

Thank you very much for choosing a SEIKO watch.
For proper and safe use of your SEIKO watch,
please read carefully the instructions in this
booklet before using.

Keep this manual handy for easy reference.

※ Length adjustment service for metallic bands is available at the retailer from whom the watch was purchased or SEIKO CUSTOMER SERVICE CENTER.
The service may also be available on a chargeable basis at other retailers, however, some retailers may not undertake the service.

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Handling cautions

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About This Product

⚠ WARNING

To indicate the risks of serious consequences such as severe injuries unless the following safety regulations are strictly observed.

- Immediately stop wearing the watch in following cases.
 - If the watch body or band becomes edged by corrosion etc.
 - If the pins protrude from the band
 - ※ Immediately consult the retailer from whom the watch was purchased or SEIKO CUSTOMER SERVICE CENTER.
- Keep the watch and accessories out of the reach of babies and children.

Care should be taken to prevent a baby or a child accidentally swallowing the accessories.
If a baby or a child swallows the battery or accessories, immediately consult a doctor, as it will be harmful to the health of the baby or child.
- Do not remove the secondary battery from the watch.

※ About the secondary battery → POWER SOURCE P.152
Replacement of the secondary battery requires professional knowledge and skill. Please ask a watch retailer for replacement of the secondary battery.
Installation of an ordinary silver oxide battery can generate heat that can cause bursting and ignition.

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⚠ CAUTIONS

To indicate the risks of light injuries or material damages unless the following safety regulations are strictly observed.

- Avoid wearing or storing the watch in the following places.
 - Places where volatile agents (cosmetics such as polish remover, bug repellent, thinners etc.) are vaporizing
 - Places where the temperature drops below 5 °C or rises above 35 °C for a long time
 - Places of high humidity
 - Places affected by strong magnetism or static electricity
 - Dusty places
 - Places affected by strong vibrations
- If you observe any allergic symptoms or skin irritation

Stop wearing the watch immediately and consult a specialist such as a dermatologist or an allergist.
- Other cautions
 - Replacement of the metal band requires professional knowledge and skill. Please ask a watch retailer for replacement of the metal band, as there is a risk of hand or finger injury and fear of losing parts.
 - Do not disassemble or tamper with the watch.
 - Keep the watch out of the reach of babies and children. Extra care should be taken to avoid risks of any injury or allergic rash or itching that may be caused when they touch the watch.
 - When disposing of used batteries, follow the instructions of your local authorities.
 - If your watch is of the fob or pendant type, the strap or chain attached to the watch may damage your clothes, or injure the hand, neck, or other parts of your body.

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About This Product

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⚠ WARNING



Do not use the watch in scuba diving or saturation diving.

The various tightened inspections under simulated harsh environment, which are usually required for watches designed for scuba diving or saturation diving, have not been conducted on the water-resistant watch with the BAR (barometric pressure) display. For diving, use special watches for diving.

⚠ CAUTION



Do not pour running water directly from faucet.

The water pressure of tap water from a faucet is high enough to degrade the water resistant performance of a water resistant watch for everyday life.

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About This Product

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⚠ 注意



Do not turn or pull out the crown when the watch is wet.

Water may get inside of the watch.
※ If the inner surface of the glass is clouded with condensation or water droplets appear inside of the watch for a long time, the water resistant performance of the watch is deteriorated. Immediately consult the retailer from whom the watch was purchased or SEIKO CUSTOMER SERVICE CENTER (listed on the end of a book).



Do not leave moisture, sweat and dirt on the watch for a long time.

Be aware of a risk that a water resistant watch may lessen its water resistant performance because of deterioration of the adhesive on the glass or gasket, or the development of rust on stainless steel.



Do not wear the watch while taking a bath or a sauna.

Steam, soap or some components of a hot spring may accelerate the deterioration of water resistant performance of the watch.

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About This Product

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Features

This solar radio-controlled watch is equipped with the world time function.

- By selecting a time zone, the watch can automatically display the local time in a different time zone around the world.
- The watch indicates the precise time by automatically receiving radio signals on official standard frequencies. (The watch can receive official standard frequencies from Japan, People's Republic of China and the United States of America.)
- Two sets of time displays are provided to indicate the local time in two different time zones at the same time.

- World Time Function** ··· By selecting a time zone, the watch can display the local time in the selected time zone area. → P.110
- Dual Time Display** ····· In addition to the main time display, the time in another region can be displayed in the 24-hour indication format by the sub dial located at the 6 o'clock position. → P.119
- Radio Signal Receiving Function** ··· The watch maintains the precise time by automatically receiving radio signals on official standard frequencies. Manual reception of radio signals is also possible. The watch can receive official standard frequencies of Japan, People's Republic of China and the United States of America. → P.122

- Display Function of Radio Signal Reception Results** ··· The movement of the second hand indicates radio signal reception results (Yes/No). → P.128
- Display Function of Radio Signal Reception Level** ····· The movement of the second hand indicates the radio signal reception level during radio signal reception attempts. (Only when the watch is receiving radio signals by manual operation.) → P.157
- Solar Rechargeable Battery** ········· A solar cell underneath the dial converts any form of light into "electrical energy" to power the watch and the power is stored in a secondary battery. Once fully charged, the watch continues to run for approximately nine months. → P.134
- Energy Depletion Forewarning Function** ··· The movement of the second hand indicates when the battery should be charged. → P.136
- Power Save Function** ············· The Power Save mode is activated when the watch is left without an adequate light source to reduce energy consumption. → P.137
- Automatic Hand Alignment Function** ····· Affected by magnetism or other external sources, when the hand alignments are deviated, the watch automatically corrects the hand alignments. → P.168

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Display and button operation

Main Watch
Minute hand
Hour hand
Day hand
Second hand
Date
Sub dial → P.120

Button A
Crown
Normal position: How to select the time zone p.112
Checking the reception result p.128
Manual reception p.156
First click: Manual date setting p.162
Manual day setting p.165
Time setting for subdial p.120
Second click: Manual time setting p.160
Resetting the built-in IC p.182
※ If your watch has a screw lock type crown, keep it locked while you are wearing the watch. → Screw lock type crown P.107

BUTTON B → P.106
※ The operation method of the button varies with the functions being used. Follow the instructions of each section of this booklet.

Display of Radio Wave Reception Level

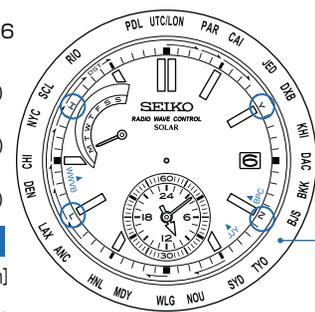
[Manual reception]
→ P.156

- H ··· High reception level (50-second position)
- L ··· Low reception level (40-second position)
- N ··· Unable to receive radio signals (20-second position)

Standard Frequencies Transmitting Station Display

[Reception Result Confirmation]
P.128.
Displays received radio signals

- JJY ··· JJY (Japan)
- BPC ··· BPC (China)
- WVVB ··· WVVB (The United States of America)



Display of Radio Wave Reception Result

[Checking the reception results]
→ P.128

- Y ··· Reception Successful (10-second position).
- N ··· Reception failed (20-second position).

Time Zone Display

[Time zone selection] → P.112
City names ··· 24 cities around the world
DST → ··· Daylight Saving Time

※ Indication on the bezel or positions of each item on the dial may vary depending on the model (design).

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How to use button B

To prevent accidental input and to optimize design, some models may have a Button B, which cannot be easily pressed with your finger. Refer to the table below on how to press the Button B.

Appearance	Upper half of the Button B is covered.	Button B has an outer ring.	Button B is covered except the hollow in the middle of the button.	Button B is embedded in the watchcase.
How to press	Use an object with a long tapered tip. ※ You can also press the lower half of the button with your finger.	① Turn the outer ring counterclockwise (to a downward direction) to loosen it. ② Press the button with your finger. ※ After finishing the operation, make sure to lock the outer ring by turning it clockwise.	Press the button using an object with a long tapered tip.	Press the button using an object with a long tapered tip.

※ Types of buttons differ depending on the design of the watch.

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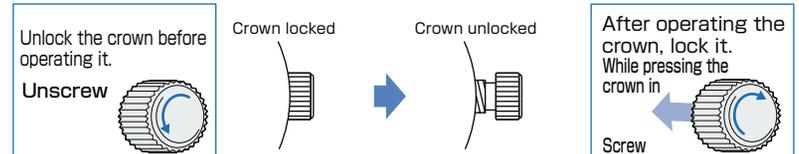
Screw lock type crown

The watch features a screw-lock mechanism that can securely lock the crown when they are not being operated in order to prevent any operational errors and to improve its water resistant property.

- It is necessary to unlock the screw lock type crown before operating it.
- Once you have finished operating the crown, make sure to relock it.

[To unlock the crown]
Turn the crown counterclockwise (downward) to unscrew it.
Now the crown can be operated.

[To lock the crown]
Turn the crown clockwise (upward) while gently pressing it in toward the watch body until it stops.



※ When locking the crown, turn it slowly with care, ensuring that the screw is properly engaged. Be careful not to forcibly push it in, as doing so may damage the screw hole in the case.

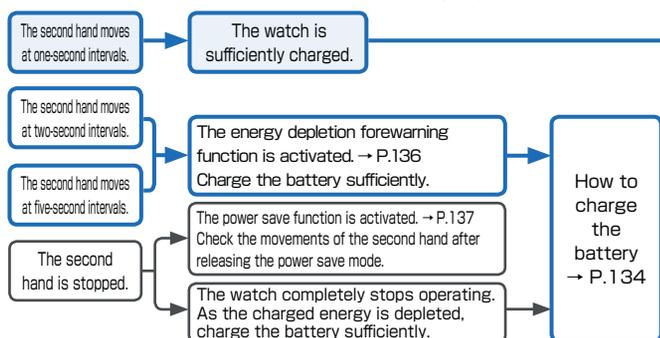
106

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Before use

1 Checking the charging status

When the movement of the second hand shows an energy depletion state, the battery requires charging.

