Thank you for purchasing our product. In order to ensure that you can patronize this watch for a long period of time, please carefully read this instruction manual and the warranty regulations to use it correctly.

After reading this instruction manual, keep it at hand and refer to it when necessary.

### PRODUCT FEATURES

- The light received by the solar cell located under the face is turned into electrical energy to operate this watch.
- With a full recharge, the watch will keep running for about six months.
- No need to replace the battery. It is not necessary to replace the battery because it does not use a silver oxide battery used for general quartz watches.
- Even if the watch is left intact for a long time, it starts operating by exposing it to the light.
- Provided with an residual energy notifying function. When the battery is running out, the second hand advances by two seconds to inform you of a need to charge the battery. After starting two-second step movement, the watch may stop operating within about three days.
- Provided with a quick start function. When the watch is motionless or immediately starts operating by exposing it to the light.
- Before the watch only had hands to tell the hour, minute, and second. Now, hands are also used to tell the date, day of the week, and 24-hour time.

### PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>(1) Crystal oscillator frequency</th>
<th>32,768 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) Driving system</td>
<td>Step motor system</td>
</tr>
<tr>
<td>(3) Accuracy</td>
<td>Monthly rate of ~20 seconds (When worn on the arm)</td>
</tr>
<tr>
<td></td>
<td>Operating temperature range: -5°C to +50°C</td>
</tr>
<tr>
<td>(4) Additional functions</td>
<td>Second hand regulator, reset switch</td>
</tr>
<tr>
<td></td>
<td>Drive duration time: From full charge to a stop: Approx. 6 months</td>
</tr>
<tr>
<td></td>
<td>From two-second step movement to a stop: Approx. 3 days</td>
</tr>
</tbody>
</table>

### PRIOR TO USING THE WATCH

Prior to using the watch, check the following.

- If even totally stopped, the watch begins to work again as soon as it is exposed to light.
- Once fully charged, this watch will keep running for about six months.
- This watch may stop running within six months if it isn’t exposed to sufficient light.
- If the watch is low on power or has stopped running, recharge it by exposing it to light. Exposure of the watch to sunlight or any other strong light (1,000 luxes: 70 cm directly under a 30W fluorescent lamp) when it has stopped running can restore its function in 2-second steps.
- Even if the quick start function is activated to allow two-second step movement, the battery is not sufficiently charged yet. Expose the watch to a stronger light to charge it.
- If the light is shut off in the quick start condition, the watch may stop.
- Taking into account the standard charging time, charge the battery until one-second movement is secured.
- It is not necessary to fully charge it at any time. Initially, however, it is recommended to fully charge it.

### NOTES FOR USE

When the watch is in use, keep it from entering 2-second steps by following the guidelines below:

- Wear it on your wrist at a position exposed to light, uncovered by your sleeves. Then it will always move at 1-second steps.
- When the watch is off your wrist, keep it in a bright, well-lit place with its dial face facing upwards.
- Put it beside a bright window in daytime or underneath a fluorescent lamp at night. If you find it functioning in 2-second steps before you go to bed, it is recommended to recharge it until it is restored to 1-second steps.
- (Be sure to keep the watch always at a temperature of less than 50 degrees C.)

### BATTERY USED

- It is not necessary to replace the battery because this watch uses an exclusive secondary battery different from general ones.
- This secondary battery is environment-friendly.
- Never use a general silver oxide battery because it could result in burning, heat generation, or ignition. Even if it is used, the watch is structured not to allow power continuity.

### EXPLANATION ON INDIVIDUAL POINTING HANDS AND CROWN

- **Crown**
  - Steps: Time setting
  - Steps: Normal position

- **Hour hand**
- **Minute hand**
- **Second hand**

- **Day hand** (day of the week)
- **Date hand** (date)

### WHEN TWO-SECOND STEP MOVEMENT STARTS

When the residual energy notifying function is activated, the watch starts two-second step movement. If this is the case, charge the watch because it may stop operating within about three days. Taking into account the standard charging time, charge the battery sufficiently.

