

## **Cal. 5M82, 5M83**

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You are now the proud owner of a SEIKO KINETIC® Diver's Watch Cal. 5M82/5M83. For best results, please read the instructions in this booklet carefully before using your SEIKO KINETIC® Diver's Watch. Please keep this manual handy for ready reference.

Sie sind jetzt stolzer Besitzer einer SEIKO KINETIC® Taucheruhr Kal. 5M82/5M83. Bitte lesen Sie diese Bedienungsanleitung vor der Verwendung Ihrer SEIKO KINETIC® Taucheruhr sorgfältig durch, um die optimale Nutzung dieser Uhr zu gewährleisten. Heben Sie diese Bedienungsanleitung gut auf, um jederzeit wieder nachlesen zu können.

Vous voici l'heureux propriétaire d'une montre de plongée SEIKO KINETIC® Cal. 5M82/5M83. Pour en obtenir de bonnes performances, veuillez lire attentivement les explications de ce mode d'emploi avant d'utiliser votre montre de plongée SEIKO KINETIC®. Conservez ce mode d'emploi pour toute référence ultérieure.

Grazie di aver acquistato questo orologio SEIKO KINETIC® ad uso subacqueo, Cal. 5M82/5M83. 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.

Puede sentirse ahora orgulloso de poseer un reloj de buceo SEIKO KINETIC® Cal. 5M82/5M83. Para obtener de él los mejores resultados, lea las instrucciones del presente folleto con cuidado antes del uso de su reloj de buceo SEIKO KINETIC®. Guarde este manual para fácil referencia.

Você pode sentir-se orgulhoso de possuir um Relógio do Mergulhador SEIKO KINETIC® Cal. 5M82/5M83. Para obter dele os melhores resultados, leia atentamente as instruções contidas neste opúsculo antes de usar o seu Relógio do Mergulhador SEIKO KINETIC®. Conserve este manual para referências futuras.

Теперь вы являетесь обладателем для дайвинга смотреть SEIKO KINETIC® Кал. 5M82/5M83. Перед их использованием и для достижения лучших результатов, пожалуйста, внимательно ознакомьтесь с данной инструкцией и обязательно сохраните ее.

歡迎你購買精工 5M82/5M83 機型動力潛水手錶®。為了更好地使用精工動力手錶®, 請您在使用前詳細閱讀本說明手冊, 並把說明手冊妥善保管, 以備隨時用於參考。



## WARNING

- Do not attempt to dive using this watch unless you have been properly trained in diving. For your safety, please abide by the rules of diving.
- Do not use the watch for saturation diving using helium gas.
- Before diving, make sure that the watch operates normally.
- When diving, never carry out operations other than those specified in the accompanying booklet. Misuse of the product and misunderstanding of the displayed content may lead to a fatal or serious accident.
- This watch is an auxiliary instrument which is intended to be used as a timepiece. Use this watch with proper diving equipment, such as a residual pressure gauge, water depth meter, etc., which is required for safe diving.



## CAUTION

- Please read and observe the instructions described in this booklet to ensure the proper functioning of your diver's watch.
- Do not operate the crown when the watch is wet or in water.
- Avoid hitting the watch against hard objects such as rocks.



**WARNING** notes indicate any condition or practice which, if not strictly observed, could result in severe personal injury or possible death.



**CAUTION** notes indicate any condition or practice which, if not strictly observed, may result in personal injury or property damage.

## PRECAUTIONS ON USING THE WATCH FOR DIVING

Before diving, make sure that the watch operates normally and be sure to observe the precautions described below.

### BEFORE DIVING

- Do not use the watch for saturation diving using helium gas.
- To measure the elapsed time while you are underwater, always use the rotating bezel.
- Check that:
  - the second hand is moving at one-second intervals.
  - the crown is locked tightly in place.
  - there are no visible cracks in the crystal or the watch band.
  - the strap or bracelet is securely fastened to the watch case.
  - the buckle keeps the strap or bracelet firmly secured to the wrist.
  - the rotating bezel turns counterclockwise smoothly (the rotation must not be too loose or too tight) and the "🕒" mark aligns with the minute hand.
  - the time and calendar are appropriately set.

