

SEIKO
セイコースポーツ
ソーラーストップウォッチ
取扱説明書
INSTRUCTION

S055

このたびはセイコーソーラーストップウォッチS055をお買い上げいただきありがとうございました。
ご使用前にこの取扱説明書をよくお読みのうえ正しくご愛用くださいますようお願い申し上げます。なおこの取扱説明書はお手もとに保存し、必要に応じてご覧ください。

SEIKO Digital Stopwatch Cal. S055 FEATURES

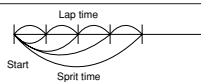
The SEIKO Digital Watch Cal. S055 is a stopwatch powered by a solar cell. The stopwatch can measure up to 10 hours in 1/100 second increments. The stopwatch requires no battery change. It is also equipped with a power reserve indicator that enables you to check the current power reserve.

CAUTION Please note that the memorized lap/split data will be lost if this stopwatch is left unlighted.

[Stopwatch function]

- It can measure up to 10 hours in 1/100 second increments.
- Two separate stopwatch displays are available for lap time or split time measurement, and they can be selected whenever necessary.
- Up to 99 sets of lap times and split times can be measured and displayed.

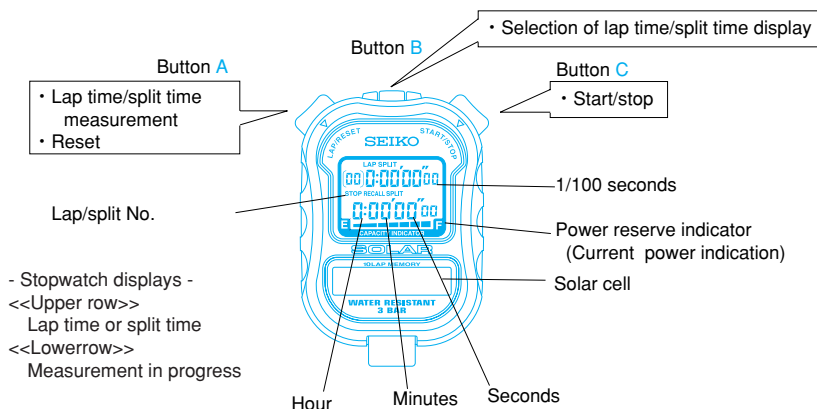
"Lap time" is the time that has elapsed from the start of one stage of an activity to that of the next stage.
 "Split time" is the time that has elapsed from the start of an activity to any given stage.



Eco Mark Product

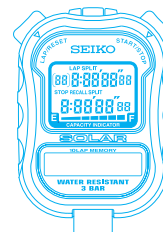
SEIKO's "SOLAR STOP WATCH" is certified by JEA (Japan Environment Association) as an "Eco Mark Product" (Eco-friendly product) with Eco-mark certification number: 03026006. In this regard, extra attention has been paid to reduce any negative impacts on the environment. For instance, this product does not use power from a battery and so is free of battery waste, and no hazardous material is used during its manufacturing process.

DISPLAY AND BUTTON OPERATION



* If buttons "A" and "C" are pressed at the same time during the measurement, all the segments of the display will light up. This is not a malfunction. In that case, press button "A", "B" or "C" to return to the normal display.

=All the segments light up=

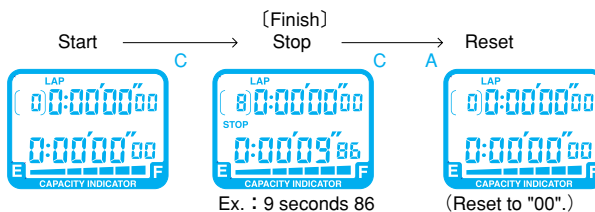


HOW TO USE THE STOPWATCH

* Before using the stopwatch, check that "0:00' 00" 00" is shown on the display. If not, press buttons "A", "B" and "C" at the same time for 2 to 3 seconds. The display will become blank. When the buttons are released, the digits "0:00' 00" 00" will appear as shown below to indicate that the measurement can be made. The number of lighted segments of the power reserve indicator differs depending on the current power reserve.

