Contents

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.
The service may also be available at other retailers, however, some retailers may not undertake the service.

※ If your watch has a protective film for preventing scratches, make sure to peel it off before using the watch. If the watch is used with the film on it, dirt, sweat, dust, or moisture may be attached to the film and may cause rust.

Handling Cautions

⚠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.136

  Replacement of the secondary battery requires professional knowledge and skill. Please ask the retailer from whom the watch was purchased for replacement of the secondary battery. Installation of an ordinary silver oxide battery can generate heat that can cause bursting and ignition.

⚠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 the retailer from whom the watch was purchased 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.

⚠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 this watch. For diving, use special watches for diving.

⚠CAUTION

Do not pour running water directly from faucet onto the watch.

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.

⚠CAUTION

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 CUSTMER SERVICE CENTER .

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.

BEFORE USE

■ Make sure to keep the watch sufficiently charged

The watch operates while charging electricity by converting light received on the dial to electrical energy. It cannot properly operate unless the remaining energy is sufficient. Place or store in a location receiving light, etc., to sufficiently charge electricity.

■ The amount of energy stored in the watch can be checked by the movement of the second hand.
→ CHECKING THE CHARGING STATUS P.98

■ Charging the solar battery
→ How to charge the watch P.112
→ Standard Charging Time P.113

■ To receive radio signals

The watch automatically receives radio signals to adjust the time every day.
Automatic radio signal reception is carried out before two and four o'clock during the night.
During this period of time, place the watch in a location that easily receives radio signals without wearing it and do not move it.

→ To improve Radio Signal Reception P.107

Features

This solar-drive and radio-controlled watch is equipped with a radio signal adjustment function.
- The watch is operated by using “electric energy” which is converted from the light received by the solar panel.
- This watch displays the precise time by receiving radio signals conveying time information. It can receive official standard frequencies from Japan (from either of two transmitting stations), the People's Republic of China, the United States of America and Germany.

■ Radio Signal Receiving Function ····· This watch adjusts the time and the date precisely by automatically receiving radio signals daily.
In addition, radio signals can be forcibly received with manual operation.
This watch can receive official standard radio signals from Japan (from 2 transmitting stations), China, U.S.A. and Germany (the transmitting station for receiving radio signals can be selected using the time difference adjustment function).
→ P.100

■ 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 manual reception)
→ P.140

■ Display Function of Radio Signal Reception Results ··· The movement of the second hand indicates radio signal reception results (Yes/No).
→ P.110

■ Time Difference Adjustment Function (Selecting Transmitting Station) ··· This watch can display local time around the world by setting the appropriate time difference. In addition, setting the time difference enables the watch to receive official standard radio signals to set the time if the watch is worn in a radio signal reception range.
→ P.116

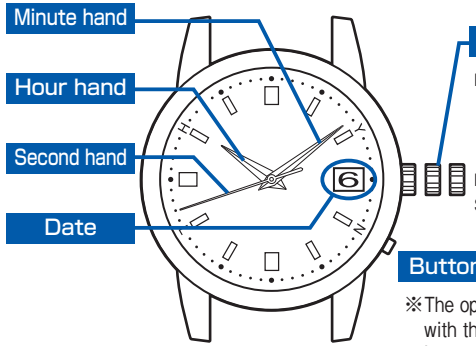
■ Solar Charging Function ····· A solar cell underneath the dial converts any form of light into “electrical energy” to charge it. Once fully charged, the watch continues to run for approximately six months.
→ P.112

■ Energy Depletion Forewarning Function ··· The movement of the second hand indicates that the battery should be charged.
→ P.114

■ Power Save Function ····· This watch is equipped with a function which can suppress energy consumption when it is left without receiving an adequate light source for a certain length of time.
→ P.115

■ Automatic Hand Position Alignment Function ··· When the hand positions display an incorrect time as a result of external influences such as magnetism, the watch automatically corrects the hand misalignment.
→ P.148

Display and button operation



Normal position :

Button →P.96

※The operation method of the button varies with the functions being used. Follow the instructions of each section of this booklet.

Reception level display

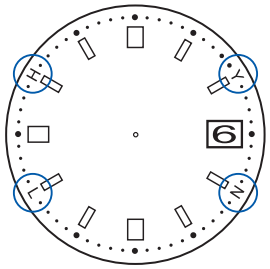
[Manual reception]

H ····· High reception level (50 second position)

L ····· Low reception level (40 second position)

N ····· Unable to receive radio signals (20 second position)

※ Reception level display → P.140



Reception result display

[Check of reception result]

Y ····· Reception successful (10 second position)

N ····· Reception failed (20 second position)

※ Reception result display →P.110

Radio signal transmitting station display

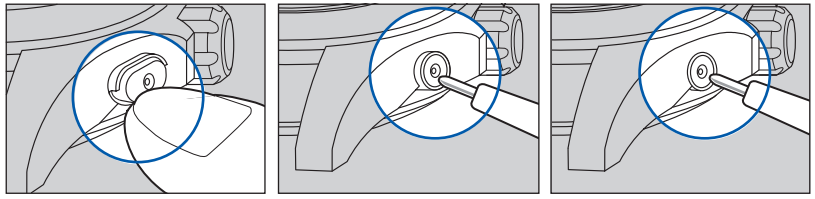
Display (country with radio signal transmitting station)	Display position
J ／ JJY (Japan)	9 second position
B ／ BPC (China)	8 second position
W ／ WWVB (U.S.A.)	53 second position
D ／ DCF77 (Germany)	1 second position

※ Time difference adjustment function → P.116

※Each position of above displays may differ depending on the model (design) of the watch.

HOW TO USE THE BUTTON

Some models may have a Button which is recessed in the watch case to prevent accidental input. Shape of the Button differs depending on the design of the watch.



Upper half of the Button is covered.

Press the lower half of the Button or press the hollow in the middle using an object with a long tapered tip.

The Button is covered except the hollow in the middle.

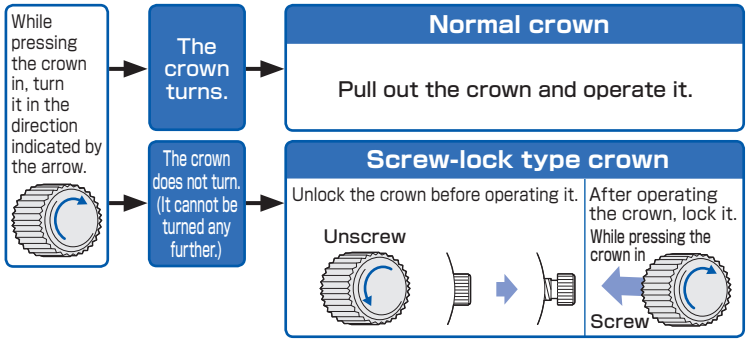
Press the hollow using an object with a long tapered tip.