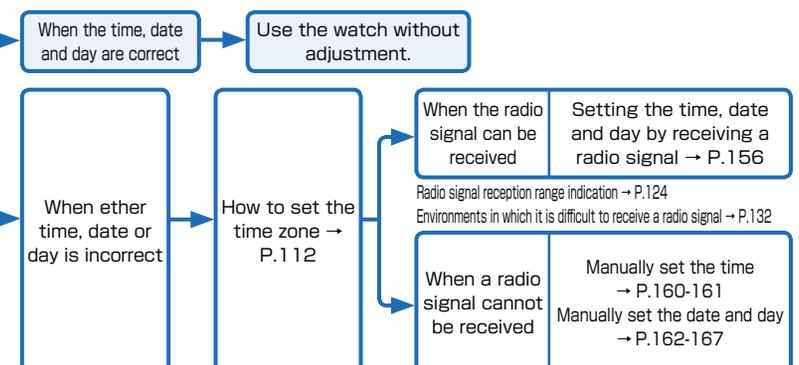


※ If the second hand does not move at one-second intervals even after fully charging the battery → "Charging the solar battery" in Troubleshooting on P.176

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2 Checking the time, date and day

※ The hands of this watch cannot be moved by turning the crown. So when adjusting the time, date and day, refer to the following pages regarding the procedures.



2

Before Use

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How to use the world time function

World time function

- The main watch can be easily set to display the local time in a different time zone by selecting a time zone among 24 regions around the world.

In the Time Zone Setting mode, the second hand indicates the selected time zone.



- If the time zone is set to Japan, China or the United States, the watch displays the precise time, date and day of the week by receiving radio signals, provided that the watch is within the radio signal reception range.

※ The watch is unable to receive radio signals outside the reception range. → Radio Signal Reception Range P.124

When using the watch in Japan, set the time zone to [TYO (Tokyo)] so that the watch can receive radio signals of Japan.

When using the watch in China, set the time zone to [BJS (Beijing)] so that the watch can receive radio signals of China.

When using the watch in the United States, set the time zone to either [LAX (Los Angeles)], [DEN (Denver)], [CHI (Chicago)] or [NYC (New York)], so that the watch can receive radio signals of the United States.

→ How to select the time zone P.112 → Time zone display and time difference table P.114

Example: How to display the local time in Honolulu (How to set the time zone to HNL (Honolulu))

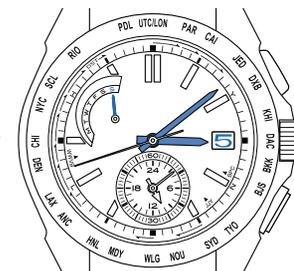
When the time zone is selected, the date and day of the week are automatically adjusted in conjunction with the time of the main watch. The time of the sub dial remains unchanged. → About sub dial P.120

<Before time zone setting>
Main watch: local time (Tokyo)
Sub dial: home time (Tokyo)



Local time in Japan: 6th., Monday, 10 o'clock 8 minutes and 42 seconds
Local time in Honolulu: 5th., Sunday, 15 o'clock 8 minutes and 42 seconds

<After time zone setting>
Main watch: local time (Honolulu)
Sub dial: home time (Tokyo)



How to select the time zone (How to display the local time around the world)

Within 10 seconds after procedure ① is completed, start the operation of procedure ②.

※ If the watch is left untouched for 10 seconds after the second hand stops, the watch automatically returns to the TIME display mode. If this happens, restart the operation from procedure ①.

① Keep pressing down the Button B (for 4 seconds) until the second hand stops.

▶ The second hand starts to move and stops pointing to the currently selected time zone.

※ To press the Button B, use an object with a long tapered tip. → P.106

Button B for 4 seconds

② Within 10 seconds after carrying out the procedure ①, press the Button A or B to set the second hand to point at the target time zone index.

▶ With each pressing of the button, the second hand moves to the adjacent time zone index.

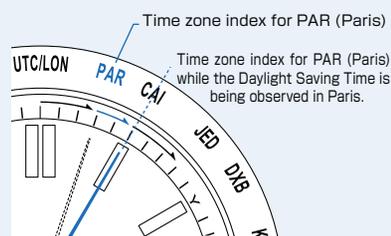
Button A for clockwise turn

Button B for counterclockwise turn

③ Set the Daylight Saving Time (DST) as necessary.

To set the Daylight Saving Time, select the time zone index next to the target time zone (+ 1 hour), which is indicated by the arrow under the time zone index.

<Example>When the Daylight Saving Time is being observed in Paris, set the second hand to point at the next time zone index CAI, as indicated by the arrow.



④ Within 10 seconds after the movement of the hour and minute hands stop, the watch automatically exits the Time Zone Setting mode.

▶ The second hand starts to move. The watch automatically adjust the date and day of the week as necessary.

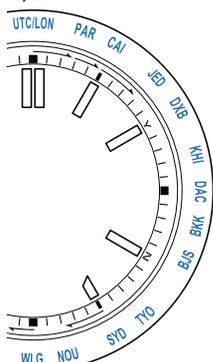
※ While the date and day of the week are moving, neither the buttons nor the crown can be operated.

Time zone display and time difference table

In the Time Zone Setting mode, set the second hand to point at the target time zone index referring to the table below. The arrow indicates examples of the shifts of time zone index while the Daylight Saving Time is being observed.

To set the Daylight Saving Time, select the time zone index next to the target time zone (+ 1 hour), which is indicated by the arrow under the time zone index.

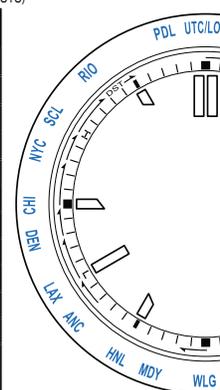
Indication on the bezel	Second hand positions	Names of representative cities (Time Zone)	Time difference from UTC	Receivable radio signals
UTC/LON	0-second position	★ London/UTC	0 hours	—
PAR	3-second position	★ Paris/Berlin	+1 hours	—
CAI	5-second position	★ Cairo	+2 hours	—
JED	8-second position	JEDDAH	+3 hours	—
DXB	10-second position	Dubai	+4 hours	—
KHI	13-second position	Karachi	+5 hours	—
DAC	15-second position	Dhaka	+6 hours	—
BKK	17-second position	Bangkok	+7 hours	—
BJS	19-second position	Beijing (China)	+8 hours	BPC
TYO	23-second position	Tokyo (Japan)	+9 hour	JJY
SYD	25-second position	★ Sydney	+10 hours	JJY△
NOU	28-second position	Noum�ea	+11 hours	—



※ The time zones with a △ mark in the receivable radio signals column are the time zones which should be selected while the Daylight Saving Time is being observed in Tokyo (Japan) or New York (USA).
※ Each indication may differ depending on the model (design) of the watch. (As of April 2014)

Daylight Saving Time (Summer Time) is in effect in time zones indicated with a "★" mark. (As of July 2010)

Indication on the bezel	Second hand positions	Names of representative cities (Time Zone)	Time difference from UTC	Receivable radio signals
WLG	30-second position	★ Wellington	+12 hours	—
—	32-second position	(DST in Wellington)	+13 hours	—
MDY	33-second position	Midway Islands	- 11 hours	—
HNL	35-second position	Honolulu	- 10 hours	—
ANC	38-second position	★ Anchorage	- 9 hours	—
LAX	40-second position	★ Los Angeles (USA)	- 8 hours	WWVB
DEN	43-second position	★ Denver(USA)	- 7 hours	WWVB
CHI	45-second position	★ Chicago(USA)	- 6 hours	WWVB
NYC	48-second position	★ New York(USA)	- 5 hours	WWVB
SCL	50-second position	★ Santiago	- 4 hour	WWVB△
RIO	53-second position	★ Rio de Janeiro	- 3 hours	—
—	55-second position	(DST in Rio de Janeiro)	- 2 hours	—
PDL	58-second position	★ Azores	- 1 hour	—



What is a time zone?

There are time differences around the world based on "Coordinated Universal Time (UTC)." There are 24 regions (Time Zones) around the world with a time difference of one hour. This system has been adopted internationally by setting the total time difference around the world as 24 hours.

In addition, Daylight Saving Time (Summer Time) is individually adopted in some regions.

[What is UTC (Coordinated Universal Time)?]

UTC is the universal standard time coordinated through international agreement. It is used as the official time around the world. UTC is determined by adding a leap second to GMT (Greenwich Mean Time), which is determined through astronomical measurement, in order to keep the precise time.

[What is summer time (DST)?]

Summer time is daylight saving time. Advancing the watch one hour to prolong daytime during longer daylight hours in summer. Daylight saving time has been adopted in about 80 countries, mainly in Europe and North America. The adoption and duration of daylight saving time vary depending on the country.

※ Time differences between regions and daylight saving time may change due to circumstances of a country or region.
※ In some regions, time zones that differ from UTC by half- or quarter-hour time differences are established. (For example, some parts of India.)

MEMO

Q & A for the world time function

Q : Will the watch be automatically set to the local time when it is moved to a place outside Japan in a different time zone?

A : The watch will not be automatically set to the local time if it is just moved to a place outside Japan in a different time zone. Select the time zone where you are when you are abroad. If you select the time zone, the watch is automatically set to the local time. (The time difference can be adjusted in increments of 1 hour based on the Japan Standard Time.) After selecting the time zone, if it is within the reception range of radio signals, you can leave the watch to receive the radio signal to set it to the precise time. (The receivable standard frequency can be changed by selecting a time zone.)

Q : Daylight Saving Time information should be contained in a standard frequency. Isn't it necessary to set summer time manually if the time zone within the radio signal reception range is properly selected?

A : Some areas or countries in a time zone may not have adopted Daylight Saving Time. Therefore the watch is designed so that Daylight Saving Time can be manually selected.

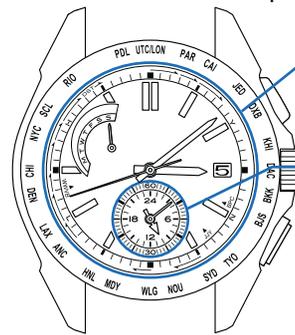
Q : Maintaining the main watch under home time (time of residing area) , is it possible to allow the sub dial to display local time (local time in each time zone around the world) ?

A : The sub dial can be adjusted to any discretionary time. Refer to "How to set the sub dial" on P.120.

About dual time display

Equipped with the main watch and sub dial, the watch can simultaneously indicate the local times in two regions.

Example: How to display the local time in Honolulu by the main watch, and the local time in Japan by the sub dial.



Main watch: Local time (Honolulu)
Honolulu time (-19 hours): 15 o'clock 8 minutes and 42 seconds
Date: 5th.
Day of the week: Sunday

Sub dial: Home time (Japan)
Japan time: 10 o'clock 8 minutes (24-hour indication format)
→ About sub dial P.120

About sub dial

• The sub dial displays time in the 24-hour indication format.