**If there are any malfunctions, we recommend that you contact an AUTHORIZED SEIKO SERVICE CENTER.**

### WHILE DIVING

- Do not operate the crown when the watch is wet or in water.
- Take care not to hit the watch against hard objects such as rocks.
- Bezel rotation may become slightly stiffer underwater. This is not a malfunction.

### AFTER DIVING

- Rinse the watch in fresh water after diving and wash out all seawater, soil, sand, etc.
- Wipe the watch thoroughly dry to prevent possible rust on the case after cleaning the watch in fresh water.

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## FEATURES

SEIKO KINETIC Diver's Watch Cal. 5M82/5M83 is an analogue quartz watch equipped with the Kinetic technology developed by SEIKO. It generates the electric energy to power the watch, utilizing the movement of your arm, and stores it in the rechargeable battery, which requires no periodical replacement unlike conventional button-type batteries.

### ● Calibre number of your watch

Please check the case back of your watch to find its calibre number inscribed on it. As illustrated at right, the calibre number of your watch is the 4-digit number to the left of the hyphen mark.



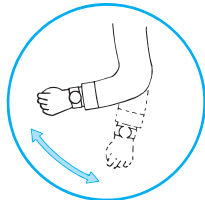
## HOW TO CHARGE AND START THE WATCH

### 1 Swing the watch from side to side.

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

### 2 Charge the rechargeable battery sufficiently.

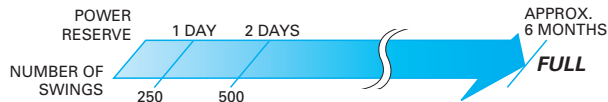
### 3 Set the time/calendar and put on the watch.



- To charge the rechargeable battery efficiently, swing the watch from side to side, making an arc of about 20 cm.
- No additional benefit is obtained by swinging the watch more quickly or with greater vigor.
- 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.

- When the watch has been left untouched for more than one year after it completely stopped, the second hand may not start moving at normal one-second intervals even if the watch is swung the number of times indicated in "NUMBER OF SWINGS AND POWER RESERVE". In this case, swing the watch further until the second hand starts moving at one-second intervals.
- The watch is equipped with a system to prevent overcharge. Even if it is further swung after being fully charged, no malfunction will result.
- Some models are equipped with an instant-start function, and the watch may start operating after it is swung several times. For details, see "INSTANT-START FUNCTION".
- It is not necessary to charge the watch fully, as it is charged automatically while it is worn on your wrist.
- Wear the watch daily for at least 10 hours.
- Even if the watch is worn on your arm, it will not be charged while your arm is not in motion.

## NUMBER OF SWINGS AND POWER RESERVE



1. When the watch stops completely, or if you find the second hand moving at two-second intervals, swing the watch from side to side at a rate of twice a second.
2. 250 swings will reserve up to 1 day of power. The second hand will start moving at one-second intervals.

\* It is recommended that the watch be swung further until 2 days of power is reserved. As a guideline of recharging, additional 250 swings, about 500 swings in total, will reserve 2 days of power.

3. Wear the watch on your wrist.

## POWER RESERVE ACCUMULATED WHILE YOU ARE WALKING



☆ The illustrations above provide only general guidelines of the relationship between the power reserve and the number of swings/the distance you walk. Actual amount of power reserve differs from person to person.

## POWER RESERVE INDICATOR

- Press the button at the 2 o'clock position.

\* To allow easy reading of the second hand, press the button when the second hand is at the 12 o'clock position.

	5 seconds	10 seconds	20 seconds	30 seconds
★ QUICK MOVEMENT OF SECOND HAND				
POWER RESERVE	More than 1 day	More than 7 days	More than approximately 1 month	Approximately 6 months

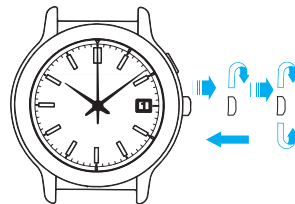
- ★ Toward the end of the quick movement, the second hand will gradually slow down until it stops.
- ★ The second hand will resume normal movement after the indicated 5, 10, 20 or 30 seconds have elapsed.

