

SEIKO

SINCE 1881

INSTRUCTION MANUAL FOR WATCH CALIBRE
6R21

Cal. 6R20/6R21/6R24/6R27

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You are now the proud owner of a SEIKO Automatic Watch Cal. 6R20/6R21/6R24/6R27. To ensure its optimum performance, please read the instructions in this booklet carefully before using it. Please keep this manual handy for ready reference.

Sie sind jetzt stolzer Besitzer einer SEIKO Automatikuhr Kal. 6R20/6R21/6R24/6R27. Lesen Sie diese Bedienungsanleitung vor der Verwendung aufmerksam durch, um ihre optimale Nutzung zu gewährleisten. Heben Sie diese Bedienungsanleitung gut auf, um jederzeit wieder nachlesen zu können.

Vous voici l'heureux propriétaire d'une montre automatique SEIKO Cal. 6R20/6R21/6R24/6R27. Pour en obtenir des performances optimales, veuillez lire attentivement cette brochure avant d'utiliser la montre. Conservez ce manuel pour vous y référer en cas de besoin.

Grazie di aver acquistato questo nuovo Orologio Automatico SEIKO Cal. 6R20/6R21/6R24/6R27. Per poter utilizzare l'orologio al massimo delle sue prestazioni leggere attentamente questo manuale di istruzioni prima di passare all'uso dell'orologio stesso, e conservarlo poi per qualsiasi eventuale futura consultazione.

Usted es ahora el orgulloso propietario de un Reloj Automático de SEIKO Cal. 6R20/6R21/6R24/6R27. Para asegurar el óptimo rendimiento de su reloj, sírvase leer cuidadosamente las instrucciones contenidas en este manual antes de su uso. Guarde este manual en un lugar muy accesible para la rápida referencia.

Você poderá agora sentir-se orgulhoso de possuir um Relógio Automático SEIKO Cal. 6R20/6R21/6R24/6R27. Para garantir o seu excelente rendimento, leia atentamente as instruções contidas neste opúsculo antes de usá-lo. Conserve este manual para consultas futuras.

Вы стали гордым обладателем автоматических часов SEIKO калибра 6R20/6R21/6R24/6R27. Чтобы использовать часы оптимальным образом, внимательно прочитайте эту инструкцию, прежде чем приступить к пользованию. Сохраните эту брошюру, чтобы обратиться к ней в случае необходимости.

歡迎購買精工 6R20/6R21/6R24/6R27 機型自動手錶。為保證在最佳狀態下操作手錶，請在使用手錶之前仔細閱讀本手冊內的各項使用說明。並妥善保管本使用手冊以備今後參考。

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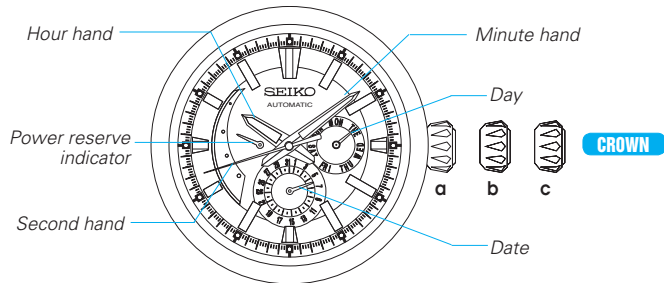
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SEIKO CAL. 6R20/6R21/6R24/6R27

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

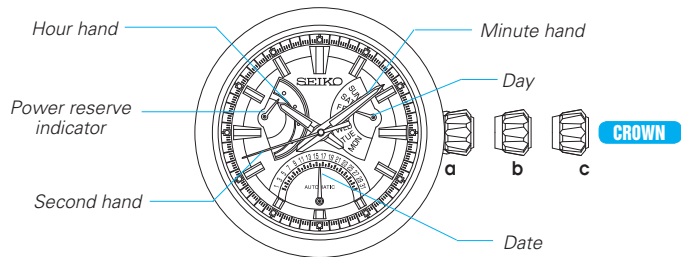


CROWN

- a) Normal position : winding up the mainspring (manual operation)
 b) First click position : day and date settings
 c) Second click position : time settings

* The position or design of the displays may differ depending on the model.

