception, remove the watch from your wrist and place the watch in a stable location that facilitates reception of radio waves such as near a window with the 9:00 position of the watch facing in the direction of the radio wave transmitter station. Do not move the watch while receiving radio waves.

The reception level varies depending on the environment in which the watch is used. Try receiving radio waves while changing the orientation or location of the watch several times while referring to H, M or L that indicates the reception level of the watch. Find the location and direction where radio waves are received easily as indicated by H or M for the reception level.



3. Locations Where Reception May Be Difficult

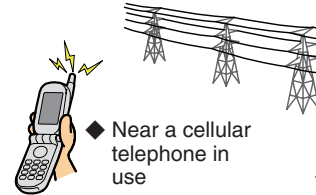
It may not be possible to properly receive radio waves at locations susceptible to generation of radio wave noise or under environmental conditions that cause difficulty in receiving radio waves.



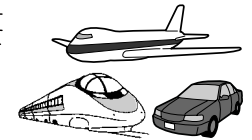
◆ Locations subject to extremely high or low temperatures



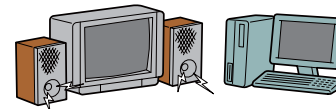
◆ Near high-tension wires (power lines), railroad overhead wires or airports (communication facilities)



◆ Near a cellular telephone in use



◆ In a car, train or airplane



◆ Near household electric appliances or OA equipment such as TV sets, refrigerators, personal computers, fax machines, etc.



◆ Inside a reinforced concrete building, between tall buildings or in valleys between mountains or underground

4. Reception of Radio Waves

There are three ways to receive radio waves consisting of **Automatic Regular Reception, Free Reception** and **Recovery Automatic Reception**. Always make sure to remove the watch from your wrist to receive radio waves. When reception is completed, each hand automatically moves forward or backward to the received time.

Regular Automatic Reception (Automatic reception of radio waves)

- ◎ Place the watch in a stable location where radio waves can be received easily such as by a window with the 9:00 position of the watch facing in the direction of the radio wave transmitter station. Radio waves are automatically received at 2:00 AM every day, or if they are unable to be received at that time, are automatically received at 4:00 every day.

Free Reception (Manual reception of radio waves)

- ◎ This function allows you receive radio waves at any time.
Step 1): Continuously depress button (A) for about 2 seconds, and release when the second hand has rapidly advanced to "RX" (12:00 position) and stopped.

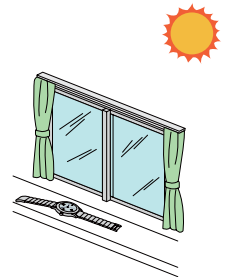
Step 2): Place the watch in a stable location where radio waves can be received easily such as by a window with the 9:00 position of the watch facing in the direction of the radio wave transmitter station.

- **The second hand then moves from RX to H, M or L indicating that radio waves are being received.**
- **When reception is completed, the second hand moves from H, M or L and returns to 1-second interval movement.**
The reception result can be confirmed by referring to "4. B. Confirmation of Reception Result".

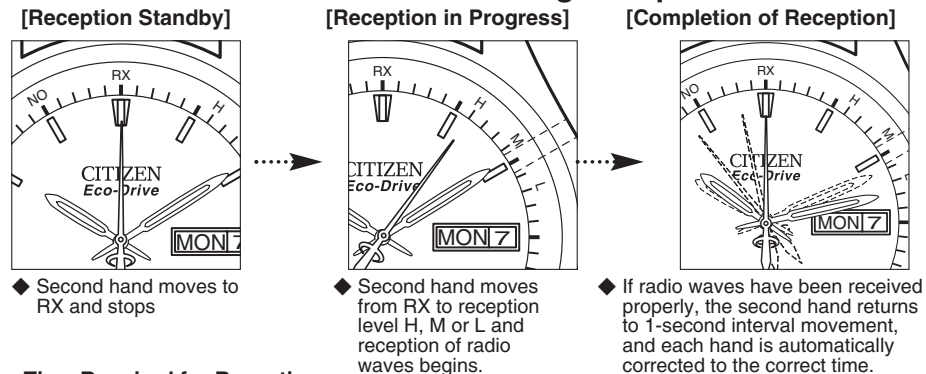
Recovery Automatic Reception

- ◎ After the watch has stopped as a result of being insufficiently charged, radio waves are received once automatically when the watch is sufficiently recharged by exposing to light. Try to keep the watch charged at all times so that it does not become insufficiently charged.

* When the watch is receiving the radio wave signal, all of the hands will stop. To check the time, hold button (A) for 2 seconds to cancel radio wave reception. The hands will then return to the current time.



