

## Cal. 6R15

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You are now the proud owner of a SEIKO Automatic Diver's Watch Cal. 6R15. For best results, please read the instructions in this booklet carefully before using your SEIKO Automatic Diver's Watch. Please keep this manual handy for ready reference.

Sie sind jetzt stolzer Besitzer einer automatischen Taucheruhr SEIKO Kal. 6R15. Bitte lesen Sie diese Bedienungsanleitung vor der Verwendung der Uhr aufmerksam durch, um optimale Ergebnisse davon zu erhalten. Heben Sie die Bedienungsanleitung gut auf, um jederzeit nachlesen zu können.

Vous voici l'heureux propriétaire d'une montre automatique de plongée SEIKO Cal. 6R15. Pour en obtenir de bonnes performances, veuillez, avant d'utiliser la montre, lire attentivement les explications de ce mode d'emploi que vous conserverez pour toute référence ultérieure.

Grazie per aver acquistato questo orologio automatico SEIKO Cal. 6R15 per subacqueo. 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.

Usted es ahora un honrado poseedor del reloj de buceador automatico SEIKO Cal. 6R15. Para obtener de él los mejores resultados, lea las instrucciones del presente folleto con cuidado antes del uso de su reloj de buceador automatico SEIKO. Guarde este manual para fácil referencia.

Você pode sentir-se orgulhoso de possuir um Relógio do mergulhador SEIKO Automático Cal. 6R15. Para obter dele os melhores resultados, leia atentamente as instruções contidas neste opúsculo antes de usar o seu Relógio do mergulhador SEIKO Automático. Conserve este manual para referências futuras.

Теперь Вы являетесь обладателем часов Аналоговые Кварцевые часы Калибра 6R15. Перед использованием их, для достижения лучших результатов, пожалуйста, внимательно ознакомьтесь с данной инструкцией и обязательно сохраните ее.

您現在是精工自動潛水錶機件編號 6R15 自錶的擁有者。為正確使用起見，請在使用精工自動潛水錶之前，詳細閱讀本說明書，並將之妥善保管，以備今後參考。



## 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.



## 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**

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


**CAUTION**

**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.
- Check that:
  - 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.
  - the second hand is operating normally (if not, swing the watch for more than 30 seconds to wind the mainspring sufficiently).

**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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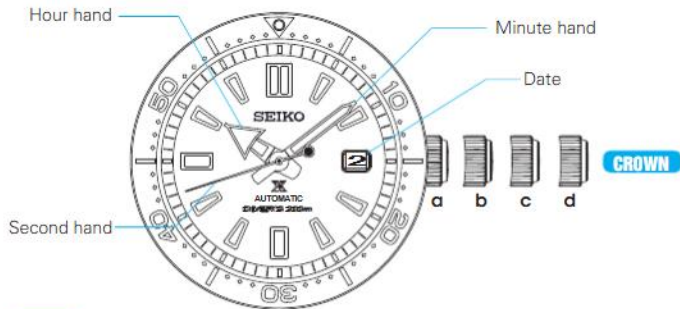
## SEIKO CAL. 6R15

### CHARACTERISTICS OF A MECHANICAL WATCH

#### (self-winding type, automatic winding type)

- This mechanical watch operates using power obtained from a mainspring.
- If the watch is completely stopped, manually turn the crown approximately 20 times to wind up the mainspring to start the watch.
- While loss/gain of a quartz watch is indicated by a monthly or annual rate, accuracy of a mechanical watch is normally indicated by a daily rate (loss/gain per day).
- Normal usage accuracy of a mechanical watch varies according to conditions of use (time period that the watch is worn on the wrist, temperature environment, hand movement, and winding state of the mainspring).
- When the watch is affected by strong magnetism, it temporarily gains or loses time. If the watch encounters a strong magnetic field, the parts of the watch may be magnetized. In this case, repairs such as removal of magnetism are required. Contact the retailer from whom the watch was purchased.

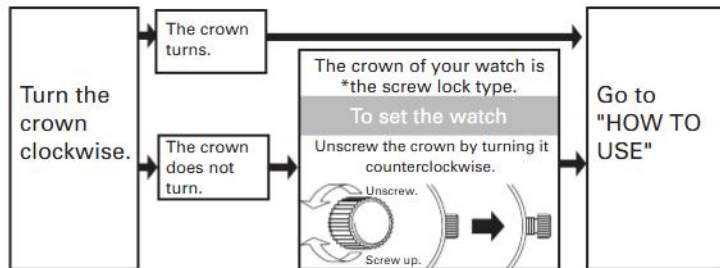
## NAMES OF THE PARTS



### CROWN

- a) Screwed-in position
- b) Normal position : winding up the mainspring (manual operation)
- c) First click position : date setting
- d) Second click position : time setting

## ● Check the type of the crown of your watch



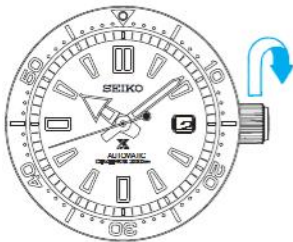
- \* If your watch has a screw-lock crown, the crown will screw into the watch case for added protection.
- After completing all settings of the watch, screw the crown in again by turning it clockwise while pressing it.
  - If the crown turns out to be too stiff to be screwed in, turn the crown counterclockwise once and then give another try.
  - Do not screw it in by force as it may damage the slots of the crown.