The Button is recessed in the watch case.

Press the hollow in the middle using an object with a long tapered tip.

CROWN

There are two types of crown, a normal crown and a screw-lock type crown. Please check the type of the crown of your watch.



※ If your watch has a screw-lock type crown, the crown screws into the watch to prevent malfunction and increase water resistance.

※ Be careful not to screw the crown in by force as it may damage the slots of the crown.

Before Use

① Checking the Charging Status

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

- The second hand moves at one-second intervals. → The watch is sufficiently charged.
- The second hand moves at two-second intervals. / The second hand moves at five-second intervals. → The charged energy is depleted. → P.114 → Charge the battery sufficiently. How to Charge the Watch → P.112
- The second hand is stopped. → The power save function is activated. → P.115 Check the movements of the second hand after releasing the Power Save mode.
- The second hand is stopped. → The energy stored in the watch runs low. → Charge the battery sufficiently. How to Charge the Watch → P.112

※ If the second hand does not move at one-second intervals even after fully charging the battery → "Charging the solar battery" in At Trouble on P.152

② Checking the time and date

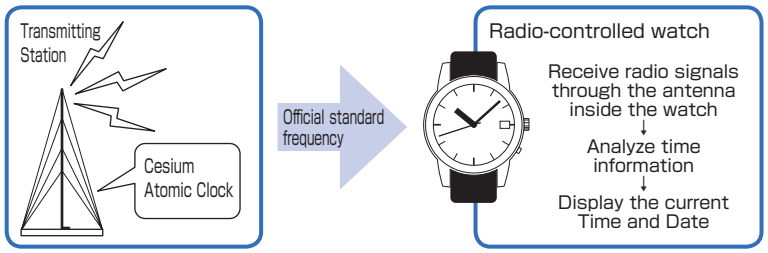
※ The hands of this watch cannot be moved by turning the crown. So when adjusting the time and date, refer to the following pages regarding the procedures.

- When the time and date are correct → Use the watch without adjustment.
- When the time and date are incorrect → How to set the time difference (Selecting a radio signal transmitting station) → P.118
  - When the radio signal can be received → Setting the time and date by receiving a radio signal → P.140
    - Radio signal reception range indication → P.102
    - Environments in which it is difficult to receive a radio signal → P.108
  - When a radio signal cannot be received → Manually set the time → P.143 / Manually set the date → P.146

Setting the Time and Date by Receiving a Radio Signal

■ Mechanism of radio signal reception

The radio-controlled watch displays the precise Time and Date 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 and date by automatically receiving a radio signal at a fixed time.
  This watch automatically receives a radio signal before 2:00 a.m. and 4:00 a.m.
  ※ When the reception is successful, the watch finishes the automatic reception.

  • Place the watch in a place where it can easily receive a radio signal (by the window, etc.)
  • Do not move the watch during the radio signal reception.
  → To Improve Radio Signal Reception P.107

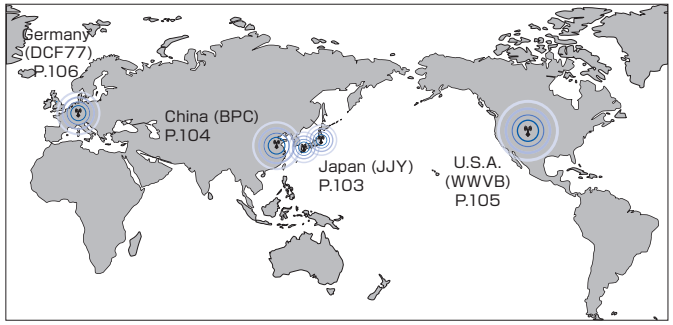
- Manual reception
  This watch can receive a radio signal arbitrarily at any time other than the automatic reception mode.
  → How to conduct manual reception P.140

※ When the time difference is set for a region other than radio signal reception range, a radio signal cannot be received. Check the setting of the time difference → Setting the time difference (selecting a radio signal transmitting station) P.118
※ Radio signal reception results depend on a receiving environment. → Environments in which it is difficult to receive a radio signal P.108
※ The watch cannot receive a radio signal outside the radio signal reception range. → Radio signal reception range indication P.102
※ When the watch does not display the correct time and date even after successfully receiving a radio signal. → Troubleshooting: Misalignment of the time and hands P.154, Misalignment of date P.156

Reception environment

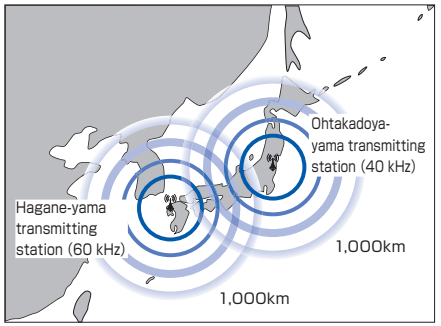
■ Radio signal reception range indication

This watch receives standard radio signals from Japan (2 stations), China, U.S.A. and Germany.
A radio signal transmitting station can be selected by time difference adjustment function.
→ Setting the time difference (selecting a radio signal transmitting station) P.118



■ Radio signal reception range : Japan (JJY)

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

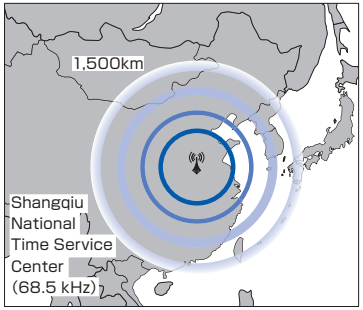


JJY is operated by the National Institute of Information and Communications Technology (NICT) .
JJY is transmitted from two stations in Japan. Each station transmits JJY in a different frequency.
Fukushima (Ohtakadoya-yama transmitting station: 40 KHz)
Kyushu (Hagane-yama transmitting station: 60 KHz)

※ NICT : National Institute of Information and Communications Technology
※ Whether the watch succeeds in receiving radio signals or not depends on the receiving conditions.
Refer to "About reception environment" on P.108.

