

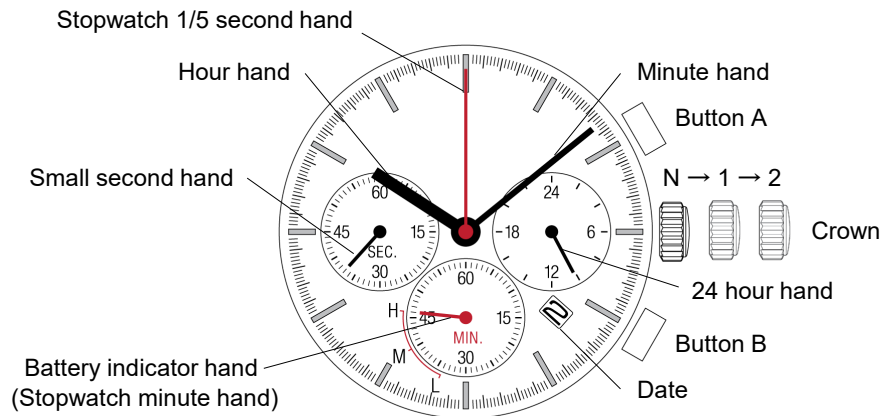
Instruction of Watch Movement

Cal. VS95A

SOLAR SERIES

- 1/5 sec. chronograph
- Battery indicator

◆ Display



◆ Crown and button operation

	Crown position		
	N : normal	1 : 1st click	2 : 2nd click
Crown	Free	Turn clockwise for date change	Time setting
Button A	Stopwatch Start Stop Restart	Stopwatch Start Stop Restart	Stopwatch hand position adjustment
Button B	Stopwatch Reset Split Split release	Stopwatch Reset Split Split release	Stopwatch hand position adjustment

◆ How to set date

- (1) Check that the hour and minute hands are not pointing between 9:00 p.m. and 1:00 a.m.
 - Do not set the date between 9:00 p.m. and 1:00 a.m..
 - If the hour and minute hands are between 9:00 p.m. and 1:00 a.m. , move them past 1:00 a.m.

- (2) Pull the crown out to the 1st click position.
- (3) Turn the crown clockwise to set the date.

Tips: If the date change during daytime, it happens a.m./p.m. is wrongly set. Advance the hour hand by 12 hours.

- (4) Push the crown back to the normal position.

◆ How to set time

- (1) Pull the crown out to the 2nd click position when the small second hands reach to the 60-second position.
 - When the stopwatch is measuring, if the crown is pulled out to the 2nd click position, it will automatically reset the stopwatch hands to "0" position.
- (2) Turn the crown to set the hour and minute hands. Pay attention to am/pm, when setting the hour and minute hands to the current time. You can check am/pm by position of the 24 hour hands.
 - When setting the minute hand, advance it 4 to 5 minutes ahead of the current 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

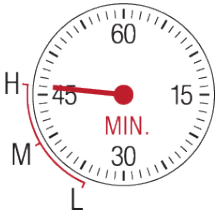
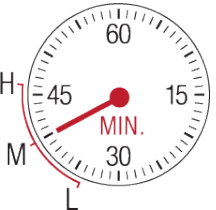
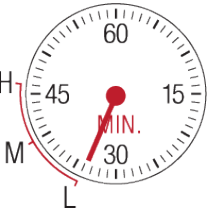
Expected running time from full charge to stoppage will be around 6 months.

■ 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 check the running time of remain

The battery indicator hands shows the running time of remain.

Battery indicator Display (Position)	 (46min.)	 (40min.)	 (34min.)
Battery level	H (High)	M (Middle)	L (Low)
the running time of remain	100 days or more	2 - 100 days	2 days or less
To do	Please use it as is.	Please wear it and charge it frequently.	The small second hand starts moving at 2-second intervals. Recharge the watch as soon as possible by exposing it to light. - When the stopwatch is in use, it will automatically reset and switch to the energy remaining display.

◆ How to charge

When you start up the watch or when the battery level is very low, charge the watch by exposing the dial to sunlight or strong artificial light (more than 1,000 lx).

- The remaining energy can be checked by the battery indicator hand.
- The small second hand immediately starts moving at two-second intervals, but the energy stored in the secondary battery is not yet sufficient. If the watch is turned away from the light, it may stop operating.
- 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.

■ Charging from a stopped state

- The small second hand will start moving at 2-second intervals. Continue exposing the watch to light until it starts moving at 1-second intervals.
- After charging, please reset the date and time before use.

