CONTENTS

FEATURES ...................................................................................................... 5
HOW TO CHARGE AND START THE WATCH .............................................. 6
TIME/DAY/DATE SETTING ........................................................................... 8
GUIDELINE OF CHARGING TIME/ACCURACY .......................................... 12
ENERGY DEPLETION FOREWARNING FUNCTION .................................... 13
NOTE ON POWER SUPPLY ........................................................................ 14
HOW TO OPERATE THE SCREW LOCK TYPE CROWN .............................. 15
ROTATING BEZEL ......................................................................................... 16
SPECIFICATIONS .......................................................................................... 17

For the care of your watch, see “TO PRESERVE THE QUALITY OF YOUR WATCH” in the attached Worldwide Guarantee and Instruction Booklet.

FEATURES

- POWERED BY LIGHT ENERGY
- NO BATTERY CHANGE REQUIRED (Please refer to page 14 “NOTE ON POWER SUPPLY”)
- LASTS FOR 6 MONTHS AFTER FULL CHARGE
- ENERGY DEPLETION FOREWARNING FUNCTION
- INSTANT-START FUNCTION
- OVERCHARGING PREVENTION FUNCTION
HOW TO CHARGE AND START THE WATCH

● When you start the watch or when the energy in the rechargeable battery is reduced to an extremely low level, charge it sufficiently by exposing the watch to light.

● Instant-start function:
When the watch is exposed to sunlight or strong artificial light (of more than 1,000 lux), it will start operating immediately with the second hand moving at 2-second intervals.

1. Expose the watch to sunlight or strong artificial light.
   ▼ • When the watch has stopped operating, the second hand will start moving at 2-second intervals.

2. Keep the watch exposed to the light until the second hand moves at 1-second intervals.
   ▼

3. When the watch is charged after it has completely stopped, set the date and time before wearing the watch.
   • See "GUIDELINE OF CHARGING TIME/ACCURACY".

NOTES:
1. When the instant-start function is activated after the watch is exposed to light, the second hand starts moving at 2-second intervals immediately, but the energy stored in the rechargeable battery is not sufficient. If the watch is turned away from the light, it may stop operating.
2. It is not necessary to charge the watch fully. It is important, however, to charge the watch sufficiently, especially in case of initial charge.

CAUTION

Caution for charging
● When charging the watch, do not place it too close to a photoflash light, spotlight, incandescent light or other light sources as the watch temperature will become extremely high, causing damage to the parts inside the watch.

● When exposing the watch to sunlight to charge it, do not leave it on the dashboard of a car, etc. for a long time, as the watch temperature becomes extremely high.

● While charging the watch, make sure the watch temperature does not exceed 50 °C.
TIME SETTING

Pull out the crown to the second click when the second hand is at the 12 o’clock position.

Turn the crown to set the time. In order to set the time accurately, turn the minute hand 4 to 5 minutes ahead and then return it to the correct time.

Push the crown back in to its normal position simultaneously with a time signal.

Note For models with a screw lock type crown, always screw the crown in again after the setting.

DAY SETTING

The day hand cannot be adjusted independently of the other hands. Before setting the time, set the day by turning the hour and minute hands.

Pull out the crown all the way to the second click.

Turn the crown clockwise to advance the hour and minute hands. When the hour and minute hands turn past the 12 o’clock marker, the day hand starts moving. Keep advancing the hour and minute hands until the day hand is set to the next.

To advance the day hand quickly, turn back the hour and minute hands 4 to 5 hours after the day changes to the next, and then advance them again until the day hand is set to the next. Repeat the procedure above until the day hand is set to the desired day.

After setting the day, set the time. When setting the hour hand, check that the 24-hour hand is correctly set.
DATE SETTING

Pull out the crown to the first click. → Turn the crown to set the date. → Push the crown back in to its normal position.

**NOTES:**

1. Do not set the date between 9:00 p.m. and 1:00 a.m. Otherwise, it may not change properly.
   - If it is necessary to set the date during that time period, first change the time to any time outside it, set the date and then reset the correct time.