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

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



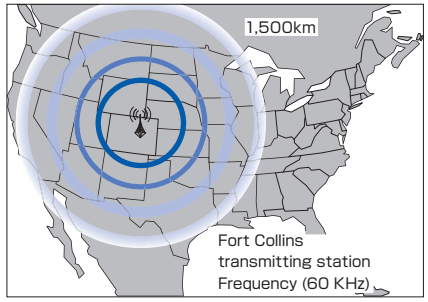
BPC is operated by NTSC.
Shangqiu National Time Service Center
Frequency: 68.5kHz

※ NTSC : National Time Service Center

※ The watch may be able to receive radio signals outside a reception range if the receiving conditions are favorable.
※ The watch may fail to receive radio signals depending on the reception conditions (weather, geographic locations, radio disturbances such as tall buildings, and orientation of the watch).
Environments in which it is difficult to receive a radio signal on P.108.

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

The reception range from the transmitting station is approximately 1,500 km (1,500 km radius of the transmitting station). There are four time differences within the reception range.



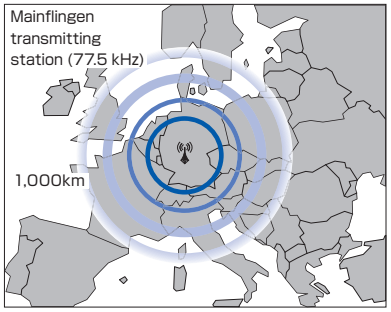
WWVB is operated by NIST.
Fort Collins transmitting station
Frequency: 60 KHz

※ NIST : National Institute of Standards and Technology

※ The watch may be able to receive radio signals outside a reception range if the receiving conditions are favorable.
※ The watch may fail to receive radio signals depending on the reception conditions (weather, geographic locations, radio disturbances such as tall buildings, and orientation of the watch).
Environments in which it is difficult to receive a radio signal on P.108.

■ Radio signal reception range : Germany (DCF77)

The reception range from the transmitting station is approximately 1,000km (1,000km radius of the transmitting station)
There are three time differences within the reception range.



DCF77 is operated by PTB.
Southeastern Frankfurt
Mainflingen transmitting station : 77.5 kHz

※ PTB : Physikalisch-Technische Bundesanstalt

※ The watch may fail to receive radio signals depending on the reception conditions (weather, geographic locations, radio disturbances such as tall buildings, and orientation of the watch). Environments in which it is difficult to receive a radio signal on P.108.

■ To Improve Radio Signal Reception

・Place the watch in a place where it can easily receive a radio signal such as near a window.

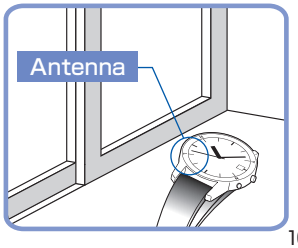
The antenna is embedded at the 8 o'clock position of the watch. Turning the antenna toward the outside of a window or the direction facing transmitting stations helps improve radio signal reception.

※ Locations of transmitting stations → Radio Signal Reception Range Indication P.102

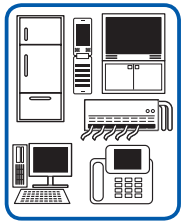
・Do not move the watch while it is receiving radio signals.

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.

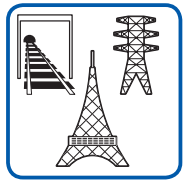


■ Environments in which it is Difficult to Receive a Radio Signal

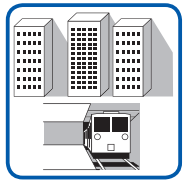


・Close to home electrical appliances such as TV's, refrigerators or air conditioners
・Close to OA devises such as mobile phones, personal computers or fax machines
・Close to steel desks or other furniture made of metal

・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 the (each) transmitting station or because of a lightning strike. In such a case, see the (each) station's website for further information or contact SEIKO CUSTOMER SERVICE CENTER.

・Websites of transmitting stations (as of January 2017)
Japan : NICT (Japan Standard Time Group) http://www.jjy.nict.go.jp/
China : NTSC http://www.ntsc.ac.cn
U.S.A. : NIST http://www.nist.gov/physlab/div847/grp40/wwvb.cfm
Germany : PTB http://www.ptb.de/cms/en.html

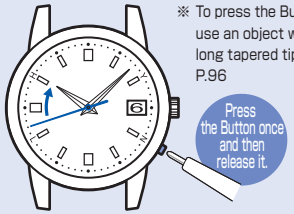
HOW TO CHECK THE RECEPTION STATUS

■ How to Display the Reception Results

The second hand indicates the latest reception results (Yes/No) of a radio signal for five seconds.

① Press the Button once and then release it.

▶ The second hand indicates the reception results.



※ To press the Button, use an object with a long tapered tip. P.96

※ When the Button is kept pressed, the watch starts manual reception.

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

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

(Yes: the 10-second position)

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

(No: the 20-second position)

※ If the Button is pressed after five seconds have elapsed or while the second hand is moving to display the reception results, the reception results display function is cancelled and 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 and date even after successfully receiving a radio signal → In this case, refer to Troubleshooting: Misalignment of the time and hands on P.154 and Misalignment of the date on P.156.

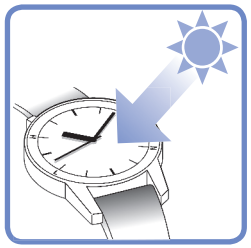
If reception has failed: The second hand points to N.

- 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.108.
  This watch is unable to receive radio signals outside a reception range → Radio signal reception range indication on P.102
- Make sure that the time difference is correctly selected before attempting radio signal reception.
  If the time difference is set to a region other than Japan, China, U.S.A. or Germany the signal reception function will not work. Check the time difference setting → How to select the time difference on P.118
- 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 and date.
  How to manually set the time → P.143
  How to manually set the date → P.146

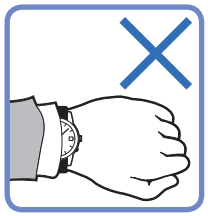
ABOUT CHARGING

■ 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 lx (LUX)	Light source	Condition (Example)	From the state where the watch is stopped (not charged)		In the state where the hand moves (the watch is charged)
			To fully charged	To 1sec Interval movement is secured	To move for 1 day
700	Fluorescent light	General offices	–	–	5 h
3,000	Fluorescent light	30W 20cm	200 h	5 h	1.5 h
10,000	Fluorescent light	30W 5cm	60 h	1 h	15 min
	Sunlight	Cloudy day			
100,000	Sunlight	Sunny day (Under the direct sunlight on a summer day)	24 h	30 min	3 min

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 BY THE MOVEMENT OF THE SECOND HAND" P.98
※ The required charging time slightly varies depending on the model of the watch.