### STANDARD CHARGING TIME

<table>
<thead>
<tr>
<th>Illuminance lx (lux)</th>
<th>Light Source</th>
<th>Environment (Standard)</th>
<th>Charging Time to Secure 1-sec. Step Movement</th>
<th>Charging Time Required for 1-day Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>Incandescent electric lamp</td>
<td>50W 60cm</td>
<td>Approx. 250 hours</td>
<td>Approx. 15 hours</td>
</tr>
<tr>
<td>700</td>
<td>Fluorescent lamp</td>
<td>In general office</td>
<td>Approx. 175 hours</td>
<td>Approx. 15 hours</td>
</tr>
<tr>
<td>1000</td>
<td>Fluorescent lamp</td>
<td>50W 70cm</td>
<td>Approx. 120 hours</td>
<td>Approx. 11 hours</td>
</tr>
<tr>
<td>1500</td>
<td>Fluorescent lamp</td>
<td>50W 20cm</td>
<td>Approx. 80 hours</td>
<td>Approx. 8 hours</td>
</tr>
<tr>
<td>2000</td>
<td>Fluorescent lamp</td>
<td>50W 12cm</td>
<td>Approx. 22 hours</td>
<td>Approx. 6 hours</td>
</tr>
<tr>
<td>2500</td>
<td>Fluorescent lamp</td>
<td>50W 3cm</td>
<td>Approx. 22 hours</td>
<td>Approx. 6 minutes</td>
</tr>
<tr>
<td>3000</td>
<td>Fluorescent lamp</td>
<td>50W 3cm</td>
<td>Approx. 10 hours</td>
<td>Approx. 3 minutes</td>
</tr>
<tr>
<td>3500</td>
<td>Sunshine</td>
<td>Cloudy weather</td>
<td>Approx. 10 hours</td>
<td>Approx. 3 minutes</td>
</tr>
<tr>
<td>4000</td>
<td>Sunshine</td>
<td>Fine weather</td>
<td>Approx. 3 hours</td>
<td>Approx. 1 minutes</td>
</tr>
</tbody>
</table>

- The numerals in the table above should be used as a yardstick.
- The numerals in this column indicate the charging time required for one-second step movement to be secured following two-second step movement after the motionless watch is exposed to the light. One-second step movement is activated before the end of this charging time, but in this condition, two-second step movement could be immediately resumed again. Therefore, charge the battery according to this time.
- The charging time above varies slightly from one model to another.
- Precautions for recharge
  - Bringing the watch near a photo flash light, spotlight, incandescent lamp, etc., can considerably raise the temperature of the watch, possibly resulting in damage of the internal parts. Such a dangerous action should be avoided.
- Caution must be exercised in case the watch is recharged under the sunlight as a dashboard of the car can become considerably hot.
- Always try to keep the watch in temperatures less than 50 degrees C.

### SETTING CALENDAR AND TIME

No correction mechanism is provided for the day setting. Therefore, turn the hour hand and the minute hand at first, and then set the day of the week.

- For some products with screw-type crowns, the calendar and time are set after unwinding the screw by turning it counterclockwise. After the setting, be sure to fasten the screw securely by turning the crown clockwise.
- When the hand comes to the 0-second position, pull the crown on the 3 o’clock side up to the second step.
- First, turn the crown clockwise, and set the day of the week. If the week hand jumps twice, then bring the hand back to about the 10 o’clock position by turning the crown counterclockwise. Again, let the week hand jump twice by turning the crown clockwise. Repeat this action to set the day of the week.

### SETTING DATE

1. Pull the crown up to the first step and set the date by turning it counterclockwise.
2. Press in the crown to the normal position.

### REGARDING THE 24-HOUR HAND

It is impossible to make any independent correction because it is not linked to the hour hand.