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

Keep this manual handy for easy reference.

*Length adjustment service for metallic bands is available at the retailer from whom the watch was purchased or SEIKO CUSTOMER SERVICE CENTER. The service may also be available on a chargeable basis at other retailers, however, some retailers may not undertake the service.
When receiving radio signals, place the watch in a place where it can easily receive a radio signal.

Automatic reception and manual reception
This watch sets the time and date by automatically receiving a radio signal at a fixed time.

- Automatic reception
This watch automatically receives a radio signal at 2:00 AM. If the watch fails to receive a radio signal at 2:00 AM, it will attempt to receive a radio signal at 4:00 AM. It will repeat this process until a radio signal is received.

- Manual reception
When this watch cannot automatically receive a radio signal due to a difficult environment, it is possible to receive it manually at any time.

How to conduct manual reception
1. Turn on the watch.
2. Press and hold the 2:00 AM button for 5 seconds.
3. Release the button when the time and date display is shown.

Checking the time and date
By receiving radio signals, this watch automatically sets the time and date.

- How to set the time and date
Press and hold the 2:00 AM button for 5 seconds to set the time and date.

Automatic reception and manual reception
This watch automatically receives a radio signal at 2:00 AM. If the watch fails to receive a radio signal at 2:00 AM, it will attempt to receive a radio signal at 4:00 AM. It will repeat this process until a radio signal is received.

- Manual reception
When this watch cannot automatically receive a radio signal due to a difficult environment, it is possible to receive it manually at any time.

How to conduct manual reception
1. Turn on the watch.
2. Press and hold the 2:00 AM button for 5 seconds.
3. Release the button when the time and date display is shown.
How to Set the Time and Date (Radio Signal Reception)

About reception conditions

Radio signal reception range: In 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 (Hitatadoyayama transmitting station: 40 kHz)
- Kyushu (Vagene-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 "Environments in which it is difficult to receive a radio signal on page 100.

Radio signal reception range: In the United States (WWVB)

The reception range from the transmitting station is approximately 1,500 km (1,500 km radius of Fort Collins radio station). There are four time zones 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 page 100.

Radio signal reception range: In 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. Shangguo National Time Service Center Frequency: 68.5 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 on page 100.

Environments in which it is difficult to receive a radio signal

- Close to home electrical appliances such as TV, refrigerators or air conditioners
- Close to OA devices such as copy machines or computers at the workplace
- Close to steel desks or other furniture made of metal

How to display the reception results

- This watch displays the latest reception results (Yes/No) of a radio signal for five seconds.
- The second hand indicates the reception results.
- The second hand points to N if a reception has failed: Y if a reception was successful.

How to move the watch to another place

- Avoid putting the watch in such places when it receives radio signals.
- Place the watch where it can receive radio signals more easily, such as by the window.

Notices

- 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 will continue to keep the time.
- The time signal transmission may be stopped during maintenance of the facilities of each transmitting station or because of a lightning strike. In such a case, check each station’s website for further information or contact SEIKO CUSTOMER SERVICE CENTER.
- Websites of transmitting stations (as of November, 2007)
  - Japan: NICT (Japan Standard Time Group) http://www.jjy.nict.go.jp/
  - China: NTSC http://www.ntsc.ac.cn
  - The United States of America: NIST http://www.boulder.nist.gov/timefreq/
  - SEIKO CUSTOMER SERVICE CENTER 0120-612-911 (toll free in Japan)

If a reception has failed: The second hand points to N
- A radio signal has not been received successfully. Use the watch without any adjustments.
- In this case, refer to "Environments in which it is difficult to receive a radio signal on page 100.
- 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 directions).
- In this case, refer to "Environments in which it is difficult to receive a radio signal on page 100.
- This watch is unable to receive radio signals outside a reception range → Radio signal reception range indication on pages 96 - 98
- 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 receive radio signals during nighttime hours.
- When manually adjusting the time even after successfully receiving a radio signal, reception results are reset to "T"
- When pulling the crown to the second click, the watch returns the manual time setting and resets the reception results without adjusting the time.
- When the watch is unable to receive radio signals, it may move depending on the quartz movement.
- Accuracy of Iowa / gain: ±15 seconds per month

How to check the reception status

How to display the reception results

This watch displays the latest reception results (Yes/No) of a radio signal for five seconds.

