

製品仕様

機種	6R15
1.機能	3針 時間表示(時針、分針、秒針)・日表示
2.振動数	21,600振動/時間(6振動/秒)
3.精度	日差 +25秒~-15秒 (常温5°C~35°Cにおいて)
4.駆動方式	ぜんまい巻(自動巻く手巻つき)
5.使用石数	23石
6.持続時間	最大巻上時約50時間

※上記精度は工場出荷時に調整されたものです。

※メカニカルウォッチの特性上、ご使用になる条件(携帯時間、温度、腕の動き、ぜんまいの巻き上げ量など)によっては上記精度の範囲を超える場合があります。

Thank you very much for choosing a SEIKO watch.
For proper and safe use of your SEIKO watch,
please read carefully the instructions
in this booklet before using.

Keep this manual handy for easy reference.

※Length adjustment service for metallic bands is available at the retailer from whom the watch was purchased or SEIKO CUSTOMER SERVICE CENTER (listed on the end of a book). The service may also be available on a chargeable basis at other retailers, however, some retailers may not undertake the service.

⚠ WARNINGS

Make sure to read the following instructions before use and strictly observe them.

⚠ WARNING

When diving, never carry out operations other than those specified in this instruction manual. Mishandling of the product and misunderstanding of the displayed content may lead to a fatal or serious accident.

⚠ WARNING

The diver's watch is an auxiliary instrument which mainly displays the passage of time and does not ensure the safety of a user. Use this watch while using the equipment (residual pressure gauge, water depth meter, etc.) required for safe diving.

⚠ WARNING

Never use this watch for "saturation diving" using helium gas.

⚠ WARNING

Do not dive using this product unless you have been properly trained in scuba diving, acquired the requisite experience and techniques for safe diving, thoroughly familiarized yourself with the operation and handling of this product, and inspect all functions of this product prior to each dive.

⚠ CAUTIONS

Make sure to read the following instructions before use and strictly observe them.

⚠ CAUTION

Inspect the following items before diving (excluding saturation diving).

- The watch is operating normally.
 - The remaining battery level is sufficient and the mainspring is sufficiently wound.
 - The rotating bezel turns smoothly. (The bezel rotation must not be too loose or too tight.)
 - Screws of the crown and other parts are reliably tightened.
 - No abnormalities such as flaws or cracks exist on the band or glass.
 - The band is reliably fixed (with spring bar, buckle or other parts.)
- ※If any abnormality is observed in the above items, do not use this watch for diving.

⚠ CAUTION

Do not operate the crown or buttons under water.

⚠ CAUTION

As the use environment of the diver's watch may affect not only the case or band but also the internal mechanism of the watch, we recommend that you periodically request an overhaul for inspection and adjustment approximately once every two to three years.

WARNING

To indicate the risks of serious consequences such as severe injuries unless the following safety regulations are strictly observed.



WARNING

Keep the watch and accessories out of the reach of babies and children.

Care should be taken to prevent a baby or a child accidentally swallowing the accessories.
If a baby or child swallows the accessories, immediately consult a doctor, as it will be harmful to the health of the baby or child.



WARNING

Immediately stop wearing the watch in following cases.

- If the watch body or band becomes edged by corrosion etc.
- If the pins protrude from the band.

※Immediately consult the retailer from whom the watch was purchased or SEIKO CUSTOMER SERVICE CENTER (listed on the end of a book).

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CAUTIONS

To indicate the risks of light injuries or material damages unless the following safety regulations are strictly observed.



CAUTIONS

Avoid the following places for wearing or keeping the watch.

- Places where volatile agents (cosmetics such as polish remover, bug repellent, thinners etc.) are vaporizing
- Places where the temperature drops below 5 °C or rises above 35 °C for a long time
- Places of high humidity
- Places affected by strong magnetism or static electricity
- Dusty places Places affected by strong vibrations



CAUTIONS

If you observe any allergic symptoms or skin irritation

Stop wearing the watch immediately and consult a specialist such as a dermatologist or an allergist



CAUTIONS

Other cautions

- Note that there is a risk of damaging your clothes, hand or neck with the band, cord or chain of the pocket watch or pendant watch.
- Do not disassemble or tamper with the watch.
- Keep the watch out of the reach of babies and children. Extra care should be taken to avoid risks of any injury or allergic rash or itching that may be caused when they touch the watch.