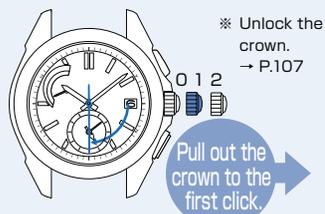
• Even if the time zone of the main watch is changed, the time indicated on the sub dial remains unchanged.

Sub dial operates independently of the main watch.

How to set the sub dial

1 Pull out the crown to the first click.

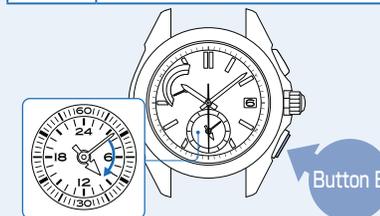
The second hand rotates until it points to the 30-second position and stops. The watch enters the time setting mode for sub dial. Both the main watch and the sub dial continue to operate.



※ Unlock the crown. → P.107

2 Press the Button B to set the time.

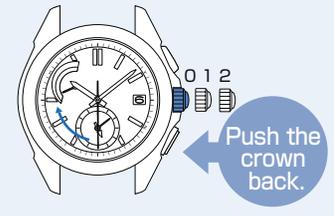
To advance one minute	Press the button once and release.
To advance rapidly	Keep pressing down the button for longer than 2 seconds. Press the button once again to stop.



※ Press the Button B with your finger or with an object with a long tapered tip. → P.106

3 Push the crown back.

The operation is now completed.

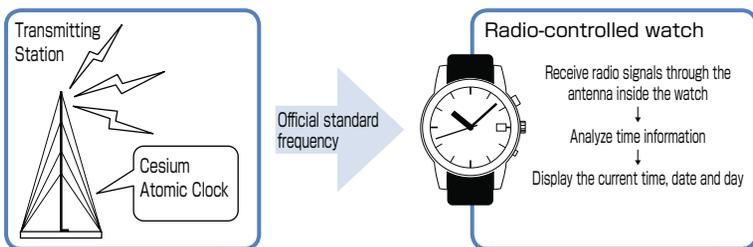


※ Relock the crown. → P.107

Setting the time, date and day by receiving a radio signal

Mechanism of radio signal reception

The radio-controlled watch displays the precise time, date and day by automatically receiving and synchronizing itself with the radio signal of an official standard frequency.



Time signal transmitted by a standard frequency is based on a super accurate "Cesium Atomic Clock" that may have a 1 second loss or gain per one hundred thousand years.

Automatic reception and manual reception

Automatic reception

This watch sets the time, date and day by automatically receiving a radio signal at a fixed time. This watch automatically receives a radio signal at 2:00 AM, 3:00 AM and 4:00 AM.

※ When the watch successfully receives a radio signal, it will stop automatic reception.

- Place the watch in a place where it can easily receive a radio signal such as near a window.
- While the watch is receiving radio signals, do not move it. → To Improve Radio Signal Reception P.131

Manual reception

When this watch cannot automatically receive a radio signal due to a difficult receiving environment, it is possible to receive them arbitrarily at any time.

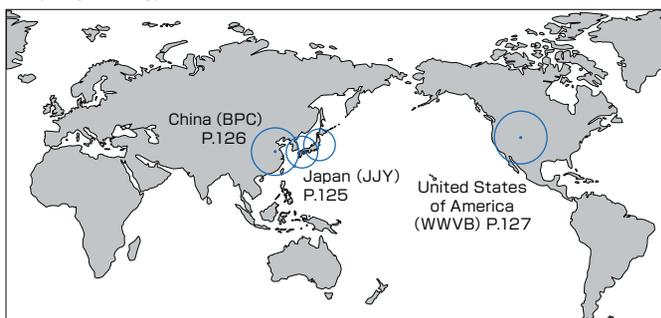
→ How to conduct manual reception P.156

- If the time zone is set to a region other than Japan, China or the United States, the signal reception function will not work. → Time Zone Display and Time Difference Table P.114
- Radio Signal reception results depend on a receiving condition. → Environments in which it is difficult to receive a radio signal on P.132
- This watch is unable to receive radio signals outside a reception range → Radio signal reception range indication on P.124
- When the watch is not displaying the precise time, date and day even after successfully receiving a radio signal → In this case, refer to Troubleshooting: Misalignment of the time and hands on P.178 and Misalignment of the date and day on P.180.

About reception conditions

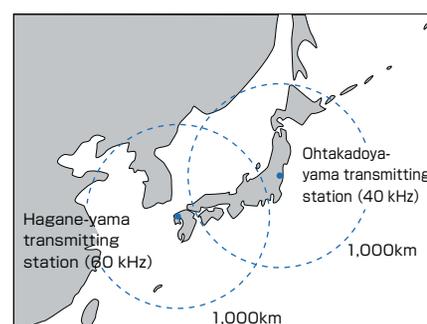
About radio signal reception range

This watch can receive official standard frequencies of Japan (two stations), People's Republic of China, and the United States of America. When you set the watch to a time zone in Japan, China or the United States, the official standard frequencies the watch receives will be automatically changed accordingly to the selected time zone. → Setting the Time Zone P.112



Radio signal reception range : JAPAN (J J Y)

When the time zone is set to [TYO (Tokyo)], the watch can receive radio signals of Japan.



JJY is operated by the National Institute of Information and Communications Technology (NICT). JJY is transmitted from two stations in Japan. Each station transmits JJY in a different frequency.

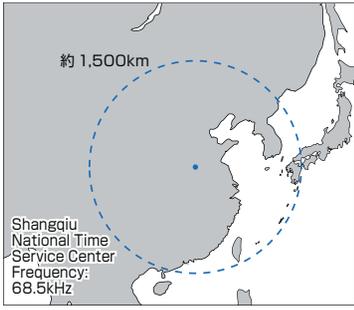
Fukushima (Ohtakadoya-yama transmitting station: 40 KHz)
Kyushu (Hagane-yama transmitting station: 60 KHz)

The reception range from each transmitting station is approximately 1,000 km (1,000 km radius of each station).

- If the condition is good in a range beyond 1,000 km, there can be the case that the watch can receive radio signals.
- Even within the radio signal reception range, radio signal reception may be obstructed depending on the reception conditions such as weather, geographical features, surrounding buildings or directions. → Conditions in which the watch may be unable to receive radio signals P.132

■ Radio signal reception range : People's Republic of China (BPC)

When the time zone is set to BJS (Beijing), the watch can receive radio signals of China.



BPC is operated by NTSC, Chinese Academy of Sciences National Time Service Center.

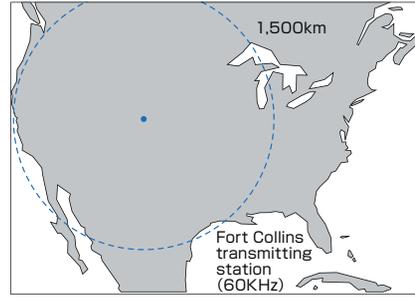
Shangqiu City, Henan Province
Shangqiu Low-Frequency Time-Code Time Service Station (68.5 kHz)
※ NTSC : National Time Service Center

The reception range from the transmitting station is approximately 1,500 km (1,500 km radius of Shangqiu transmitting station).

- ※ If the condition is good in a range beyond 1,500 km, there can be the case that the watch can receive radio signals.
- ※ Even within the radio signal reception range, radio signal reception may be obstructed depending on the reception conditions such as weather, geographical features, surrounding buildings or directions.
- Conditions in which the watch may be unable to receive radio signals P.132

■ Radio signal reception range : United States of America (WWVB)

When the time zone is set to either [LAX (Los Angeles)], [DEN (Denver)], [CHI (Chicago)] or [NYC (New York)], the watch can receive radio signals of the United States.



WWVB is operated by NIST.
Fort Collins radio station (60KHz), Denver, Colorado
※ NIST : National Institute of Standards and Technology

The reception range from the transmitting station is approximately 1,500 km (1,500 km radius of Fort Collins radio station).

- ※ If the condition is good in a range beyond 1,500 km, there can be the case that the watch can receive radio signals.
- ※ Even within the radio signal reception range, radio signal reception may be obstructed depending on the reception conditions such as weather, geographical features, surrounding buildings or directions.
- Conditions in which the watch may be unable to receive radio signals P.132

How to check the reception results

■ About reception result display

The second hand indicates the latest radio signal reception results (Yes/No) for five seconds, and then indicates the transmitting station from which the watch received the latest radio signals.

1 Press the Button A once and release it.

▶ The second hand indicates the reception results.



Press the Button A once and release it.

※ When the Button A is kept pressed, the watch enters the manual reception mode.

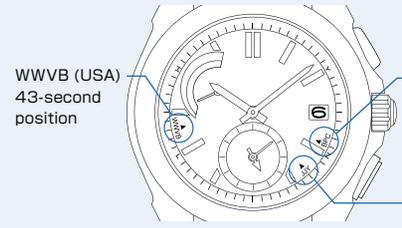
2 Check if the reception was successful (within five seconds).

If the reception was successful : Y
(the 10-second position)
When 5 seconds have elapsed, the second hand starts to move.

If the reception failed : N
(the 20-second position)
※ When 5 seconds have elapsed or if the Button A is pressed, the watch returns to the TIME display mode.

3 Check which transmitting station the watch has received the latest radio signals from (within 3 seconds).

▶ The second hand points to the station indicator from which the watch received the radio signals.



WWVB (USA)
43-second position

BPC (China)
19-second position

JJY (Japan)
23-second position

※ When 3 seconds have elapsed or if the Button A is pressed, the watch returns to the TIME display mode.

If a reception was successful: The second hand points to Y

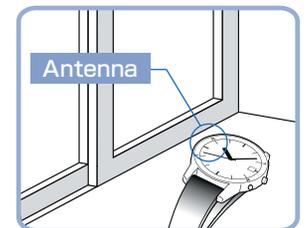
- A radio signal has been received successfully. Use the watch without any adjustments.
※ When the watch is not displaying the precise time, date and day even after successfully receiving a radio signal → In this case, refer to Troubleshooting: Misalignment of the time and hands on page 178 and Misalignment of the date and day on P.180.

If reception has failed: The second hand points to N.

