

# Cal. 8F35

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You are now the proud owner of a SEIKO Analogue Diver's Watch Cal. 8F35. For best results, please read the instructions in this booklet carefully before using your SEIKO Analogue Diver's Watch. Please keep this manual handy for ready reference.

Sie sind jetzt stolzer Besitzer einer SEIKO Analog-Taucheruhr Kal. 8F35. Lesen Sie diese Bedienungsanleitung aufmerksam durch, bevor Sie die SEIKO Analog-Taucheruhr verwenden, um optimale Ergebnisse zu erhalten. Heben Sie die Bedienungsanleitung gut auf.

Vous voici l'heureux propriétaire d'une Montre de Plongée Analogique SEIKO Cal. 8F35. Pour en obtenir d'excellents résultats, veuillez lire attentivement cette brochure avant d'utiliser cette Montre de Plongée Analogique SEIKO. Conservez ces explications pour vous y référer en cas de besoin.

Grazie per aver acquistato questo orologio analogico SEIKO per immersioni, Cal. 8F35. Per ottenere i migliori risultati dall'orologio, leggere attentamente questo manuale di istruzioni prima di passare ad utilizzare l'orologio stesso. Conservare poi il manuale a portata di mano per ogni eventuale futura consultazione.

Usted es ahora un orgulloso propietario de un reloj analógico de buzo SEIKO Cal. 8F35. Para los mejores resultados, por favor lea cuidadosamente las instrucciones de este librito antes de utilizar su reloj analógico de buzo SEIKO. Le rogamos guardar este manual a mano para ulterior referencia.

Você pode agora sentir-se orgulhoso de ter adquirido o Relógio do Mergulhador Analógico SEIKO Cal. 8F35. Para obter os resultados máximos, solicitamos-lhe que, antes de usar o seu Relógio do Mergulhador Analógico SEIKO, leia cuidadosamente as instruções contidas neste opúsculo. E guarde este manual para futuras referências.

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

# SEIKO CAL. 8F35

## PERPETUAL CALENDAR

- Once set, the calendar automatically adjusts for odd and even months including February of leap years up to February 28, 2100.
- It indicates the month, date and the number of years since the last leap year.

## HIGH ACCURACY

- Loss/gain : Annual rate of less than 20 seconds

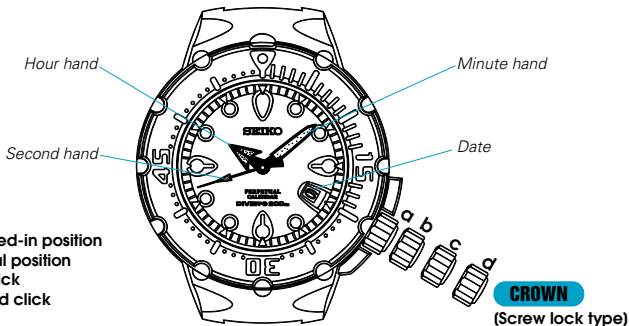
## 200 METER WATER RESISTANCE

- Suitable for scuba diving.

## ROTATING BEZEL

- Can measure elapsed time during diving (up to 60 minutes).

## SCREW LOCK TYPE CROWN



- a: Screwed-in position
- b: Normal position
- c: First click
- d: Second click

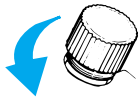
#### Before using the watch:

- Because the calendar is preadjusted at the factory, you only need to set the time and date, and the calendar will automatically update itself.
- Before using the watch, be sure to read "HOW TO CHECK THE CALENDAR", and then set the time and date correctly following the procedure in "TIME/DATE SETTING".

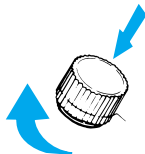
*\* In case the calendar indication is not correct after the time/date setting is made, consult the retailer from whom the watch was purchased or an AUTHORIZED SEIKO DEALER.*

## HOW TO USE THE SCREW LOCK TYPE CROWN

- **To unscrew the crown:**  
Turn it counterclockwise.