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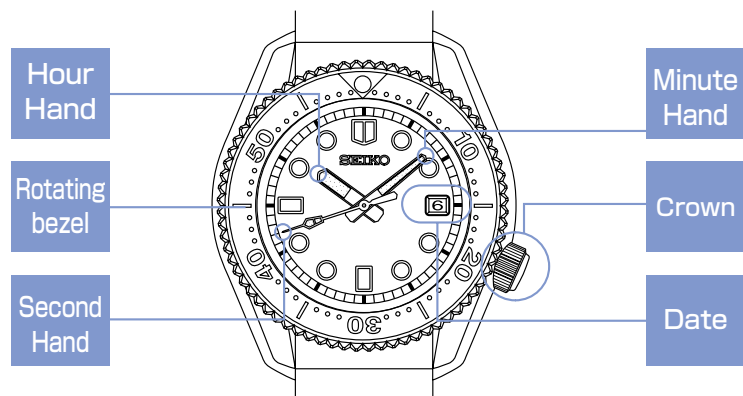
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HOW TO USE

Names of the parts



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Precautions for diving



The watch is designed for in use scuba diving using heavy breathing apparatus. Never use the watch, however, in saturation diving using helium gas.



While diving, never operate the watch in any other manner than set forth in the instruction manual.

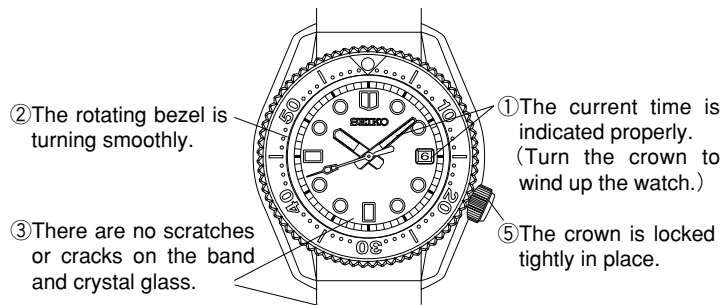


Before using the diver's watch, you have to be properly trained in various types of diving and possess the requisite experience and skill to dive safely. When diving, strictly abide by the rules of diving.

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Before diving

If you find any of the following, never use the watch for diving.



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While diving

- Take care not hit the watch against hard objects such as rocks.
- While you are underwater, never unscrew the crown or pull it out.
- The rotation of the rotating bezel may get slightly harder in the water but this is not a malfunction.

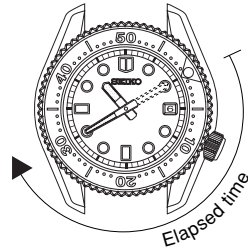
After diving

- After making a dive, be sure to 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.
- Do not expose the watch to chemicals.

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How to use the rotating bezel

The illustration below indicates that 30 minutes have elapsed since the diving started at 10:10 ("▽" mark indicates the time when you started diving.)



How to measure the elapsed time

Turn the rotating bezel to set "▽" mark to the minute hand. After certain amount of time elapsed, read the graduation on the rotating bezel which the minute hand points to. The elapsed time is indicated.

*For safety's sake, the rotating bezel rotates only counterclockwise with clicks. Therefore, accidental rotation of the bezel is prevented.

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How to use

How to use the automatic mechanical watch

- This is an automatic mechanical watch with manual winding mechanism.
- When the watch is worn on the wrist, the mainspring is wound automatically through normal wrist movement.
- The watch can also be wound up by turning the crown. To do so, unscrew the crown by turning it counterclockwise.
- To start the watch after it stops completely, wind it up either by turning the crown or swinging it from side to side until the second hand starts moving. Then, set the time and date before putting the watch on the wrist.
- To wind up the watch, unscrew the crown by turning it counterclockwise, and then, turn it clockwise slowly. The watch cannot be wound by turning the crown counterclockwise.

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- The watch is wound up fully. (Turning the crown further will not break the spring) 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 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.

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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 at 12 o'clock noon.

CAUTION

- Do not set the date between 9:00 p.m. and 1:00 a.m. Otherwise, the date may not change properly.

