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

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

- **Immediatelly 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.144
  - 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.

![About this Product](image-url)

1. Handling Cautions
2. Before use
3. Display and button operation
4. Crown
5. Before Use
6. Solar Charging Function
7. World Time Function
8. Specifications

**Contents**

1. About this Product
2. Handling Cautions
3. Before use
4. Display and button operation
5. Crown
6. Before Use
7. Solar Charging Function
8. World Time Function
9. Specifications

**Handling Cautions**

- **Warning**

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**About this Product**

1. World time function
   - How to select the time zone (How to display the local time around the world) 120
   - How to set the time difference (How to display the local time around the world) 122

2. Time zone display and time difference table 124

3. G & F for the world time function 129

**CAUTIONS**

- Avoid wearing or storing the watch in the following places.
  - In places where there is violent movement, such as places where the temperature drops below 5 °C or rises above 35 °C for a long time.
  - In places where the humidity drops below 50% or climbs above 95%.
  - In places where there is strong magnetic or static electricity.
  - In spaces subject to vibrations or shocks.
  - In places exposed to direct sunlight, heat sources, or hot springs.

- Do not modify or tamper with the watch.
  - Do not disassemble or tamper with the watch.
  - Do not keep the watch out of the reach of babies and children.

- If you observe any allergic symptoms or skin irritation.
  - Stop wearing the watch immediately and consult a dermatologist or an allergist.

- Other cautions.
  - Replacement of the metal band requires professional knowledge and skill. Please consult the retailer from whom the watch was purchased for replacement of the metal band.
  - Do not disassemble or tamper with the watch.
  - Keep the watch out of the reach of babies and children.

- If your watch is of the fib 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.

**Specifications**

- About the secondary battery → POWER SOURCE P.144
- 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.
**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.

**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.102

  - Charging the solar battery
    - How to charge the watch  P.116
    - Standard Charging Time  P.117

- **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.111
Features

This solar-drive and radio-controlled watch is equipped with a radio signal adjustment function.
- By selecting a time zone or a time difference, the watch can display the local time of the selected area around the world.
- 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.

- World Time Function ........................................ By selecting a time zone or a time difference, the watch can display the local time of the selected area around the world.
  → P.120
- 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 world time function).
  → P.104

Display and button operation

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

- Button  → P.100

  Crown
  Normal position :  Checking the reception result  → P.114
  World time function  → P.120
  Time difference setting  → P.124
  Manual reception  → P.148
  Manual setting  → P.151
  First click : Manual date setting  → P.154
  Second click : Resetting the system  → P.166

Display of Radio Signal Reception Level  → P.148
- Display Function of Radio Signal Reception Level during radio signal reception attempts: (only manual reception)
- Display Function of Radio Signal Reception Results  → P.114
- Solar Charging Function  → P.116
- Energy Depletion Forewarning Function  → P.118
- Power Save Function  → P.119
- Automatic Hand Postion Alignment Function  → P.156

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.148

Radio signal transmitting station display

Radio signal transmitting station display

Display (country with radio signal transmitting station)  Display position
J / JYJ (Japan)  23 second position
B / BPC (China)  37 second position
W / WWVH (U.S.A.)  43 second position
D / DCF77 (Germany)  3 second position

World time function  → P.120

Each indication 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.

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 second hand moves at two-second intervals.
   - The second hand moves at five-second intervals.
   - The second hand is stopped.

   **The watch is sufficiently charged.**
   **The charged energy is depleted.**
   **The power save function is activated.**
   **Check the movements of the second hand after releasing the Power Save mode.**
   **The energy stored in the watch runs low.**

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
     - Check the time zone or time difference.
     - Charge the battery sufficiently.
     - Charge the Watch → P.116
     - The radio signal cannot be received
       - Manually set the time → P.115
       - Manually set the date → P.114

   - When the radio signal can be received
     - Setting the time and date by receiving a radio signal → P.106
     - Radio signal reception range indication → P.106
     - Environments in which it is difficult to receive a radio signal → P.112

3. **About the Product**

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.

**Normal crown**
Pull out the crown and operate it.

**Screw-lock type crown**
 Unlock the crown before operating it.

After operating the crown, lock it. While pressing the crown in further.