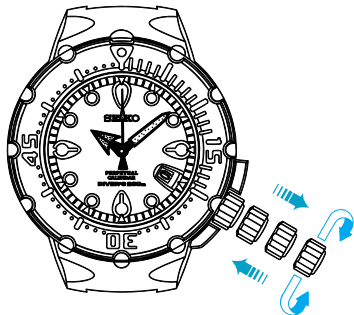
- **To screw in the crown:**  
With the crown at normal position, turn it clockwise while pressing it.



### **WARNING**

**While you are underwater, never unscrew the crown or pull it out.**

## TIME/DATE SETTING



### CROWN

Unscrew.



Pull out to second click when Second hand is at the 12 o'clock position.



Turn in either direction to set the time and date.

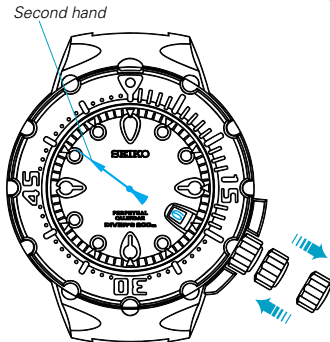


Push in in accordance with a time signal.



Screw in completely.

# HOW TO CHECK THE CALENDAR



## CROWN

Unscrew.

▼  
Pull out to first click, and push back in to normal position within a second.

- The watch shows the calendar in the following order:

**1. Leap year**  
(Second hand)

▼  
**2. Month**  
(Calendar frame)



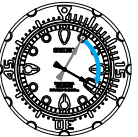

▼  
**3. Date**  
(Calendar frame)

▼  
After checking the calendar, screw in completely.



## 1. Leap year indication

The second hand moves quickly at five-second intervals and stops to indicate the number of years that have passed since the last leap year. Before pulling out the crown to the first click, check and remember where the second hand is so that you can read how many seconds it has advanced.

	5 seconds	10 seconds	15 seconds	20 seconds
Quick movement of second hand				
Number of years since the last leap year	1 year	2 years	3 years	4 years (leap year)
Year	1997 2001 2005 · · · 2093 2097	1998 2002 2006 · · · 2094 2098	1999 2003 2007 · · · 2095 2099	2000 2004 2008 · · · 2096 -

## 2. Current month

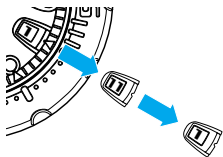
The current month is shown in the calendar frame for 5 seconds.

*\* January is represented by "1", February "2", and so on.*

## 3. Current date

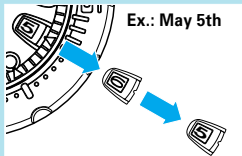
The numeral in the calendar frame returns to the current date.

Ex.: November 1st



*\* When the month and date are represented by the same numeral as in the case of "January 1st", "February 2nd" and so on, the numeral in the calendar frame quickly advances and moves back by one to indicate that the month and date numerals are identical.*


Ex.: May 5th

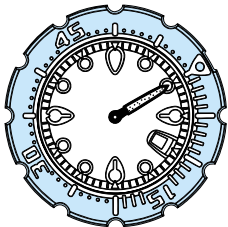


- ★ After the calendar has been displayed, the second hand starts moving quickly and then resumes normal movement.

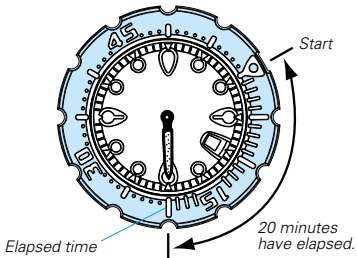
## ROTATING BEZEL

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

- 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.



\* The rotating bezel turns only counterclockwise for safety's sake.