## HOW TO USE

This watch is an automatic watch equipped with a manual winding mechanism.

- When the watch is worn on the wrist, the motion of the wearer's arm winds the mainspring of the watch.
- If your watch is completely stopped, it is recommended that you manually wind the mainspring by turning the crown.

### ● How to manually wind the mainspring by turning the crown



1. Slowly turn the crown clockwise (in the 12 o'clock direction) to wind the mainspring.

\* Turning the crown counterclockwise (the 6 o'clock direction) does not wind the mainspring.

2. Continue to turn the crown until the mainspring is sufficiently wound. The second hand will start moving.
3. Set the time and date before putting the watch on your wrist.

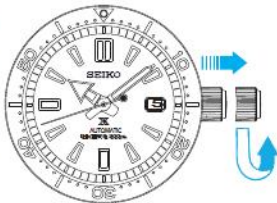
- \* There is no need to turn the crown further when the mainspring is fully wound. But the crown can be turned without damaging the watch mechanism.
- \* Once the watch is wound up fully, it operates for about 50 hours.
- \* If the watch is used without being wound up fully, gain or loss of the watch may result. To avoid this, wear the watch for more than 10 hours a day. If the watch is used without wearing on the wrist (if it is used on the desk like a clock, for example), be sure to wind it up fully every day at a fixed time.
- \* If the watch has stopped with the mainspring unwound, winding the mainspring with the crown will not start the watch immediately. This is because the mainspring torque (force) is low at the beginning of its winding due to the characteristics of mechanical watches. The second hand starts to move when a certain degree of strong torque is reached after the mainspring has been wound up. However, swinging the watch from side to side to forcibly turn the balance can start the watch sooner.

## HOW TO SET THE TIME AND DATE

- Check that the watch is operating, and then set the time and date.
- The watch is provided with a date function and is so designed that the date changes once every 24 hours. The date changes around 12 o'clock midnight. If AM/PM is not properly set, the date will change around 12 o'clock noon.

1. Pull out the crown to the first click. (The second hand continues moving and the accuracy of the watch is unimpaired.)
2. The date can be set by turning the crown counterclockwise. Turn it until the previous day's date appears.

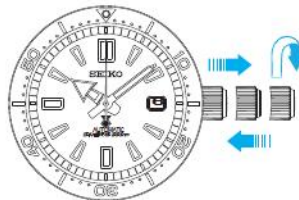
Ex.) If today is the 6th of the month, first set the date to "5" by turning the crown counterclockwise.



### CAUTION

- Do not set the date between 10:00 p.m. and 1:00 a.m. If you do, the date may not change properly / it may cause a malfunction.

3. Pull out the crown to the second click when the second hand is at the 12 o'clock position. (The second hand stops on the spot.)  
Turn the crown to advance the hands until the date changes to the next. The time is now set for the a.m. period. Advance the hands to set the correct time.
4. Push the crown back in to the normal position in accordance with a time signal.



### CAUTION

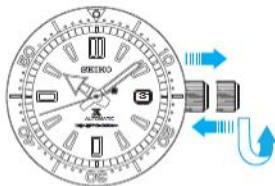
- The mechanism of mechanical watches is different from that of quartz watches.  
When setting the time, be sure to turn back the minute hand a little behind the desired time and then advance it to the exact time.

### ● Date adjustment at the beginning of the month

It is necessary to adjust the date on the first day after a month that has less than 31 days.

Ex.) To adjust the date in the a.m. period on the first day of a month following a 30-day month.

1. The watch displays "31" instead of "1". Pull out the crown to the first click.
2. Turn the crown to set the date to "1" and then push the crown back in to the normal position.

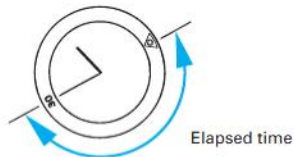


#### CAUTION

- Do not set the date between 10:00 p.m. and 1:00 a.m. If you do, the date may not change properly / it may cause a malfunction.

### ROTATING BEZEL

The rotating bezel can show up to 60 minutes of elapsed time.



**1** Turn the rotating bezel to align the "0" mark to the minute hand.

**2** When time has elapsed, read the number on the rotating bezel.

**Example:** Starting time : 10:10  
 Finishing time : 10:40  
 Elapsed time : 30 minutes

\* For safety's sake, the rotating bezel rotates only counterclockwise, so that the time measured is never shorter than the actual elapsed time.

## TO PRESERVE THE QUALITY OF YOUR WATCH

### ■ TEMPERATURES

The key components in mechanical watches are made of metals, which expand or contract depending on temperatures due to metal properties. This exerts an effect on the accuracy of the watches. Mechanical watches tend to lose time at high temperatures while they tend to gain time at low temperatures.