A. Position of the Second Hand During Reception



<Time Required for Reception>

It may take from about 2 minutes to up to 15 minutes to receive radio waves depending on weather conditions on that day and surrounding noise. In addition, the watch may return to the normal display after about 60 seconds if the second hand continues to point to the reception standby (RX) position without moving to H, M or L.

[NOTE] : The second hand may make one revolution and indicate the reception level again if the transmitter station has changed while reception is in progress or radio wave reception has been interrupted by changes in the reception environment and so forth. Do not move the watch until the second hand returns to 1-second interval movement.

B. Confirmation of Reception Result

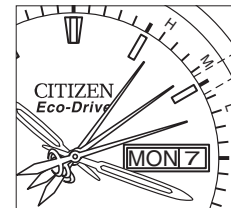
☉ This function allows you to check whether radio wave reception has been successful or failed.

Step 1): Press button (A) once. The second hand rapidly moves to H, M, L or NO to indicate the reception result.

Step 2): The second hand automatically returns to normal hand movement after the reception result has been displayed for 10 seconds. The second hand can also be returned to 1-second interval movement by pressing button (A) while the reception result is displayed.

● If the second hand indicates NO for the reception result, try receiving radio waves by free reception after finding a location and direction where radio waves are received easily.

H, M and L indicate the reception level, and have no effect on performance.



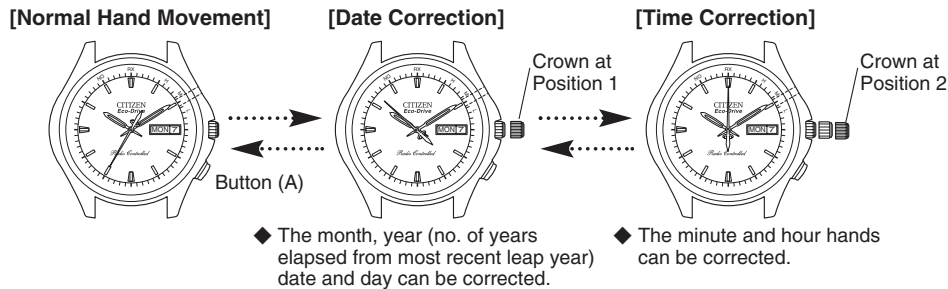
Reception Level	Reception Result After Receiving Radio Waves
H	When radio waves have been received at a high level
M	When radio waves have been received at a medium level
L	When radio waves have been received at a low level
NO	When radio wave reception has failed

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

Manually Setting the Time and Date

5. Setting the Time

The time and date are corrected automatically when this watch receives radio waves. The time and date can also be set manually when using the watch overseas or other locations where radio waves do not reach. Regular automatic reception or free reception can then be performed after returning to a location where radio waves can be received.



Ⓞ Select the calendar mode (month, year, date and day) to be corrected by pressing button (A) once, and then by turning the crown.

<Time Correction Procedure>

Step 1): Pull the crown out to Position 2.

- The second hand rapidly moves to the 12:00 position and stops.

Step 2): Turn the crown to set the minute hand and hour hand.

- ① Turning the crown to the right (by 1 click) causes the second hand to make one revolution in the clockwise direction and the minute hand to advance by 1 minute.
 - ② Turning the crown to the left (by 1 click) causes the second hand to make one revolution in the counter-clockwise direction and the minute hand to go back by 1 minute.
- Continuously turning the crown (by 2 clicks or more) causes the second, minute and hour hands to advance continuously by 12 hours.
 - Turn the crown to the left or right to interrupt continuous movement of the hands.

[NOTE] The date changes at 12:00 AM. Please pay attention to AM and PM.

Step 3): Return the crown to the normal position in synchronization with a telephone time signal or other time service.

6. Setting the Date

<Date Correction Procedure>

Step 1): Pull the crown out to Position 1.

- The watch enters the date correction mode, and the second hand moves to the position of the month and no. of elapsed years stored in the memory the watch and stops.

Step 2): Turn the crown to set the date.

- ① Turning the crown to the right (by 1 click) advances the date by 1 day.
- ② Turning the crown to the left (by 1 click) moves the date back by 1 day.

Step 3): Press button (A) once and turn the crown to set the day.

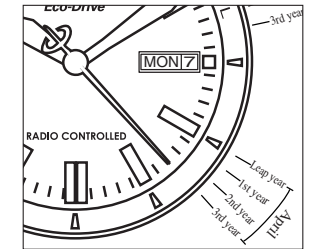
- ① Turning the crown to the right (by 1 click) advances the day.
 - ② Turning the crown to the left (by 1 click) moves the day back.
- Press button (B) once to switch the day display between English and Japanese.