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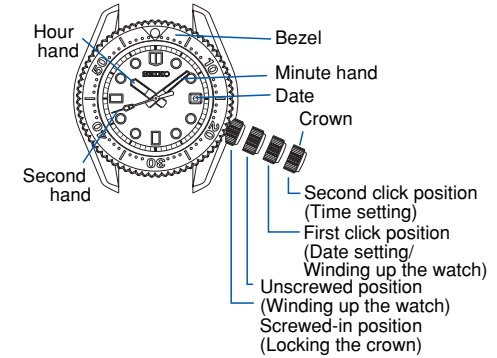
- ① Unscrew the crown by turning it counterclockwise.
- ② Pull out the crown to the first click. (The second hand continues moving.)
- ③ The date can be set by turning the crown counterclockwise. Turn it until the previous day's date appears.
Ex.) If today is the 6th of the month, first set the date to "5" by turning the crown clockwise.
- 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.

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

※ The telephone time signal service is helpful for setting the second hand exactly.

- ⑥ After setting the time, push the crown in and while the crown is depressed, turn it clockwise to lock it in place.



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⚠ 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.

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Date adjustment at the end of the month

It is necessary to adjust the date at the end of February and 30-day months.

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.

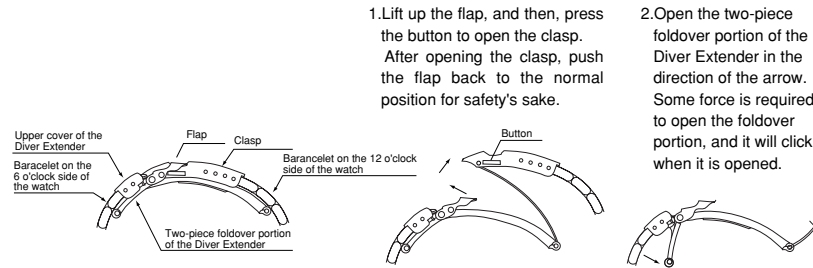
⚠ CAUTION

- Do not set the date between 9:00 p.m. and 1:00 a.m. as this will cause a malfunction.

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How to use the Diver Extender

If your watch is equipped the Diver Extender function please read this section.
It is very useful when you wear the watch over a wet suit.

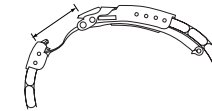


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3. Slide the upper cover of the Diver Extender in the direction of the arrow, and then, pull it up to extend the two-piece foldover portion of the Diver Extender to the full.



4. Close the clasp, and then, the flap. When wearing your watch over a wet suit, extend the Diver Extender. To fold up the Diver Extender, reverse the procedure above. When the two-piece folder portion of the Diver Extender is folded up completely, it also clicks in the same manner as it is opened.



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TO PRESERVE THE QUALITY OF YOUR WATCH

After-sale service

● Replacement parts

SEIKO makes it a policy to typically keep a stock of replacement parts for this watch for 7 years. Replacement parts are those which are essential to maintaining the functional integrity of the watch. Please keep in mind that if original parts are not available, they may be replaced with substitutes whose outward appearance may differ from the originals.

● Notes on overhaul

Periodic inspection and adjustment by disassembly and cleaning (overhaul) is recommended approximately once every 2 to 3 years in order to maintain optimal performance of the watch for a long time. The power transmission gear of the movement of this watch constantly receives force. To ensure that this mechanism works properly all the time, washing parts, changing oil, adjusting accuracy, checking functions and replacing consumable parts on a regular basis are important. The first overhaul after the purchase of your watch is particularly important for preserving long-time use of your watch. According to use conditions, the oil retaining condition of your watch mechanical parts may deteriorate, abrasion of the parts due to contamination of oil may advance or delay the time significantly, or the watch itself may stop. As the parts such as gasket may deteriorate, water-resistant performance may be impaired due to intrusion of perspiration and moisture. Please contact the retailer from whom

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the watch was purchased for inspection and adjustment by disassembly and cleaning (overhaul). For replacement of parts, please specify "SEIKO GENUINE PARTS." When asking for inspection and adjustment by disassembly and cleaning (overhaul), make sure that the gasket and push pin are also replaced with new ones.