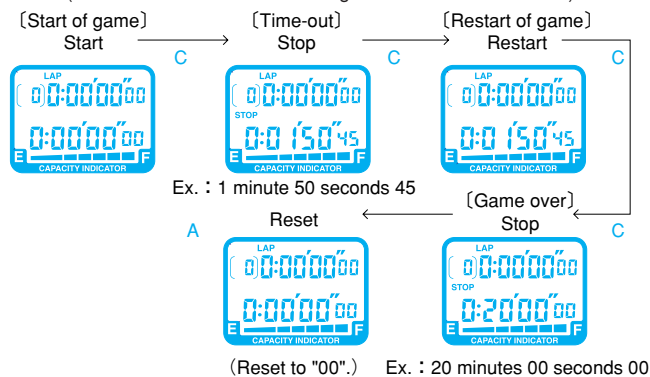
- The stopwatch can measure up to 10 hours in 1/100 second increments.
- Up to 9 hours 59 minutes 59 seconds and 99 can be displayed.
- Memory function is not provided.
- The lap/split number counts up to "99". After "99", the number is displayed in two digits such as "00" for 100, "01" for 101 and so on.

(1) Standard measurement
 Ex.) 100 m race (Press the buttons in the following order: C→C→A)②



(2) Accumulated elapsed time

Ex.) Basketball (Press the buttons in the following order: C→C→C...→C→A)



* Restart and stop of the stopwatch can be repeated as many times as necessary by pressing button "C".

(3) Lap time/split time measurement

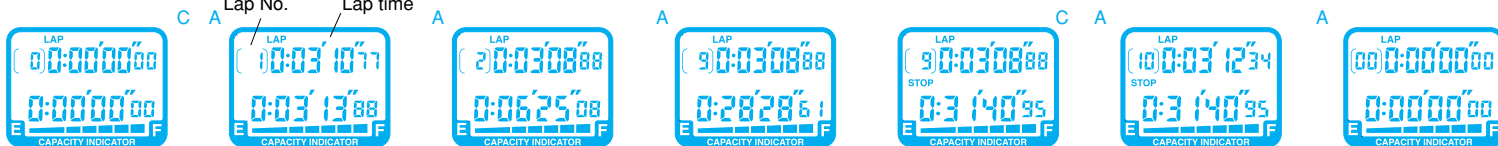
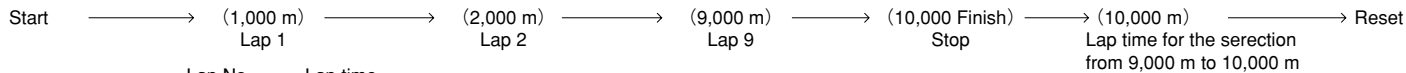
Press button "B" to show the lap time or split time display.

The button operation of the lap time/split time measurement is explained here with the lap time measurement taken as an example. To measure split times, press the buttons in the same manner.

* "LAP" mark is shown in the lap time display, and "SPLIT" mark is shown in the split time display.

* The lap/split number counts up to "99".

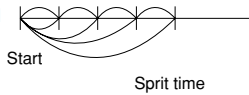
Ex.) 10,000 m race (Press the buttons in the following order: C→A→A...→C→A→A)



* lap time measurement can be repeated as many times as necessary by pressing button "A".

The lap/split number counts up to "99". After "99", the number is displayed in two digits such as "00" for 100, "01" for 101 and so on.

* If one or more lap times are measured and button "C" is pressed to stop the stopwatch, pressing button "A" will not reset the digits to "00" but will display the last lap time.

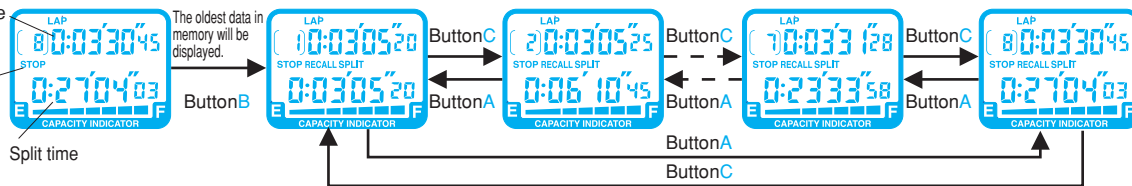


(4) LAP TIME/SPLIT TIME MEMORY RECALL FUNCTION

(Memory recall after the measurement)