2. When setting the hour hand, check that AM/PM is correctly set.
   - The watch is so designed that the date changes once in 24 hours. Turn the hands past the 12 o’clock marker to determine whether the watch is set for the A.M. or P.M. period. If the date changes, the time is set for the A.M. period. If the date does not change, the time is set for the P.M. period.

3. It is necessary to adjust the date at the end of February and 30-day months.

**Note** For models with a screw lock type crown, always screw the crown in again after the setting.
GUIDELINE OF CHARGING TIME/Accuracy

Environment/Lightsource (lux) | V14J | A (minutes) | B (hours) | C (hours) |
--- | --- | --- | --- | --- |
General offices/ Fluorescent light (700) | 50 | 11 | 175 |
30W20cm/ Fluorescent light (3000) | 10 | 2 | 40 |
Cloudy weather/Sunlight (10000) | 3 | 0.5 | 10 |
Fair weather/Sunlight (100000) | 1 | 0.1 | 3 |
Expected life per charge from full charge to stoppage | 6 months |

- **Expected life per charge from full charge to stoppage**: 6 months
- **Operational temperature range**: -5 °C to 50 °C
- **Operational Temperature range**: -5 °C to 50 °C
- **Operational temperature range**: -5 °C to 50 °C

**A**: Time to charge 1 day of power

**B**: Time required for steady operation

**C**: Time required for full charge

The above table provides only a general guideline.

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**ENERGY DEPLETION FOREWARNING FUNCTION**

- When the energy stored in the rechargeable battery is reduced to an extremely low level, the second hand starts moving at 2-second intervals instead of the normal 1-second intervals. The watch remains accurate even while the second hand is moving at 2-second intervals.

- In that case, recharge the watch as soon as possible by exposing it to light. Otherwise, the watch may stop operating in about 3 days. (For recharging the watch, see “HOW TO CHARGE AND START THE WATCH”)

### TO PREVENT THE ENERGY DEPLETION

- When wearing the watch, make sure that the watch is not covered by clothing.
- When the watch is not in use, leave it in a bright place as long as possible.

* Make sure that the watch temperature does not exceed 50 °C.
NOTE ON POWER SUPPLY

● The battery used in this watch is a rechargeable battery, which is different from ordinary silver oxide batteries. Unlike other disposable batteries such as dry-cell batteries or button cells, this rechargeable battery can be used over and over again by repeating the cycles of discharging and recharging.
● The capacity or recharging efficiency of the rechargeable battery may gradually deteriorate for various reasons such as long-term use or usage conditions. Worn or contaminated mechanical parts or degraded oils may also shorten recharging cycles. If the efficiency of the rechargeable battery decreases, it is necessary to have the watch repaired.

CAUTION

● Do not remove the rechargeable battery yourself. Replacement of the rechargeable battery requires professional knowledge and skill. Please ask a watch retailer for replacement of the rechargeable battery.
● Installation of an ordinary silver oxide battery can generate heat that can cause bursting and ignition.

HOW TO OPERATE THE SCREW LOCK TYPE CROWN (for models with screw lock type crown)

● To unscrew the crown:
  Turn the crown counterclockwise. (Then, pull it out for time/date setting.)
● To screw in the crown:
  With the crown at the normal position, turn it clockwise while pressing it.
ROTATING BEZEL (for models with rotating bezel)

- The rotating bezel can show up to 60 minutes of elapsed time.

1. Turn the rotating bezel to align its "mark with the minute hand.

2. Read the number on the rotating bezel that the minute hand points to.

Start

Elapsed time

30 minutes have elapsed.

Note For some models, the rotating bezel rotates only counterclockwise.

SPECIFICATIONS

1. Frequency of crystal oscillator .......... 32,768 Hz (Hz = Hertz … Cycles per second)
2. Loss/gain (monthly rate) ...................... ±20 seconds at normal temperature range
   (5 °C to 35 °C/41 °F to 95 °F)
3. Operational temperature range ............. –5 °C to 50 °C/23 °F to 122 °F
4. Driving system .................................. Step motor
5. Power supply .................................... Manganese titanium-lithium rechargeable battery
6. Additional function ............................ Instant-start function, energy depletion forewarning function and overcharging prevention function
7. IC (Integrated Circuit) ...................... C-MOS-IC, 1 piece

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