Step 4): Press button (A) once, turn the crown and read the number of elapsed years from the Quick Reference Chart for Number of Years Since Leap Year to set the month and number of elapsed years from the most recent leap year.

<Reading the Month and Year (No. of Elapsed Years from Most Recent Leap Year) with the Second Hand>

☆ Reading the Month Indicated 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

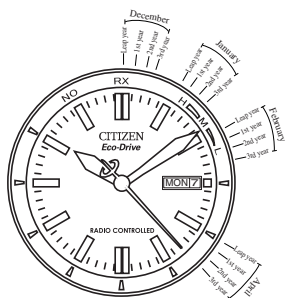


Example: April in 3rd year after most recent leap year

Read the number of elapsed years from the most recent leap year from the Quick Reference Chart for Number of Years Since Leap Year.
 * Align the second hand at the 23 seconds position (4:00 to 5:00 zone).

<Quick Reference Chart for Number of Years Since Leap Year>

Year	Elapsed year	Year	Elapsed year	Year	Elapsed year
2004	Leap year	2008	Leap year	2012	Leap year
2005	1st year	2009	1st year	2013	1st year
2006	2nd year	2010	2nd year	2014	2nd year
2007	3rd year	2011	3rd year	2015	3rd year



☆ **Reading the "No. of Elapsed Years" indicated by the Second Hand**

Leap year:

Starting point of each month zone indicated by the Second Hand

1st year after most recent leap year:

1st graduation of each month zone indicated by the Second Hand

2nd year after most recent leap year:

2nd graduation of each month zone indicated by the Second Hand

3rd year after most recent leap year:

3rd graduation of each month zone indicated by the Second Hand

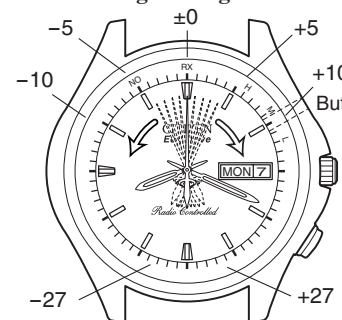
Step 5): Check what year the current year is after the most recent leap year and turn the crown to the right to align the second hand at the position corresponding to the month and no. of elapsed years. Turning the crown to the left (by 1 click) causes the second hand to move in reverse.

Step 6): Return the crown to the normal position.

- Each time the crown is pulled out to Position 1 and button (A) is pressed once, the second hand moves to the date and day to be corrected to indicate that the watch has entered the correction mode.

7. Time difference correction procedure

- This function lets you set a time difference in 1 hour units for the local time when traveling to a region or country in a different time zone by operating the second hand.



Step 1): When button (B) is pressed once, the second hand stops at the 12:00 position, and the second hand 12:00 position indicates a time difference of ±0 hours.

* The second hand stops at the position corresponding to the time difference when a time difference has been set.

Step 2): The time difference can be advanced by 1 hour with one step of the second hand by turning the crown to the right without pulling it out. The time difference can be turned back by 1 hour with one step of the second hand by turning the crown to the left.

- The second hand indicates Japan standard time when at the 12:00 position. The time difference can be set to ±27 hours based on Japan standard time.

Example: When setting the time difference for Hong Kong based on Japan time: Since there is a time difference of 1 hour between Hong Kong and Japan, the second hand is set to the 59 seconds position.

Step 3): After setting the time difference, the second hand returns to 1-second interval movement after indicating rapidly the time difference set time when button (B) is pressed once or when none of the buttons have been pressed for 60 seconds.

Checking and Correcting the Reference Position

8. Hand Correction Function

(Hand Reference Position Automatic Correction Function)

What is the Hand Correction Function ? (Hand Reference Position Automatic Correction Function)

This function checks the hand positions at predetermined intervals to determine if the hand reference positions are correct, and if they are detected to have shifted out of position, rapidly corrects the second, minute and hour hands to automatically keep the correct time.

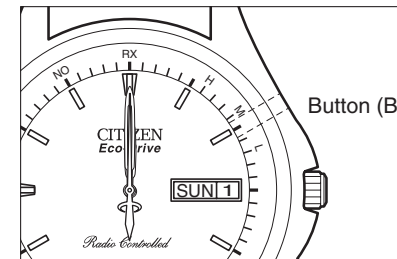
Shock Detection Function

This function prevents the second, minute and hour hands from shifting when the watch is subjected to shocks.

- If the watch should happen to be subjected to a strong impact or placed in an environment subjected to magnetism or static electricity, the correct time may not be displayed even if radio waves are received. If this happens, check the reference position. Refer to "9. Checking the Reference Position" on the following page.

