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.
How to Use Buttons A and B

Buttons A and B are recessed in the watchcase to improve the design and to prevent erroneous operation. Please refer to the following figures for how to press the buttons.

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

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

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.

Reception Level Display

- Manual reception
- Automatic reception

Reception Result Display

- Confirmation of reception result
- Timezone adjustment
- Reception success
- Reception failure

Display and button operation

Before use

- The watch is sufficiently charged.
- The energy depletion warning function is activated.
- The watch is stopped.
- The watch can operate when movement of the second hand is actuated.
- The watch is not operable when the energy depletion warning function is activated.
- The charged energy is running out, charge the battery fully as soon as possible.

Better reception results depend on the environment of the receiving environment (e.g. on the receiving level). In the receiving environment, it is possible to receive them arbitrarily at any time.

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.

- Manual reception
  This watch cannot automatically receive a radio signal due to a difficult receiving environment. It is possible to receive them at any time by the following procedures.

- How to conduct manual reception
  page 136-137

Radio-controlled watch

Receive radio signals through the antenna inside the watch

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.

Radio signal reception is based on a receiving orientation. (Direction of the watch head) The radio signal reception frequency is 4,025 kHz.
### 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.
  - NICT: National Institute of Information and Communications Technology
  - Whether the watch succeeds in receiving radio signals or not depends on the receiving conditions.
  - For environments in which it is difficult to receive a radio signal, refer to “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.
  - Shangqiu National Time Service Center
  - Frequency: 68.5 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).
  - In such environments in which it is difficult to receive a radio signal, refer to “Environments in which it is difficult to receive a radio signal” on page 100.

### How to check the reception status

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

  1. **Press Button A once and then release it.**
  2. The second hand indicates the reception results.

- **How to display the reception results**
  - Press Button A and B in page 98.
  - When Button A is pressed for three seconds or longer, the second hand points to N (No) or YES.
  - To change the display when the watch switches to the manual reception mode, press Button A again to display the time.

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

- Close to overhead power lines, TV stations, train cables.
- Close to mobile phones, personal computers, or appliances such as refrigerators or air conditioners.
- Close to steel desks or other furniture made of metal.
- Avoid putting the watch in such places when it receives radio signals.

### How to set the time and date

- **How to set the time and date (radio signal reception)**

  - Place the watch in a place where it can easily receive a radio signal, or change its direction.

  - In order to receive a stable radio signal reception, keep the watch stationary without changing the direction of the watch or tilting it during radio signal reception.

  - NOTICE
    - The watch may display the wrong time if it fails to receive radio signals properly due to 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.
    - Time signal transmission may be stopped during maintenance of the facilities of each transmitting station or because of a lightning strike. In such a case, see each station's website for further information or contact SEIKO CUSTOMER SERVICE CENTER.
    - Websites of transmitting stations (as of November, 2007)
      - Japan: NICT (Japan Standard Time Group) http://www.jjy.nict.go.jp/
      - China: NTSC http://www.ntsc.ac.cn
      - SEIKO CUSTOMER SERVICE CENTER: 0120-612-911 (toll free in Japan)

### NOTICE

- **How to use button A and B**
  - When Button A is pressed for three seconds or longer, the second hand points to N (No) or M.
  - If the watch switches to the manual reception mode, press Button A again to display the time.
  - If a reception has failed: The second hand points to N.
  - If reception has failed: The second hand points to N (No: the 20th position)
  - If a reception has been successful: The second hand points to Y (Yes: the 10th position)

- **How to use button A and B**
  - If Button A is pressed after five seconds or while the second hand is moving to display the reception results, the second hand indicates the receptions successfully received.

- **How to set the time and date**
  - Place the watch where it can receive radio signals more easily, such as by the window.

- **How to set the time and date**
  - The watch may fail to receive radio signals outside a reception range if the receiving conditions are unfavorable.
  - 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:
    - Inside a building, between tall buildings, underground.
    - Inside a vehicle, train, or airplane.
    - In places generating traffic.
    - In places with heavy radio interference, such as construction sites or places with heavy traffic.
    - Closely to OA devises such as mobile phones, personal refrigerators or air conditioners.
  - The watch may display the wrong time if it fails to receive radio signals properly due to 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.
  - Time signal transmission may be stopped during maintenance of the facilities of each transmitting station or because of a lightning strike. In such a case, see each station’s website for further information or contact SEIKO CUSTOMER SERVICE CENTER.
  - In this case, refer to 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 overhead power lines, TV stations, train cables.
  - Close to mobile phones, personal computers, or other electrical appliances such as refrigerators or air conditioners.
  - Close to steel desks or other furniture made of metal.
  - Avoid putting the watch in such places when it receives radio signals.