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.
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.111

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.148

Radio signal reception results depend on a receiving environment. → Environments in which it is difficult to receive a radio signal  P.112
The watch cannot receive a radio signal outside the radio signal reception range. → Radio signal reception range indication  P.106
If the time zone or time difference is set to a region other than Japan, China, the U.S.A. or Germany, the signal reception function will not work. → Time Zone Display and Time Difference Table  P.125
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.162, Misalignment of date  P.164

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 (Ohtakado-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.
→ Environment in which it is difficult to receive a radio signal  P.112
**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

- 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 P.112

**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 zones within the reception range.

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

- 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 P.112

**Radio signal reception range: Germany (DCF77)**

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

There are three time zones within the reception range.

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

- 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 P.112

**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.106

- **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 TVs, 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

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

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.

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 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, P.162 and Misalignment of the date, P.164.

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).—Environments in which it is difficult to receive a radio signal, P.112
  - This watch is unable to receive radio signals outside a reception range.
  - Radio signal reception range indication, P.106

- Before trying to receive radio signals, check the time zone or time difference.
  - If the time zone or time difference is set to a region other than Japan, China, the U.S.A. or Germany, the signal reception function will not work.
    - Check the time zone setting → How to select the time zone, P.122
    - How to set the time difference → P.124

- 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.151
    - How to manually set the date → P.154

- Websites of transmitting stations (as of January 2017)
  Japan: NICT (Japan Standard Time Group) http://www.jst.nict.go.jp/
  China: NISTC http://www.nistc.ac.cn

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.
ABOUT CHARGING

■ How To Charge the Watch
Expose the dial to light to charge the watch.

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 worn on a wrist subject to condensation.

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

<table>
<thead>
<tr>
<th>Illumination (lx)</th>
<th>Light source</th>
<th>Condition (Example)</th>
<th>From the state where the watch is stopped (not charged)</th>
<th>In the state where the hand moves (watch is charged)</th>
</tr>
</thead>
<tbody>
<tr>
<td>700</td>
<td>Fluorescent light</td>
<td>General offices</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>3,000</td>
<td>Fluorescent light</td>
<td>30W 20cm</td>
<td>200 h</td>
<td>5 h</td>
</tr>
<tr>
<td>10,000</td>
<td>Fluorescent light</td>
<td>30W 5cm</td>
<td>60 h</td>
<td>1 h</td>
</tr>
<tr>
<td>100,000</td>
<td>Sunlight</td>
<td>Cloudy day</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sunny day (Under the direct sunlight on a summer day)</td>
<td>24 h</td>
<td>30 min</td>
</tr>
</tbody>
</table>

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 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.105
- The required charging time slightly varies depending on the model of the watch.

■ 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.

About Energy

■ How to Charge the Watch
P.116

Standard Charging Time
P.117

- 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 two-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. (Automatic Reception and Manual Reception → P.105)

■ 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
Condition: When the watch is exposed to a state without receiving an adequate light source for 72 hours or longer.
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.

How to handle the situation: When the watch is exposed to an adequate light source for 5 seconds or longer, it displays the current time after the second hand is rapidly advanced.

Power Save 2
Condition: When the watch is in an insufficient charging state for a long time.
Situation: The second hand stops pointing at the 46-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 5 seconds or longer, it displays the current time. After sufficiently charging the battery, set the watch for the current time, if necessary.

- Power Save 1
- 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.

- 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.

- Power Save 1
- 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.

- 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.
How to use the world time function

- World time function
  - By selecting a time zone (among 25 time zones around the world), or by setting a time difference, the watch can display the local time in the selected area around the world.
  - In the time zone setting mode, the second hand indicates the selected time zone.
  - In the time difference setting mode, the second hand indicates the time difference.

- If the time zone or time difference is set to a region in Japan (2 stations), China, the U.S.A. or Germany, the watch displays the precise time and date by receiving radio signals after automatic reception or manual reception, provided that the watch is within the radio signal reception range.
  - The watch is unable to receive radio signals outside the reception range.