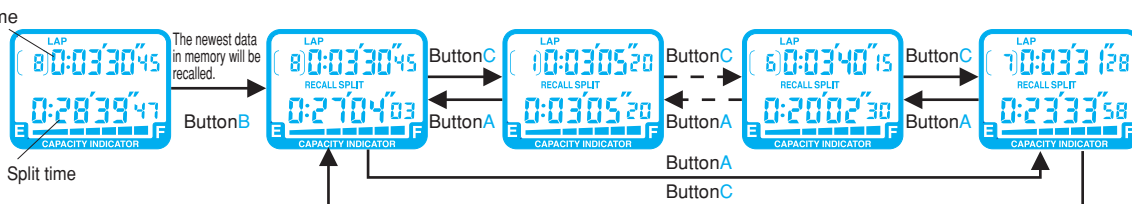
"STOP" mark is displayed.

Press button B for MEMORY RECALL display.

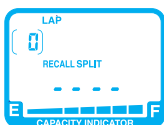


(Memory recall during the measurement)

Press button B for MEMORY RECALL display.



※If no lap time/split time measurement is made in the STOPWATCH display and no data is stored in memory, the following display will be shown when display is changed over to the MEMORY RECALL.

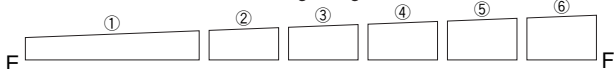


※Even if the stopwatch is reset to "00", stored data is not erased and can be recalled unless a new measurement is started. In case of after resetting, as well as after stopping measurement, heading data will be shown first.

※The stopwatch can measure the lap time/split time as many times as necessary, but only the first 100sets of measurements will be stored in memory.

REMARKS ON THE POWER RESERVE INDICATOR

The power reserve indicator shows the current power reserve, enabling you to know if the stopwatch needs recharging. When the solar cell is fully charged, all the segments of the power reserve indicator (1) to (6) light up, and the stopwatch can measure the elapsed time for 6 to 8 minutes on end without being charged.



The number of lighted segments of the power reserve indicator differs depending on the current power reserve. It enables you to know when the stopwatch needs to be recharged as shown in the table below.

Lighted segments	General guideline of recharge
(1) (2) (3) (4) (5) (6)	The power of the solar cell is sufficient enough for the stopwatch to work normally.
(1) (2) (3) (4) (5)	
(1) (2) (3) (4)	The stopwatch needs to be recharged.
(1) (2) (3)	
(1) (2)	The segment (1) will start flashing soon. Recharge the stopwatch as soon as possible.
(1) (Flashing)	Recharge the stopwatch immediately. Otherwise, the display will become blank.

PRECAUTIONS ON HOW TO USE THE SOLAR CELL

- When the solar cell is exposed to light, "0:00' 00" 00" will appear on the display to indicate that the stopwatch is ready for use. If "0:00' 00" 00" is not shown, use the stopwatch at a place where greater intensity of light is available and press buttons "A", "B" and "C" at the same time for 2 to 3 seconds. When the buttons are released, "0:00' 00" 00" will be shown on the display.
- The time required to recharge the stopwatch (the time required until at least the segments (1) and (2) light up) differs depending on the brightness of the light. See the table below.

Illumination (LUX)	Light source	Condition	Time required to recharge the solar cell
500	incandescent light	Placed 60 cm from a 60W light.	Approx. 2 minutes
1,000	Fluorescent light	60 cm from two 15 W lights.	Approx. 30 seconds
10,000	Fluorescent light	Placed very close to the light. (3 cm)	Approx. 10 seconds
50,000	Sunlight	Placed outdoors on a fine day.	Approx. 10 seconds

3. It is recommended that the solar cell be exposed to light during the measurement.
If the solar cell is kept from light, the stopwatch may not be able to measure more than 4 or 5 minutes, even if it is fully charged.

CAUTION Please note that the memorized lap/split data will be lost if this stopwatch is left unlighted.