About Energy

■ Energy Depletion Forewarning Function

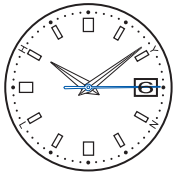
The energy depletion forewarning function is activated when the energy stored in the watch runs low. In such a case, the second hand moves at two-second intervals. If the watch continues to be in the state of two-second interval movement, the watch switches to five-second interval movement, followed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

How to Charge the Watch····· P.112
Standard Charging Time····· P.113

※ 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 hand and date stop operating.
※ While the second hand moves at two-second and 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.101.)

■ 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, and date 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, and date 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.101)

Time Difference Adjustment (when using the watch overseas)

■ Features of time difference adjustment function

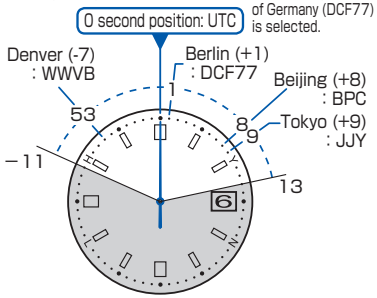
- Set the time difference in the time difference adjustment mode to display an overseas local time.
  The watch can display an overseas local time in one hour units.
  The time difference is set based on UTC (Coordinated Universal Time).
  The range of time differences around the world based on UTC is "from −11 hours to +13 hours."
- In the time difference adjustment mode, the time difference based on UTC (Coordinated Universal Time) is displayed by the position of the second hand.
  Operate the buttons to point the second hand to the desired position for setting of the time difference.
- A radio signal transmitting station is selected by setting the time difference.
  Examples: When using the watch in Japan, set the second hand to the "nine second position: Tokyo" to receive a radio signal from Japan.
  When using the watch in China, set the second hand to the "eight second position: Beijing."
  When setting the time difference for a region other than the radio signal reception ranges, the radio signal reception function will not work.

→ Setting the time difference P.118
→ List of major time differences around the world P.120

<How to read the second hand position and time difference (radio signal transmitting station>
※The numbers in parenthesis are time differences based on UTC.

※When setting the second hand to the 52 - 55 second position, the radio signal transmitting station of U.S.A. (WWVB) is selected.

※When setting the second hand to 0 - 1 second position, the radio signal transmitting station of Germany (DCF77) is selected.



■ Questions and answers regarding time difference adjustment function

Q : When returning to Japan from overseas, is the time automatically set to Japan time?
A : Just moving cannot adjust the time to Japan time. After setting the time difference, radio signal reception is not performed. When wearing a watch in Japan, set to Japan time by use of the time difference adjustment function.

Q : The hands stop during operation of time difference setting, therefore, does time lag occur?
A : The internal circuit stores the time, therefore, no time lag occurs.

Q : When a time difference for regions out of the radio signal reception range is set, the watch will not receive a radio signal. How is the accuracy of the watch at that time?
A : The watch has an accuracy of a normal quartz watch in that case. (Monthly rate: ± 15 seconds)

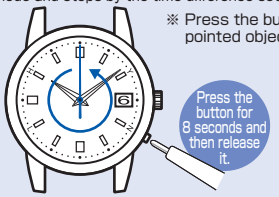
Q : How is adjustment made to a local time with a time difference of 15 minutes or 30 minutes?
A : The time can be adjusted on a 1 hour basis by use of the time difference adjustment function. When adjusting to a local time with a time difference of 15 minutes or 30 minutes, please refer to the " How to manually set the time " on P.143.

Setting the Time Difference (Selecting a Radio Signal Transmitting Station)

① Continue to press the button (for 8 seconds), and when the second hand starts to move counterclockwise, release it.

▶ The watch switches to the time difference adjustment mode and stops by the time difference set currently

※ Press the button with a pointed object. → P.96

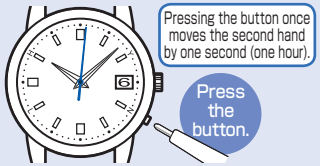


※ The second hand may move to the zero second position 3 seconds after pressing the button. Continue to press it.
※ When a no movement state of the second hand is kept for one minute or more, the watch automatically switches to the time display mode. When the watch switches to the time display mode, re-attempt operation.
※ When the pressing time is short, the watch may switch to the manual reception mode.

② Press the button to set the second hand to the local time difference of a desired area.

▶ When the button is pressed once, the second hand moves by one second (+1 hour) clockwise to advance the time by one hour.

The position of second hand indicates the time difference. Refer to the figures at the right to set the time difference.

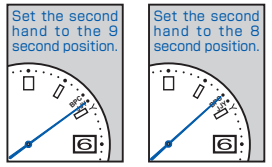


※ Also while the watch is working, the second hand can be moved.

The radio signal transmitting station can be changed by setting the time difference. When setting a time difference for regions other than the radio signal reception ranges, the radio signal reception function will not work.

※ When setting the daylight saving time (DST), add one hour to the time difference of a desired area.

In Japan	In China	In other countries
Set the second hand to the 9 second position.	Set the second hand to the 8 second position.	List of major time differences around the world P.120



※ Pressing the button when the second hand points to the 13 second position (+13 hours from UTC), the second hand moves to the 49 second position (−11 hours from UTC).

③ Wait for one minute after the hour hand stops. (The time difference adjustment mode is finished.)

▶ After one minute, the watch switches to the one-second interval movement.

※ When the date is changed, it is also moved.

List of major time differences around the world

Refer to the table below to set the time difference area in the Time Difference Adjustment mode.
※When setting a time difference for a region where no receivable official standard frequency is mentioned in the table below, the radio signal reception function will not work.