- For a model (design) having the time zone indications

Example: How to display the local time in Honolulu (How to select the time zone of HNL (Honolulu) or how to set the time difference to ‘-9’). When the time zone is selected, the date is automatically adjusted in conjunction with the hour hand.

<Before time zone setting>

<After time zone setting>

Local time in Japan: 6th, 10 o’clock 8 minutes and 42 seconds
Local time in Honolulu: 5th, 15 o’clock 8 minutes and 42 seconds

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

1. Continue to press the button (for 3 seconds), and when the second hand starts to move counterclockwise, release it.
   - The watch switches to the time zone adjustment mode and stops by the time zone set currently.
   - When 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.

2. Press the button to set the second hand to the local time zone of a desired area.
   - With each pressing of the button, the second hand moves in a clockwise way to the adjacent time zone index.
   - The position of second hand indicates the time zone. Refer to the figures at the right to set the time zone.

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

The radio signal transmitting station can be changed by selecting the time zone. When selecting a time zone 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 zone of a desired area.

In Japan
- Time zone display and time difference table
  - In China
  - In other countries

* Also while the watch is working, the second hand can be moved.
### How to set the time difference (How to display the local time around the world)

1. **Continue to press the button (for 3 seconds), and when the second hand starts to move counterclockwise, release it.**

   - The watch enters the time difference setting mode and the second hand stops pointing at the time difference index currently set.

2. **Press the button to set the second hand to point at the time difference index of the target area.**

   - With each pressing of the button, the second hand moves to the next time difference index in the clockwise direction.
   - The position of the second hand indicates the time difference. Refer to the figures at the right for the time difference.
   - If you continue to press the button for more than 3 seconds, the second hand will fast forward. To stop fast forward, press the button again.

3. **Wait for one minute after the hour hand stops.**

   - (The watch exits the time difference setting mode)

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

   - **For a model (design) having the time difference indications**

**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.**

**Time zone display and time difference table**

In the time zone adjustment mode or time difference setting mode, set the second hand to point at the time zone index or time difference index next to the target area in the clockwise direction (±1 hour).

#### Time Zone Index

<table>
<thead>
<tr>
<th>Time Zone Index</th>
<th>Time Difference from UTC</th>
<th>Names of representative cities (Time Zone)</th>
<th>Receivable radio signals</th>
</tr>
</thead>
<tbody>
<tr>
<td>LON</td>
<td>0 hours</td>
<td>London</td>
<td>DCF77</td>
</tr>
<tr>
<td>PAR/BER</td>
<td>+1 hours</td>
<td>Paris/Berlin</td>
<td>DCF77</td>
</tr>
<tr>
<td>CAY</td>
<td>+2 hours</td>
<td>Cairo</td>
<td></td>
</tr>
<tr>
<td>JED</td>
<td>+3 hours</td>
<td>Jeddah</td>
<td></td>
</tr>
<tr>
<td>DXB</td>
<td>+4 hours</td>
<td>Dubai</td>
<td></td>
</tr>
<tr>
<td>KHI</td>
<td>+5 hours</td>
<td>Karachi</td>
<td></td>
</tr>
<tr>
<td>DAC</td>
<td>+6 hours</td>
<td>Dhaka</td>
<td></td>
</tr>
<tr>
<td>BKK</td>
<td>+7 hours</td>
<td>Bangkok</td>
<td></td>
</tr>
<tr>
<td>JUH/KG</td>
<td>+8 hours</td>
<td>Beijing/Hongkong</td>
<td></td>
</tr>
<tr>
<td>TYD</td>
<td>+9 hours</td>
<td>Tokyo</td>
<td>JJY</td>
</tr>
<tr>
<td>SYD</td>
<td>+10 hours</td>
<td>Sydney</td>
<td>JYY</td>
</tr>
<tr>
<td>NQU</td>
<td>+11 hours</td>
<td>Noumea</td>
<td></td>
</tr>
<tr>
<td>WLG</td>
<td>+12 hours</td>
<td>Wellington</td>
<td></td>
</tr>
<tr>
<td>TBU</td>
<td>+13 hours</td>
<td>Nuku'alofa</td>
<td></td>
</tr>
<tr>
<td>MDY</td>
<td>+14 hours</td>
<td>Midway Islands</td>
<td></td>
</tr>
<tr>
<td>HNL</td>
<td>+15 hours</td>
<td>Honolulu</td>
<td></td>
</tr>
<tr>
<td>ANC</td>
<td>+16 hours</td>
<td>Anchorage</td>
<td></td>
</tr>
<tr>
<td>LAX</td>
<td>+17 hours</td>
<td>Los Angeles</td>
<td></td>
</tr>
<tr>
<td>DEN</td>
<td>+18 hours</td>
<td>Denver</td>
<td></td>
</tr>
<tr>
<td>CHI</td>
<td>+19 hours</td>
<td>Chicago</td>
<td></td>
</tr>
<tr>
<td>NVC</td>
<td>+20 hours</td>
<td>New York</td>
<td></td>
</tr>
<tr>
<td>BDQ</td>
<td>+21 hours</td>
<td>Santo Domingo</td>
<td></td>
</tr>
<tr>
<td>RIO</td>
<td>+22 hours</td>
<td>Rio de Janeiro</td>
<td></td>
</tr>
<tr>
<td>FEN</td>
<td>+23 hours</td>
<td>Fernando de Noronha</td>
<td></td>
</tr>
<tr>
<td>PDL</td>
<td>+24 hours</td>
<td>Azores</td>
<td></td>
</tr>
</tbody>
</table>