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 "Misalignment of the time and handson page 152 and Misalignment of the date on page 154.

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 directions).
- In this case, refer to "Environments in which it is difficult to receive a radio signal on page 100.
- This watch is unable to receive radio signals outside a reception range → Radio signal reception range indication on pages 96 - 98
- 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 receive radio signals during nighttime hours.
- When manually adjusting the time even after successfully receiving a radio signal, reception results are reset to "T"
- When pulling the crown to the second click, the watch returns the manual time setting and resets the reception results without adjusting the time.
- When the watch is unable to receive radio signals, it may move depending on the quartz movement.
- Accuracy of Iowa / gain: ±15 seconds per month
What is the time zone adjustment function?

Features of time zone adjustment function

- This watch is able to be set to an overseas local time in one-hour unit, allowing for easy adjustment to time zones of different time difference from your current time.
- The watch set to the difference from UTC (Coordinated Universal Time).
- The range of time difference around the world contrasted from UTC is from -11 hours to +16 hours.
- This watch can automatically display the local time of a desired area by selecting the time zone in the watch when the watch is set in the time zone adjustment mode, the second hand indicates “the time zone.”
- Press the button to set the time zone referring to the position of the second hand.
- This watch selects a radio signal transmitting station by setting the time zone.
- When the watch is set to “Tokyo (Japan): 9-second position,” the watch automatically switches to the time display mode.
- When it is in the middle of operation, re-set the operation from procedure “1.”

Questions and answers regarding time zone 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 zone adjustment function.

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

Q: How accurate is the watch while the time difference is being set?
A: While the time zone is being set, the watch has an accuracy of an analog quartz watch.

The movement of the second hand checking the charging status → page 92

Timetable of major time zones around the world

<table>
<thead>
<tr>
<th>Position that the watch is set</th>
<th>Time Difference (UTC)</th>
<th>Name of representative city</th>
<th>Radio signal transmitting station</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-second position</td>
<td>±0</td>
<td>London/UTC ★</td>
<td>EUS, BP, GNT, LWR</td>
</tr>
<tr>
<td>2-second position</td>
<td>+2</td>
<td>Cairo ★</td>
<td>EUS, BP, LWR, WWVB</td>
</tr>
<tr>
<td>3-second position</td>
<td>+3</td>
<td>New York ★</td>
<td>EUS, BP, WWVB, WWV</td>
</tr>
<tr>
<td>4-second position</td>
<td>+4</td>
<td>Dubai</td>
<td>EUS, BP, WWVB</td>
</tr>
<tr>
<td>5-second position</td>
<td>+5</td>
<td>Riyadh</td>
<td>EUS, BP, WWVB</td>
</tr>
<tr>
<td>6-second position</td>
<td>+6</td>
<td>Dhaka</td>
<td>EUS, BP, WWVB</td>
</tr>
<tr>
<td>7-second position</td>
<td>+7</td>
<td>Cairo</td>
<td>EUS, BP, WWVB</td>
</tr>
<tr>
<td>8-second position</td>
<td>+8</td>
<td>Hong Kong (China) BPC</td>
<td>EUS, BP, WWVB</td>
</tr>
<tr>
<td>9-second position</td>
<td>+9</td>
<td>Tokyo (Japan)</td>
<td>EUS, BP, WWVB</td>
</tr>
<tr>
<td>10-second position</td>
<td>+10</td>
<td>Sydney ★</td>
<td>EUS, BP, WWVB</td>
</tr>
</tbody>
</table>

How to set the time zone (Selecting transmitting station)

1. Press and hold Button B until the second hand moves (for four seconds).
2. Set the Time Zone by pressing the button to move the second hand.
3. The watch automatically terminates the mode.

Set the time zone by moving the second hand.

- When the watch is used in Japan, set the second hand to “Tokyo (Japan): 9 second position.”
- If the watch is used in China, set the second hand to “Hong Kong (China): 8 second position” to receive the official standard frequency of China.
- If the watch is used in Tokyo, set the second hand to “Japanese Standard Time.”
- When it is in the middle of operation, re-set the operation from procedure “1.”

