

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.

- ⊙ 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, it immediately starts operating by exposing it to the light.

● PRODUCT SPECIFICATIONS

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| (1) <i>Crystal oscillator frequency:</i> | 32,768 Hz | Residual energy notifying function |
| (2) <i>Driving system:</i> | Step motor system | Overcharge preventive function |
| (3) <i>Accuracy:</i> | Monthly rate of +/- 15 soconds
(When worn on the arm) | (5) <i>Operating temperature range:</i> -10°C to +60°C |
| (4) <i>Additional functions:</i> | Reset switch
Quick day correcting mechanism
Quick start function | (6) <i>Drive duration time:</i> From full charge to a stop: Approx. 6 months
From two-second step movement to a stop: Approx. 3 days. |
| | | (7) <i>Battery used:</i> Titanium lithium ion secondary battery |

● PRIOR TO USING THE WATCH

Prior to using the watch, check the following.

- ⊙ Some types of products use a screw type crown mechanism. If this is the case, turn the crown to the left to return it to a setting position before setting the time or calendar. After setting is completed, turn the crown to the right to tighten it securely.
- ⊙ When you want to start the motionless watch or the battery is running out, expose the watch to the light to charge the battery. If the motionless watch is exposed to the light of the sun or any strong light (1,000 luxes or more), it will start moving by two seconds.—Quick start function
- 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.
- * Precaution for Charging
When charging the battery, note that if the watch is put too close to a photo-flood lamp, spotlight, or incandescent electric lamp, the internal parts may be damaged due to a high temperature.
- * Even when charging the watch by the light of the sun, note that it will be very hot on the dashboard of the car.
- * See that the temperature of the watch will not be 60°C or higher.

● 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 bursting, heat generation, or ignition. Even if it is used, the watch is structured not to allow power continuity.

● 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

Illuminance lx (lux)	Light Source	Environment (Standard)	Full Charging Time	Charging Time to Secure 1-sec. Step Movement	Charging Time Required for 1-day Operation
500	Incandescent electric lamp	60W 60cm	Approx. 250 hours	Approx. 15 hours	Approx. 70 minutes
700	Fluorescent lamp	In general office	Approx. 175 hours	Approx. 11 hours	Approx. 50 minutes
1000	Fluorescent lamp	30W 70cm	Approx. 120 hours	Approx. 6 hours	Approx. 30 minutes
3000	Fluorescent lamp	30W 20cm	Approx. 40 hours	Approx. 2 hours	Approx. 10 minutes
5000	Fluorescent lamp	30W 12cm	Approx. 22 hours	Approx. 80 minutes	Approx. 6 minutes
10000	Fluorescent lamp	Put very close to 30W	Approx. 10 hours	Approx. 30 minutes	Approx. 3 minutes
10000	Sunshine	Cloudy weather	Approx. 10 hours	Approx. 30 minutes	Approx. 3 minutes
100000	Sunshine	Fine weather	Approx. 3 hours	Approx. 8 minutes	Approx. 1 minutes

- * 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.

● SETTING THE TIME AND CALENDAR

- 1)  1) Pull out the crown; it can be pulled out in two steps.
- 2)  2) Turn the crown to the right to set to the date one day before.
* **When it is between 9:00 p.m. and 1:00 a.m., do not make correction because the calendar function is working to change the date. It could result in an erroneous setting or failure. If you still want to set the date, pull out the crown to the second step, move the hands away from this time zone, push back the crown to the first step, and then, correct the date.**
- 3)  3) When the second hand comes to a position of zero second, pull out the crown to the second step.
- 4)  4) Turn the crown to the right to set the time. It is 12:00 a.m. when the date changes. Make sure of this and set the time, not mistaking a.m. for p.m. and vice versa.
In order to set the time accurately, set the minute hand several minutes in advance of the correct time, and then, turn it back to the correct time.
* If the a.m. and p.m. are confused, the date will change at 12:00 p.m.
- 5)  5) Push in the crown simultaneously with a time signal. Make sure that the watch starts operating.