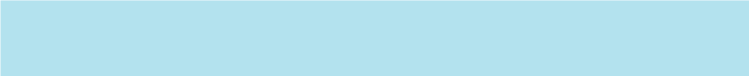


You are now the proud owner of a SEIKO KINETIC® AUTO RELAY™ Cal. 5J21. For best results, please read the instructions in this booklet carefully before using your SEIKO KINETIC®. Please keep this manual handy for ready reference.

Grazie per aver acquistato questo orologio SEIKO KINETIC® AUTO RELAY™ Cal. 5J21. Per ottenerne i migliori risultati leggere attentamente le istruzioni di questo libretto prima di passare all'uso dell'orologio stesso. Tenere poi il manuale a portata di mano, per ogni eventuale futura, ulteriore consultazione.



CONTENTS

	Page
FEATURES	3
POWER SAVE FUNCTION	4
TIME RELAY FUNCTION	6
HOW TO SET THE TIME	9
ENERGY DEPLETION FOREWARNING FUNCTION	10
POWER RESERVE IN YOUR SEIKO KINETIC WATCH	11
REMARKS ON THE KINETIC E.S.U.	12
ROTATING BEZEL	13
SPECIFICATIONS	14

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

FEATURES

SEIKO KINETIC AUTO RELAY Cal.5J21 is an analogue quartz watch equipped with an Automatic Generating System developed by SEIKO. It generates the electric energy to power the watch, utilizing the movement of the arm, and stores it in the KINETIC ELECTRICITY STORAGE UNIT (KINETIC E.S.U.). So, the watch does not use a conventional button-type battery and does not require battery replacement.

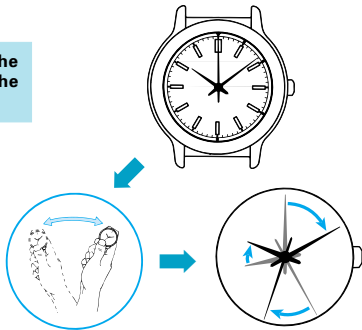
Cal.5J21 is an enhanced model of the KINETIC watches and features the power save and time relay functions to keep the watch operating for up to four years once it is fully charged, even if it is left unused and no charging is done.

■ Power save function

If the watch is left unused for 3 days, the hands stop automatically to conserve the stored electric energy.

■ Time relay function

Though the hands stop, the built-in IC continues to keep the time. To use the watch again, swinging it several times will awaken it. The hands will move quickly to indicate the current time, and resume normal operation.



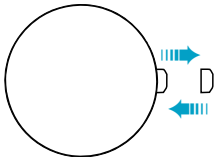
POWER SAVE FUNCTION

- If the watch is left untouched for approximately 3 days, the hands will stop moving to minimize the electrical energy consumed.
- More specifically, the power save function is activated if the generating system of the watch remains inactive and no charging is done for approximately 72 hours.
- Even if the watch is not worn for more than 3 days, the power save function will not be activated if the watch senses enough activity to start the generating system working during the 3 days.
- Though the hands stop, the built-in IC continues to compute the time.

Manual power save function

The power save function can be activated manually. If you decide not to use the watch for a long time, use this function to further conserve energy.

** While the second hand is moving at two-second intervals, the power save function cannot be activated manually. In this case, charge the watch referring to "ENERGY DEPLETION FOREWARNING FUNCTION", and then, follow the procedure below.*



CROWN

Pull out to the first click.



** Pull out and push in within one second.*

Push in to the normal position.

** The hands will stop as the power save function is activated.*

Note: *If your watch has a screw lock type crown, turn the crown counterclockwise to unscrew it, and then, pull it out. After using the crown, push it back in to the normal position, and then, turn it clockwise to screw it in completely.*

Caution:

Do not pull out the crown to the second click while the power save function is in operation. Otherwise, it is turned off, and the time data retained inside the watch will be erased, thus disabling the time relay function.

TIME RELAY FUNCTION

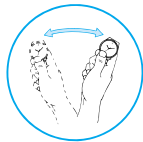
- While the power save function is working, the built-in IC continues to compute the time though the hands have stopped. As a certain amount of electricity is generated by swinging the watch, the time relay function is activated, and the hands are adjusted automatically to the time retained inside the watch.
- If the watch is charged fully as the power save function is activated, the time relay function remains operable for approximately four years.

How to activate the time relay function

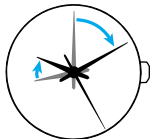
Caution:

Do not pull out the crown to the second click before activating the time relay function. Otherwise, the time data retained inside the watch will be erased, thus disabling the time relay function.

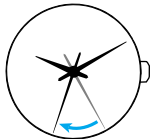
- Swing the watch from side to side for 2 to 3 seconds.



1. The hour and minute hands move quickly to indicate the current time computed by the IC.



2. The second hand moves quickly to indicate the current second, and then continues moving at one-second intervals.



Notes:

1. Swing the watch from side to side, making an arc of about 20 cm. Swing 4 to 6 times at a rate of twice a second.
2. No additional benefit is obtained by swinging the watch longer or with greater vigor.
3. When the watch is swung, the oscillating weight in the generating system rotates to drive the mechanism. As it rotates, it gives out a sound, which is not a malfunction.

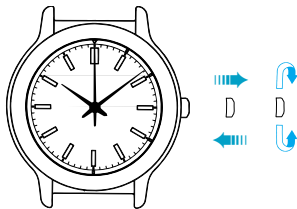
● **Remarks on using the time relay function**

1. When using the watch for the first time after it is purchased, it is necessary to adjust the time as the watch has been adjusted to the time of the area where SEIKO's factory is located.