### ■ 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 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 HOLDINGS CORPORATION.

**PLACES TO KEEP YOUR WATCH**

- Do not leave the watch in a place where the temperature drops below 5°C or rises above 35°C for a long time.
- Do not leave the watch in a place where it will be subjected to strong magnetism (for example, near television sets, loudspeakers or magnetic necklaces) or static electricity.
- Do not leave the watch where there are strong vibrations.
- Do not leave the watch in dusty places.
- Do not expose the watch to chemical substances or gases.  
 (Ex.: Organic solvents such as benzene and thinner, gasoline, nail polish, cosmetic sprays, detergents, adhesives, mercury, and iodine antiseptic solution.)
- Do not leave the watch in close contact with hot spring water.

## NOTES ON OVERHAUL

- The watch is a precision device with many moving parts lubricated with special oils. If the parts run short of oil or get worn out, the watch may lose time or stop operation. In such a case, have the watch overhauled.

## NOTES ON GUARANTEE AND REPAIR

- Please contact the retailer the watch was purchased from or SEIKO CUSTOMER SERVICE CENTER for repair or overhaul.
- Within the guarantee period, please present the certificate of guarantee to receive repair services.
- Guarantee coverage is provided in the certificate of guarantee. Please read carefully and retain it.

## TROUBLESHOOTING

Problem	Possible causes	Solutions
The watch stops operating.	The power supplied by the mainspring has been consumed.	Turn the crown or swing the watch to wind it up. The watch will start operating. If the watch does not start, consult the retailer from whom the watch was purchased.
Even though you wear the watch every day, it soon stops operating.	The watch is worn on your wrist only for a short period of time, or the amount of arm movement is small.	Wear the watch for an extended period of time, or when taking off the watch, turn the crown to wind the mainspring.
The watch gains/loses temporarily.	The watch has been left in extremely high or low temperatures for a long time.	Normal accuracy will resume when the watch returns to normal temperature.
	The watch was brought into close contact with a magnetic object.	Normal accuracy will resume when the watch is kept away from close contact with the magnetic source. If this condition persists, consult the retailer from whom the watch was purchased.
	You dropped the watch, hit it against a hard surface or wore it while playing active sports. The watch was exposed to strong vibrations.	Normal accuracy will not resume. Consult the retailer from whom the watch was purchased.
	The watch has not been overhauled for more than 3 years.	Consult the retailer from whom the watch was purchased.
The date change at 12 o'clock noon.	AM/PM is not properly set.	Advance the hands by 12 hours.
The glass is blurred and the blur persists for a long time.	Water got inside the watch due to the deterioration of the gasket, etc.	Consult the retailer from whom the watch was purchased.

\*For the solution of troubles other than listed above, contact the retailer from whom the watch was purchased.

## ACCURACY OF MECHANICAL WATCHES

- The accuracy of mechanical watches is indicated by the daily rates of one week or so.
- The accuracy of mechanical watches may not fall within the specified range of time accuracy because of loss/gain changes due to the conditions of use, such as the length of time during which the watch is worn on the wrist, arm movement, whether the mainspring is wound up fully or not, etc.
- The key components in mechanical watches are made of metals which expand or contract depending on temperatures due to metal properties. This exerts an effect on the accuracy of the watches. Mechanical watches tend to lose time at high temperatures while they tend to gain time at low temperatures.
- In order to improve accuracy, it is important to regularly supply energy to the balance that controls the speed of the gears. The driving force of the mainspring that powers mechanical watches varies between when it is fully wound and immediately before it is unwound. As the mainspring unwinds, the force weakens.

Relatively steady accuracy can be obtained by wearing the watch on the wrist frequently for the self-winding type and winding up the mainspring fully everyday at a fixed time to move it regularly for the wind-up mechanical type.

- When affected by external strong magnetism, a mechanical watch may loss/gain time temporarily. The parts of the watch may become magnetized depending on the extent of the effect. In such a case, consult the retailer from whom the watch was purchased since the watch requires repair, including demagnetizing.

## SPECIFICATIONS

1	Features .....	3 hands, time display (Hour, minute and second hands) and date display
2	Vibrations per hour.....	21,600
3	Operational temperature range .....	Between -10 °C and 60 °C (Between 14 °F and 140 °F)
4	Loss/gain (daily rate) .....	+25 – 15 seconds at normal temperature range (between 5°C and 35°C)
5	Continuous operating time .....	More than approx. 50 hours
6	Driving system.....	Automatic winding type with manual winding mechanism
7	Magnetic resistance .....	4,800 A/m (60 gauss)
8	Water resistance.....	Water resistant up to 200 meters The watch is suitable for scuba diving.
9	Jewels.....	23 jewels

\* The accuracy above is factory adjusted.

\*\* Due to the characteristics of mechanical watches, any actual daily rate may not fall within the range of time accuracy specified above dependent on the conditions of use, such as the length of time during which the watch is worn on the wrist, temperature, arm movement, and whether the mainspring is wound up fully or not, etc.