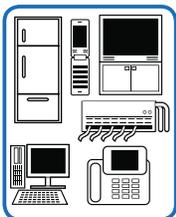
- Place the watch in a place where it can easily receive a radio signal, or change its direction.
Even within the radio signal reception range, this watch may fail to receive a radio signal depending on the condition (due to the influence of weather, geographical features, buildings, or direction) . → In this case, refer to Environments in which it is difficult to receive a radio signal on P.132.
This watch is unable to receive radio signals outside a reception range → Radio signal reception range indication on P.124
- Make sure that the time zone is correctly selected before attempting radio signal reception.
If the time zone is set to a region other than Japan, China or the United States, the signal reception function will not work. Check the time zone setting → How to select the time zone on P.112
- Attempt to receive a radio signal in a different time period (In the case of manual reception).
Receiving environments differ according to time periods even at the same place.
Due to radio signal characteristics, the watch is able to easily receive radio signals during nighttime hours.
- If you use the watch in a place or region outside the radio signal reception range or when the watch cannot successfully receive radio signals, manually set the time, date and day of the week.
How to manually set the time → P.160
How to manually set the date → P.162
How to manually set the day of the week → P.165

■ To Improve radio signal reception

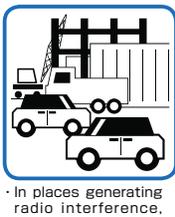
- Place the watch in a place where it can easily receive a radio signal such as near a window.
The antenna is embedded at the 9 o'clock position of the watch. Turning the antenna toward the outside of a window or the direction facing transmitting stations helps improve radio signal reception.
※ Locations of transmitting stations → Radio Signal Reception Range Indication P.125-127
- Do not move the watch while it is receiving radio signals.
To enhance the reception of radio signals, do not move the watch or do not change the orientation of the watch while it is receiving radio signals.
※ If the button or crown is operated while the watch is receiving a radio signal, the reception will be cancelled.



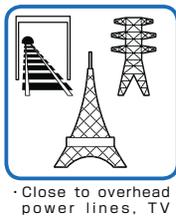
■ Environments in which it is difficult to receive a radio signal



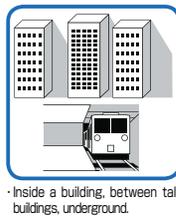
• Close to home electrical appliances such as TV's, refrigerators or air conditioners
• Close to OA devices such as mobile phones, personal computers or fax machines
• Close to steel desks or other furniture made of metal



• In places generating radio interference, such as construction sites or places with heavy traffic.



• Close to overhead power lines, TV stations, train cables.



• Inside a building, between tall buildings, underground.



• Inside a vehicle, train, or airplane

Avoid putting the watch in such places when it receives radio signals.

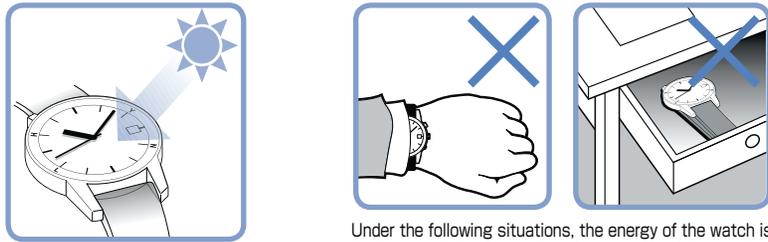
CAUTION

- The watch may display the wrong time if it fails to receive radio signals properly because of interference. The watch may also fail to receive radio signals properly depending on the location or radio wave receiving conditions. In this case, move the watch to another place where it can receive radio signals.
- When the watch is out of reception range, its accurate quartz movement (loss / gain: ± 15 seconds per month on average) will continue to keep the time.
- The time signal transmission may be stopped during maintenance of the facilities of each transmitting station or because of a lightning strike. In such a case, see each station's website for further information or contact SEIKO CUSTOMER SERVICE CENTER.
- Websites of transmitting stations (as of July 2010)
Japan : NICT (Japan Standard Time Group) <http://www.jjy.nict.go.jp/>
China : NTSC <http://www.ntsc.ac.cn>
The Unitedstates of America : NIST <http://www.nist.gov/physlab/div847/grp40/wwvb.cfm>

About charging

How to charge the watch

Expose the dial to light to charge the watch.



To ensure optimal performance of the watch, make sure that the watch is kept sufficiently charged at all time.

Under the following situations, the energy of the watch is likely to be depleted, resulting in stoppage of the watch.

- The watch is concealed under a sleeve.
- The watch is used or stored under conditions where it cannot be exposed to light for a long time.

- ※ When charging the watch, make sure that the watch is not heated to a high temperature. (The operational temperature range is between -10 °C and + 60 °C.)
- ※ When first using the watch or starting to use the watch after it has stopped because of the energy depletion, sufficiently charge the watch referring to the table on the page at the right.

Standard charging time

For an approximate time required to charge the watch, refer to the table below.

Illumination 1 x (LUX)	Light source	Condition (Example)	Time required for fully charging the watch	Time required for charging the watch to start moving at one- second intervals	Time required for charging the watch to run for one day
500	Incandescent light	60W 60cm	—	—	6 hours
700	Fluorescent light	General offices	—	—	4 hours
1000	Fluorescent light	30W 70cm	—	40 hours	3 hours
3000	Fluorescent light	30W 20cm	230 hours	6 hours	1 hours
5000	Fluorescent light	30W 12cm	150 hours	4 hours	35 minutes
10000	Fluorescent light	30W 5cm	60 hours	1.5 hour	15 minutes
10000	Sunlight	Cloudy day	60 hours	1.5 hour	15 minutes
100000	Sunlight	Sunny day (Under the direct sunlight on a summer day)	30 hours	30 minutes	3 minutes

The figures of "Time required for charging the watch to start moving at one- second intervals" are estimations of time required to charge the stopped watch by exposing it to light until it moves at steady one-second intervals. Even if the watch is partially charged for a shorter period, the watch will resume one-second-interval movement. However, it may shortly return to two-second-interval movement. Use the charging time in this column as a rough guide for sufficient charging time.

- ※ The second hand movement indicates the remaining amount of energy.
"checking the Charging Status" P.108

- ※ The required charging time slightly varies depending on the model of the watch.

About energy

Energy depletion forewarning function

The energy depletion forewarning function is activated when the energy stored in the watch runs low. In such a case, the second hand moves at two-second intervals. If the watch continues to be in the state of two-second interval movement, the watch switches to five-second interval movement, followed by a completely stopped state.

If the energy depletion forewarning function is activated, charge the watch sufficiently.

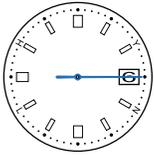
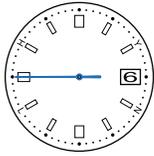
- How to charge the watch P.134
- Standard charging time P.135

- ※ Neither the buttons nor the crown can be operated while the second hand moves at two-second or five-second intervals (this is not a malfunction).
- ※ While the second hand moves at five-second intervals, the hour and minute hands, stop operating.
- ※ While the second hand moves at five-second intervals, the watch is unable to receive radio signals automatically. After the watch is charged sufficiently and the second hand returns to normal one-second interval movement, conduct the manual reception of radio signals to set the watch to the correct time. (Refer to Automatic Reception and Manual Reception on P.123.)

Power save function

This watch is equipped with a power save function which can suppress energy consumption when it is left without receiving an adequate light source for a certain length of time.

- ※ There are two types of power save mode.

	Power Save 1	Power Save 2
Condition	When the watch is exposed to a state without receiving an adequate light source for 72 hours or longer.	When the watch is in an insufficient charging state for a long time.
Situation	 The second hand stops pointing at the 15-second position, and the hour and minute hands also stop. The watch conducts automatic radio signal receiving.	 The second hand stops pointing at the 45-second position, and the hour and minute hands also stop. The watch does not conduct automatic radio signal receiving.
How to handle the situation	When the watch is exposed to an adequate light source for five seconds or longer, it displays the current time again after the second hand is rapidly advanced.	After sufficiently charging the battery, set the watch for the current time, if necessary.

Power Save 2

- ※ While the watch is being charged, the second hand moves at "Five-second Intervals."
- ※ During the "Five-second Interval Movement," neither the buttons nor the crown can be operated.
- ※ If the "Power Save 2" mode is prolonged, the stored power amount drops and the internal current time information stored will be lost. When the watch returns to its normal movement of one-second interval after sufficiently charging the battery, set the current time by receiving a radio signal. (Refer to Automatic Reception and Manual Reception → P.123)

Daily care

The watch requires good daily care

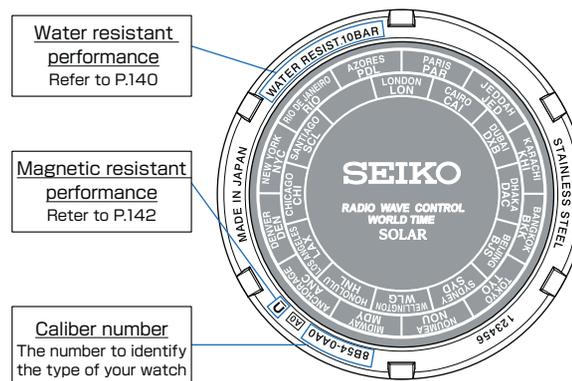
- Do not wash the watch when its crown is at the extended position.
 - Wipe away moisture, sweat or dirt with a soft cloth
 - After soaking the watch in seawater, be sure to wash the watch in clean pure water and wipe it dry carefully.
 - ※ If your watch is rated as "non-water resistant" or "water resistant for daily use," do not wash the watch.
- Performance and type → P.139.
Water resistance → P.140.

Turn the crown from time to time

- In order to prevent corrosion of the crown, turn the crown from time to time.
 - The same practice should be applied to a screw lock type crown. (No need to pull out the screw lock type crown.)
- Screw lock type crown → P.107

Performance and type

The case back shows the caliber and performance of your watch



- ※ The figure above is one example. Performance of your watch is different from above sample.

Water resistance

Refer the table below for the description of each degree of water resistant performance of your watch before using.

(Refer to " P.139 ")

Indication on the case back	Water resistant performance	Condition of use
No indication	Non-water resistance	Avoid drops of water or sweat
WATER RESISTANT	Water resistance for everyday life	The watch withstands accidental contact with water in everyday life. WARNING Not suitable for swimming
WATER RESISTANT 5 BAR	Water resistance for everyday life at 5 barometric pressures	The watch is suitable for sports such as swimming.
WATER RESISTANT 10 (20) BAR	Water resistance for everyday life at 10(20) barometric pressures.	The watch is suitable for diving not using an air cylinder.

Magnetic resistance

Affected by nearby magnetism, a watch may temporarily gain or lose time or stop operating.