9. Checking the Reference Position

Radio wave watches display the standard time and date received on the basis of a hand reference position of "12:00:00", a date of the "1st", and "SUN" for the day.



Indication of correct reference position:

Time: 12:00:00
Date: 1st
Day: SUN

◎ Check that the reference position is displayed correctly.

- (1) Continuously depress button (B) for about 5 seconds or more with the crown at the normal position, and release once the second hand has begun to move either forward or backward. All of the hands and calendar move rapidly and stop at the reference position stored in the memory of the watch.

● This may take up to about 7 minutes.

If the display appears different from the correct reference position display, refer to section 10 entitled "Manually Correcting the Reference Position".

10. Manually Correcting the Reference Position

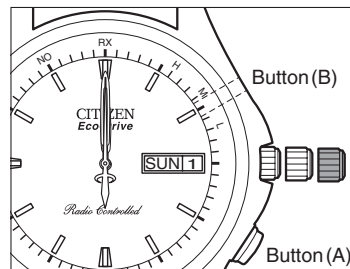
Correct the reference position if the watch does not indicate 12:00:00 for the time, the 1st for the date and SUN for the day.

<Correcting the Reference Positions of the Hour Hand, Minute Hand, Second Hand, Date and Day>

Step 1): Press button (B) for about 5 seconds or more, release it once the second hand has started to move rapidly, and then wait after pulling the crown out to Position 2 while the hand is moving.

Step 2): Turn the crown to align the date at "1".

- ① Continuously turning the crown (by 2 clicks or more) to the right causes the date to change continuously, while continuously turning to the left causes it to return.
- Turn the crown to the left or right to stop the date from changing.



② When a "1" appears in the center of the date window on the watch dial, turn the crown to the left or right to stop the date from changing.

- Each time button (A) is pressed once, the date, day or second hand to be corrected moves indicating that the watch is in the correction mode.

Step 3): Press button (A) once and turn the crown to set the day to "SUN".

- ① Turning the crown continuously to the right (by 2 clicks or more) causes the day to change, while turning continuously to the left causes it to return.

Step 4): Press button (A) once and turn the crown to set the hands to "00:00:00".

- ① Turning the crown to the right (by 1 click) causes the second hand to advance rapidly by 1 minute, while turning it to the left causes the second hand to move back by 1 minute.
- ② Continuously turning the crown (by 2 clicks or more) causes the second hand to rotate rapidly, and the minute hand and hour hand moves continuously in coordination with the second hand.

Step 5): After setting the reference position, return the crown to the normal position and press button (B) once to rapidly return each hand, date and day to the current time and date.

- Although this completes the procedure for setting the reference position, perform free reception before using to set the watch to the correct time.

Photoelectric Power Generation

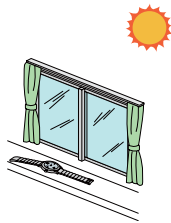
11. Photoelectric Power Generation Function

This watch uses a secondary battery to store electrical energy. Once fully charged, this watch will continue to keep the correct time for about 6 months during normal use.

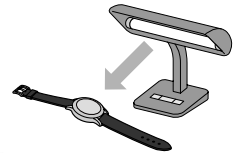
<For Optimum Use of this Watch>

In order to use this watch comfortably, try to store the watch in a bright location at all times.

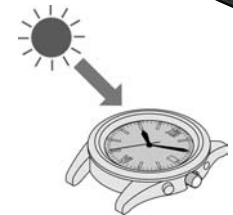
- ◆ When not wearing your watch, try to place it next to a window or other bright location that allows the dial to be exposed to sunlight. This will keep the watch charged and enable it to continue to run properly at all times.



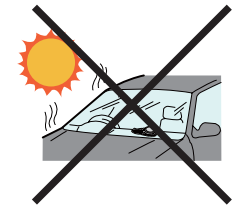
- ◆ Charge the watch by exposing the watch dial to direct sunlight or light from a fluorescent lamp.



- ◆ If you usually wear long sleeves, the watch may be covered thereby preventing it from being exposed to light resulting in the watch becoming insufficiently charged. It is recommended to charge the watch once a month by exposing to direct sunlight.