- **How to set the time and date**
  - Place the watch where it can receive radio signals more easily, such as by the window.

- **How to set the time and date**
  - The watch may display the wrong time if it fails to receive radio signals properly due to 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.
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### NOTICE

- **How to use button A and B**
  - When Button A is pressed after five seconds or while the second hand is moving to display the reception results, the second hand indicates the receptions successfully received.

- **How to set the time and date**
  - Place the watch where it can receive radio signals more easily, such as by the window.

- **How to set the time and date**
  - The watch may display the wrong time if it fails to receive radio signals properly due to 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.
  - Time signal transmission may be stopped during maintenance of the facilities of each transmitting station or because of a lightning strike. In such a case, see each station’s website for further information or contact SEIKO CUSTOMER SERVICE CENTER.
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    - China: NTSC http://www.ntsc.ac.cn
    - SEIKO CUSTOMER SERVICE CENTER: 0120-612-911 (toll free in Japan)
What is the time zone adjustment function?

- This watch is able to be set to an overseas local time in one-hour units, and it automatically switches to the time zone closest by default.

The watch is set to Japan time when it is purchased. To switch to an overseas local time, set the time zone to the time zone where you wish to use the watch. The watch will automatically switch to the time zone closest to the location where it was purchased.

Questions and answers regarding time zone adjustment function

Q: When returning to Japan from overseas, is the time automatically set to Japan time?
A: No, the movement will not adjust to Japan time. Please adjust the watch to Japan time manually.

Features of time zone adjustment function

- The watch automatically switches to the time zone closest by default.
- The hands stop during operation of time zone setting, therefore, do not pressure the button.
- After adjusting the watch, set the hands to the time zone you wish to use.

TimeZoneAdjustmentFunction

List of major time zones around the world

- There are time differences around the world based on “Coordinated Universal Time (UTC)”. There are 24 time zones that extend around the world with a time difference of one hour. This system has been internationally established by setting the total time difference around the world as 24 hours.

- Daylight saving time (Summer Time) is individually adopted in some regions.

About charging

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

How to charge the watch

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.

How to set the time zone (Selecting transmitting station)

- When moving a local time, the watch automatically switches to the time zone closest by default.
- 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.
- For the overseas local time, set the second hand to “reception station position” to receive the official standard frequency of Japan.

- When configured to overseas local time, the second hand will be adjusted from the position of the second hand.
- If the time zone other than a radio signal reception range is selected, the radio signal reception function will not work.

There are time differences around the world based on “Coordinated Universal Time (UTC)”. There are 24 regions (Time Zones) around the world with a time difference of one hour. This system has been internationally established by setting the total time difference around the world as 24 hours. In addition, Daylight Saving Time (Summer Time) is individually adopted in some regions.

(What is UTC (Coordinated Universal Time)?)

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

(List of major time zones around the world)

- The watch automatically switches to the time zone closest by default.

List of major time zones around the world

<table>
<thead>
<tr>
<th>Time Zone</th>
<th>Time Zone (Example)</th>
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</table>
## About energy

### Energy depletion forewarning function

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

### How to charge the watch

- Charge the watch by exposing it to adequate light source for five seconds or longer.
  - **Power Save 1**: The second hand stops at five-second intervals, followed by a completely stopped state.
  - **Power Save 2**: The second hand stops at fifteen-second intervals, 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 power save function (Power Saving) which can suppress energy consumption when it is left without receiving an adequate light source for a certain length of time. The power save function can be set in two modes:

<table>
<thead>
<tr>
<th>Power Save 1</th>
<th>Power Save 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>The watch stops in an insufficient charging state for a long time.</td>
</tr>
<tr>
<td>Situation</td>
<td>When the watch is in an insufficient charging state for a long time.</td>
</tr>
<tr>
<td>How to handle</td>
<td>The watch stops in a sufficient charging state.</td>
</tr>
<tr>
<td>Note</td>
<td>If the watch is not charged for more than 72 hours, the stored power amount drops and the internal current time information stored will be lost.</td>
</tr>
</tbody>
</table>

### Power Save Function

- **Power Save 1**: The second hand moves at five-second intervals, followed by a completely stopped state.
- **Power Save 2**: The second hand moves at fifteen-second intervals, followed by a completely stopped state.

### Performance and Type

- **Daily care**
  - Wash with a soft cloth.
  - Wipe away moisture, sweat or dirt with a soft cloth.
  - Turn the crown from time to time.
  - Stop operating.