List of major time zones around the world

<table>
<thead>
<tr>
<th>Position that the watch is set</th>
<th>Time Difference (UTC)</th>
<th>Example of major cities and stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-second position</td>
<td>±0</td>
<td>London/UTC ★, EUS, BP, GNT, LWR</td>
</tr>
<tr>
<td>2-second position</td>
<td>+2</td>
<td>Cairo ★, EUS, BP, LWR, WWVB</td>
</tr>
<tr>
<td>3-second position</td>
<td>+3</td>
<td>New York ★, EUS, BP, WWVB, WWV</td>
</tr>
<tr>
<td>4-second position</td>
<td>+4</td>
<td>Dubai, EUS, BP, WWVB</td>
</tr>
<tr>
<td>5-second position</td>
<td>+5</td>
<td>Riyadh, EUS, BP, WWVB</td>
</tr>
<tr>
<td>6-second position</td>
<td>+6</td>
<td>Dhaka, EUS, BP, WWVB</td>
</tr>
<tr>
<td>7-second position</td>
<td>+7</td>
<td>Cairo, EUS, BP, WWVB</td>
</tr>
<tr>
<td>8-second position</td>
<td>+8</td>
<td>Hong Kong (China) BPC, EUS, BP, WWVB</td>
</tr>
<tr>
<td>9-second position</td>
<td>+9</td>
<td>Tokyo (Japan), EUS, BP, WWVB</td>
</tr>
<tr>
<td>10-second position</td>
<td>+10</td>
<td>Sydney ★, EUS, BP, WWVB</td>
</tr>
</tbody>
</table>

About charging

To change the watch, expose the dial (solar cell) to adequate light.

- When changing the watch, keep the watch temperature under 60℃.
- If the watch is concealed under a long-sleeved shirt, or if it is used or stored continually under conditions where it cannot receive sufficient light, the power stored in the solar cell may be easily depleted because the watch cannot be sufficiently charged.

Standard charging time

<table>
<thead>
<tr>
<th>Light level source</th>
<th>Condition (Example)</th>
<th>Time required to fully charge the watch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunlight (LUX)</td>
<td>10,000 Sunlight</td>
<td>5 hours</td>
</tr>
<tr>
<td>Fluorescent light</td>
<td>3,000 Fluorescent light 60cm</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Incandescent light</td>
<td>500 Incandescent light 60cm</td>
<td>5 minutes</td>
</tr>
</tbody>
</table>

The indication time for charging the watch

- The indication time is based on the charging status when the watch is fully charged.
- The charging status is displayed by the illumination of the LED indicator on the left side of the watch.
- The charging status indicator shows the percentage of the power remaining in the watch.

Solar Charging Function

TimeZoneAdjustmentFunction
### 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.

**Solar Charging Function**

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

#### Power save function

<table>
<thead>
<tr>
<th>Condition</th>
<th>Power Save 1</th>
<th>Power Save 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Situation</td>
<td>The watch stops in a state without receiving an adequate light source for 70 hours or longer.</td>
<td>The watch is in an insufficient charging state for a long time.</td>
</tr>
</tbody>
</table>

#### Water resistance

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

(Refer to “Daily care” on page 91.)

<table>
<thead>
<tr>
<th>Indicator 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 baromeric 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 baromeric pressures</td>
<td>The watch is suitable for diving without using an air cylinder.</td>
</tr>
</tbody>
</table>

#### Daily care

- The watch requires good daily care
  - Wipe away moisture, sweat or dirt with a soft cloth.
  - To clean the clearances (around the metallic band, crown or case back), a soft toothbrush is convenient.
  - After soaking the watch in seawater, be sure to wash the watch in clean pure water and wipe it dry carefully.
  - Turn the crown from time to time
    - In order to prevent corrosion of the crown, turn the crown from time to time.
    - The same practice should be applied to a screw lock type crown. (No need to pull out the screw lock type crown.)

#### Performance and type

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

---

**WARNING**

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

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

**CAUTION**

- 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.
- Do not pour running water directly from faucet.
  - The water pressure of tap water from a faucet is high enough to degrade the water resistant performance of a water resistant watch for everyday life.