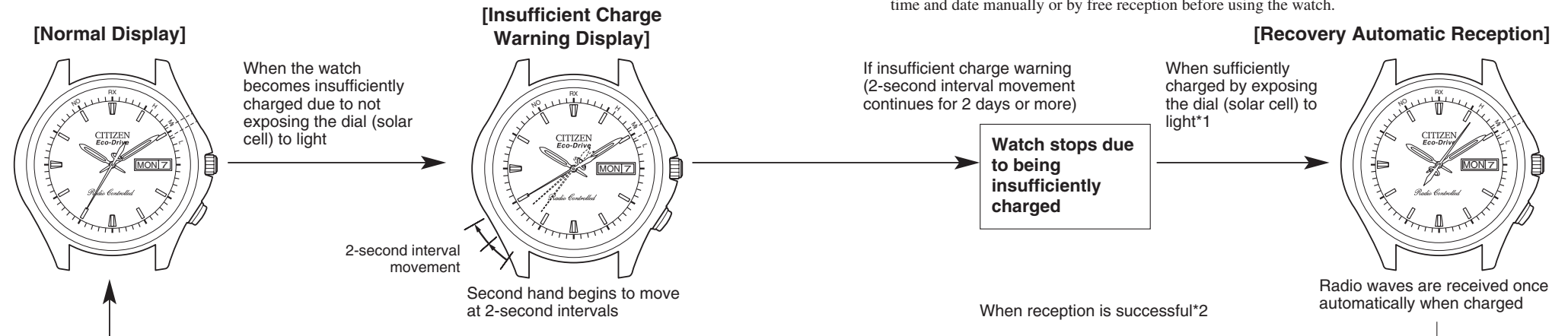


[NOTE] Avoid charging the watch at a location such as an automobile dashboard or other location that reaches a high temperature.



12. Unique Functions of Solar-Powered Watches

☉ When the watch becomes insufficiently charged, the display changes as shown below.



***1 If the watch has stopped as a result of being insufficiently charged:**

- A minimum of about 30 minutes are required until recovery automatic reception even if the watch is exposed to light.

***2: If recovery automatic reception has failed:**

- Since the time is incorrect even if the second hand is moving at one second intervals, first set the time and date manually or by free reception before using the watch.

A. Power Save Function

When the watch dial is continuously not exposed to light for 90 days or more, each hand stops at the 12:00 position and the watch enters the Power Save mode (to reduce power consumption).

[The following functions continue to operate in the power save mode.]

- Regular automatic reception is still performed.
When radio waves are unable to be received by regular automatic reception at 2:00 AM every day, radio waves are attempted to be received automatically again at 4:00 AM.
- Time is continuously kept internally by the watch.
- The calendar (date, day) is changed automatically.



Stopped at 12:00 position

<Canceling Power Save>

The power save function is canceled automatically when the watch dial is exposed to light.

- When the power save function is canceled, each hand rapidly returns to the current time and the second hand begins one-second interval movement.
- Two-second interval movement begins if the watch is insufficiently charged. When this happens, sufficiently charge the watch so that it returns to one-second interval movement.

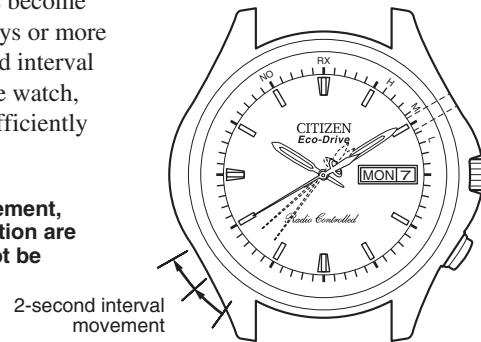
[Note]

- Although regular automatic reception is performed while the watch is in the Power Save mode, radio waves may not be able to be received depending on the storage environment. Check the reception result by pressing button (A) after the Power Save function has been canceled. If the reception result is "NO", perform free reception before using.
- Power save cannot be canceled by operating the crown or buttons. It can only be canceled by exposing the watch to light.

B. Insufficient Charge Warning Function

The second hand changes from 1-second interval movement to 2-second interval movement to indicate that the watch has become insufficiently charged. After about 2 days or more have passed since the start of two-second interval movement without light shining onto the watch, the watch stops as a result of being insufficiently charged.

[Note] During two-second interval movement, regular automatic and free reception are not available, and the time cannot be corrected manually.



- ◆ If the watch becomes insufficiently charged while radio wave reception, confirmation of reception result, time difference correction or checking or setting the reference position is in progress, the operation is interrupted and the watch returns to the time prior to the operation being performed. The watch begins 2-second interval movement at this time. Try to keep the watch charged at all times to prevent it from becoming insufficiently charged.

C. Overcharging Prevention Function

This function eliminates any worry regarding effects on the secondary battery, timekeeping accuracy, performance or functions of the watch no matter how much the watch is charged.

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

D. General Reference for Charging Times

The time required for charging varies according to the model of the watch (color of the dial, etc.). The following times are shown below to serve only as a reference.

* Charging time refers to the time during which the watch is continuously exposed to light.