### Water Resistance

- **Water resistant performance**
  - **Non-water resistance**
  - **Water resistance for everyday life**
  - **Water resistance for everyday life at 5 barometric pressures**
  - **Water resistance for everyday life at 10 barometric pressures**

### Condition of use

- **Avoid drops of water or sweat**
  - The watch withstands accidental contact with water in everyday life.
  - The watch is suitable for sports such as swimming.
  - The watch is suitable for diving not using an air cylinder.

### WARNING

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

### CAUTION

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

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

- Do not turn or pull out the crown when the watch is wet. Water may get inside of the watch.

### Solar Charging Function

- If the watch is not charged for more than 72 hours, the stored power amount drops and the internal current time information stored will be lost. When the watch returns to its normal movement of one-second interval after sufficiently charging the battery, set the current time by receiving a radio signal. (Refer to Setting the time and date by receiving a radio signal → page 95.)
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>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>

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.
  - 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 and deterioration from moisture, sweat and direct sunlight.
  - Moisture, sweat or soil will cause rust even on a stainless steel band if they are left for a long time.
  - Please take care when wearing a watch with light-colored band, as dirt is likely to show up.
  - Request repair if a pin is poking out, personal injury may result. In such a case, refrain from using the watch and request repair.

- Leather band
  - A leather band is susceptible to discoloration and deterioration from moisture, sweat and direct sunlight.
  - Wipe off moisture and sweat as soon as possible by gently blotting them up with a dry cloth.
  - Do not expose the watch to direct sunlight for a long time.
  - Please take care when wearing a watch with light-colored band, as dirt is likely to show up.
  - Request repair if a pin is poking out, personal injury may result. In such a case, refrain from using the watch and request repair.

Special Clasps

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

- A Type
  - Lift up the clasp to release the buckle.
  - Open the flap.
  - Take the pin out of the adjustment hole, adjust the size of the strap by sliding it back and forth, and then put the pin back into the appropriate adjustment hole.
  - Close the flap.
  - 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
  - Pull the buckle up.
  - With pressing buttons on both sides of the buckle, pull the leather band out of the movable loop and fixed loop, and fasten the clasp by pressing the frame of the buckle.
  - Press the push buttons again to unfasten the buckle.
  - Pull the pin out of a adjustment hole of the band. Screw the band to adjust its length and find an appropriate hole. Place the pin into the hole.
  - Fasten the buckle with pressing the push buttons.

- C Type
  - Place the tip of the band into the movable loop and fixed loop, and fasten the clasp by pressing the frame of the buckle.

Examples of common magnetic products that may affect watches

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

The reason why analogue quartz watch is affected by magnetism.

It is because the built-in motor of the watch, which harnesses magnetic power and external strong magnetism, affect each other to stop the motor or suppresses the turn of the motor.
To Preserve the Quality of Your Watch

■ 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.

■ 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
- 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 invalid 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.

■ Notes on power source

- 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.

Free repair services are guaranteed only under the period and conditions specified in the certificate of guarantee. It does not affect specific legal rights of a consumer. The certificate of guarantee is valid only in Japan.

- 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, button 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 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.

■ Lumibrite

If your watch has Lumibrite

Lumibrite is a luminescent paint that is completely harmless to human beings and nature's environment, containing no radioactive materials such as radioactive substance. Lumibrite is a newly-developed luminescent 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 luminescence 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.

This watch is powered by the light emitted from the luminescent paint, Lumibrite, impregnated in the glass. The luminescent paint absorbs the energy of the light and stores it. The stored energy is then released to the environment in the dark, thus enabling the watch to emit light. (This condition changes depending upon usage condition and storage environment.)

The durability of the emitted light may differ slightly depending upon the place where the watch is exposed to light and the distance from the light source to the watch.

Free luminescence testing is performed for Lumibrite. The testing is conducted in a location where the light level is more than 500 lux. It is not possible to conduct similar testing at home; therefore, please refer to the testing carried out by SEIKO CUSTOMER SERVICE CENTER for the reliability of the emitted light.

The duration of the emitted light may differ slightly depending upon the place where the watch is exposed to light and the distance from the light source to the watch.

To ensure proper luminescence testing, the watch is set in a special case at a laboratory environment, where the light level is more than 500 lux. Luminescence testing is conducted after a period of 60 minutes, and the testing is carried out at a constant ambient temperature and humidity. For this reason, the test is not likely to converge to actual environmental conditions.

The duration of emitted light may differ slightly depending upon the exposure conditions and usage environment.

The duration of the emitted light may differ slightly depending upon the place where the watch is exposed to light and the distance from the light source to the watch.