Position that the second hand indicates	Time difference with UTC	Name of representative city (Time zone)	Receivable official standard frequency
0-second position	± 0 hour	London/UTC	DCF77
1-second position	+1 hours	Paris/Berlin	DCF77
2-second position	+2 hours	Cairo	DCF77 △
3-second position	+3 hours	Jeddah	-
4-second position	+4 hours	Dubai	-
5-second position	+5 hours	Karachi	-
6-second position	+6 hours	Dhaka	-
7-second position	+7 hours	Bangkok	-
8-second position	+8 hours	Beijing/Hong kong	BPC
9-second position	+9 hours	Tokyo	JJY
10-second position	+10 hours	Sydney	JJY △
11-second position	+11 hours	Nouméa	-
12-second position	+12 hours	Wellington	-
13-second position	+13 hours	Nuku'alofa	-

Position that the second hand indicates	Time difference with UTC	Name of representative city (Time zone)	Receivable official standard frequency
49-second position	-11 hours	Midway Islands	-
50-second position	-10 hours	Honolulu	-
51-second position	-9 hours	Anchorage	-
52-second position	-8 hours	Los Angels	WWVB
53-second position	-7 hours	Denver	WWVB
54-second position	-6 hours	Chicago	WWVB
55-second position	-5 hours	New York	WWVB
56-second position	-4 hours	Santo Domingo	WWVB △
57-second position	-3 hours	Rio de Janeiro	-
58-second position	-2 hours	Fernando de Noronha	-
59-second position	-1 hours	Azores	-

(As of March 2015)

If a receivable official standard frequency is indicated with a "△" mark, summer time in the time zone can be set by receiving the frequency if the time zone is within the radio signal reception range.

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.

Coordinated Universal Time (UTC)

UTC is the universal standard time coordinated through an international agreement. This is used as the official time for recording time around the world. The time obtained by adding a leap second to the "International Atomic Time (TAI)" determined based on the atomic clock around the world and coordinated in order to compensate for deviations from universal time (UT) which is astronomically determined is the UTC.

Summer time (DST) : Daylight Saving Time

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.
※ A time difference established in 15 minute or 30 minute units is adopted in very limited regions (ex. India).
※ Each indication may differ depending on the model (design) of the watch.

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 everyday life," do not wash the watch. Do not pour running water directly from faucet onto the watch. Put some water into a bowl first, and them soak the watch in the water to wash it.

Performance and type → P123.
Water resistance → P124.

● 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.

Crown → P.97

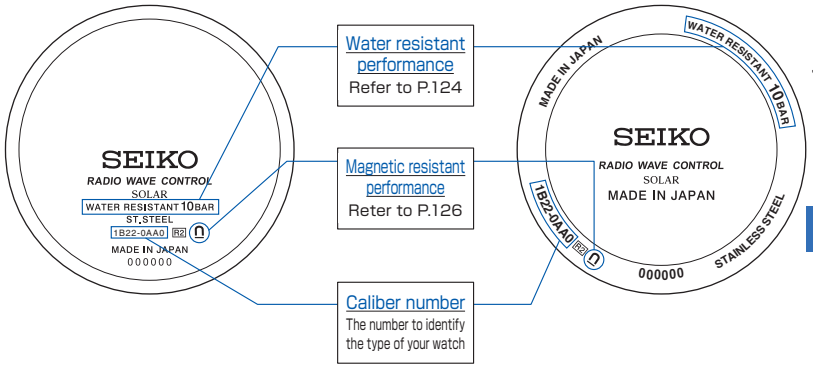
● Press the buttons once in a while.

- Press the buttons once in a while to prevent corrosion of the buttons.

※ If the display is changed by pressing any button, wait and leave it as is.

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

(Refer to " P.123 ")

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.148)

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.

Examples of common magnetic products that may affect watches

Smartphone, cellular phone, tablet terminal (speaker)

AC adapter

Bag (with magnet buckle)

AC-powered shaver

Magnetic cooking device

Portable radio (speaker)

Magnetic necklace

Magnetic healt pillow

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.

● 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- or 20-BAR water resistant) .

● Polyurethane band

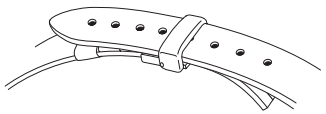
- A polyurethane band is susceptible to discoloration from light, and may be deteriorated by solvent or atmospheric humidity.
- Especially a translucent, white, or pale colored band easily adsorbs other colors, resulting in color smears or discoloration.
- Wash out dirt in water and clean it off with 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. 

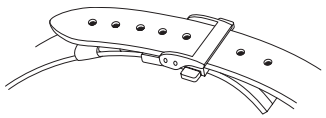
Special clasps

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.

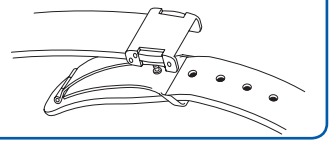
A A Type → P.131



B B Type → P.132

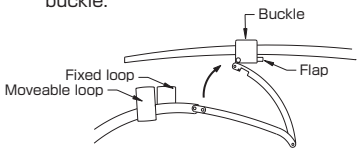


C C Type → P.134

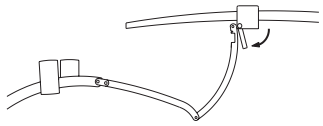


A A Type

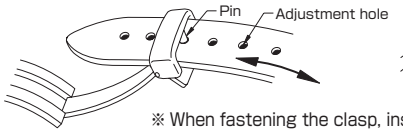
1. Lift up the clasp to release the buckle.



2. Open the flap.

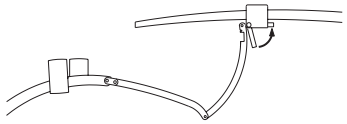


3. Take the pin out of the adjustment hole, adjust the size of the strap by sliding it back and forth, and then put the pin back into the appropriate adjustment hole.



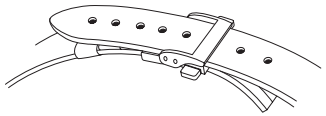
4. Close the flap.

※ Do not push the flap in too hand.



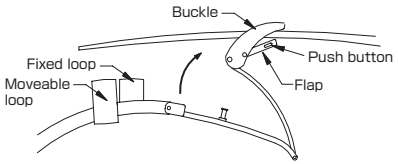
※ When fastening the clasp, insert the tip of the band into the movable loop and fixed loop, and then, securely tighten the clasp.

B B Type

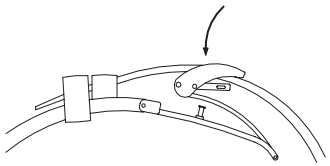


・How to wear or take off the watch

1. While pressing the push button on the both sides of the flap, pull the band out of the moveable lop and fixed loop. Then open the clasp.

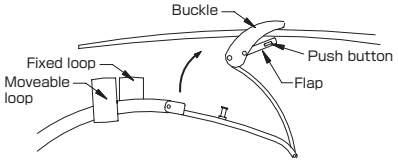


2. Place the tip of the band into the moveable loop and fixed loop, and fasten the clasp by pressing the frame of the buckle.