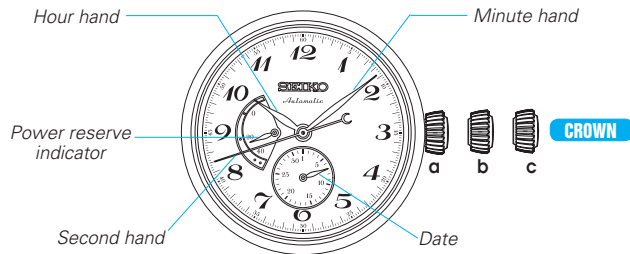
[Caliber 6R20/6R21]

**CROWN**

- a) Normal position : winding up the mainspring (manual operation)
- b) First click position : day and date settings
- c) Second click position : time settings

* The position or design of the displays may differ depending on the model.

[Caliber 6R24]

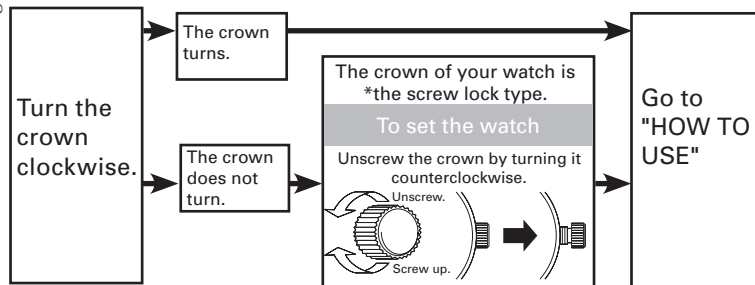
**CROWN**

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

* The position or design of the displays may differ depending on the model.

[Caliber 6R27]

● 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 up, 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 (the 12 o'clock direction) to wind the mainspring.

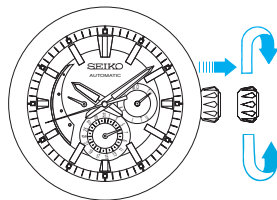
* *Turning the crown counterclockwise (the 6 o'clock direction) does not wind the mainspring.*

2. Wind the mainspring until the power reserve indicator shows a full-wound state. The second hand will start moving.
3. Set the time, day and date before putting your watch on the wrist.

- * To check the winding state of the mainspring, refer to "HOW TO READ THE POWER RESERVE INDICATOR " on page 15.
- * 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 45 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 you use a watch that has stopped with the mainspring unwound, winding the mainspring with the crown will not start the watch immediately. That 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, DAY AND DATE (FOR CAL. 6R20/6R21/6R24/6R27)

- Check that the watch is operating, and then set the time, day and date.
 - * In 6R27, there is only a date display.
 - The watch is provided with a day and date function and is designed so that the day and date changes once every 24 hours. The date changes around 12 o'clock midnight, and the day around 2:00 a.m. If AM/PM is not properly set, the date will change around 12 o'clock noon, and the day around 2:00 p.m.
1. Pull out the crown to the first click. (The second hand continues moving and the accuracy of the watch is unimpaired.)



2. The day can be set by turning the crown clockwise.

<for Cal. 6R24>

- Do not set the day hand to point to an intermediate position between two day indicators.
 - If you turn the crown after the day hand points to Saturday, the day hand jumps back and stops pointing to Sunday.
 - If you fast forward the day hand after it points to Saturday, the day hand may jump back and forward to point to Monday, skipping Sunday. If this happens, turn the crown slowly to reset the day hand again.
3. 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.

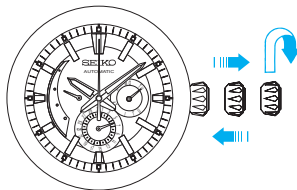
<for Cal. 6R24>

- If you turn the crown after the date hand points to "31", the date hand jumps back and stops pointing to "1".

**CAUTION**

- Do not set the date between 9:30 p.m. and 2:00 a.m. If you do, the date may not change properly or it may cause a malfunction.