Illuminance (lx)	Environment	Charging time (Approx.)		
		Charging time for 1 day of operation	Charging time from the stopped state until 1-second interval movement	Charging time until fully charged
500	Inside an ordinary office	4 hours	18 hours	-----
1,000	60-70 cm under a fluorescent lamp (30 W)	2 hours	8 hours	-----
3,000	20 cm under a fluorescent lamp (30 W)	40 minutes	3 hours	150 hours
10,000	Outdoors, cloudy weather	12 minutes	1 hour 30 minutes	40 hours
100,000	Outdoors, summer, under direct sunlight	3 minutes	40 minutes	16 hours

Charging time for 1 day of operation: Time required for charging the watch to run for 1 day at normal hand movement.

Full charging time: Time required for maximally charging the watch when it is stopped due to being insufficiently charged.

[NOTE] The watch will continue to run for about 6 months without additional charging once it has been fully charged. The watch will continue to keep time for about 1 years when the power save function is operating. However, once the watch has stopped as a result of being insufficiently charged, a considerable amount of time is required until it starts to run again as indicated in the table above. It is therefore recommended to charge your watch everyday. Furthermore, it is recommended to charge your watch by exposing to direct sunlight once a month.

E. Handling Precautions

WARNING Handling of Secondary Battery

- ◆ Never attempt to remove the secondary battery from the watch. If the secondary battery must unavoidably be removed, store it out of the reach of small children to prevent accidental swallowing. If the secondary battery should happen to be swallowed, consult a physician immediately and seek medical attention.
- ◆ Do not dispose of the secondary battery with ordinary garbage. Please follow the instructions of your municipality regarding collection of batteries to prevent the risk of fire or environmental contamination.

WARNING Only use the specified secondary battery

- ◆ The watch will not operate if another type of battery is attempted to be installed in the watch. If an ordinary silver battery is forcibly installed in the watch and the watch is charged, overcharging may occur that will eventually cause the battery to rupture. This can result in the risk of the watch being damaged or injury to the wearer. Never attempt to install a battery in the watch other than the specified secondary battery.

CAUTION Charging Precautions

- ◆ Avoid charging the watch at high temperatures (about 60°C or higher).
Allowing the watch to reach high temperatures during charging can cause discoloration or deformation of external components or a malfunction of the components of the movement.
Examples:
 - Charging by placing the watch too close to a light source that may become hot such as an incandescent lamp or halogen lamp
 - Charging by placing the watch on an automobile dashboard or other location that can easily reach a high temperature.
- ◆ When charging the watch with an incandescent lamp, halogen lamp or other light source that may reach a high temperature, always make sure to place the watch at least 50 cm away from the light source to prevent the watch from reaching a high temperature.

Troubleshooting

<Radio Wave Reception Function>

Try checking the following when you think a problem has occurred.

Problem	Check Items	Corrective Actions
Watch does not begin reception	<ul style="list-style-type: none"> ● Does the second hand move to "RX: Reception standby"? 	<ul style="list-style-type: none"> ● Continuously depress button (A) and release when the second hand points to the RX position.
Time does not match telephone time service even though radio waves can be received	<ul style="list-style-type: none"> ● Has the reference position been set correctly? 	<ul style="list-style-type: none"> ● Check the reference position. If the reference position is not correct, refer to "10. Manually Correcting the Reference Position" and reset the reference position.



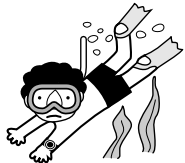


Problem	Check Items	Corrective Actions
Unable to receive radio waves (even within a receivable area)	<ul style="list-style-type: none"> ● Are there objects that block radio waves or generate noise nearby? ● Are radio waves attempted to be received away from a window? 	<ul style="list-style-type: none"> ● Try receiving radio waves while facing the 9:00 position of the watch towards a transmitter station while avoiding objects that block radio waves or generate noise. Try changing the direction, location and angle of the watch several times to find the location near a window at which radio waves are received easily. Refer to "3. Locations where Reception may be Difficult" in the section on Radio Wave Reception.
	<ul style="list-style-type: none"> ● Has the watch been moved while the second hand is indicating RX or a reception level of H, M or L during reception? 	<ul style="list-style-type: none"> ● Wait until reception is completed (until it returns to normal hand movement) before moving the watch.

Precautionary Items and Usage Limitation

WARNING Water Resistance

- Water-resistance for daily use (to 3 atmospheres) means that the watch may be worn while washing your face or in the rain, but is not to be immersed in water.
- Upgraded water resistance for daily use (up to 5 atmospheres) means that the watch may be worn while swimming, but is not to be worn while skin diving or scuba 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.