- The power reserve indicator provides only a general guideline of the duration within which the watch keeps operating without needing to be charged.
- You can immediately press the button again to recheck the power reserve one more time. To do so a third time, however, wait until the second hand resumes normal movement before pressing the button again.
- When the second hand moves at two-second intervals, the power reserve is very low and the indicator does not function.
- Immediately after the watch is swung to charge the rechargeable battery, the second hand may not properly indicate the power reserve. Please check again after 10 to 15 minutes have elapsed.
- **Precaution on see-through case-back models:**  
If your watch has a glass case back, do not expose the case back to strong light such as direct sunlight or an incandescent light at close range, as this may temporarily increase the power consumption of the watch circuit, thus reducing the power reserve in the rechargeable battery. This condition, however, will be corrected when the case back is turned away from the light.

## TIME/CALENDAR SETTING

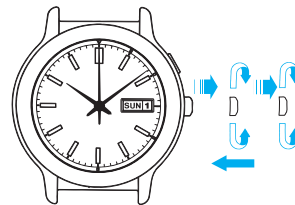
### ● CAL. 5M82

- 1** Pull out the crown to the first click and set the previous day's date.
- 2** Pull out the crown to the second click and turn the hands to set the desired date.
- 3** Set hands to the desired time taking AM and PM into consideration.
- 4** Push back the crown completely.



### ● CAL. 5M83

- 1** Pull out the crown to the first click and set the previous day's date.
- 2** Set the previous day of the week.
- 3** Pull out the crown to the second click and turn the hands to set the desired date and day.
- 4** Set hands to the desired time taking AM and PM into consideration.
- 5** Push back the crown completely.



- For Cal. 5M82, do not set the calendar between 9:00 p.m. and 1:00 a.m. For Cal. 5M83, do not set the calendar between 9:00 p.m. and 3:00 a.m. Otherwise, it may not change properly. If it is necessary to set the calendar during that time period, first change the time to any time outside it, set the calendar and then reset the correct time.
- To set the exact time, pull out the crown all the way when the second hand is at the 12 o'clock position and push it back in to the normal position in accordance with a time signal.
- When setting the hour hand, check that AM/PM is correctly set. The watch is so designed that the calendar 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 calendar changes, the time is set for the A.M. period. If the calendar does not change, the time is set for the P.M. period.
- 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.
- When setting the time, make sure that the second hand is moving at one-second intervals.
- It is necessary to adjust the date on the first day after a 30-day month and February. In this case, pull out the crown to the first click and turn it until the desired date appears.

## ENERGY DEPLETION FOREWARNING FUNCTION

- When the second hand starts moving at two-second intervals instead of the normal one-second intervals, the watch will run down in approximately **24 hours**. In this case, swing the watch from side to side to charge the rechargeable battery sufficiently.

\* The watch remains accurate even while the second hand is moving at two-second intervals.

## INSTANT-START FUNCTION

- When a long time has passed since the watch stopped, you can get it started quickly with only a few swings.
- The instant-start function will remain active for approximately 3 years after a fully-charged watch stops working.

\* When this function is activated, the second hand will start moving at two-second intervals. Swing the watch from side to side to charge the rechargeable battery by referring to "NUMBER OF SWINGS AND POWER RESERVE"

\* After the second hand starts moving at one-second intervals, put the watch on your wrist so that it will be charged further.

\* The watch remains accurate even while the second hand is moving at two-second intervals.

## REMARKS ON THE RECHARGEABLE BATTERY

- The electric energy generated while the watch is worn on your wrist is stored in the rechargeable battery. It is a power source completely different from conventional batteries for watches and does not require any periodical replacement.



- When the rechargeable battery is fully charged, the watch will keep operating for approximately **6 months** without recharging the rechargeable battery.
- The duration of charge decreases gradually over time. The extent of decrease, however, varies depending on the environment and condition of use.
- The rechargeable battery is a clean and environmentally friendly power source.



### CAUTION

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

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

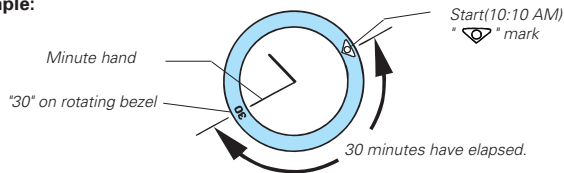
- **To unscrew the crown:**  
Turn the crown counterclockwise. (Then, pull it out for time/calendar setting)
- **To screw in the crown:**  
With the crown at the normal position, turn it clockwise while pressing it.

## ROTATING BEZEL

The rotating bezel can show the elapsed time up to 60 minutes. By setting it before diving, you can know how many minutes you are underwater.