## PRECAUTIONS FOR DIVING



### CAUTION

**Diving is an inherently hazardous form of recreation and it is essential that you strictly observe all instructions for use and maintenance of the watch set forth in this booklet for safety's sake. DO NOT ATTEMPT TO DIVE USING THIS WATCH UNLESS YOU HAVE BEEN PROPERLY TRAINED IN DIVING.**

**Do not use the watch for saturation diving using helium gas.**

### BEFORE DIVING

- Check that:
  - the watch operates normally.
  - 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 date are properly indicated.
  - the second hand is moving at one-second intervals.

**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 harder in the water but this is not a malfunction.

## **AFTER DIVING**

- After checking that the crown is screwed in completely, rinse the watch in fresh water, and wash out all seawater, soil, sand, etc.
- After cleaning the watch in fresh water, be sure to wipe it thoroughly dry to prevent possible rust on the case.

# NOTES ON USING THE WATCH

## TIME/DATE SETTING

- When setting the date, turn the crown counterclockwise to advance the date and clockwise to move it back. The date changes one day by turning the hour hand two full circles.
- The date changes between 11:45 p.m. and 0:30 a.m. while the watch is in operation and between 9:00 p.m. and 3:00 a.m. when it is changed manually by turning the hands. Therefore, note the following.

### [AM/PM checking]

When setting the hour hand, check that AM/PM is correctly set.

- \* When setting the time by advancing the hands, turn the hour hand past the 3 o'clock marker. If the date advances, the time is set for the AM period. If it does not change, the time is set for the PM period.
- \* When setting the time by turning back the hands, turn the hour hand past the 9 o'clock marker. If the date moves back, the time is set for the PM period. If it does not change, the time is set for the AM period.

### [Setting the time between 9:00 p.m. and 3:00 a.m.]

- \* If the time is adjusted to the time period between 9:00 p.m. and 3:00 a.m., the date may not change properly. The watch, however, will indicate the date properly after 3:00 a.m.
- \* To prevent this from occurring, first turn back the hour hand past 9:00 p.m., checking that the date moves back to the previous day, and then, advance the hands to the desired time.
- 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.

## HOW TO CHECK THE CALENDAR

- If the crown is pulled out to the second click instead of the first click and pushed back in to the normal position, the watch will not show the calendar.
- Do not leave the crown at the first or second click when you use the watch, as this will shorten the battery life.

### ● Note on the leap second

One day normally is said to consist of 86,400 seconds. In fact, it can be longer or shorter than this because of irregular changes in the rotation cycle of the earth. When the accumulated fluctuations in the length of a day total plus or minus one second, one second must then be added or subtracted as a correction factor. This is known as a "leap second".

The leap second correction is executed every year or two simultaneously throughout the world on the basis of information collected by astronomical observatories all over the world. The correction is effected between 11:59'59" p.m. and 0:00'00" a.m. GMT either on December 31 or on June 30, during which one second is added or subtracted.

When this happens, please adjust your watch accordingly.

Please refer to your newspaper for information on the leap second.

### LUMIBRITE™

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

LumiBrite absorbs the 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 CORPORATION.



## BATTERY CHANGE



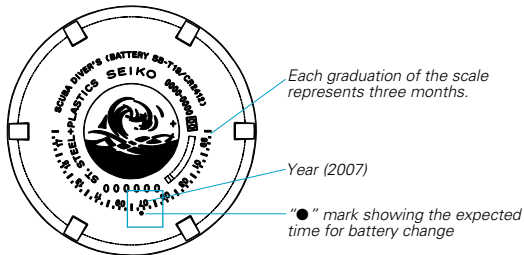
The miniature battery which powers your watch should last approximately **8 years**. However, because the battery is inserted at the factory to check the function and performance of the watch, its actual life once in your possession may be less than the specified period. When the battery expires, be sure to replace it as soon as possible to prevent any malfunction. For battery replacement, we recommend that you contact an AUTHORIZED SEIKO DEALER and request **SEIKO CR2412** battery.