Name	Indication	Specification
	Dial or Case back	
Everyday-use water-resistant watch	WATER RESIST (ANT)	Water-resistant to 3 atmospheres
Upgraded every-day use water-resistant watch	WATER RESIST (ANT) 5 bar	Water-resistant to 5 atmospheres
Upgraded every-day use water-resistant watch	WATER RESIST (ANT) 10/20 bar	water-resistant to 10 or 20 atmospheres

Water-related use				
				
When water is simply splashed on to the watch (washing your face or in rain)	Swimming and general washing work (kitchen work /swimming, etc)	Water sports and skin diving (without air tank)	Scuba diving (with air tank)	Operate the crown or button when the watch is wet
○	×	×	×	×
○	○	×	×	×
○	○	○	×	×

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

CAUTION

- 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 button when the watch is wet. Water may penetrate into the watch, causing deterioration of 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 a watch of upgraded water resistance for daily use is immersed in sea water or subjected to excessive perspiration, thoroughly rinse with fresh water and wipe completely dry with a soft cloth.
- If water enters the watch or the watch fogs up and does not clear up even after a long time, consult your dealer or Citizen Consumer Help Desk, your nearest Customer Support Center for inspection and/or repair.
- 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, buttons, etc.) may come off.

CAUTION **Handling the Band (Putting on and Taking off Band)**

- 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.

CAUTION **When Wearing your Watch**

- 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.
- 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 able to be removed, caution is required when wearing your watch with articles that tend to easily transfer color (articles of clothing, purses, etc.).

 **CAUTION** Always Keep your Watch Clean

- Small amounts of dirt may become trapped in the tiny gap between the crown and case, making it difficult to pull out the crown. It is recommended to occasionally turn the crown in its normal position to remove any dirt.
- The case and band of the watch come into direct contact with the skin in the same manner as undergarments. Corrosion of the metal or unnoticed soiling such as that caused by perspiration and dirt can soil sleeves and other portions of clothing. Keep your watch clean at all times.
- Wearing this watch may cause itching or rash if you have sensitive skin or certain physical conditions. If you think there is something wrong, discontinue wearing the watch immediately and consult your physician.

Possible causes of rashes include:

1. Allergy to certain metal or leather
 2. Rust, dirt or perspiration present on the watch's body or band
- Leather bands may become discolored by perspiration or dirt. Always keep your leather band clean by wiping with a dry cloth.
 - Do NOT wear the band too tightly. Try to leave enough space between the band and your skin to allow adequate ventilation.

<Caring for your Watch>

- Wipe any dirt or moisture such as perspiration from the case and crystal with a soft cloth.
- Remove any dirt from a leather band with a dry cloth.
- For a metallic, plastic or rubber watchband, wash any dirt off with water. Remove the small amounts of dirt trapped between the crevices of the metallic band with a soft brush.
- Do NOT use solvents (such as paint thinner or benzene) for cleaning, since they may mar the surface of the band.

<When equipped with Natural Light>

- “Natural Light” is a paint that uses a substance that emits no hazardous radiation at all, and is not harmful to human beings or to the environment. It emits light stored during exposure to daylight or artificial light. However, the brightness of the light will diminish as the watch remains in darkness. In addition, depending on the brightness of the daytime light source and the distance between the watch and the light source, the length of time the watch emits light will vary. Note that if the light stored in the watch is insufficient, the watch may not emit much light or will lose brightness quickly.

<Temperature>

- The function of the watch may be impaired or the watch may even stop if the ambient temperature is outside the range of -10°C to +60°C. Avoid using the watch in a manner outside the range of 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 indicating the correct time. 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, electromagneticcooking devices and so on.

<Static Electricity>

- The integrated circuits (IC) used in quartz watches are sensitive to static electricity. Please note that the watch may not indicate the correct time if exposed to intense static electricity.

<Strong Shocks>

- Do not allow the watch to be dropped or subjected to strong impacts.

<Chemicals and Corrosive Gasses>

- If paint thinner, benzene or other solvents or products containing these solvents (including gasoline, nail-polish remover, cresol, bathroom cleaners and adhesives) are allowed to come into contact with the watch, they may discolor, dissolve or crack the materials. Be careful when handling these chemicals.

<Storage>

- 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.
- If you will not be using your watch for an extended period of time, it is recommended to store the watch while avoiding direct sunlight as much as possible. In addition, continuous operation time will be longer if you set your watch to the reference position check mode before storing.

Warranty and After-Sales Service

<Free guarantee>

In the case a malfunction has occurred during the course of normal use while the watch is still under warranty, the watch will be repaired free of charge in accordance with the conditions of the warranty included with this manual.