◆ Guidelines of charging time

The below table provides only general guidelines.

Illumination (lx)	Source of light	Environment	Dial transparency rate is 20%		
			A (Approx / Hours)	B (*) (Approx / Hours)	C (Approx / Minutes)
700	Fluorescent lamp	Inside the office	—	48	123
3,000		30W 20cm	90	11	28
10,000	Sun light	Cloudy	24	2.9	8
100,000		Fine weather	5	1.2	3

Condition A : Time required for full charge

Condition B : Time required for steady operation

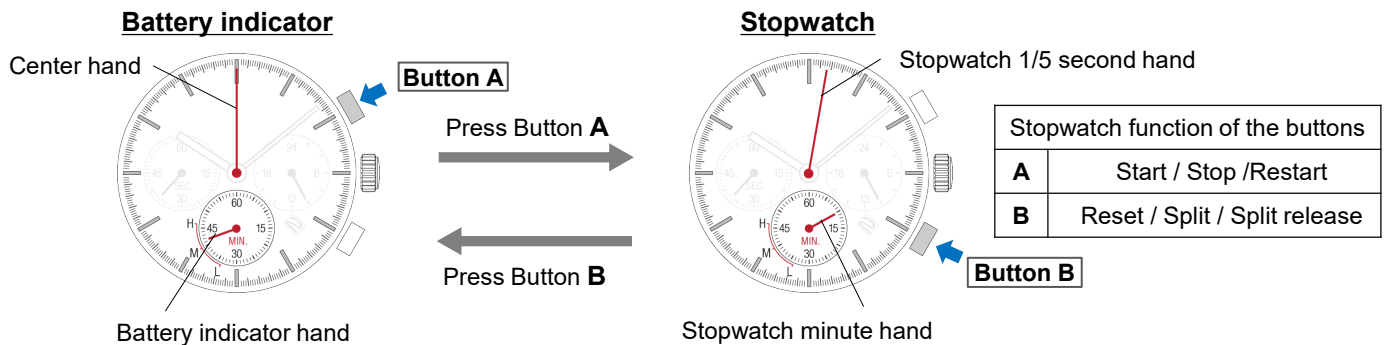
Condition C : Time required for 1 day's charge

(*) The values in this column represent the charging times required until the small second hand moves constantly at one-second intervals after the watch starts operating with the small second hand moving at two-second intervals.

Even if the watch is not charged for the time specified in the column, the small second hand may temporarily move at one-second intervals. But it will soon resume moving at two-second intervals; therefore, charge the watch for more than the specified period.

◆ Display switching with two functions (Battery indicator / Stopwatch)

By pressing the buttons, the display switches and the function of the hands also changes.



- While the battery indicator is displayed, press button A to switch to the stopwatch function and start measurement.
- When the stopwatch is reset, pressing button B can switch to the battery indicator display.

- The display cannot be switched while the stopwatch is measuring. Please reset the stopwatch before switching the display.
- After resetting the stopwatch, the display will automatically return to the remaining energy level after 1 minute.

◆ How to use stopwatch function

■ About the stopwatch function

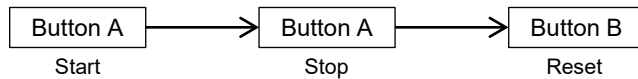
- The stopwatch can measure up to 60 minutes in 1/5 second increments.
- Stopwatch measurement is started by pressing button A while the remaining energy level is displayed.
- When the measurement time reaches 60 minutes, the stopwatch will automatically stop and reset.
- The stopwatch will not operate when the small second hand is moving every two seconds. Please charge the watch.

■ Checking the stopwatch hand position

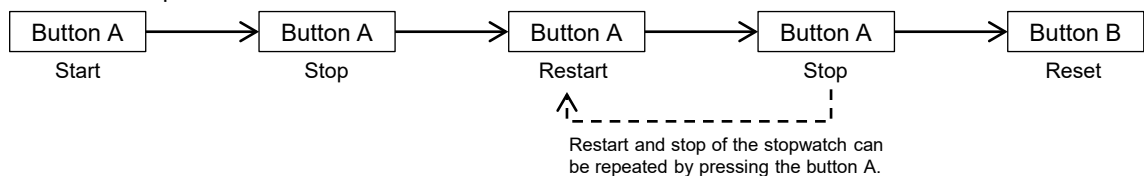
- Before using the stopwatch, be sure to check that the crown is set at the normal position and that the stopwatch hands are reset to the "0" position.
 - If the stopwatch hands do not return to the "0" position when the stopwatch is reset to "0", follow the procedure in "Stopwatch hand position adjustment".