2. If the power save function has been in operation for several months before the time relay function is activated, the time indicated by the hands may include a certain amount of time loss or gain that has accumulated during those months. Adjust the hands as required.
3. If the power reserve decreases to an extremely low level while the power save function is in operation, the time relay function may not be activated by swinging the watch. Instead, the second hand starts moving at two-second intervals. In this case, set the time manually, and charge the watch referring to "ENERGY DEPLETION FOREWARNING FUNCTION".

HOW TO SET THE TIME

1. Pull out the crown to the second click when the second hand is at the 12 o'clock position.
2. Turn the hands to set the desired time.
3. Push back the crown completely in accordance with a time signal.



Notes:

1. *If your watch has a screw lock type crown, turn the crown counterclockwise to unscrew it, and then, pull it out. After using the crown, push it back in to the normal position, and then, turn it clockwise to screw it in completely.*
2. *When setting the time, make sure that the second hand is moving at one-second intervals.*
3. *When setting the minute hand, advance it 4 to 5 minutes ahead of the desired time and then turn it back to the exact minute.*

ENERGY DEPLETION FOREWARNING FUNCTION

The watch has been charged fully at the factory, and the power save function will keep the built-in IC computing the time for up to four years. Normally, therefore, it is not necessary to charge the watch manually by swinging it. If you should find the second hand moving at two-second intervals, however, charge the watch following the procedure in “● How to charge the watch”.

- When the second hand starts moving at two-second intervals instead of the normal one-second intervals, the watch will run down in approximately 12 hours.
- If the second hand starts moving at two-second intervals when the power save function is turned off by swinging the watch, the power reserve may have become depleted to an extremely low level.

In those cases, charge the watch following the procedure below.

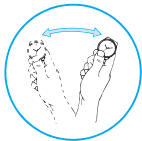
● How to charge the watch

1. Swing the watch from side to side approximately 500 times.

** Swing rhythmically at a rate of twice a second.*

** If the second hand still moves at two-second intervals after the watch is swung 500 times, swing it further until the second hand moves at one-second intervals.*

2. Swing the watch approximately 200 times further to reserve one day of power.



** It is not necessary to charge the watch fully, as it is charged automatically while it is worn on your wrist.*

Notes:

- 1. To charge the watch efficiently, swing the watch from side to side, making an arc of about 20 cm.*
- 2. No additional benefit is obtained by swinging the watch more quickly or with greater vigor.*
- 3. When the watch is swung, the oscillating weight in the generating system rotates to drive the mechanism. As it rotates, it gives out a sound, which is not a malfunction.*
- 4. The watch is equipped with a system to prevent overcharge. Even if it is further swung after being fully charged, no malfunction will result.*
- 5. Wear the watch daily for at least 10 hours.*
- 6. Even if the watch is worn on your arm, it will not be charged while your arm is not in motion.*

POWER RESERVE IN YOUR SEIKO KINETIC WATCH

- The electric energy generated while the watch is worn on your wrist is stored in the KINETIC E.S.U. It is a power source completely different from conventional batteries for watches, and therefore, this watch does not require battery replacement.
- **Power reserve guideline for the KINETIC E.S.U.**
 - You can estimate the power reserve accumulated in the KINETIC E.S.U. from the manner in which you wear the watch.
 - Using the manual power save function as often as possible is an effective way to conserve the power reserve.

Wearing the watch continuously for 12 hours will accumulate approximately one and a half additional days of power reserve.

If you wear the watch every day for 12 hours over a period of a week, approximately 10 days of power reserve will be secured in the KINETIC E.S.U., which will keep the watch operating for approximately 2 months when the hands are stopped by the power save function.

● Precautions for those only wearing the watch occasionally

If you use the watch only occasionally, it is likely that, when you decide to use it, you will find the hands have stopped and the power save function has been activated. Before wearing the watch, be sure to use the time relay function to awaken the watch following the procedure in "How to activate the time relay function".

** To use the power reserve more efficiently, it is recommended that the manual power save function be used as often as possible when you remove the watch from your wrist.*

REMARKS ON THE KINETIC E.S.U.

● Precaution


Do not pull the crown out to the second click to stop the hands with the intention of saving the energy stored in the KINETIC E.S.U. By doing so, a large amount of current flows through the built-in IC, and therefore, pulling out the crown will not save energy but actually consume more energy than usual. Instead, use the manual power save function to conserve the power reserve.

**CAUTION**

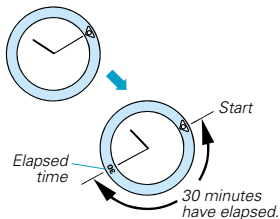
Never install a silver oxide battery for conventional watches in place of the KINETIC E.S.U. The battery may burst, become very hot or catch fire.

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.



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)	Less than 15 seconds at normal temperature range (5° C ~ 35° C) (41° F ~ 95° F)
3	Operational temperature range	-10° C ~ +60° C (14° F ~ 140° F)
4	Display system	Hour, minute and second hands
5	Driving system	Step motor, 2 pieces
6	Duration of charge	
	Validity of time relay function	Approximately 4 years (Full charge)
	After the second hand starts moving at two-second intervals	Approximately 12 hours
7	Additional function	Power save function, manual power save function, energy depletion forewarning function and overcharge prevention function
8	IC (Integrated Circuit)	C-MOS-IC, 2 pieces
9	Generating system	Miniature AC generator
10	KINETIC ELECTRICITY STORAGE UNIT	Button type, 1 piece

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