<Stock period of repair parts>

Citizen's standard period for stocking repair parts for each model is generally seven years. When an exterior part such as a watch case, glass, face, hand, button and band is damaged, a spare part with a different appearance may sometimes be used.

<Repair period>

You can make use of fee-charging repair within the parts stock period after expiration of free guarantee. Please take the watch to the store where you bought it and ask whether it can be repaired because various use conditions may result in much difference in damage. Moreover, there will be cases that the recovery of the original high accuracy is difficult when the accuracy of the watch is reduced after a long period of use.

<When shifting or receiving as a present>

In the event that you move or you have received the watch as a gift and are not able to bring your watch to the store where you purchased it for after service, you should bring it to Citizen Consumer Help Desk or your nearest Customer Support Center.

<Periodic inspection (Charge basis)>

You should have your watch inspected (Charge basis) every 2-3 years in order to extend its life and safety.

The water resistant capability of the water resistant watch reduces year by year.

Replacement of parts are required to maintain the water resistant capability.

Especially in the case of water resistant diving watches, there may be a danger, so have it inspected regularly.

When replacing parts, request for genuine parts. When necessary replace packing and springs, as it may sometimes be necessary to inspect other parts or to make repairs in addition to replacing parts, please ask for more detailed information on repair or replacement expenses at the store where it was purchased, Citizen Consumer Help Desk, your nearest Customer Support Center.

<Repairs>

With the exception of the band, all repairs performed on this watch are to be performed by the manufacturer to maintain watch quality. This is because special techniques and equipment are required for performing repairs, inspections and maintenance. Please contact Citizen Consumer Help Desk or your nearest Customer Support Center representative when requesting repair of your watch.

<Inquiries on other matters>

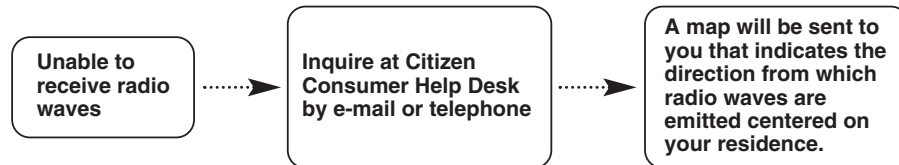
If you have any questions on the guarantee, repair and other matters, please ask at the store where you purchased your watch or Citizen Consumer Help Desk, your nearest Customer Support Center.

For Customers Having Difficulty in Receiving Radio Waves


Reception of radio waves can be affected by weather conditions or the reception environment at that time. Citizen provides support for those persons who are unable to successfully receive radio waves despite following the indicated procedure for radio wave reception by preparing maps indicating the direction by which radio waves are emitted from radio wave transmitter stations.

If you are having difficulty in receiving radio waves, please consult the Citizen Consumer Help Desk.

Any personal information obtained from customers is only used to provide support relating to reception, and is not used for any other purposes.



Please Direct Inquiries To:

Citizen Consumer Help Desk  **0120-78-4807**
2F Citizen Nakano Bldg., 5-68-10, Nakano, Nakano-ku, Tokyo 〒164-8726
Business hours: 9:30-17:30 (Monday thru Friday excluding holidays)
Calls can also be made by cell phone or PHS.
E-mail address: watch-info@citizen.co.jp

<Customer Support Centers>

SAPPORO SUPPORT SERVICE	TEL: 011-709-1121
Kita 14-Joy, Nishi 2-6, Kita-ku, Sapporo (〒001-0014)	
SENDAI SUPPORT SERVICE	TEL: 022-263-3140
2F Sendai Jyozenji Bldg., 3-4-33, Kokubun-cho, Aoba-ku, Sendai (〒980-0803)	
TOKYO SUPPORT SERVICE	TEL: 03-6327-3894
2F Citizen Nakano Bldg., 5-68-10, Nakano, Nakano-ku, Tokyo (〒164-8726)	
NAGOYA SUPPORT SERVICE	TEL: 052-350-1755
2F Kamimaezu-hayashi Bldg., 1-4-5, Kamimaezu, Naka-ku, Nagoya (〒460-0013)	
OSAKA SUPPORT SERVICE	TEL: 06-6252-1432
3-8-9 Minami-Senba, Chuo-ku, Osaka (〒542-0081)	
HIROSHIMA SUPPORT SERVICE	TEL: 082-568-9093
4F Sumitoh Hiroshima Bldg., 9-21, Kyoubashi-cho, Minami-ku, Hiroshima (〒732-0828)	
FUKUOKA SUPPORT SERVICE	TEL: 092-281-4310
8-18 Kami-kawabata-cho, Hakata-ku, Fukuoka (〒812-0026)	