■ How to measure of the stopwatch

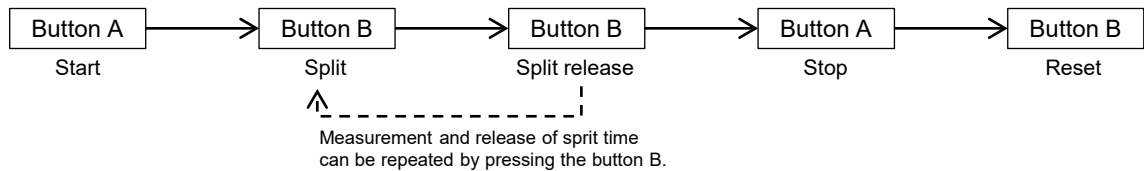
➤ Standard measurement



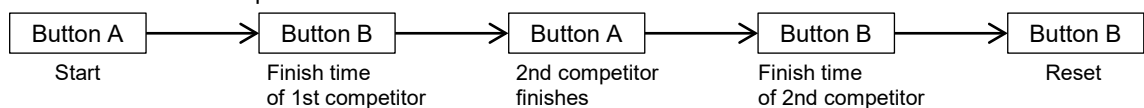
➤ Accumulated elapsed time measurement



➤ Split time measurement

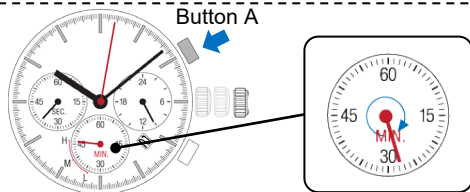
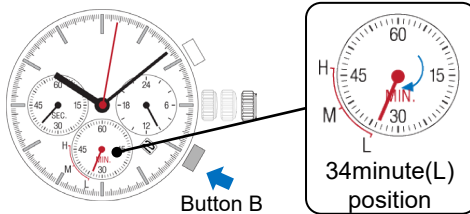
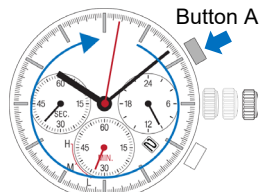
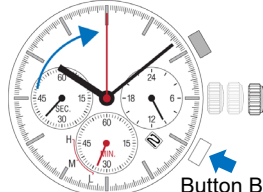


➤ Measurement of two competitors



■ Stopwatch hand position adjustment

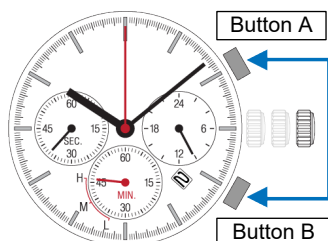
If the stopwatch hands are not in the "0" position, follow the procedures below to set them.

<p>(1) Pull out the crown to the 2nd click position.</p> <p>- When the stopwatch is measuring, if the crown is pulled out to the 2nd click position, it will be automatically reset.</p>	
Adjust the stopwatch minute hand.	
<p>(2) Press the button A for longer than 2 seconds.</p> <p>- The stopwatch minute hand turns a full round and can now be set to the correct position.</p>	
<p>(3) Press the button B repeatedly to move it to "34minute(L)" position.</p> <p>Tips: When setting the hands, the hand moves quickly if the button B is kept pressed.</p>	
Adjust the stopwatch 1/5 second hand.	
<p>(4) Press the button A for longer than 2 seconds.</p> <p>- The stopwatch 1/5 second hand turns a full round and can now be set to the correct position.</p>	
<p>(5) Press the button B to repeatedly move "0" position.</p> <p>Tips: When setting the hands, the hand moves quickly if the button B is kept pressed.</p>	
<p>(6) Push the crown back to the normal position.</p>	
<p>(7) Set the time and calendar.</p> <p>- After doing the reference position adjustment mode, the time may gain or lose time..</p>	

◆ System reset

When an abnormal display appears, reset the built-in integrated circuit.

- (1) Pull the crown out to the 2nd click position.
 - The small second hands stops.
- (2) Press the buttons A and B at the same time for longer than 2 seconds.



Press at the same time for longer than 2 seconds.

- (3) Push the crown back to the normal position.