- To prevent accidental rotation, the rotating bezel is so designed that rotation becomes harder in water. Also for safety's sake, it rotates only counterclockwise, so that the time measured is never shorter than the actual elapsed time.
1. Turn the rotating bezel to align its "👁️" mark with the minute hand.  
\* The rotating bezel rotates with clicks. With each click, it turns half a minute.
  2. To know the elapsed time, read the number on the rotating bezel that the minute hand points to.

### Example:



## TO PRESERVE THE QUALITY OF YOUR WATCH

- Repair of diver's watches requires special expertise and equipment. If you find that your diver's watch is malfunctioning, therefore, never attempt to repair it but immediately send it to a nearby SEIKO Service Center.

### ■ TEMPERATURES



Your watch works with stable accuracy within a temperature range of 5° C and 35° C (41° F and 95° F). Temperatures over 60° C (140° F) may cause battery leakage or shorten the battery life. Do not leave your watch in very low temperatures below -10° C (+14° F) for a long time since the cold may cause a slight time loss or gain. However, the above conditions will be corrected when the watch returns to normal temperature.

### ■ MAGNETISM



Your watch will be adversely affected by strong magnetism. Keep it away from close contact with magnetic objects.

### ■ CHEMICALS



Be careful not to expose the watch to solvents, mercury, cosmetic spray, detergents, adhesives or paints. Otherwise, the case, bracelet, etc. may become discolored, deteriorated or damaged.

### ■ PERIODIC CHECK



It is recommended that the watch be checked once every 2 to 3 years by an AUTHORIZED SEIKO DEALER or SERVICE CENTER to ensure that the case, crown, gasket and crystal seal remain intact.

### ■ CARE OF CASE AND BRACELET



To prevent possible rusting of the case and bracelet, wipe them periodically with a soft dry cloth.

### ■ SHOCKS & VIBRATION



Be careful not to drop your watch or hit it against hard surfaces.

### ■ PRECAUTION REGARDING CASE BACK PROTECTIVE FILM



If your watch has a protective film and/or a sticker on the case back, peel them off before using your watch.

**LUMIBRITE™**

LumiBrite is a luminous paint that is completely harmless to human beings and the natural environment, containing no noxious materials such as radioactive substances.

LumiBrite is a newly-developed luminous paint that absorbs the light energy of sunlight or artificial light in a short time and stores it to emit light in the dark.

For example, if exposed to a light of more than 500 lux for approximately 10 minutes, LumiBrite can emit light for 5 to 8 hours.

Please note, however, that, as LumiBrite emits the light it stores, the luminance level of the light decreases gradually over time. The duration of the emitted light may also differ slightly depending on such factors as the brightness of the place where the watch is exposed to light and the distance from the light source to the watch.

When you make a dive in dark water, LumiBrite may not emit light unless it has absorbed and stored light sufficiently.

Before diving, therefore, be sure to expose the watch to light under the conditions specified above, so that it fully absorbs and stores light energy. Otherwise, use the watch together with an underwater flashlight.

**< Reference data on luminance >****(A) Sunlight**

[Fine weather]: 100,000 lux

[Cloudy weather]: 10,000 lux

**(B) Indoor (Window side during daytime)**

[Fine weather]: more than 3,000 lux

[Cloudy weather]: 1,000 to 3,000 lux

[Rainy weather]: less than 1,000 lux

**(C) Lighting apparatus (40-watt daylight fluorescent light)**

[Distance to the watch: 1 m]: 1,000 lux

[Distance to the watch: 3 m]: 500 lux (average room luminance)

[Distance to the watch: 4 m]: 250 lux

\* "LUMIBRITE" is a trademark of SEIKO HOLDINGS CORPORATION.

**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	
	Time indication .....	3 hands (hour, minute and second hands)
	Calendar indication	
	Cal. 5M82 .....	Date is displayed.
	Cal. 5M83 .....	Day and date are displayed.
5	Driving system.....	Step motor
6	Duration of charge	
	Full charge .....	Approximately 6 months
7	Additional function.....	Power reserve indicator, energy depletion forewarning function and overcharge prevention function
8	IC (Integrated Circuit).....	C-MOS-IC, 1 piece
9	Rechargeable battery.....	Button type, 1 piece

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