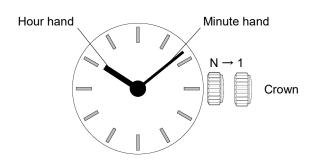
### Instruction of Watch Movement



# Cal. VS15A

## **SOLAR SERIES** - 2 hands

#### ◆ Display



#### ◆ Crown operation

|            | Crown position |               |  |  |  |
|------------|----------------|---------------|--|--|--|
| N : normal |                | 1 : 1st click |  |  |  |
| Crown      | Free           | Time setting  |  |  |  |

#### ♦ How to set time

- (1) Pull the crown out to the 1st click position.
- (2) Turn the crown to set the hour and minute hands.
  - When setting the minute hand, advance it 4 to 5 minutes ahead of the desired time and then turn it back to the exact time.
- (3) Push the crown back to the normal position.

#### Features of the solar watch

This watch is a solar-powered watch containing a solar cell underneath the dial to convert any form of light into "electrical energy" and store the power in a secondary battery.

Unlike conventional quartz watches, this watch does not use a silver oxide battery, thus eliminating the need for battery replacement.

#### Running time

Expected running time from full charge to stoppage will be around 12 months.

#### Over charge prevent function

If the secondary battery is charged more than predetermined voltage, over charge prevent function is operated to prevent the secondary battery deterioration and breakage.

#### How to charge and start the watch

#### Charging the watch

When you start the watch or when the energy remaining in the secondary battery is very low, charge it sufficiently by exposing the watch to light.

It is not necessary to charge the watch fully. It is important, however, to charge the watch sufficiently, especially
in the case of initial charging.

#### Caution

When charging the watch, do not place it too close to fluorescent lamp or other light sources as the watch temperature will become extremely high, causing damage to the parts inside the watch.

#### ■ To prevent energy depletion

- · Avoid covering the watch face with your clothing while wearing it.
- When the watch is not in use, leave it in a brightly lit place for as long as possible. Make sure that the watch temperature does not exceed 50°C.

#### Guidelines for charging time

The below table provides only general guidelines.

| Illuminati<br>on<br>(Lx) | Source of light    | Environment       | Dial transparency rate is 20% |                         |                           | Dial transparency rate is 30% |                         |                           |
|--------------------------|--------------------|-------------------|-------------------------------|-------------------------|---------------------------|-------------------------------|-------------------------|---------------------------|
|                          |                    |                   | A<br>(Approx.<br>Hours)       | B<br>(Approx.<br>Hours) | C<br>(Approx.<br>Minutes) | A<br>(Approx.<br>Hours)       | B<br>(Approx.<br>Hours) | C<br>(Approx.<br>Minutes) |
| 700                      | A fluorescent lamp | Inside the office | ı                             | 52                      | 65                        | ı                             | 40                      | 50                        |
| 3,000                    |                    | 30W 20cm          | 180                           | 13                      | 14                        | 120                           | 10                      | 11                        |
| 10,000                   | - Sunlight         | Cloudy            | 60                            | 5                       | 4                         | 40                            | 4                       | 3                         |
| 100,000                  |                    | Fine weather      | 10                            | 1                       | 1                         | 7                             | 0.5                     | 1                         |

Condition A: Time required for full charge Condition B: Time required for steady operation Condition C: Time required for 1 day's charge