---

[112] No indication: Non-water resistance

[113] Water resistant performance: Avoid drops of water or sweat

[114] Condition of use: The watch withstands accidental contact with water in everyday life.

[115] WARNING: Not suitable for swimming

[116] CAUTION: The watch is suitable for sports such as swimming.

[117] The watch is suitable for diving without using an air cylinder.
Magnetic resistance

Affected by nearby magnetism, a quartz 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 page 142)

<table>
<thead>
<tr>
<th>Condition 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>

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.

- Polyurethane band
  - A polyurethane band is susceptible to discoloration from light, and may be deteriorated by sunlight. A translucent, white, or pale colored band easily adsorbs other colors, resulting in color smears or discoloration.
  - When the band becomes less flexible or cracked, replace the band with a new one.
  - Wipe off moisture and sweat as soon as possible by gently blotting them up with a dry cloth.
  - A polyurethane band is susceptible to discoloration from moisture, sweat and direct sunlight.
  - 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 even working with water even if the watch itself is water-resistant enforced for daily use (10-Bar water resistant).
  - 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.
  - Please take care when wearing a watch with light-colored band, as dirt is likely to show up.

- Leather band
  - 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 even working with water even if the watch itself is water-resistant enforced for daily use (10-Bar water resistant).

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.
- 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.

- A Type → page 126
  - Lift up the clasp to release the buckle.
  - Open the flap.
  - Take the pin out of the adjustment hole, adjust the size of the strap by sliding it back and forth, and then put the pin back into the appropriate adjustment hole.
  - Close the flap.
  - 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.

- B Type → page 126
  - Fasten the buckle with pressing the push buttons.

- C Type → page 128
  - Press the button on both sides of the buckle : pull the buckle up. The band will automatically come out of the loop.

- How to adjust the length of the leather band
  - With pressing buttons on both sides of the buckle, pull the leather band out of the moveable loop and fixed loop. Then open the clasp.
  - Press the push buttons again to unfasten the buckle.
  - Pull the pin out of a adjustment hole of the band.
  - Skive the band to adjust its length and find an appropriate hole. Place the pin into the hole.

- How to adjust the length of the leather band
  - Lift up the clasp to release the buckle.
  - Unfasten the buckle.

- How to adjust the length of the leather band
  - Lift up the clasp to release the buckle.
  - Unfasten the buckle.

- How to adjust the length of the leather band
  - Lift up the clasp to release the buckle.
  - Unfasten the buckle.

- How to adjust the length of the leather band
  - Lift up the clasp to release the buckle.
  - Unfasten the buckle.

Examples of common magnetic products that may affect watches

- Cellular phone (speaker)
- Bag (with magnet buckle)
- AC-powered shaver
- Portable radio (speaker)
- Magnetic cooking device
- Magnetic health pillow
- Magnetic health belt
### Guarantee

Within one year from the date of purchase, we guarantee free repair/adjustment service against any defects according to the following guarantee regulations, provided that the watch was properly used as directed in this instruction booklet.

- **Guarantee coverage**
  - The watch body (movement-case) and metallic band.

- **Exceptions from guarantee**
  - In following cases, repair/adjustment services will be at cost even within the guarantee period or under guarantee coverage.
    - Change of leather/urethane/cloth band.
    - Troubles or damage caused by accidents or improper usage.
    - Scratches or grime caused by use.
    - Problems and damage caused by acts of god, natural disasters including fire, floods or earthquakes.
  - The certificate of guarantee is valid only if all the necessary items are properly filled in. We will not honor an altered or tampered certificate of guarantee for free repair services.

### After-sale service

- **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.

- **Notes on 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 may occur due to contamination of oil, which may ultimately lead the watch itself to 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.

### Power source

#### 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 111 to check the time required for fully charging the watch.

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### Lumibrite

**If your watch has Lumibrite**

Lumibrite is a luminescent paint that is absolutely harmless to human beings and natural environment, containing no radioactive materials such as radioactive substance. Lumibrite is a newly-developed luminous paint that absorbs the light energy of the sunlight and lighting apparatus in a short time and stores it to emit light in the dark.