The surface of the glass is coated with Lumibrite. Please note that the surface is not coated with Lumibrite on the glass's inner surface. It is not possible to conduct luminescence testing at home; therefore, please refer to the testing carried out by SEIKO CUSTOMER SERVICE CENTER for the reliability of the emitted light.

To ensure proper luminescence testing, the watch is set in a special case at a laboratory environment, where the light level is more than 500 lux. Luminescence testing is conducted after a period of 60 minutes, and the testing is carried out at a constant ambient temperature and humidity. For this reason, the test is not likely to converge to actual environmental conditions.

The duration of emitted light may differ slightly depending upon the exposure conditions and usage environment.

The duration of emitted light may differ slightly depending upon the place where the watch is exposed to light and the distance from the light source to the watch.

Please note that the surface is not coated with Lumibrite on the glass's inner surface.
**How to conduct manual reception (Receiving a radio signal manually)**

1. **Placing the watch**
   - When receiving a radio signal, place the watch where it can easily receive a signal.

2. **Keep pressing Button A until the second hand has finished its movement to the zero second position (Four seconds).**
   - To enable the watch to easily receive a radio signal page 99.

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**Conditions in which the watch may be unable to receive radio signals**

1. **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.
   - When the watch is unable to receive a radio signal, it can move depending on Sunlight exposure and other factors. Therefore, it is recommended to perform “Manual Reception.”
   - When adjusting the time, the date will be accordingly adjusted.
   - When the watch receives a radio signal after manual adjustment of the time, it displays the received time.
   - When using the watch again in regions in which the watch is able to receive a radio signal, it is recommended to perform “Manual Reception.”

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**Troubleshooting**

- When using the watch again in regions in which
  - The date can be adjusted independently regardless of the time.
  - When the watch receives a radio signal after conducting manual adjustment of the date, it displays the received date.
  - When using the watch again in regions in which the watch is able to receive the radio signals, it is recommended to perform “Manual Reception.”

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**How to manually set the date**

When the date is not changed due to an environment in which the watch is unable to receive a radio signal (when changing from months with 31 days to months with 31 days or less, adjust the date manually).

- The date can be adjusted independently regardless of the time.
- When the watch receives a radio signal after conducting manual adjustment of the date, it displays the received date.
- When using the watch again in regions in which the watch is able to receive the radio signals, it is recommended to perform “Manual Reception.”

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**Preliminary position**

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

The radio-controlled watch can automatically adjust the time, however if the preliminary position is an improper one, the watch will be unable to display the precise time even when receiving a radio signal. When comparing the state of “Misaligned Preliminary Hand Position” to that of a weight scale, it is like a scale which is unable to display the correct weight because the needle is not set to the zero position before weighing.

- **When it is necessary to adjust the preliminary position**
  - When displaying a wrong date after receiving a radio signal correctly, or when performing system reset, the preliminary position of the date must be adjusted.
  - How to set the preliminary position on page 144.

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**Do not move the watch while receiving a radio signal.**

- It takes 12 minutes at the longest according to the receiving state of a radio signal.
- After about one minute from the start of receiving a radio signal, the second hand will start to indicate the receiving level.

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**Display during reception**

- Receiving Level: High The second hand points to the "H" second position.
- Receiving Level: Low The second hand points to the "L" second position.
- Receiving Level is updated by moving the second hand every one minute.

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**Troubleshooting**

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

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**Troubleshooting**

- When using the watch again in regions in which
  - The time difference is not for a region other than radio signal reception range, a radio signal cannot be received manually (The second hand does not move to the zero second position). Check the time difference set correctly.
  - How to set the time zone pages 106-107.

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**Preliminary position**

1. **When it is necessary to adjust the preliminary position**
   - When displaying a wrong date after receiving a radio signal correctly, or when performing system reset, the preliminary position of the date must be adjusted.
   - How to set the preliminary position on page 144.

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**Function to automatically align the preliminary position of the hand (Automatic hand Position adjustment function)**

- Automatic hand position alignment function activates once intake for the second hand and at 00:00 to set the hour and minute to the time and hour hands.

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**Preliminary position**

- All Troubles: Misalignment of the time and the hands on page 152.
- Misalignment of the time and page 154.
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 adjusted by setting the preliminary position of the date as the “1st.”

In the case that the number of the date does not change at the center of the window, it also can be corrected by 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 “3” on page 147.

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

1. Press and hold Button A and Button B simultaneously until the second hand stops at the 13-second position (for four seconds).
2. The date will start to advance and stop at the preliminary position of the date.
3. Never pull the crown out.
4. How to use button A and B (page 90)
5. In order to perform the procedures easily, it is recommended to first press and hold Button A and the press Button B.