- (1) As the power reserve is reduced during the measurement, the number of lighted segments of the power reserve indicator decreases one by one. When only the segment (1) is left lighted, it will start flashing.
* When the segment (1) starts flashing, expose the solar cell to light immediately.
- (2) If the power reserve is reduced further, the digits on the display and the flashing light of the segment (1) will gradually become dim.
- (3) If the power reserve is reduced even further, the segment (1) will go out and the display will become blank. (The obtained measurement will be canceled.)
- (4) If the solar cell is exposed to light again, "0:00' 00" 00" will appear on the display to indicate that the stopwatch is ready for use. If "0:00' 00" 00" is not shown, use the stopwatch at a place where greater

intensity of light is available and press buttons "A", "B" and "C" at the same time for 2 to 3 seconds. When the buttons are released, "0:00' 00" 00" will be shown on the display.

Precautions

- * Do not use the stopwatch in the following conditions, where the solar cell is kept from light.



In a pocket



The solar cell faces you, not outside from you.



Inside sportswear (in contact with your chest)

- * Do not place the stopwatch near a photoflash light, spotlight, incandescent lamp or other light sources which increase the stopwatch temperature to more than 50°C, as this will cause a malfunction.

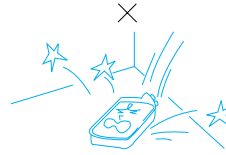
THE CARE OF YOUR WATCH

WATER RESISTANCE



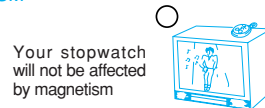
This stopwatch is water resistant and is manufactured to withstand up to 3 atmospheres of pressure/bar such as accidental contact with water, for example, splashes or rain, but it is not designed for use in water.
Do not operate the buttons when the stopwatch is wet.

SHOCKS

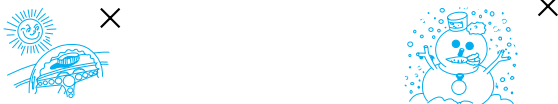


Be careful not to drop the stopwatch or hit it against any hard surfaces.

MAGNETISM



TEMPERATURES Your stopwatch is designed to work with stable accuracy between normal temperature range of 5°C and 35°C.



Do not leave your stopwatch in direct sunlight or very high temperatures for a long time.

- The display may become black, but this condition will be corrected when the stopwatch returns to normal temperature.

In all cases, the above conditions will be corrected when the stopwatch returns to normal temperature.

- * Be careful not to leave your stopwatch in a temperature below -10°C or over +60°C for a long time, as this may cause the battery electrolyte leakage or shorten the battery life.

Do not leave the stopwatch in very low temperature, as this may cause:

- 1) A slight time loss or gain.
- 2) The change of digits to become slow (with accuracy remaining normal).

CHEMICALS



Be careful not to expose the stopwatch to solvents, such as alcohol and gasoline, spray of cosmetics, cleaners, adhesives, paints, etc., as they may cause damage.

STATIC ELECTRICITY



The IC (Integrated Circuit) used in your stopwatch will be affected by static electricity. If the stopwatch is subjected to strong static electricity, the display may become irregular. Be careful especially of the video screen of a TV set from which strong static electricity is emitted.

LIQUID CRYSTAL PANEL

After about 7 years of use the digital display panel will decrease in contrast, becoming difficult to read. Have the panel replaced with a new one by the retailer from whom your stopwatch was purchased or an AUTHORIZED SEIKO DEALER.

SPECIFICATIONS

1. Frequency of crystal oscillator ... 32,768 Hz (Hz = Hertz ... Cycles per second)
 2. Loss/gain (monthly rate) Less than 0.0012% or 30 seconds at normal temperature range (5°C~35°C)
 3. Operational temperature range ... -10°C~+60°C
 4. Desirable temperature range of use ... 0°C~+50°C
 5. Display system
Stopwatch display ... Hour, minutes, seconds, 1/100 seconds, lap/split No., "STOP", "LAP" and "SPLIT" marks. Power reserve indicator display (current power reserve indication)
 6. Display medium Nematic Liquid Crystal, FEM (Field Effect Mode)
 7. Battery Amorphous solar cell
 8. IC (Integrated Circuit) C-MOS-LSI, 1 piece
 9. Minimum illumination to allow measurement ... 300 lux
- * The specifications above are subject to change without prior notice, for product improvement.