For example, if exposed to a light of more than 500 lux for approximately 10 minutes, Lumibrite can emit light for 3 to 5 hours. Please note, however, that, as Lumibrite emits the light it stores, the luminance level of the light decreases gradually over time. The duration of the emitted light may also differ slightly depending on such factors as the brightness of the place where the watch is exposed to light and the distance from the light source to the watch.

- **Power source**
  - The battery used in this watch is a special secondary battery, which is different from ordinary batteries. Unlike an ordinary silver oxide battery, the secondary battery does not require periodic replacement. However, if the secondary battery is charged or discharged repeatedly over an extended period of time, its life may shorten. (This condition changes depending upon usage condition and storage environment.)

  The secondary battery is an environmentally friendly, clean energy storage device.

### Procedure to claim free repair services

- For any defects under guarantee, submit the watch together with the attached certificate of guarantee to the retailer from whom the watch was purchased.
- If repair services cannot be provided by the retailer from whom the watch was purchased, contact SEIKO CUSTOMER SERVICE CENTER. In this case, the attached certificate of guarantee is also needed.

- **Others**
  - The movements, case, dial, hands, glass, crown and bracelet, or parts thereof may be repaired with substitutes whose outward appearance may differ from the originals. If necessary, movements will be replaced.
  - For length adjustment service of a metallic band, ask the retailer from whom the watch was purchased or SEIKO CUSTOMER SERVICE CENTER. Other retailers may undertake the service on a chargeable basis.

### Notes on guarantee and repair

- **Contact**
  - Contact the retailer the watch was purchased from or SEIKO CUSTOMER SERVICE CENTER for repair or overhaul.
  - Within the guarantee period, present the certificate of guarantee to receive repair services.
  - Guarantee coverage is provided in the certificate of guarantee. Read carefully and retain it.
How to manually set the time

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

1. When the watch is unable to receive a radio signal, it may depend on the environment's accuracy (once per month).
2. When adjusting the time, the date will be accordingly adjusted.
3. When the watch receives a radio signal after manual adjustment of the time, it displays the received time.
4. When the watch again in regions in which the watch is able to receive a radio signal, it is recommended to perform "Manual Reception."
How to set the preliminary position

Setting the preliminary position of the date

The preliminary position of the date is the “1st.”

When the preliminary position of the date is incorrect, the correct date cannot be displayed even if the watch receives a radio signal.

Loss or gain of the date can be corrected by setting the preliminary position of the date as the “1st.”

In the case that the numerical number of the date does not move at the center of the window, it can be corrected in the same procedures as mentioned above.

When setting the preliminary position of the hour and minute hands right after setting the preliminary position of the date, after completing procedure 2 of preliminary position setting of the date, go to procedure 2 on page 147.

Troubleshooting

Setting the preliminary positions of the hour and minute hands manually

No button operation is needed if setting the hands to the preliminary positions automatically.

→ Automatic hand position alignment function on page 142

Conduct the following procedures when setting the hour and minute hands manually.

When setting the preliminary position of the hour and minute hands right after setting the preliminary position of the date, after completing procedure 2 of preliminary position setting of the date on page 145, go to procedure 2.

Troubleshooting

Troubles

Possible causes

Solutions

Reference page

The second hand moves at two-second intervals.
The energy depletion forewarning function is activated.

Press and hold Button A and Button B simultaneously until the second hand stops at the 13-second position (for four seconds).

The date will start to advance and stop at the preliminary position of the date.

Never pull the crown out.

How to use button A and B – page 90

In order to perform the procedures easily, it is recommended to first press and hold Button A and then press Button B.

While dates are advancing, no button operation can be made.

While dates are advancing, no button operation can be made.

The second hand moves at five-second intervals.

The Power Save function has been activated to limit energy consumption.

The second hand stops at the 0-second position, the watch will return to display the time.

Sufficiently charge the watch until it starts moving at one-second intervals.

Make sure that the watch is not concealed under a sleeve while you are wearing the watch. When taking the watch off, place the watch in a location as bright as possible.

page 110

Wait until the watch returns to the current time display.

Use the watch as it is (this is not a malfunction).

page 110

page 95

The stopped second hand pointing to the 15-second position started moving.
The Power Save function has been activated to limit energy consumption.

The watch will resume regular movement.