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

After the date stops, when the watch has no operation and no movement of the hands for ten seconds or longer, it automatically displays the time again. When it is a firework of operation, it is the operation from procedure “1”.

■ 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 positioning function on page 142

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

Press Button B Once

After 10 seconds when the hands stop at the 0-second position, the watch will return to displaying the time.

1. Press Button B Once.
2. While dates are advancing, no button operation can be made.
3. The preliminary positions of the hour and minute hands are automatically adjusted.
4. The hour and minute hands start to move, and then all hands will stop at the 0-second position.

Troubleshooting

Troubles Possible causes Solutions Reference page

The second hand moves at two-second intervals.
The second hand moves at five-second intervals.
The stopped second hand pointing to the 15-second position started moving.
The stopped second hand pointing to the 45-second position started moving.
The watch hands were fast- forwarded even though no button has been pressed, and then the watch resumed regular movement.

The energy depletion forewarning function is activated.
Because it is concealed under a long sleeve shirt, etc.
The Power Save has been activated to limit energy consumption.
The Power Save has been activated to limit energy consumption.
The Power Save function has been activated.

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.
Wait until the watch returns to the current time display. Use the watch as it is (this is not a malfunction).
Sufficiently charge the watch until it starts moving at one-second intervals.
Set the time, date and day.
Use the watch as it is (this is not a malfunction).

Page 110

Reference page

At trouble Possible causes Solution Reference page

When the watch is unable to receive a radio signal.
The reception results have failed and the second hand is stopped to N (the watch does not receive a radio signal).

The watch was moved while it was receiving a radio signal.
The watch was left where the radio signal was weak or where it was unable to receive a radio signal (page 100).
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 is selected).
The light is too weak or the manner of lighting the watch has been altered while the watch is being charged.
The Built-in IC of the watch has fallen into an unstable condition.

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.
Place the watch where it is able to easily receive a radio signal.
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 99

Page 99

Page 101

Page 106

Page 95

Reference page

Page 101

Page 106

Page 95
Troubleshooting

### Alignment of the hands

- **The watch displays an incorrect time:**
  - After closing the solar panel, the watch may correct the time up to ±15 seconds ( ① - ③ ).

- **The reception results are not displayed:**
  - The hands are misaligned due to external influence. ( ① - ② ) Preliminary position on page 143

- **The second hand is not correctly aligned in the reception display:**
  - The hand positions were misaligned as a result of external influence. ( ① - ② ) Preliminary position on page 143

### Operation

- **The crown or button cannot be operated:**
  - Date and day are moving right after a setting is carried out by the crown or button operation. ( ① - ② ) Preliminary position on page 143

- **You get lost in the middle of the operation:**
  - The store electric power is running short. ( ① - ② ) Preliminary position on page 143

### Others

- **Blurs on the dial glass persist:**
  - Small amount of water has got inside the watch due to deterioration of the gasket, etc. ( ① - ② ) Preliminary position on page 143

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### Solution

- **Place the watch where it is able to receive a radio signal more easily.**
  - Conduct manual reception if necessary. ( ① - ② ) Preliminary position on page 143

- **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. ( ① - ② ) Preliminary position on page 143

- **The watch cannot move even after closing the solar panel, even after the solar panel is moved:**
  - The hands are misaligned due to external influence. ( ① - ② ) Preliminary position on page 143

- **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 Adjustment Function activates once a minute for the second hand and at 12:00 both for the AM and PM for the minute and hour hands. ( ① - ② ) Preliminary position on page 143

- **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.**
  - ( ① - ② ) Preliminary position on page 143

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### In case of an abnormal movement

- **The watch does not move at one-second intervals even after fully charging the battery, perform the procedures from ① - ② to re-establish normal function.**

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

1. **When pulling the crown to the second slot, the second hand stops at the zero second position.**
   - Pulling the Crown to the Second Slot

2. **Press and hold Button A and Button B simultaneously for four seconds, and then release the buttons.**
   - Press and hold Button A and Button B simultaneously for four seconds

3. **When all the hands return to the zero second position, push the crown back in.**
   - The second hand will start to move from 0:00 AM

4. **Press and hold Button A and Button B simultaneously until the second hand stops at the 0-second position (for four seconds).**
   - The watch enters the mode to adjust the preliminary position of the date.

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.

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### Setting the time zone

7. **Press the crown back in**
   - When the watch is not in the middle of operation, re-attempt the operation from procedure “4.”

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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 C-MOS IC, 3 pieces

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