※ When the hand positions deviate to display incorrect time as a result of influence of magnetism, this watch automatically corrects the hand alignment itself. (Refer to p.168)

Indication on the case back	Condition of use
No indication	Keep the watch more than 10 cm away from magnetic products.
	Keep the watch more than 5 cm away from magnetic products. (JIS level-1 standard)
	Keep the watch more than 1 cm away from magnetic products. (JIS level-2 standard)

If the watch becomes magnetized and its accuracy deteriorates to an extent exceeding the specified rate under normal use, the watch needs to be demagnetized. In this case, you will be charged for demagnetization and accuracy readjustment even if it happens within the guarantee period.

The reason why watch is affected by magnetism

The built-in motor is provided with a magnet, which may be influenced by a strong external magnetic field.

Band

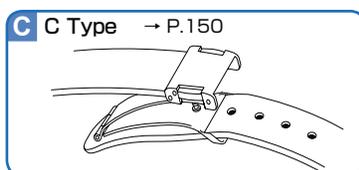
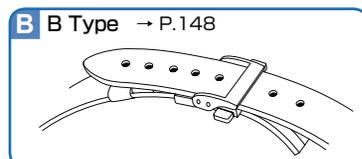
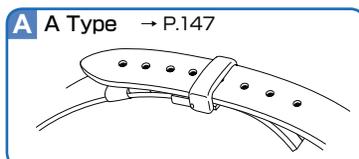
The band touches the skin directly and becomes dirty with sweat or dust. Therefore, lack of care may accelerate deterioration of the band or cause skin irritation or stain on the sleeve edge. The watch requires a lot of attention for long usage.

● Metallic band

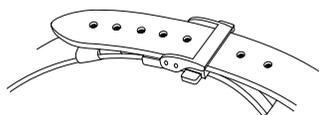
- Moisture, sweat or soil will cause rust even on a stainless steel band if they are left for a long time.
- Lack of care may cause a yellowish or gold stain on the lower sleeve edge of shirts.
- Wipe off moisture, sweat or soil with a soft cloth as soon as possible
- To clean the soil around the joint gaps of the band, wipe it out in water and then brush it off with a soft toothbrush.
(Protect the watch body from water splashes by wrapping it up in plastic wrap etc.)
- Because some titan bracelets use pins made of stainless steel, which has outstanding strength, rust may form in the stainless steel parts.
- If rust advances, pins may poke out or drop out, and the watch case may fall off the bracelet, or the clasp may not open.
- If a pin is poking out, personal injury may result. In such a case, refrain from using the watch and request repair.

Special clasps

There are 3 type of special clasps as described below; If the clasp of the watch you purchased is one of them, please refer to the indications.

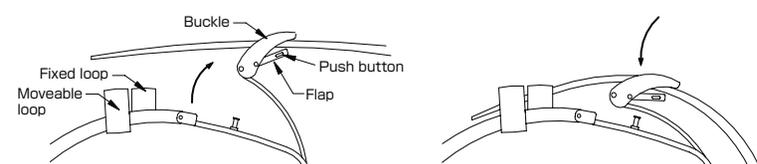


B B Type



• How to wear or take off the watch

- Press the button on both sides of the flap ; pull the buckle up.
The band will automatically come out of the loop.
- Place the tip of the band into the moveable loop and fixed loop, and fasten the clasp by pressing the frame of the buckle.



Examples of common magnetic products that may affect watches



● Leather band

- A leather band is susceptible to discoloration and deterioration from moisture, sweat and direct sunlight.
- Wipe off moisture and sweat as soon as possible by gently blotting them up with a dry cloth.
- Do not expose the watch to direct sunlight for a long time.
- Please take care when wearing a watch with light-colored band, as dirt is likely to show up.
- Refrain from wearing a leather band watch other than Aqua Free bands while bathing, swimming, and when working with water even if the watch itself is water-resistant enforced for daily use (10-BAR water resistant) .

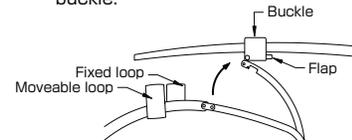
● Polyurethane band

- A polyurethane band is susceptible to discoloration from light, and may be deteriorated by solvent or atmospheric humidity.
- Especially a translucent, white, or pale colored band easily adsorbs other colors, resulting in color smears or discoloration.
- Wash out dirt in water and clean it off with a dry cloth.
(Protect the watch body from water splashes by wrapping it up in plastic wrap etc.)
- When the band becomes less flexible, have the band replaced with a new one. If you continue to use the band as it is, the band may develop cracks or become brittle over time.

Notes on skin irritation and allergy	Skin irritation caused by a band has various reasons such as allergy to metals or leathers, or skin reactions against friction on dust or the band itself.
Notes on the length of the band	Adjust the band to allow a little clearance with your wrist to ensure proper airflow. When wearing the watch, leave enough room to insert a finger between the band and your wrist. 

A A Type

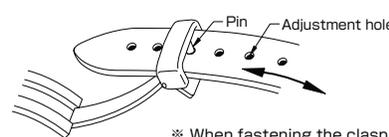
- Lift up the clasp to release the buckle.



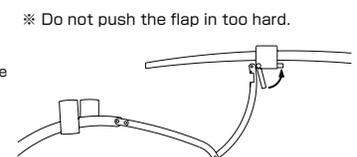
- Open the flap.



- Take the pin out of the adjustment hole, adjust the size of the strap by sliding it back and forth, and then put the pin back into the appropriate adjustment hole.



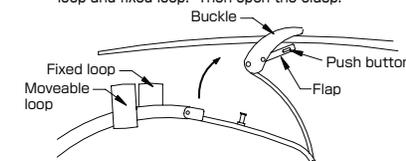
- Close the flap.



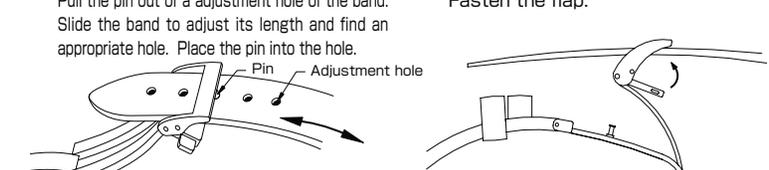
※ Do not push the flap in too hard.
※ When fastening the clasp, insert the tip of the band into the moveable loop and fixed loop, and then, securely tighten the clasp.

• How to adjust the length of the leather band

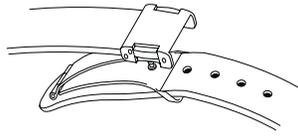
- With pressing buttons on both sides of the flap, pull the leather band out of the moveable loop and fixed loop. Then open the clasp.
- Press the push buttons again to unfasten the flap.



- Pull the pin out of a adjustment hole of the band. Slide the band to adjust its length and find an appropriate hole. Place the pin into the hole.
- Fasten the flap.

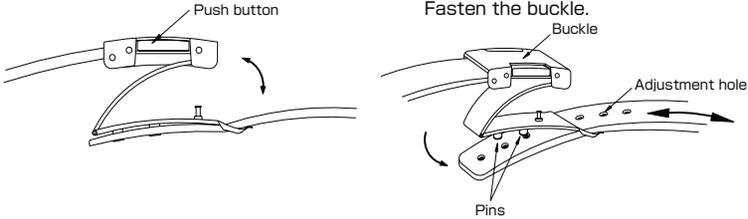


C C Type



① Press the button on the buckle, and lift to open the clasp.

② Pull the pins out of the adjustment holes on the band. Slide the band to the appropriate length. Push the pins into the new holes on the band. Fasten the buckle.



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Power source

The battery used in this watch is a special secondary battery, which is totally different from ordinary silver oxide batteries. Unlike other disposable batteries such as dry-cell batteries or button cells, this secondary battery can be used over and over again by repeating the cycles of discharging and recharging.

However, for various reasons such as long-term use or usage conditions, the capacity or recharging efficiency of the secondary battery may gradually deteriorate. Worn or contaminated mechanical parts or degraded oils may also shorten recharging cycles. If the efficiency of the secondary battery decreases, have the watch repaired.

NOTICE

Remarks on replacing the secondary battery

- Do not remove the secondary battery yourself.
- Replacement of the secondary battery requires professional knowledge and skill. Please ask a watch retailer for repair.
- When replacing the secondary battery, make sure that the exclusive secondary battery for this watch is used. Installation of an ordinary silver oxide battery can generate heat that can cause bursting or ignition.

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After-sale service

Notes on guarantee and repair

- Contact the retailer the watch was purchased from or SEIKO CUSTOMER SERVICE CENTER for repair or overhaul.
- Within the guarantee period, present the certificate of guarantee to receive repair services.
- Guarantee coverage is provided in the certificate of guarantee. Read carefully and retain it.
- For repair services after the guarantee period has expired, if the functions of the watch can be restored by repair work, we will undertake repair services upon request and payment.

Replacement parts

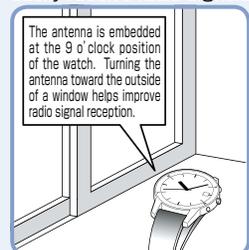
- SEIKO makes it a policy to typically keep a stock of replacement parts for this watch for 7 years. Replacement parts are those which are essential to maintaining the functional integrity of the watch. Please keep in mind that if original parts are not available, they may be replaced with substitutes whose outward appearance may differ from the originals.

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How to conduct manual reception (Receiving a radio signal manually)

① Put the watch down.

Place the watch where it can easily receive radio signals.



- To Improve Radio Signal Reception P.131
- Environments in which it is Difficult to Receive a Radio Signal P.132
- ※ This watch is unable to receive radio signals outside a reception range.
- Radio Signal Reception Range Indication P.124

② Press and hold Button A until the second hand moves to the 0-second position (for four seconds).

▶ After the second hand moves to the 0-second position and stops, the watch will start to receive radio signals.



- ※ If the time zone is set to a region other than Japan, China or the United States, the second hand will not move to the 0-second position. (The manual reception function will not work.) Check if the time zone is correctly set. → How to Select the Time Zone P.112

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Lumibrite

If your watch has Lumibrite

Lumibrite is a luminous paint that is completely harmless to human beings and natural environment, containing no noxious materials such as radioactive substance. Lumibrite is a newly-developed luminous paint that absorbs the light energy of the sunlight and lighting apparatus in a short time and stores it to emit light in the dark. For example, if exposed to a light of more than 500 lux for approximately 10 minutes, Lumibrite can emit light for 3 to 5 hours. Please note, however, that as Lumibrite emits the light it stores, the luminance level of the light decreases gradually over time. The duration of the emitted light may also differ slightly depending on such factors as the brightness of the place where the watch is exposed to light and the distance from the light source to the watch.