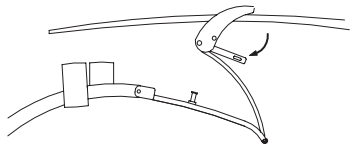


・How to adjust the length of the leather band

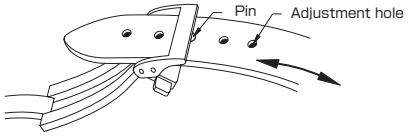
1. While pressing the push button on the both sides of the flap, pull the leather band out of the moveable loop and fixed loop. Then open the clasp.



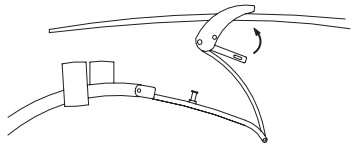
2. Press the push buttons again to unfasten the flap.



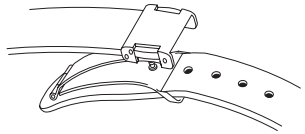
3. Pull the pin out of a adjustment hole of the band. Slide the band to adjust its length and find an appropriate hole. Place the pin into the hole.



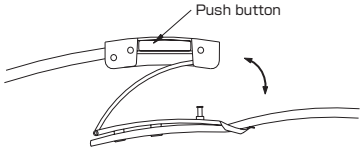
4. Fasten the flap.



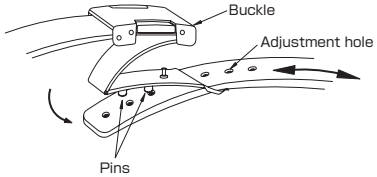
C C Type



1 While pressing the push button on the both sides of the flap, lift to open the clasp.



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



Lumibrite

If your watch has Lumibrite

Lumibrite is a 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

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 the retailer from whom the watch was purchased for repair.
- Installation of an ordinary silver oxide battery can generate heat that can cause bursting or ignition.

※ 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 page 113 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℃ .

After-sales service

● Notes on guarantee and repair

- Contact the retailer from whom the watch was purchased 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.

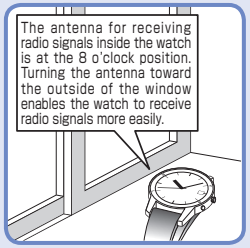
● Inspection and adjustment by disassembly and cleaning (overhaul)

- 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.

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

① Place the watch.

Place the watch where it can easily receive a radio signal.

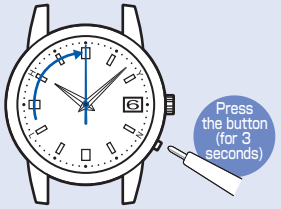


→ To enable the watch to easily receive a radio signal P.107
→ Environments in which it is difficult to receive a radio signal P.108

※ The watch cannot receive a radio signal outside the radio signal reception range.
→ Radio signal reception range indication P.102

② Continue to press the button (for 3 seconds), and then release it when the second hand moves to the zero second position.

▶ Reception starts after the second hand moves and stops at the zero second position.



※ Press the button with a pointed object.
→ P.96

※ When the time difference is set for a region other than radio signal reception range, the second hand does not move to the zero second position (A radio signal cannot be received manually). Check the time difference set currently.
→ Setting the time difference (selecting a radio signal transmitting station) P.118

③ Place the watch and wait for a few minutes (max. 12 minutes)

▶ When the second hand moves at the one-second interval, the reception is finished.

It takes time to receive a radio signal (max. 12 minutes).
※ The required time varies depending on the receiving state of a radio signal.

<Display until the reception is finished>
The second hand indicates the reception level.

Reception level	High : H	Low : L
Display		
Receiving state of a radio signal	Easy to receive	Difficult to receive

④ When the second hand starts to move at one-second intervals, check that the reception is successful.

When the reception is finished, check that the reception is successful.

→ Reception result display P.110

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

After 5 seconds, the watch switches to the time display mode.
→ When the reception result is "N" P.111

When a radio signal cannot be received

When a radio signal cannot be received, refer to the following pages:

・Not receivable within the radio signal reception range

Check that the time difference of the area where the watch is used is set.
Although the time difference is correctly selected, the time and date are misaligned.
→ At trouble: Reception of a radio signal P.152
Since a radio signal cannot be received, the time and date became misaligned. In this case, set the time and date manually.
→ How to manually set the time P.143
→ How to manually set the date P.146

※ For the radio signal reception ranges, refer to "Radio signal reception range indication P.102."

・When the watch is used outside the radio signal reception range

Select the time difference of the area where the watch is used.
→ Setting the time difference (selecting a radio signal transmitting station) P.118
Although the time difference is correctly selected, the time and date are not correct.
In this case, set the time and date manually.

■ How to manually set the time

If the watch is continually used in an environment in which a radio signal cannot be received (a region other than the radio signal reception ranges, etc.), set the time manually.

→ Radio signal reception range indication P.102

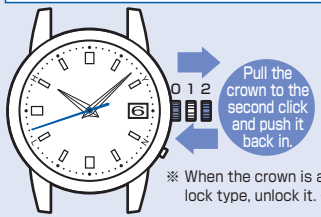
・When the watch is used in an environment in which a radio signal can be received again, receive a radio signal to set the time.
→ Automatic reception and manual reception P.101

※ Even if a radio signal cannot be received, the watch can be used with the same accuracy as that of a normal quartz watch. (Average gain/loss ± 15 seconds per month)
※ When a radio signal is received after the time is manually set, the received time is displayed.

① Pull the crown to the second click and push it back in.

▶ The second hand stops.

When pulling the crown, do not stop at the first click but pull it to the second click immediately. If the second hand does not stop when pushing the crown back in, re-attempt operation ①.



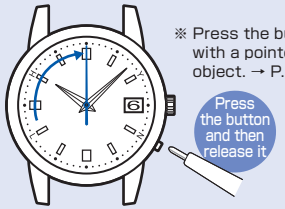
※ When the crown is a screw lock type, unlock it. → P.97

※ When a no movement state of the second hand is kept for one minute or more, the watch automatically switches to the time display mode. When the watch switches to the time display mode, re-attempt operation.

Continue to the next page

② Press the button and then release it

▶ The second hand moves to the zero second position and stops.
The watch switches to the manual time setting mode.