#### Time difference from UTC

<table>
<thead>
<tr>
<th>Time Zone Index</th>
<th>Time Difference from UTC</th>
<th>Names of representative cities (Time Zone)</th>
<th>Time difference from UTC</th>
<th>Receivable radio signals</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLG</td>
<td>+12 hours</td>
<td>Wellington</td>
<td>+12 hours</td>
<td></td>
</tr>
<tr>
<td>TBU</td>
<td>+13 hours</td>
<td>Nuku'alofa</td>
<td>+13 hours</td>
<td></td>
</tr>
<tr>
<td>MDY</td>
<td>+14 hours</td>
<td>Midway Islands</td>
<td>+11 hours</td>
<td></td>
</tr>
<tr>
<td>HNL</td>
<td>+15 hours</td>
<td>Honolulu</td>
<td>+10 hours</td>
<td></td>
</tr>
<tr>
<td>ANC</td>
<td>+16 hours</td>
<td>Anchorage</td>
<td>+9 hours</td>
<td></td>
</tr>
<tr>
<td>LAX</td>
<td>+17 hours</td>
<td>Los Angeles</td>
<td>+8 hours</td>
<td></td>
</tr>
<tr>
<td>DEN</td>
<td>+18 hours</td>
<td>Denver</td>
<td>+7 hours</td>
<td></td>
</tr>
<tr>
<td>CHI</td>
<td>+19 hours</td>
<td>Chicago</td>
<td>+6 hours</td>
<td></td>
</tr>
<tr>
<td>NVC</td>
<td>+20 hours</td>
<td>New York</td>
<td>+5 hours</td>
<td></td>
</tr>
<tr>
<td>BDQ</td>
<td>+21 hours</td>
<td>Santo Domingo</td>
<td>+4 hours</td>
<td></td>
</tr>
<tr>
<td>RIO</td>
<td>+22 hours</td>
<td>Rio de Janeiro</td>
<td>+3 hours</td>
<td></td>
</tr>
<tr>
<td>FEN</td>
<td>+23 hours</td>
<td>Fernando de Noronha</td>
<td>+2 hours</td>
<td></td>
</tr>
<tr>
<td>PDL</td>
<td>+24 hours</td>
<td>Azores</td>
<td>+1 hour</td>
<td></td>
</tr>
</tbody>
</table>

(As of March 2015)

#### Diagrams

- **In Japan**
- **In China**
- **In other countries**

- **Time zone display and time difference table → P126**

- The time zones and time differences with a ♣ mark in the receivable radio signals columns should be selected when the Daylight Saving Time (DST) is being observed in Tokyo, New York or Paris/Berlin.