- ※ In general, when coming from a place that is bright to a place that is dark, it takes human eyes some time to adapt to the darkness making it difficult to see objects initially. (Dark adaptation)
- ※ LumiBrite is luminous paint that stores and emits light, which is harmless to human beings and the environment, containing no toxic materials such as radioactive substances.

Condition		Illumination
Sunlight	Fine weather	100,000 lux
	Cloudy weather	10,000 lux
Indoor (Window-side during daytime)	Fine weather	more than 3,000 lux
	Cloudy weather	1,000 to 3,000 lux
	Rainy weather	less than 1,000 lux
Lighting apparatus (40-watt daylight fluorescent light)	Distance to the watch: 1 m	1,000 lux
	Distance to the watch: 3 m	500 lux (average room luminance)
	Distance to the watch: 4 m	250 lux

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※ Overcharge prevention function

When the secondary battery is fully charged, the overcharge prevention function is automatically activated to avoid further charging. There is no need to worry about damage caused by overcharging no matter how much the secondary battery is charged in excess of the "time required for fully charging the watch".

- ※ Refer to "Standard charging time" on P.135 to check the time required for fully charging the watch.

NOTICE

Notes on charging the watch

- When charging the watch, do not place the watch in close proximity to an intense light source such as lighting equipment for photography, spotlights or incandescent lights, as the watch may be excessively heated resulting in damage to its internal parts.
- When charging the watch by exposure to direct sunlight, avoid places that easily reach high temperatures, such as a car dashboard.
- Always keep the watch temperature under 60°C.

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● Inspection and adjustment by disassembly and cleaning (overhaul)

- Periodic inspection and adjustment by disassembly and cleaning (overhaul) is recommended approximately once every 3 to 4 years in order to maintain optimal performance of the watch for a long time. According to use conditions, the oil retaining condition of your watch mechanical parts may deteriorate, abrasion of the parts due to contamination of oil may advance or delay the time significantly, or the watch itself may stop. As the parts such as gasket may deteriorate, water-resistant performance may be impaired due to intrusion of perspiration and moisture. Please contact the retailer from whom the watch was purchased for inspection and adjustment by disassembly and cleaning (overhaul). For replacement of parts, please specify "SEIKO GENUINE PARTS." When asking for inspection and adjustment by disassembly and cleaning (overhaul), make sure that the gasket and push pin are also replaced with new ones.

When your watch is inspected and adjusted by disassembly and cleaning (overhauled), the movement of your watch may be replaced.

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③ Leave the watch untouched for several minutes. (For twelve minutes at the longest)

▶ When the second hand starts moving in one-second intervals, the reception is completed.

Reception takes some time. (12 minutes at the longest)
 ※ It depends on the radio signal conditions.

<Display before completing the reception>		
The second hand indicates the reception level. (Updated every minute)		
Receiving Level	High: (H)	Low: (L)
Display		
Radio signal condition	Easy to receive	Hard to receive

- ※ In conjunction with the second hand movement, the minute hand advances by one minute.

④ When the second hand starts moving in one-second intervals, check if the signal reception was successfully conducted.

Upon completion of the signal reception, check if the reception was successful.
 → About Reception Result Display P.128

- ※ During movement of the date or day neither the buttons nor the crown can be operated.

<If the reception has failed>
 The second hand indicates the reception result by pointing to N.
 Reception result: N



After five seconds, the watch returns to the TIME display mode.
 → If the Reception has failed: The second hand points to N P.130

6

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When the watch is unable to receive radio signals

When the watch is unable to receive radio signals, refer to the following pages for remedies.

- When the watch cannot receive radio signals within the signal reception range. → At trouble Reception of a radio signal P.176

If the above remedies do not solve the problem, set the time, date or day referring to the "How to Manually Set the time, date or day" section below.

How to Manually Set the Time → P.160

How to Manually Set the Date → P.162

How to Manually Set the Day → P.165

* For the signal reception range, refer to Radio Signal Reception Range Indication P.124.

- **To use the watch outside the reception range**

Set the watch to the time zone of the place where you use the watch.

→ How to select the time zone P.112

When the watch is unable to display the correct time, date or day of the week even if the time zone is selected, manually set the time, date or day of the week.

Radio signal reception Q & A

Q: When is a radio signal received?

A: A standard radio signal is transmitted nearly continuously for 24 hours, however, a radio-controlled watch does not receive a radio signal throughout the day. The watch has been set to automatically receive a radio signal a few times a day during late night when a radio signal can be stably received. When the watch is unable to receive radio signals, it can be used by quartz movement (accuracy of loss/gain: ± 15 seconds per month) as a normal quartz watch.

Q: The time cannot be adjusted immediately after operation of manual reception. Why does it take such a long time for the watch to adjust the time.

A: It takes 12 minutes at maximum to finish reception.

"Time data" and "Calendar data" are transmitted by a standard frequency for one minute per one time, however, reception is not enabled unless the series of data completely arrives. The received data frequently includes noise, etc., and the watch is structured so as to repeatedly perform reception in order to check that there is no problem with the data. Therefore, it requires time to finish the reception. If the receiving environment is poor, it will take a longer time to finish the reception. In addition, please lay the watch down without operating the buttons and the crown during reception.

Q: What is the best way to receive a radio signal?

A: A standard frequency depends on the distance from each transmitting station, geography (including buildings, etc.), and weather. Ideally, place the watch at the side of a window in the direction of each transmitting station before bedtime because automatic reception is performed during late night. Also, please search for a place to easily receive radio signals to attempt manual reception.

How to manually set the time

When the watch is used continuously in conditions in which the watch may be unable to receive a radio signal, it can be manually adjusted.

→ Radio Signal Reception Range Indication P.124

• When using the watch again in regions in which the watch is able to receive a radio signal, it is recommended to perform "Manual reception."

→ Automatic Reception and Manual Reception P.123

• When adjusting the time, the date and day will be accordingly adjusted.

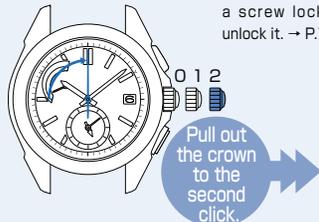
* When the watch is unable to receive a radio signal, it can move depending on normal quartz movement (accuracy of loss / gain: ± 15 seconds per month).

* When the watch receives a radio signal after manual adjustment of the time, it displays the received time.

1 Pull out the crown to the second click.

▶ The Second hand moves to point to the 0-second position and the watch enters the manual time setting mode.

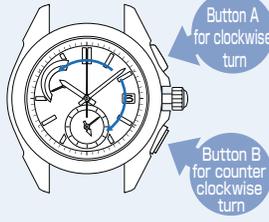
* When the crown is a screw lock type, unlock it. → P.107



* When the watch enters the manual time setting mode, the reception results will be indicated as "N," since the reception results data will be lost.

2 Press Button A or B to set the time.

One minute Advance	Press Button once and then release it.
Continuous Advance	When Button is kept pressed for two seconds or longer, the hand will start to move. Press Button again to stop.



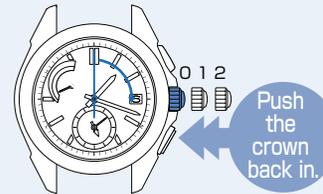
* Press the Button B with your finger or with an object with a long tapered tip. → P.106.

* Turning the crown will not move the hand.

* The point in which the date changes at 0:00 AM (12:00 PM). Adjust the time taking into consideration that it is set during the AM and PM.

3 Push the crown back in simultaneously with a time signal.

▶ Operation has been completed. The watch resumes its normal movement.



* When the crown is a screw lock type, unlock it. → P.107

How to manually set the date

If you use the watch outside the radio signal reception range or in conditions where the watch cannot receive radio signals, the date will not be automatically adjusted. In such a case, especially on the first day after a month that has less than 31 days, the watch requires manual date setting.

• The date can be adjusted independently of the time or day of the week.

• To use the watch in a radio signal receivable condition again, conduct automatic signal reception to set the time.

→ Automatic Reception and Manual Reception P.123

* When the watch receives radio signals after the date is manually adjusted, it displays the date received from radio signals.

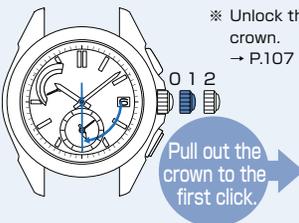
* If the date remains incorrect even after a successful radio signal reception, the preliminary position of the date may be misaligned.

→ How to correct the preliminary positions P.169

1 Pull out the crown to the first click.

▶ The second hand rotates until it points to the 30-second position and stops. Both the main watch and the sub dial continue to operate.

* Unlock the crown. → P.107



2 Keep pressing down the Button A (for 3 seconds) until the second hand moves to point to the 55-second position.



3 Keep pressing down the Button A (for 3 seconds) until the second hand moves to point to the 13-second position.

▶ The watch enters the manual date setting mode.



Continued on the next page.

4 Press the Button B to set the date.

To advance one day	Press the button once and release.
To advance rapidly	Keep pressing down the button for longer than 2 seconds. Press the button once again to stop.

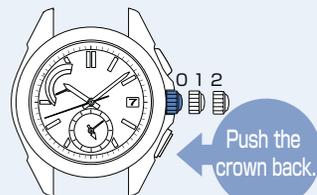


* Press the Button B with your finger or with an object with a long tapered tip. → P.106

* Turning the crown will not move the hand.
* While the date is moving, the button cannot be operated.
* The date can only move forward. It cannot move backward.

5 Push the crown back.

▶ The operation is now completed.



* Relock the crown. → P.107.

How to manually set the day of the week

• The day of the week can be adjusted independently of the time or date.

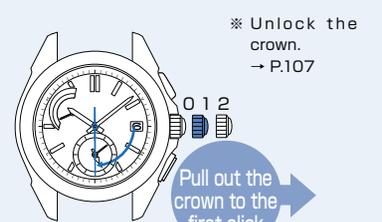
• To use the watch in a radio signal receivable condition again, conduct automatic signal reception to set the day of the week.

→ Automatic Reception and Manual Reception P.123

* When the watch receives radio signals after the day of the week is manually adjusted, it displays the day of the week received from the radio signals.

1 Pull out the crown to the first click.

▶ The second hand rotates until it points to the 30-second position and stops. Both the main watch and the sub dial continue to operate.



* Unlock the crown. → P.107

Continued on the next page.

2 Keep pressing down the Button A (for 3 seconds) until the second hand moves to point to the 55-second position.

▶ The watch enters the manual day of the week setting mode.