Sufficiently charge the watch until it starts moving at one-second intervals.

1. Sufficiently charge the watch until it starts moving at one-second intervals.

2. Set the time, date and day.

Use the watch as it is (this is not a malfunction).

page 140

The stopped second hand pointing to the 45-second position started moving.
The Power Save function has been activated.

Use the watch as it is (this is not a malfunction).

page 110

The watch hands were fast-forwarded even though no button had been pressed, and then the watch resumed regular movement.
The Power Save function has been activated.

Automatic hand alignment function has been activated.

If the hand positions deviate to display incorrect time as a result of influence of various external sources, the watch automatically corrects the hand alignment itself.

page 143

At trouble

Possible causes

Solution

Reference page

When the watch is unable to receive a radio signal.
The watch was moved while it was receiving a radio signal.

The watch reception of radio signals cannot be conducted unless the watch is still.

Do not move the watch while it is receiving a radio signal.

The reception of the radio signals cannot be conducted unless the watch is still.

page 99

The watch was left where the radio signal was weak or where it was unable to receive a radio signal (page 100).

Place the watch where it is able to easily receive a radio signal.

page 99

Transmitting stations may have stopped transmitting radio signals for some reason.
The watch is set to a time zone other than a radio signal reception range (a wrong transmitting station selection is indicated).

Check the website of each transmitting station for further information concerning a transmission stop. Attempt to receive a radio signal again after a while.

Check the time zone that the watch is currently set for (the transmitting station that is currently selected), and select the right time zone.

Check the time zone that the watch is currently set for (the transmitting station that is currently selected), and select the right time zone.

page 101

page 106

page 95

The stopped watch was exposed to inadequate light for longer than “the time required to display the time” and it does not resume the normal second hand movements.
The light is too weak or the manner of lighting the watch has been altered while the watch is being charged.

Charge the watch in an environment where the watch can be exposed to an adequate intensity of light in a stable condition.

Refer to the “In Case of an Abnormal Movement” section and perform the operations as instructed.

page 110

page 156

Reference page

Reception of a radio signal

At trouble

Possible causes

Solution

Reference page

When the watch is unable to receive a radio signal.

The watch was moved while it was receiving a radio signal.

Do not move the watch while it is receiving a radio signal.

The reception of the radio signals cannot be conducted unless the watch is still.

page 99
### Troubleshooting

<table>
<thead>
<tr>
<th>At Trouble</th>
<th>Possible causes</th>
<th>Solution</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Misalignment of the time and hand positions</strong></td>
<td>The watch displays an incorrect time, even though it displays the correct time of minutes and seconds. The reception results are successful, but the correct time is not displayed.</td>
<td>The hard positions were misaligned as a result of external influence. The hands are out of the preliminary position as a result of external influence. Previous position on page 143.</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>The second hand is not correctly aligned in the reception results display or the reception level display.</td>
<td>The second hand is out of the preliminary position as a result of external influence. Previous position on page 142.</td>
<td>-</td>
</tr>
<tr>
<td><strong>Operation</strong></td>
<td>The watch moves abnormally or the watch does not move at one-second intervals even after fully charging the battery, perform the procedures from ① to ⑥ to re-establish normal function.</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>The watch temporarily gains or loses time.</td>
<td>The watch fails to receive a radio signal correctly as a result of external influence (incorrect reception).</td>
<td>Place the watch where it is able to receive a radio signal more easily. Conduct manual reception if necessary. Page 98 page 136.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The watch has been left in an extremely high or low temperature place for a long time.</td>
<td>When the watch returns to a normal temperature, it will display the precise time as before. If the watch still gains or loses the time, conduct manual reception if necessary. Page 136 page 106.</td>
<td></td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td>The second hand stops at the zero second position.</td>
<td>Check the time zone that the watch is currently set for, and select the right time zone.</td>
<td>-</td>
</tr>
<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>

#### In case of an abnormal movement

In the case that the watch moves abnormally or that the watch does not move at one-second intervals even after fully charging the battery, perform the procedures from ① to ⑥ to re-establish normal function.