- \* *For safety's sake, the watch will also undergo a strict check at the time of battery change. In addition to battery change, water resistant quality of the watch is checked and the gasket will be replaced with a new one if necessary. Therefore, it will take approximately 10 days before the watch is returned to you, and the checking may be made at cost.*
- \* *If the watch is left with the crown at the first or second click, if the calendar checking function is used frequently, and/or if the watch is left in temperatures outside the normal temperature range (5° C ~ 35° C or 41° F ~ 95° F) for a long time, the battery life may be less than the specified period.*

### ● Expected time for battery change

- To show when the battery must be replaced, the expected time (month and year) for the first battery change is inscribed on the case back as shown in the illustration on the next page.
- When replacing the battery, we recommend that you contact an AUTHORIZED SEIKO SERVICE CENTER. In that case, after every battery change, a new “●” mark will be inscribed on the case back at the position corresponding to the next battery change time. Be sure to check the mark before using your watch again.

### Ex.) Expected time for battery change: April through June, 2007



### ● Battery life indicator

When the second hand starts moving at two-second intervals instead of the normal one-second interval, replace the battery with a new one as soon as possible. Otherwise, the watch will stop operating in two weeks.

- \* For safety's sake, never use the watch for diving while the second hand is moving at two-second intervals.
- \* When you make a long voyage, check the expected time for battery change referring to "● Expected time for battery change" above, and replace the battery with a new one if necessary before setting off.
- \* The time accuracy is not affected even if the second hand is moving at two-second intervals.
- \* While the second hand is moving at two-second intervals, the date will not change and the watch will not show the calendar even if the crown is pulled out to the first click.

*\* If the watch is left in very low temperatures, the second hand may temporarily start moving at two-second intervals and the date does not change to the next. When the watch returns to normal temperature, however, this condition will be corrected and the correct date will be displayed on the next day. If the second hand still moves at two-second intervals and the date does not change properly, replace the battery with a new one.*

### ● **Checking and adjustment of the calendar after battery change**

The calendar function is not affected by battery changes. However, after the battery is replaced with a new one, be sure to check that the calendar is correct. (See "HOW TO CHECK THE CALENDAR")

If the watch does not indicate the leap year, month and date correctly, have the watch adjusted by an AUTHORIZED SEIKO DEALER.

#### **WARNING**

- **Do not remove the battery from the watch.**
- **If it is necessary to take out the battery, keep it out of the reach of children. If a child swallows it, consult a doctor immediately.**

#### **CAUTION**

- **Never short-circuit, heat or otherwise tamper with the battery, and never expose it to fire. The battery may burst, become very hot or catch fire.**
- **The battery is not rechargeable. Never attempt to recharge it, as this may cause battery leakage or damage to the battery.**

## SPECIFICATIONS

- |   |                                       |  |
|---|---------------------------------------|--|
| 1 | Frequency of crystal oscillator ..... | 196,608 Hz (Hz = Hertz ... Cycles per second)  |
| 2 | Loss/gain (Annual rate) .....         | ±20 seconds when used on the wrist approximately 12 hours a day, at normal temperature range (5° C ~ 35° C) (41° F ~ 95° F)<br>* <i>Monthly rate of loss/gain may amount to approximately 4 seconds depending on the condition of use.</i> |
| 3 | Operational temperature range .....   | -10° C ~ +60° C (14° F ~ 140° F)   |
| 4 | Driving system .....                  | Step motor for the time indication<br>Ultrasonic motor for the calendar indication   |
| 5 | Battery .....                         | SEIKO CR2412, 1 piece  |
| 6 | Battery life indicator                |  |
| 7 | IC (Integrated Circuit) .....         | C-MOS-LSI, 1 piece   |
| 8 | Magnetic resistance .....             | 4,800 A/m (60 gauss)   |
| 9 | Water resistance .....                | Withstands water pressure to a depth of 200 m and is therefore suitable for scuba diving.  |

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