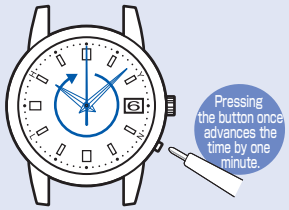


※ Press the button with a pointed object. → P.96

※ When this condition is kept for one minute or more, the watch automatically switches to the time display mode. When the watch switches to the time display mode, re-attempt operation from ①.
※ When the watch switches to the manual time setting mode, the reception result data is lost. Therefore, the reception result is indicated as "N."

③ Press the button to set the time

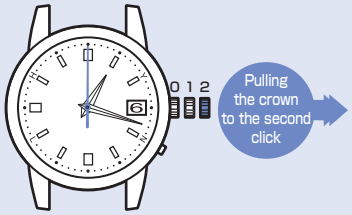
▶ By pressing the button once, the second hand makes a full rotation and the watch advances the time by one minute.



When the button is kept pressed for two seconds, the second hand starts to move. When the button is pressed again, the second hand stops.

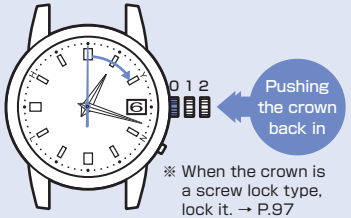
※ The hands do not move by turning the crown.
※ Advance the hand to set the time. The hand cannot be turned reversely.
※ The date is changed at 0:00 a.m. (12:00 a.m.). Pay attention to a.m. and p.m. to set the time.
※ The date cannot be set in this operation.
→ How to manually set the date P.146

④ After the operation ③ pull the crown to the second click.



⑤ Push the crown back in according to the time signal, etc.

▶ The operation is completed.
The watch starts to work.



※ When the crown is a screw lock type, lock it. → P.97

When the watch is used in an environment in which a radio signal can be received again, receive a radio signal to set the time.
→ Automatic reception and manual reception P.101

■ How to manually set the date

When the date is not changed automatically due to an environment in which a radio signal cannot be received outside the radio signal reception range, etc. (when changing from a month with 30 days or less to a month with 31 days), set the date manually.

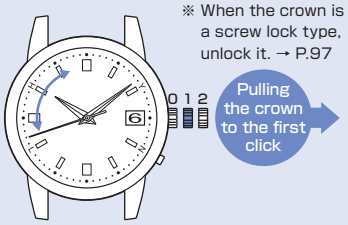
- The date can be set independently regardless of the time.
- When the watch is used in an environment in which a radio signal can be received again, receive a radio signal to set the time.

→ Automatic reception and manual reception P.101

※ When the date is not correct even if the radio signal reception is successful, the preliminary position of the date may be misaligned.
To adjust the preliminary position, reset the system.
→ In case of an abnormal movement P.158

① Pull the crown to the first click

▶ The watch switches to the manual date setting mode. (The watch is working.)

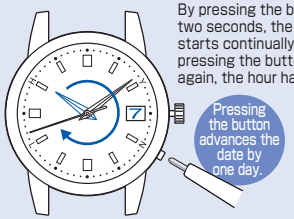


※ When the crown is a screw lock type, unlock it. → P.97

※ When the crown is pulled to the first click, the second hand advances 15 seconds and then moves back. Continue to conduct the operation.

② Press the button to set the date

▶ By pressing the button once, the hour hand turns twice and the watch advances the date by one day.

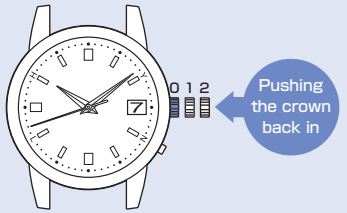


By pressing the button for two seconds, the hour hand starts continually, and by pressing the button once again, the hour hand stops.

※ Press the button with a finger or a pointed object. → P.96
※ The date is not changed by turning the crown.
※ Set the date by advancing the date. The date cannot be reversely moved.

③ Push the crown back in.

▶ The operation is completed.



※ When the crown is a screw lock type, lock it. → P.97

Preliminary position

When the date and time are not correct even if the radio signal reception is successful, the preliminary position of the date may be misaligned.

The possible causes of misalignment of preliminary position are as follows:

- In the case of having a strong impact: the misalignment may occur when dropping or hitting the watch.
- In the case of a magnetic influence: the misalignment may occur when bringing the watch close to an object which generates magnetism.

→ Examples of magnetic products that may affect watches P.127

The condition "the preliminary position of hand is misaligned" means that compared to a health meter, "the zero position of a meter is misaligned, causing a correct weight not to be displayed."

■ Automatic Hand Position Adjustment Function (Function to automatically adjust the preliminary position of the hour, minute, and second 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 an hour for the minute and second hands and at 12:00 both for AM and PM for the hour hand.

※ 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.

■ Preliminary position adjustment of the date

Since the preliminary position of the date is not adjusted, it is necessary to align the position manually.

To adjust the preliminary position, reset the system.
→ In case of an abnormal movement P.158

At Trouble

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.114) 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.112
	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.115) 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.115) 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.112 P.101
	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.115) The automatic hand position alignment function was activated. (P.148) 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 alignment function.	No operation is needed (this is not a malfunction).	–

At trouble		Possible causes	Solutions	Reference pages
Reception of a radio signal	When the watch is unable to receive a radio signal The reception results have failed and the second hand points to N (the watch does not 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.107 P.141
		The watch was left where the radio signal was weak or where it was unable to receive a radio signal (P.108).	Place the watch where it is able to easily receive a radio signal.	P.107
		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.109
		The watch is set to a time defference for the regions out of the radio signal reception range.	1. Check the time difference that the watch is currently set for, and select the time difference to the radio signal reception range. 2. When the watch is not displaying the precise time, receive a radio signal again if necessary.	P.118 P.101
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.113
		The built-in IC of the watch has fallen into an unstable condition.	Refer to "In Case of an Abnormal Movement" to reset the system.	P.158

At Trouble		Possible causes	Solutions	Reference pages
Misalignment of the time and hand positions	The watch temporarily gains or loses time.	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.140 –
		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.107 P.140
	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.148	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 an hour for the minute and second hands and at 12:00 both for the AM and PM for the hour hand. 2. If the watch still gains or loses time, refer to "In Case of an Abnormal Movement" to perform procedures. 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.148 P.143 P.158 –
	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.148		
	The watch displays an incorrect time hour unit, even though it displays the precise time of minutes and seconds	The watch may be set to a wrong time difference from the region where the watch is currently used.	Check the time difference that the watch is currently set for, and select the time difference to where the watch is used.	P.118

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.160
Operation	The crown or buttons cannot be operated.	The stored electric power is running short.	Sufficiently charge the watch until it starts moving at one-second intervals.	P.112
		Hands and date are moving right after a setting is carried out by the crown or button operation.	Wait without doing anything. After the date stops, the crown and buttons can be operated.	–
	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 5 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.