※ Depending on the environment where a diver's watch is used, its inner parts or movement as well as its case or band may be affected. We recommend that you have your watch overhauled regularly at every period indicated above.

Notes on guarantee and repair

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

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Guarantee

Within one year from the date of purchase, we guarantee free repair/adjustment service against any defects according to the following guarantee regulations, provided that the watch was properly used as directed in this instruction booklet.

Guarantee coverage

- The watch body (movement·case) and metallic band.

Exceptions from guarantee

In following cases, repair/adjustment services will be at cost even within the guarantee period or under guarantee coverage.

- Change of leather/urethane/cloth band
- Troubles or damage caused by accidents or improper usage
- Scratches or grime caused by use
- Problems and damage caused by acts of god, natural disasters including fire, floods or earthquakes.
- The certificate of guarantee is valid only if all the necessary items are properly filled in. We will not honor an altered or tampered certificate of guarantee for free repair services.

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Free repair services are guaranteed only under the period and conditions specified in the certificate of guarantee. It does not affect specific legal rights of a consumer.

The certificate of guarantee is valid only in Japan.

Procedure to claim free repair services

- For any defects under guarantee, submit the watch together with the attached certificate of guarantee to the retailer from whom the watch was purchased.
- If repair services cannot be provided by the retailer from whom the watch was purchased, contact SEIKO CUSTOMER SERVICE CENTER. In this case, the attached certificate of guarantee is also needed.

Others

- The case, dial, hands, glass and bracelet, or parts thereof may be repaired with substitutes if the originals are not available. If necessary, movements will be replaced.
- For length adjustment service of a metallic band, ask the retailer from whom the watch was purchased or SEIKO CUSTOMER SERVICE CENTER. Other retailers may undertake the service on a chargeable basis.

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Daily care

The watch requires good daily care

- Wipe away moisture, sweat or dirt with a soft cloth
- To clean the clearances (around the metallic band, crown or case back), a soft toothbrush is convenient.
- After soaking the watch in seawater, be sure to wash the watch in clean pure water and wipe it dry carefully.

Turn the crown from time to time

- In order to prevent corrosion of the crown, turn the crown from time to time. (No need to pull out the screw lock type crown.)

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Magnetic resistance (affect of magnetic field)

SEIKO Diver's Watches are hard to come under magnetic influence of the outside. (JIS level-1 standard)

※When affected by a strong magnetism from outside, the mechanical watch may lose/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.

JIS level-1 standard:Keep the watch more than 5 cm away from magnetic products.

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CAUTION

※ If the inner surface of the glass is clouded with condensation or water droplets appear inside of the watch for a long time, the water resistant performance of the watch is deteriorated. Immediately consult the retailer from whom the watch was purchased or SEIKO CUSTOMER SERVICE CENTER (listed on the end of a book).



Do not turn or pull out the crown when the watch is wet.

Water may get inside of the watch.



Do not leave moisture, sweat and dirt on the watch for a long time.

Be aware of a risk that a water resistant watch may lessen its water resistant performance because of deterioration of the adhesive on the glass or gasket, or the development of rust on stainless steel.



Do not wear the watch while taking a bath or a sauna.

Steam, soap or some components of a hot spring may accelerate the deterioration of water resistant performance of the watch.

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Examples of common magnetic products that may affect watches



Cellular phone (speaker)

Magnetic health belt



Bag (with magnet buckle)

Magnetic necklace



AC-powered shaver

Magnetic health mat



Portable radio (speaker)

Magnetic health pillow

Magnetic cooking device etc

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Band (maintenance procedure)

The band touches the skin directly and becomes dirty with sweat or dust. Therefore, lack of care may accelerate deterioration of the band or cause skin irritation or stain on the sleeve edge. The watch requires a lot of attention for long usage.