4. 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.
5. Push the crown back in to the normal position in accordance with a time signal.

**CAUTION**

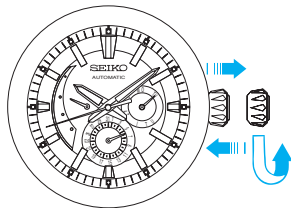
- The mechanism of mechanical watches is different from that of quartz watches.
When setting the time, be sure to turn back the minute hand a little behind the desired time and then advance it to the exact time.

● 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 into the normal position.



CAUTION

- Do not set the date between 9:30 p.m. and 2:00 a.m. If you do, the date may not change properly / it may cause a malfunction.

HOW TO READ THE POWER RESERVE INDICATOR

- The power reserve indicator lets you know the winding state of the mainspring.
- Before removing the watch from your wrist, observe the power reserve indicator to check if the watch has enough power stored to keep running until the next time you wear it. If necessary, wind the mainspring. (To prevent the watch from stopping, wind the mainspring to store the excess power that will allow the watch to run for extra time.)

Power Reserve Indicator	6R20 6R24			
	6R21 6R27			
The winding state of the mainspring	Fully wound	1/3 wound	Unwound	
The number of hours the watch can run	Approximately 45 hours	Approximately 15 hours	The watch either stops or is running down.	

- When the mainspring is fully wound, the crown can be turned further without damaging the mainspring itself. The mainspring of the watch employs a slipping mechanism to prevent the mainspring from overwinding.
- The orientation of “the power reserve indicator” may slightly vary depending on the model.

TO PRESERVE THE QUALITY OF YOUR WATCH



CAUTION

● CARE OF YOUR WATCH

- The case and band touch the skin directly. Keep the case and band clean at all times. This will help to extend the life of the watch and will reduce the risk of skin irritations.
- When you take the watch off, wipe off moisture, sweat or soil with a soft dry cloth as soon as possible. This will help to extend the life of the case, band and gasket.

<Leather strap>

- Gently blot up the moisture using a soft dry cloth. Do not rub the leather, as this may cause abrasions or discoloration.

<Metal bracelet>

- To keep the bracelet clean, use a soft toothbrush dipped in clean or soapy water. Be careful not to get water on the case.

**CAUTION**

- **RASH AND ALLERGIC REACTION**

- Adjust the band to allow a little clearance around your wrist to ensure proper airflow.
- Prolonged and/or repeated contact with the band may cause skin irritation or dermatitis for those susceptible.
- Possible causes of dermatitis
- Allergic reaction to metals or leathers
 - Rust, contamination or perspiration accumulated on the watch case or band
- If you should develop any allergic symptoms or skin irritation, immediately stop wearing the watch and seek medical attention.

PRECAUTIONS ON WEARING YOUR WATCH

- Exercise care when you hold an infant or small child while wearing the watch on your wrist, as the infant or child may be injured or develop an allergic reaction caused by direct contact with the watch.
- Avoid undue shocks such as dropping or scratching against hard surfaces or playing active sports, which may cause temporary malfunctions.
- There is a possibility of injury caused by wearing the watch on your wrist especially if you fall down or bump into other people or objects.

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 is strong vibration.
- 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 a lot of moving parts lubricated with special oils. If the parts run short of oil or get worn out, the watch may lose time or stop its 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, the power reserve indicator does not move up.	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 if the remaining power shown by the power reserve indicator is not sufficient for the next use.
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 day and 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, and 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 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 a strong magnetism from outside, the 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

- Features

Cal. 6R20, 6R21, 6R24.....	6 hands, time display (Hour, minute and second hands), day and date display, power reserve indicator
Cal. 6R27.....	5 hands, time display (Hour, minute and second hands), date display, power reserve indicator
- Vibrations per hour..... 28,800
- Loss/gain (daily rate) +25 – 15 seconds at normal temperature range (between 5°C and 35°C)
- Continuous operating time More than approx. 45 hours
- Driving system..... Automatic winding type with manual winding mechanism
- Jewels

Cal. 6R20, 6R21, 6R27.....	29 jewels
Cal. 6R24.....	31 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.