- Each indication may differ depending on the model (design) of the watch.
**What is a time zone?**

Based on Coordinated Universal Time (UTC), the standard time commonly used is adopted by countries and regions around the world. The standard time is determined by each country or region, and the region where the same standard time is adopted is referred to as the time zone. Further, Daylight Saving Time (DST) is individually adopted in countries and 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. The adoption and duration of Daylight Saving Time (DST) 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.)

**Daily care**

- **The watch requires good daily care**
  - Do not wash the watch when it 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 then soak the watch in the water to wash it.
  - Performance and type → P.131
  - Water resistance → P.132

- **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.101

- **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.

**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. When traveling outside of your home time zone, select the time zone or set the time difference of your current location.

  By selecting the time zone or by setting the time difference of your current location, the watch automatically displays the local time of your current location. (The time difference can be set in one-hour increments.)

  After the time zone is selected or the time difference is set, the watch can display the precise time by receiving radio signals, provided that the watch is within the radio signal reception range. (The radio signal transmitting station can be changed by selecting a time zone.)

- Q: When returning to Japan from overseas, is the time automatically set to Japan time?
  - A: Just moving cannot adjust the Japanese local time. After selecting the time zone, radio signal reception is not performed. When wearing a watch in Japan, set to Japan time by using the time zone adjustment function.

- Q: During question of time zone selection or time difference setting, the hands of the watch do not move. Does this cause the watch to display the wrong time?
  - A: The internal circuit stores the time, therefore, no time lag occurs.

- Q: When the watch is used, is it set to a region outside the radio signal reception range, the watch cannot receive radio signals. How does this affect the accuracy of the watch?
  - A: The watch has an accuracy of a normal quartz watch in that case. (Monthly rate: ±15 seconds)

- Q: How can I set the watch to display the local time in a region with 15-minute or 30-minute offsets from UTC?
  - 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.

  → How to manually set the time P.151

**Performance and type**

The case back shows the caliber and performance of your watch.

- Water resistant performance
  - Refer to P.133

- Magnetic-resistant performance
  - Refer to P.134

- Caliber number
  - The number to identify the type 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.131)

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

Magnetic resistance

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

If the time displayed deviates from the correct time as a result of influence of magnetism, this watch automatically corrects the hand alignment itself. (P.95)

<table>
<thead>
<tr>
<th>Indication on the case back</th>
<th>Condition of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>No indication</td>
<td>Keep the watch more than 10 cm away from magnetic products.</td>
</tr>
<tr>
<td></td>
<td>Keep the watch more than 5 cm away from magnetic products. (JIS level-1 standard)</td>
</tr>
<tr>
<td></td>
<td>Keep the watch more than 1 cm away from magnetic products. (JIS level-2 standard)</td>
</tr>
</tbody>
</table>

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 heat pillow

If the time 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 watches are affected by magnetism is 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 titanium 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.
  - Do not expose the watch to direct sunlight for a long time.
  - Please take care when wearing a leather band 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.
  - Special care is needed, while sticking band may lose color over time, leading to color shears of deterioration.
  - 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.

### 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 Type**
  - Lift up the clasp to release the buckle.

- **B Type**
  - Open the flap.

- **C Type**
  - 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.
  - When fastening the clasp, insert the tip of the band into the moveable loop and fixed loop, and then, securely tighten the clasp.
**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 movable loop and fixed loop. Then open the clasp.
  2. Place the tip of the band into the movable loop and fixed loop, and fasten the clasp by pressing the frame of the buckle.

---

**C Type**

- 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.

---

**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 movable 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.

---

**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 illumination 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.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Illumination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunlight</td>
<td>1,00,000 lux</td>
</tr>
<tr>
<td>Cloudy weather</td>
<td>10,000 lux</td>
</tr>
<tr>
<td>Fine weather</td>
<td>more than 3,000 lux</td>
</tr>
<tr>
<td>Rainy weather</td>
<td>less than 1,000 lux</td>
</tr>
<tr>
<td>Indoor (Window-side during daytime)</td>
<td></td>
</tr>
<tr>
<td>Fine weather</td>
<td>1,000 to 3,000 lux</td>
</tr>
<tr>
<td>Cloudy weather</td>
<td></td>
</tr>
<tr>
<td>Lighting apparatus (40-watt daylight fluorescent light)</td>
<td></td>
</tr>
<tr>
<td>Distance to the watch: 1 m</td>
<td>1,000 lux</td>
</tr>
<tr>
<td>Distance to the watch: 3 m</td>
<td>600 lux (average room lumiance)</td>
</tr>
<tr>
<td>Distance to the watch: 4 m</td>
<td>250 lux</td>
</tr>
</tbody>
</table>
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.