•Metallic band

- Moisture, sweat or soil will cause rust even on a stainless steel band if they are left for a long time.
- Lack of care may cause a yellowish or gold stain on the lower sleeve edge of shirts.
- Wipe off moisture, sweat or soil with a soft cloth as soon as possible.
- To clean the soil around the joint gaps of the band, wipe it out in water and then brush it off with a soft toothbrush.
(Protect the watch body from water splashes by wrapping it up in plastic wrap etc.)
- Because some titan bracelets use pins made of stainless steel, which has outstanding strength, rust may form in the stainless steel parts.
- If rust advances, pins may poke out or drop out, and the watch case may fall off the bracelet, or the clasp may not open.
- If a pin is poking out, personal injury may result. In such a case, refrain from using the watch and request repair.

•Leather band

- A leather band is susceptible to discoloration and deterioration from moisture, sweat and direct sunlight.
- Wipe off moisture and sweat as soon as possible by gently blotting them up with a dry cloth.

- Do not expose the watch to direct sunlight for a long time.
- Please take care when wearing a watch with light-colored band, as dirt is likely to show up.
- Refrain from wearing a leather band watch other than Aqua Free bands while bathing, swimming, and when working with water even if the watch itself is water-resistant enforced for daily use (10-BAR water resistant).

•Polyurethane band

- A polyurethane band is susceptible to discoloration from light, and may be deteriorated by solvent or atmospheric humidity.
- Especially a translucent, white, or pale colored band easily adsorbs other colors, resulting in color smears or discoloration.
- Wash out dirt in water and clean it off with a dry cloth.
(Protect the watch body from water splashes by wrapping it up in plastic wrap etc.)
- When the band becomes less flexible or cracked, replace the band with a new one.

Notes on skin irritation and allergy

Skin irritation caused by a band has various reasons such as allergy to metals or leathers, or skin reactions against friction on dust or the band itself.

Notes on the length of the band

Adjust the band to allow a little clearance with your wrist to ensure proper airflow. When wearing the watch, leave enough room to insert a finger between the band and your wrist.



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Lumibrite

[IF YOUR WATCH HAS LUMIBRITE]

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

LumiBrite is a newly-developed luminous paint that absorbs the light energy of the sunlight and lighting apparatus 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.

<Reference data on the 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: 1m]: 1,000 lux

[Distance to the watch: 3m]: 500 lux (average room luminance) [Distance to the watch: 4m]: 250 lux

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Trouble shooting

Problem	Possible cause	Solution
The watch stops operating.	The watch is not wound up sufficiently.	Turn the crown or swing the watch to wind it up. The watch will start operating. If the watch not, consult the retailer from whom the watch was purchased.
The watch gains/loses temporarily.	The watch has been left in extremely high or low temperatures for a long time.	The normal accuracy will resume when the watch returns to normal temperature.
	The watch was brought into close contact with a magnetic object.	The 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.	The normal accuracy will not resume. Consult the retailer from whom the watch was purchased.
The date changes at 12 o'clock noon.	The watch has not been overhauled for more than 3 years.	Consult the retailer from whom the watch was purchased.
The date changes 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. 69

Accuracy of Mechanical Watches

- The accuracy of mechanical watches is indicated by the "daily rate."
- The accuracy of mechanical watches may not fall within the specified range of time accuracy because loss/gain changes due to the position of the watch, which is dependent on 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 loss/gain of mechanical watches is not measured by a daily rate, but by daily rates of one week or so.
- Accuracy variation according to temperature
The parts that compose the accuracy of mechanical watches are made of metals. It is well known that metals 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.

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- Mainspring wound condition and accuracy
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.
- Effect of magnetism
When affected by a strong magnetism from outside, the mechanical watch may lose/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.

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Specifications

Cal.	6R15
1.Function	3 hands Time display (Hour, minute and second hands),date display
2.Vibrations per hour	21,600
3.Loss/gain (daily rate)	+25 -15seconds at normal temperature range (5°C and 35°C)
4.Driving system	Automatic winding type with manual winding mechanism
5.Jewels	23 jewels
6.Duration	Approx. 50hours

Note: The accuracy above is factory-adjusted.

Note: 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.

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全国共通フリーダイヤル 0120-612-911

お客様相談室

〒100-0005 東京都千代田区丸の内 3-1-1 国際ビル
〒550-0013 大阪市西区新町 1-4-24 大阪四ツ橋新町ビルディング

セイコーウォッチ株式会社

本 社 〒105-8467 東京都港区虎ノ門2-8-10

<http://www.seiko-watch.co.jp/>