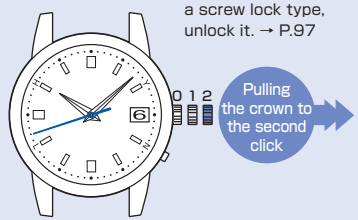
In case of an abnormal movement

In 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 - ⑦ for normal function.

■ Reset the system (① - ②)

① Pull the crown to the second click

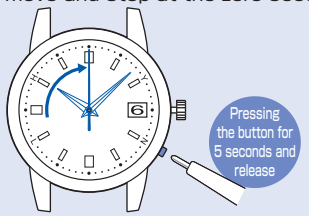
※ When the crown is a screw lock type, unlock it. → P.97



※ Even after pulling the crown, the second hand continues to move.

② Press the button for 5 seconds and then release it

▶ In five seconds after releasing the button, the hour hand starts to move and stops at the 12 o'clock position. And then the minute hand and the second hand start to move and stop at the zero second position.



※ Press the button with a pointed object. → P.96

※ The button cannot be operated until all the hands stop.

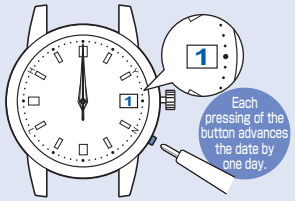
Continue to the next page

■ Preliminary position adjustment of the date: adjust to "1 (first day)" (③ - ④)

③ Press the button to set the date to "1"

▶ Adjust the date so that the number "1" will be displayed in the date window.
By pressing the button once, the hour hand makes two full rotations and the watch advances the date by one day.

※ After the hour hand stops, press the button.
※ The number may be displayed out of the center of the date window. After the preliminary position adjustment is finished, it is displayed at the center the date window.
※ The hands do not move by turning the crown.

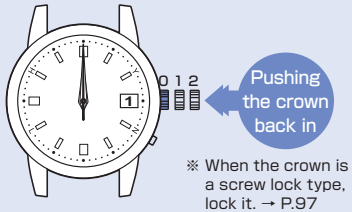


Do not continue to press the button. Even if continuing to press the button, the date is not changed consecutively.

※ Since continuous pressing returns the operation to ②, do not continue to press the button.

④ Push the crown back in

▶ When the crown is pushed back in, the watch starts to work from 00:00:00.



※ When the crown is a screw lock type, lock it. → P.97

Continue to the next page

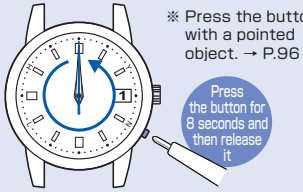
■ How to set the time difference (⑤ - ⑥)

After the system is reset, the time difference is set to London/UTC.

※ If necessary, set the time difference.

⑤ Continue to press the button (for 8 seconds) and then release it when the second hand starts to move counterclockwise.

▶ The watch switches to the time difference adjustment mode.



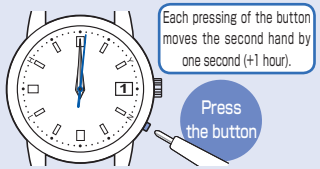
※ Although the second hand may move to the zero second position 3 seconds after pressing the button, keep pressing it.

※ When a no movement state of the second hand is kept for one minute or more, the watch automatically switches to the time display mode. When the watch switches to the time display mode, re-attempt operation from ⑤.

⑥ Press the button to set the time difference of the area where the watch is used

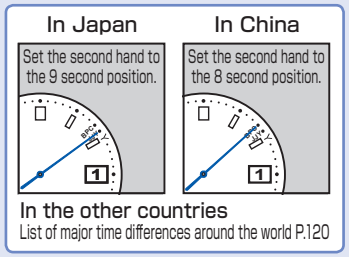
▶ When the button is pressed once, the second hand moves by one second (+1 hour) clockwise to advance the time by one hour.

The position of the second hand indicates a time difference. Refer to the figures at the right to set the time difference.



※ Also while the watch is working, the second hand can be moved.

The radio signal transmitting station is changed by setting the time difference.
When setting the time difference for a region other than the radio signal reception ranges, the radio signal reception function will not work.



※ When setting the daylight saving time (DST), add one hour to the time difference of a desired area.

※ By pressing the button when the second hand points to the 13 second position (+13 hours from UTC), the second hand moves to the 49 second position (−11 hours from UTC).

One minute after the hour and minute hands stop after the operation ⑥, the time difference adjustment mode is finished.

■ Set the time and date

⑦ Receive a radio signal to set the time and date

When the operations ① - ⑥ are finished, make sure to set the time and date.

How to conduct manual reception P.140

Set the time and date manually in an environment in which a radio signal cannot be received.
→ How to manually set the time p.143
→ How to manually set the date P.146

When the time and date are set, the operations are finished.

Specifications

1. Basic functions: basic watch with 3 hands (hour, minute and second hands), date display
2. Frequency of crystal oscillator: 32,768Hz (Hz= Hertz, cycles per second)
3. Loss/gain (per month): Loss/gain ±15 seconds in a monthly rate (except the cases when the watch is used without time adjustment by receiving a radio signal and when it is worn on the wrist within a normal temperature range between 5℃ and 35℃)
4. Operational temperature range: Between −10℃ and +60℃
5. Driving system: Step motor type (hour, minute and second hands and the date)
6. Power source: special secondary battery, 1 piece
7. Duration of operation: approximately 6 months (when the battery is fully charged and the power save is not activated)
   ※Approximately one year and a half at maximum when the power save is activated after the battery is fully charged).
8. Radio signal reception function / radio signal transmitting station: Japan (2 stations), China, U.S.A. and Germany.
   Automatic reception (before 2:00 a.m. and 4:00 a.m.)
   ※It varies depending on the radio signal receiving condition.
   ※After radio signal reception, the watch will start to work depending on the quartz movement until the next reception.
   ※Manual reception is available.
9. Integrated circuit: oscillator, frequency divider, drive and reception circuit: IC, 2 pieces

※The specifications are subject to change without notice due to product improvements.