⚠️ NOTICE

- 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.117 to check the time required for fully charging the watch.

- 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.

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.
   - The antenna for receiving radio signals inside the watch is at the 8 o'clock position. Turn the antenna toward the outside of the window to receive radio signals more easily.

2. Continue to press the button (for 8 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.

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.

How to manually set the time
- When 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.
- Automatic reception and manual reception P.105
  - For the radio signal reception ranges, refer to “Radio signal reception range indication P.106.”

When a radio signal cannot be received
- If the watch is used outside the radio signal reception range
  - Select the time zone of the area where the watch is used.
  - How to set the time zone (How to display the local time around the world) P.122
  - How to set the time difference P.124

Troubleshooting
- If there is a problem, refer to the following pages:
  - Not receivable within the radio signal reception range
    - Check that the time zone of the area where the watch is used is set.
      - At trouble: Reception of a radio signal P.160
  - Since a radio signal cannot be received, the time and date became misaligned.
    - How to manually set the time P.151
    - How to manually set the date P.154
    - For the radio signal reception ranges, refer to “Radio signal reception range indication P.106.”

- When the watch is used outside the radio signal reception range
  - Although the time zone is correctly selected, the time and date are not correct. In this case, set the time and date manually.

Troubleshooting
- Troubleshooting (Part 1)
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.

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.101
   - 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.

3. Push the crown back in.
   - The operation is completed.
   - The date is not changed by turning the crown.
   - Set the date by advancing the date. The date cannot be reversed.

Troubleshooting

- 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.166
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.135

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.

At Trouble

<table>
<thead>
<tr>
<th>At trouble</th>
<th>Possible causes</th>
<th>Solutions</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The second hand moves at two-second intervals.</td>
<td>The energy depletion forewarning function is activated. (P.118) 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.</td>
<td>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.</td>
<td>P.116</td>
</tr>
<tr>
<td>The second hand moves at five-second intervals.</td>
<td>The stopped second hand pointing to the 15-second position started operating.</td>
<td>Wait until the current time is displayed. No operation is needed (this is not a malfunction.)</td>
<td>–</td>
</tr>
<tr>
<td>The stopped second hand pointing to the 45-second position started operating.</td>
<td>The power save function has been activated. (P.119) 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.</td>
<td>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.</td>
<td>P.116 P.105</td>
</tr>
<tr>
<td>The watch hands advance rapidly unless a button is pressed. After the rapid advancement is completed, the hand resumes its normal movement.</td>
<td>The power save function has been activated. (P.119) The automatic hand position alignment function was activated. (P.156) 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.</td>
<td>No operation is needed (this is not a malfunction.)</td>
<td>–</td>
</tr>
</tbody>
</table>
### Reception of a radio signal

<table>
<thead>
<tr>
<th>At trouble</th>
<th>Possible causes</th>
<th>Solutions</th>
<th>Reference page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>When the watch is unable to receive a radio signal</td>
<td>The watch was moved while it was receiving a radio signal. It takes 12 minutes at the longest to receive a radio signal successfully.</td>
<td>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.</td>
<td>111, 149</td>
</tr>
<tr>
<td>- The reception results have failed and the second hand points to N (the watch does not receive a radio signal).</td>
<td>The watch was left where the radio signal was weak or where it was unable to receive a radio signal (P.112).</td>
<td>Place the watch where it is able to easily receive a radio signal.</td>
<td>111</td>
</tr>
<tr>
<td>- Transmitting stations may have stopped transmitting radio signals for some reason (Transmission stop).</td>
<td>The time zone or time difference is set to a region outside the radio signal receivable area.</td>
<td>Check the website of each transmitting station for further information concerning a transmission stop. Attempt to receive a radio signal again after a while.</td>
<td>113</td>
</tr>
</tbody>
</table>