3 Press the Button B to set the day of the week.

To advance one day	Press the button once and release.
To advance rapidly	Keep pressing down the button for longer than 2 seconds. Press the button once again to stop.

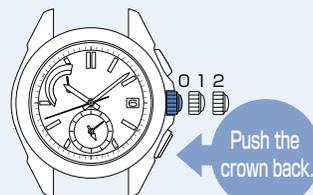


※ Press the Button B with your finger or with an object with a long tapered tip. → P.106

※ Turning the crown will not move the hand.
 ※ While the day of the week is moving, the button cannot be operated.
 ※ The day of the week hand can only move forward. It cannot move backward.

4 Push the crown back.

▶ The operation is now completed.



※ Relock the crown. → P.107

※ If the day of the week remains incorrect even after a successful radio signal reception, the preliminary position of the day hand may be misaligned.
 → How to correct the preliminary positions P.169

Preliminary position

When the watch is unable to display the precise time date or day even if it successfully receives a radio signal with the correct time zone setting, the preliminary position may be misaligned.

The preliminary position may be misaligned due to the following reasons.

- In the case of having a strong impact: Misalignment of the time and date may occur when dropping or hitting the watch.
- In the case of a magnetic influence: Misalignment of the time and date may occur when bringing the watch close to an object which generates magnetism. Example of common magnetic products that may affect watches. P.143

When comparing the state of "Misaligned Preliminary Hand Position" to that of a weight scale, it is like "a scale which is unable to display the correct weight because its needle is not set to the zero position before weighing."

■ Automatic Hand Position Adjustment Function (Function to automatically adjust the preliminary position of the hour and minute hands)

The hour, minute, and second hands have an "Automatic Hand Position Adjustment Function," which automatically corrects an incorrect preliminary position.

Automatic Hand Position Adjustment Function activates once a minute for the second hand and at 12:00 both for the AM and PM for the hour and minute hands.

※ This function works when the preliminary hand position is misaligned due to external factors such as strong impact or magnetic influence. It does not work to adjust accuracy of the watch or slight deviations which may occur during the manufacturing process.

■ Setting the preliminary position of the date and the day

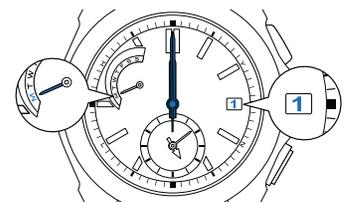
Since the preliminary position of the date and the day is not automatically adjusted, it must be adjusted manually.

→ Setting the preliminary position of the date P.169

How to correct the preliminary positions

■ Setting the preliminary position of the date, day hand, hour and minute hands

The preliminary position of the date is the "1st."
 The preliminary position of the day hand is "M." (Monday)
 The preliminary positions of the hour and minute hands are "0:00 AM."



When the preliminary positions are incorrect, the correct date, day of the week or time cannot be displayed even if the watch receives radio signals.

In such a case, by correcting the preliminary positions, wrong date or day indication, loss or gain of the time can be corrected.

When the numerical number of the date is not located at the center of the window, it can be corrected by the same procedures as mentioned above.

To correct the preliminary positions, perform the operation on the next page.

■ Setting the preliminary positions of the date, day hand, hour and minute hands (Continued)

Within 20 seconds after procedure ① is completed and the date stops, start the operation of procedure ②.

※ If the watch is left untouched for 20 seconds after the date stops, the watch automatically returns to the TIME display mode. If this happens, restart the operation from procedure ①.

1 Keep pressing down the Button A and B (for 4 seconds) at the same time until the second hand stops pointing to the 13-second position.

▶ The watch enters the preliminary position setting mode for date. The date will start to move and stop at the preliminary position.



※ Do not pull the crown out.
 ※ Press the Button B with your finger or with an object with a long tapered tip. → P.106

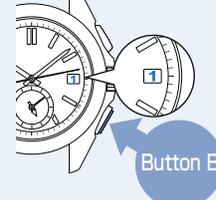
※ First, press the Button B, and subsequently press the Button A while keeping holding down the Button B so as to press both of them successfully.
 ※ While the date is moving, the button cannot be operated.

2 Within 20 seconds after the date stops, press the Button B to set the date to "1."

▶ Make sure that the numerical number "1" is located at the center of the date window.

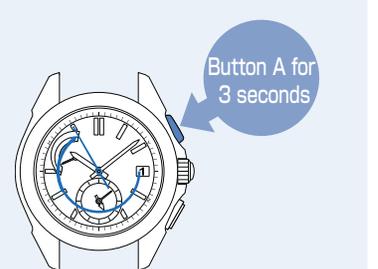
※ If "1" is already displayed in the date window, move on to the procedure ③.

To advance rapidly	Keep pressing down the button for longer than 2 seconds. Press the button once again to stop.
To fine-tune	Keep pressing down the button as long as you want to advance the numerical number.



3 Keep pressing down the Button A (for 3 seconds) until the second hand stops pointing to the 55-second position.

▶ The watch enters the preliminary position setting mode for day of the week.



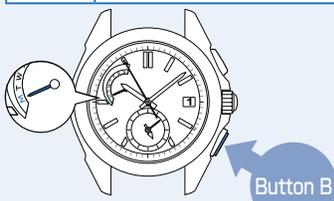
Continued on the next page.

4 Press the Button B to set the day hand to point to "M."

▶ Make sure that the day hand is set to point to "M."

※ If the day hand is already pointing to "M", move on to the procedure ⑤.

To advance rapidly	Keep pressing down the button for longer than 2 seconds. Press the button once again to stop.
To fine-tune	Keep pressing down the button as long as you want to advance the day hand.



5 Keep pressing down the Button A (for 3 seconds) until the second hand stops pointing to the 0-second position.

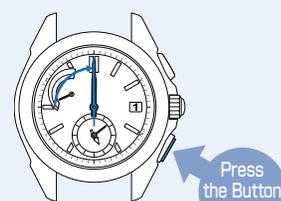
▶ The watch enters the preliminary position setting mode for hour and minute hands.

※ If the hour and minute hands are already indicating the correct time, move on to the procedure ⑦.



6 Press the Button B once and release it.

▶ The hour and minute hands start to move and stop pointing at "0:00 am."



7 After completing the operation, leave the watch untouched for 20 seconds.

▶ The watch automatically exits the preliminary position setting mode, and the second, hour and minute hands start moving.

When the watch returns to the TIME display mode, check if the time, date and day of the week are all correct.

If the time, date and day of the week are not correct, manually set them.

Adjusting the time and date by receiving a radio signal
 How to conduct manual reception → P.156

When the watch is unable to receive a radio signal
 How to manually set the time → P.160
 How to manually set the date → P.162
 How to manually set the day of the week → P.165

At trouble

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At trouble		Possible causes	Solutions	Reference pages
Hand Movement	The second hand moves at two-second intervals.	The energy depletion forewarning function is activated. (P.136) If the second hand moves at two or five-second intervals while you wear the watch everyday, the watch is in a condition where it cannot acquire sufficient light, for instance, the watch is concealed under a long sleeve shirt.	Fully charge the watch so that the second hand may move at one-second intervals. Be careful not to conceal the watch under a sleeve, etc., while wearing it. When taking off the watch, place it in as bright a location as possible.	P.134
	The second hand moves at five-second intervals.			
	The stopped second hand pointing to the 15-second position started operating.	The power save function has been activated. (P.137) When the watch is not exposed to adequate light for a certain period of time, the power save function to limit energy consumption is automatically activated.	Wait until the current time is displayed. No operation is needed (this is not a malfunction.)	—
	The stopped second hand pointing to the 45-second position started operating.	The power save function has been activated. (P.137) When the watch is not exposed to adequate light for a certain period of time, the power save function to limit energy consumption is automatically activated.	1. Fully charge the watch so that the second hand may move at one-second intervals. 2. After that, if the watch displays the incorrect time, receive a radio wave as needed.	P.134 P.123
	The watch hands advance rapidly unless a button is pressed. After the rapid advancement is completed, the watch resumes its normal movement.	The power save function has been activated. (P.137) The automatic hand position adjustment function was activated. (P.168) When the hand positions deviate to display incorrect time as a result of external influences, etc., the watch automatically corrects the hand misalignment by the automatic hand position adjustment function.	No operation is needed (this is not a malfunction).	—

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At trouble		Possible causes	Solutions	Reference pages
Reception of a radio signal	When the watch is unable to receive a radio signal	The watch was moved while it was receiving a radio signal. (It takes 12 minutes at the longest to receive a radio signal successfully.)	Do not move the watch while it is receiving a radio signal. Because it takes time to receive a radio signal successfully, leave the watch untouched for 12 minutes at the longest.	P.131 P.157
		The watch was left where the radio signal was weak or where it was unable to receive a radio signal (P.132).	Place the watch where it is able to easily receive a radio signal.	P.131
	The reception results have failed and the second hand points to N (the watch does not receive a radio signal).	Transmitting stations may have stopped transmitting radio signals for some reason (Transmission stop).	Check the website of each transmitting station for further information concerning a transmission stop. Attempt to receive a radio signal again after a while.	P.133
		The selected time zone is out of the radio signal reception range.	1. Check if the selected time zone is within the radio signal reception range, if not, change the time zone to the one within the radio signal reception range. 2. When the watch is not displaying the precise time, receive a radio signal again if necessary.	P.112 P.123
Charging the solar battery	The stopped watch was exposed to an adequate light for longer than "the time required to fully charge the watch," however, it does not resume its normal one-second interval movements.	The amount of exposed light is too weak. The time for charging the watch is not sufficient.	The time required for charging the watch depends entirely on the amount of exposed light the watch receives. Refer to "Standard Charging Time" to charge the watch.	P.135
		The built-in IC of the watch has fallen into an unstable condition.	Refer to "In Case of an Abnormal Movement" to reset the built-in IC.	P.182