**How to reset the Built-in IC**

1. **When pulling the crown to the second stop, the second hand stops at the zero second position.**
   - When the crown is a screw lock type, unlock it. Page 91
   - Pulling the Crown to the Second Stop

2. **Press and hold Button A and Button B simultaneously for four seconds, and then release them.**
   - In order to perform the procedures easily, it is recommended to first press and hold Button B, and then press Button A. Page 90
   - How to use Button A and B

3. **Press Button B to Set the Preliminary Position to the "1".**
   - Adjust the date so that the position of "1" will locate at the center of the window.

4. **The preliminary position adjusting mode terminates 10 seconds after the procedure "5" has been completed.**

5. **Pressing Button B to Set the Preliminary Position to the "1".**
   - Adjust the date so that the position of "1" will locate at the center of the window.

6. **Press and hold Button B until the second hand moves (for four seconds) to the 0-second position.**
   - The watch enters the time zone adjustment mode.

#### Adjusting the preliminary position of the date (4 ～ 5)

<table>
<thead>
<tr>
<th>At Trouble</th>
<th>Possible causes</th>
<th>Solution</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Misalignment of the date</strong></td>
<td>The reception result display confirms successful reception and the correct time is displayed but the wrong date is displayed.</td>
<td>The date is out of preliminary position. This happens when the date is out of preliminary position as a result of influence of various external sources or because the built-in IC is reset.</td>
<td>Check if the date is set to the correct preliminary position. If not correct, the preliminary position for date. Page 144</td>
</tr>
<tr>
<td></td>
<td>The watch has been operated.</td>
<td>Date and day are moving right after a setting is carried out by the crown or button operation.</td>
<td>Wait for a while without doing anything. -</td>
</tr>
<tr>
<td></td>
<td>You got lost in the middle of the operation.</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Others</td>
<td>Small amount of water has got inside the watch.</td>
<td>You get lost in the middle of the operation.</td>
<td>Contact the retailer from whom the watch was purchased.</td>
</tr>
</tbody>
</table>

#### Setting the time zone (6 ～ 7)

<table>
<thead>
<tr>
<th>At Trouble</th>
<th>Possible causes</th>
<th>Solution</th>
<th>Reference page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Others</strong></td>
<td>The watch displays an incorrect time.</td>
<td>The hands are out of the preliminary position due to deterioration of the gasket, etc.</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>The watch may be set to a time in a different time zone from the region where the watch is currently used.</td>
<td>Check the time zone that the watch is currently set for, and select the right time zone.</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>No crown or button operation is needed, since the automatic hand position adjustment function will be activated to align the hand positions.</td>
<td>The Built-in IC may not activate.</td>
<td>When a movement state of the second hand is kept for ten seconds or more, the watch automatically switches to the time display state. When it is in the middle of operation, re-attempt the operation from procedure &quot;6.&quot;</td>
</tr>
<tr>
<td></td>
<td>Continuous advancement: If Button B is kept pressed for two seconds or more, the date advancement will cease. Press Button B again to start.</td>
<td>If the misalignment of the hand is not corrected even after performing the operations as instructed in the ①, consult 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.
Specifications

1. Frequency of crystal oscillator: 32,768 Hz (Hz = Hertz, Cycles per second)
2. Loss/gain (monthly rate): Loss/gain ± 15 seconds on a monthly rate (Except the case when the watch is used without an automatic time setting by receiving a radio signal and when it is worn on the wrist within a normal temperature range between 5℃ and 35℃).
3. Operational temperature range: Between -10℃ ~ +60℃
4. Driving systems: Step motor (Hour and minute hands, second hand, and the date)
5. Power source: Secondary battery, 1 piece
6. Duration of operation: Approximately six months (Fully charged, and the Power Save is not activated).
   - If the Power Save is activated after it is fully charged, the watch continues to run for approximately one year and a half at maximum.
7. Time setting by receiving the JJY-LF radio signal: Automatic reception (at 2:00 AM, 3:00 AM, and 4:00 AM)
   - Reception attempts depend on the radio signal receiving conditions.
   - After having received a radio signal, the watch will start to move depending on the quartz movement until the next reception.
   - Manual reception is also possible
8. IC (Integrated Circuit): Oscillator, frequency divider and driving circuit CMOS IC, 3 pieces

※ The specifications are subject to change without prior notice for product improvement.