### Charging the solar battery

<table>
<thead>
<tr>
<th>At trouble</th>
<th>Possible causes</th>
<th>Solutions</th>
<th>Reference page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>The amount of exposed light is too weak. The time for charging the watch is not sufficient.</td>
<td>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.</td>
<td>117</td>
</tr>
<tr>
<td>- The built-in IC of the watch has fallen into an unstable condition.</td>
<td></td>
<td>Refer to “In Case of an Abnormal Movement” to reset the system.</td>
<td>166</td>
</tr>
</tbody>
</table>

### Misalignment of the time and hand positions

<table>
<thead>
<tr>
<th>At Trouble</th>
<th>Possible causes</th>
<th>Solutions</th>
<th>Reference page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The watch temporarily gains or loses time.</td>
<td>The watch has been left in an extremely high or low temperature place for a long time.</td>
<td>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.</td>
<td>_</td>
</tr>
<tr>
<td>- The reception results are successful, but the precise time is not displayed.</td>
<td>The watch fails to receive a radio signal correctly as a result of external influence (incorrect reception).</td>
<td>1. Place the watch where it is able to receive a radio signal more easily. 2. Conduct manual reception if necessary.</td>
<td>111, 148</td>
</tr>
<tr>
<td>The second hand position is not correctly aligned in “the reception results display” or “the reception level display.”</td>
<td>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.156</td>
<td>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.</td>
<td>156, 151, 168</td>
</tr>
<tr>
<td>The second hand is out of the preliminary position as a result of external influence. → Preliminary Position P.156</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The setting of the time zone or time difference is wrong.</td>
<td></td>
<td>Check the time zone or time difference currently set. Change the setting of the time zone or time difference so that it is set within the same region as the place where the watch is used.</td>
<td>122, 124</td>
</tr>
</tbody>
</table>
### Troubleshooting

<table>
<thead>
<tr>
<th>Misalignment of the date</th>
<th>Possible cause</th>
<th>Solution</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The reaction results are successfully and the precise time is displayed, but the date is not correctly displayed.</td>
<td>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.</td>
<td>Set the date to the preliminary position “1” (the 1st).</td>
<td>P. 168</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operation</th>
<th>Possible cause</th>
<th>Solution</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The crown or buttons cannot be operated.</td>
<td>The stored electric power is running short.</td>
<td>Sufficiently charge the watch until it starts moving at one-second intervals.</td>
<td>P. 116</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Others</th>
<th>Possible cause</th>
<th>Solution</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blur on the dial glass persists.</td>
<td>Small amount of water has got inside the watch due to deterioration of the gasket, etc.</td>
<td>Contact the retailer from whom the watch was purchased.</td>
<td>–</td>
</tr>
</tbody>
</table>

※ 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 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.

1. **Pull the crown to the second click**
   - When the crown is a screw lock type, unlock it. → P. 101
   - 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.

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

Continue to the next page
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.
- After pressing the button once, the hour hand makes two full rotations and the watch advances the date by one day.
- If 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 of 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 step 1, 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.

Push the crown back in

5. Continue to press the button (for 3 seconds) and then release it when the second hand starts to move counterclockwise.

The watch enters the time zone adjustment mode or the time difference setting mode.

- 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 step 6.

6. Press the button to set the second hand to point at the time zone index or time difference index of the current location.

With each pressing of the button, the second hand moves to the next time zone index or time difference index in the clockwise direction.

The position of the second hand indicates the time zone or time difference.

If you continue to push the button for more than 3 seconds the second hand will fast forward. To stop fast forward, press the button again.

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

7. Receive a radio signal to set the time and date

- One minute after the hour, the watch displays the second hand adjustment mode or the time difference setting mode.

How to conduct manual reception P.148

- Set the time and date manually in an environment in which a radio signal cannot be received.
- How to manually set the time P.151
- How to manually set the date P.154

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, world time function (25 time zones)
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°C and 35°C)
4. Operational temperature range: Between -10°C and +60°C
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.
   ※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.