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At trouble		Possible causes	Solutions	Reference pages
Misalignment of the time and hand positions	The watch temporarily gains or loses time.	The watch fails to receive a radio signal correctly as a result of external influence (incorrect reception).	1. Place the watch where it is able to receive a radio signal more easily. 2. Conduct manual reception if necessary.	P.131 P.156
		The watch has been left in an extremely high or low temperature place for a long time.	1. When the watch returns to a normal temperature, it will display the precise time as before. 2. If the watch still gains or loses the time, conduct manual reception if necessary. 3. If the watch cannot resume normal movement even after conducting the above mentioned procedures, consult the retailer from whom the watch was purchased.	— P.156 —
	The watch displays an incorrect time hour unit, even though it displays the precise time of minutes and seconds	The time zone is not correctly set.	Make sure that the watch is set to the time zone that covers the place where you use the watch.	P.112
	The reception results are successful, but the precise time is not displayed.	The hand positions were misaligned as a result of external influence. The hands are out of the preliminary position as a result of external influence. → Preliminary Position (P.168)	1. No crown or button operation is needed, since the automatic hand position adjustment function will be activated to align the hand positions. Automatic Hand Position Alignment Function activates once a minute for the second hand and at 12:00 both for the AM and PM for the minute and hour hands. It can be manually adjusted, when you hurry up. 2. If the watch still gains or loses time, refer to "In Case of an Abnormal Movement" to perform procedures.	P.168
	The second hand position is not correctly aligned in "the reception results display" or "the reception level display."	The second hand is out of the preliminary position as a result of external influence. → Preliminary Position (P.168)	3. If the watch cannot resume normal movement even after conducting the above mentioned procedures, consult the retailer from whom the watch was purchased.	P.160 P.182 —

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At trouble		Possible cause	Solution	Reference pages
Misalignment of the date	The reception results are successful and the precise time is displayed, but the date is not correctly displayed.	The date is out of the preliminary position. This happens when the date is out of the preliminary position as a result of influence of various external sources or after the built-in IC is reset.	Set the date to the preliminary position "1" (the 1st).	P.169
Misalignment of the day	The reception result display confirms successful reception, and the correct time is displayed, but the wrong day is displayed.	The day is out of preliminary position. This happens when the day is out of preliminary position as a result of influence of various external sources or after the built-in IC is reset.	Check if the day is set to the correct preliminary position "M"(Manday). If not, correct the preliminary position for day.	P.169
Wrong display of the sub dial	The sub dial is set to the time shown by the main watch, but the sub dial displays the wrong time.	There is no preliminary setting mode for sub dial. This happens when the hands of sub dial are out of alignment as a result of influence of various external sources.	Reset the time for sub dial.	P.120
Operation	The crown or buttons cannot be operated.	The stored electric power is running short. Date is moving right after a setting is carried out by the crown or button operation.	Sufficiently charge the watch until it starts moving at one-second intervals. Wait without doing anything. After the date stops, the crown and buttons can be operated.	P.134 —
	You get lost in the middle of the operation.	-----	1. If the crown is pulled out, push it back in. 2. The watch will resume its normal one-second interval movements within 9 minutes. 3. Start the setting procedure from the beginning.	—
Others	Blur on the dial glass persists.	Small amount of water has got inside the watch due to deterioration of the gasket, etc.	Contact the retailer from whom the watch was purchased.	—

※ For the solution of troubles other than the above, consult the retailer from whom the watch was purchased.

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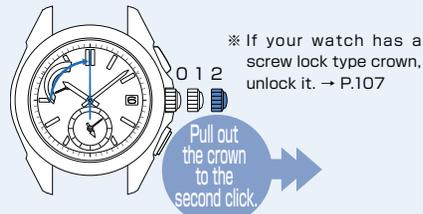
In case of an abnormal movement

In the case that the watch moves abnormally or that the watch does not move at one-second intervals even after fully charging the battery, perform the procedures from ① to ⑨ to re-establish normal function.

How to reset the built-in IC (from ① to ③)

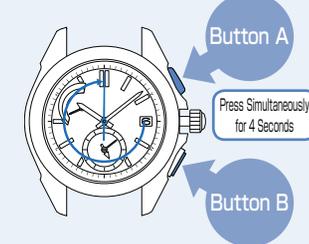
① Pull out the crown to the second click.

▶ The second hand stops at the 0-second position.



② Keep pressing down the Button A and B at the same time for 4 seconds, and then release them.

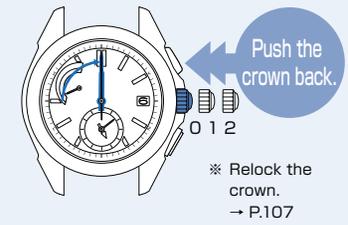
▶ Within 5 seconds after releasing the buttons, the second hand makes a full rotation and stops pointing to the 0-second position. Then the hour and minute hands will start to move and stop pointing to 12 o'clock 0 minutes.



※ First, press the Button B, and subsequently press the Button A while holding down the Button B so as to press both of them successfully.

③ When all the hands stop pointing to 12 o'clock 0 minutes and 0 seconds, push the crown back.

▶ The second hand starts moving from 12 o'clock 0 minutes and 0 seconds.



※ After the built-in IC is reset, the watch is set to the time zone UTC/LON.

Continued on the next page.

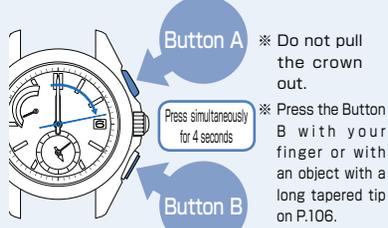
Setting the date to the "1st." (④, ⑤)

Within 20 seconds after procedure ④ is completed, start the operation of procedure ⑤.

※ If the watch is left untouched for 20 seconds after the second hand stops, the watch automatically returns to the TIME display mode. If this happens, restart the operation from procedure ④.

④ Keep pressing down the Button A and B (for 4 seconds) at the same time until the second hand stops pointing to the 13-second position.

▶ The watch enters the preliminary position setting mode for date.



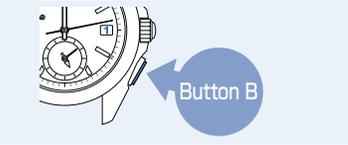
※ First, press the Button B, and subsequently press the Button A while keep holding down the Button B so as to press both of them successfully.

⑤ Within 20 seconds, press the Button B to set the date to "1."

▶ Make sure that the numerical number "1" is located at the center of the date window.

※ If "1" is already displayed in the date window, move on to the procedure ⑥.

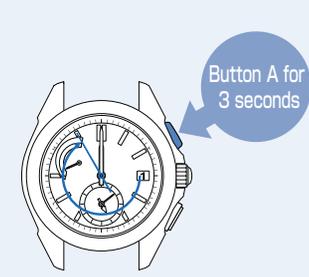
To advance rapidly	Keep pressing down the button for longer than 2 seconds. Press the button once again to stop.
To fine-tune	Keep pressing down the button as long as you want to advance the numerical number.



Setting the day of the week to "M" (Monday.) (⑥, ⑦)

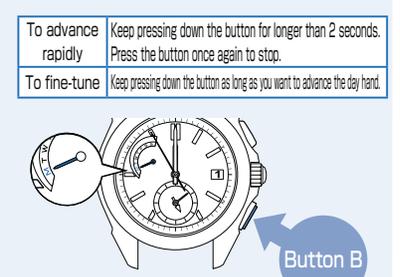
⑥ Keep pressing down the Button A (for 3 seconds) until the second hand stops pointing to the 55-second position.

▶ The watch enters the preliminary position setting mode for day of the week.



⑦ Press the Button B to set the day hand to point to "M."

▶ Make sure that the day hand is set to point to "M."



Continued on the next page.

Setting the time zone (⑧ to ⑩)

Within 10 seconds after procedure ⑧ is completed, start the operation of procedure ⑩.

※ If the watch is left untouched for 10 seconds after the second hand stops, the watch automatically returns to the TIME display mode. If this happens, restart the operation from procedure ⑧.

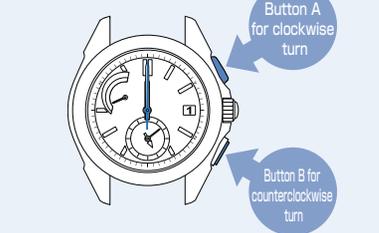
⑧ Press the Button B (for 4 seconds) until the second hand stops.

▶ The second hand will start to move and stop pointing to the currently selected time zone (UTC/LON).



⑨ Within 10 seconds after procedure 8 is completed, press the Button A or B to set the second hand to point to the target time zone.

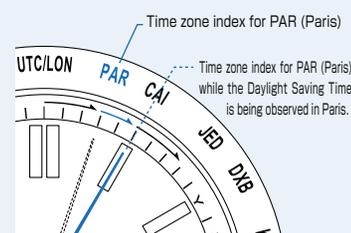
▶ With each pressing of the button, the second hand moves to the adjacent time zone index.



⑩ Set the Daylight Saving Time (DST) as necessary.

To set the Daylight Saving Time, select the time zone index next to the target time zone (+ 1 hour) which is indicated by the arrow under the time zone index.

<Example>When the Daylight Saving Time is being observed in Paris, set the second hand to point at the next time zone index CAI, as indicated by the arrow.



Setting the time

⑪ Set the Time by receiving radio signals

After completing the procedures up to ⑩, make sure to set the time.

How to conduct manual reception → P.156

When the watch is unable to receive radio signals, you can manually set the time, date and day of the week.
How to manually set the time → P.160
How to manually set the date → P.162
How to manually set the day of the week → P.165

The operation is completed when the time, date and day of the week are set.

10 seconds after procedure ⑩ is completed, the watch automatically exits the Time Zone Setting mode.

Specifications

1. Basic feature Basic watch with three hands (hour, minute and second hands), date display, Retrograde day indicator, Sub dial with 2 hands (Hour and Minute hands)
2. Frequency of crystal oscillator 32,768 Hz (Hz = Hertz ... Cycles per second)
3. Loss/gain (monthly rate) Loss / gain ± 15 seconds on a monthly rate (Except the case when the watch is used without an automatic time setting by receiving a radio signal and when it is worn on the wrist within a normal temperature range between 5°C and 35°C).
4. Operational temperature range Between -10°C and +60°C
5. Driving systems Step motor (Hour and minute hands, second hand, and the date, day and hour and minute hands for sub dial)
6. Power source Secondary battery, 1 piece
7. Duration of operation Approximately nine months (Fully charged, and the Power Save is not activated).
※ If the Power Save is activated after it is fully charged, the watch continues to run for approximately two years at maximum.
8. Time setting by receiving the JYVLF radio signal Automatic reception (at 2:00 AM, 3:00 AM and 4:00AM)
※ Reception attempts depend on the radio signal receiving conditions.
※ After having received a radio signal, the watch will start to move depending on the quartz movement until the next reception.
※ Manual reception is also available.
9. IC (Integrated Circuit) Oscillator, frequency divider and driving circuit C-MOS-IC, 3 pieces
※ The specifications are subject to change without prior notice for product improvement.

通話料無料 0120-612-911

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