



SEIKO WATCH CORPORATION

[www.grand-seiko.com](http://www.grand-seiko.com)

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Printed in Japan

OPERATING INSTRUCTIONS

9S

GS  
Grand Seiko

MECHANICAL  
OPERATING INSTRUCTIONS

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

Keep this manual handy for easy reference.

Length adjustment service for metallic bands is available at the retailer from whom the watch was purchased. If you cannot have your watch repaired by the retailer from whom the watch was purchased because you received the watch as a gift, or you moved to a distant place, please contact SEIKO CUSTOMER SERVICE CENTER. The service may also be available on a chargeable basis at other retailers, however, some retailers may not undertake the service.

If your watch has a protective film for preventing scratches, make sure to peel it off before using the watch. If the watch is used with the film on it, dirt, sweat, dust, or moisture may be attached to the film and may cause rust.

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## CAUTIONS FOR ACCURACY

- Normal usage accuracy of a mechanical watch varies depending on individual customer's use conditions such as winding state of the mainspring by movement amount of the customer's arm per day, temperature environment, and posture (direction of the watch). Accordingly, the actual normal usage accuracy when the watch is used by a customer may differ from the numerical value of each item specified in the Grand Seiko Standard.
- The target range of normal usage accuracy when the watch is actually used by a customer is set to -1 to +10 seconds (in the case of Cal. 9S86 and 9S85, -1 to +8 seconds) per day.  
To correctly judge the normal usage accuracy, please use the watch for not only one day, but also approximately one week to 10 days under normal use conditions to check loss or gain of time. If the average value per day exceeds the target range, we will adjust the watch. (Adjustment is provided Free of charge for two years after purchase, then charged thereafter. For more details, please refer to the instruction manual.)
- The enclosed Grand Seiko Standard Inspection Certificate certifies the values of a movement single unit before assembly in a case which are measured under an artificially controlled environment in the production factory passed the Grand Seiko standard inspection.  
Should the certificate be lost or after repair or adjustment, it cannot be reissued.

## HANDLING CAUTIONS

### WARNING

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

#### Immediately stop wearing the watch in the 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.

#### 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 battery or accessories, immediately consult a doctor, as it will be harmful to the health of the baby or child.

### WARNING



#### Do not use the watch in scuba diving or saturation diving.

The various tightened inspections under simulated harsh environment, which are usually required for watches designed for scuba diving or saturation diving, have not been conducted on the water-resistant watch with the BAR (barometric pressure) display. For diving, use special watches for diving.

### CAUTIONS

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

#### Avoid wearing or storing the watch in the following places.

- 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

#### 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.

#### Other cautions

- Replacement of the metal band requires professional knowledge and skill. Please ask the retailer from whom the watch was purchased for replacement of the metal band, as there is a risk of hand or finger injury and fear of losing parts.
- 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.
- If your watch is of the fob or pendant type, the strap or chain attached to the watch may damage your clothes, or injure the hand, neck, or other parts of your body.
- Please keep in mind that if a watch is taken off and placed down as it is, the case back, the band and the clasp will rub against each other possibly causing scratches on the case back. We recommend placing a soft cloth between the case back, the band and the clasp after taking off your watch.

### CAUTIONS



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

Water may get inside of the watch.

※ 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.



#### 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.



#### Do not pour running water directly from the faucet.

The water pressure of tap water from a faucet is high enough to degrade the water resistant performance of a water resistant watch for everyday life.

## INTRODUCTION -About mechanical watch-

Thank you very much for purchasing the Grand Seiko mechanical watch

Take hold of your watch softly  
Hear the watch ticking  
Tick tock, tick tock, tick tock  
Soft and faint, a dignified sound can be heard

The sound can be called  
The crystal of the craftsmen's spirit and skill  
Handpicked parts assembled one by one  
Carefully, with craftsmanship,  
Giving life to a mechanical watch  
This is proven by the sound

Talking about accuracy,  
Mechanical watches cannot be compared to  
Quartz watches, that is for certain  
However, the accuracy of a mechanical watch  
Is pursued by human hands  
Full of spirit and know-how of craftsmen

A mechanical watch - complicated, sensitive,  
And having a human touch  
We would like to let all of you know  
The charm of a mechanical watch, which has no bounds  
So we made this handbook, mainly detailing the accuracy  
Wishing you will have a nice time  
With your Grand Seiko for a long, long time

Seiko Watch Corporation

## Quartz watches and mechanical watches - what is the difference?

We will explain by example

Quartz watches that you have come to be familiar with  
These are just like airplanes, controlled by computers  
A battery, IC, and crystal make quartz watches work accurately, electrically

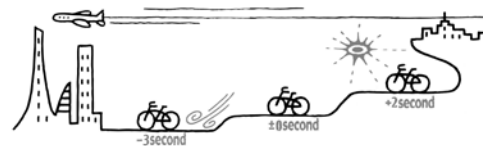
Some loss or gain may occur while the watch is worn  
However, this will be too small to notice in your daily life

If a quartz watch resembles an airplane,  
A mechanical watch is like a bicycle

All watch parts work together mechanically to make it tick  
Thus, a mechanical watch is easily affected by the outside environment

If it is hot, the watch tends to lose time  
When power driving the watch becomes short (When the amount the spring is wound is short), accuracy becomes unstable  
If the resting position of the watch is changed, accuracy is also affected

The rate of loss/gain could be significant that you will notice in your daily life



## The accuracy is shown by the daily rate



The measured loss/gain of the watch per day  
This is called the daily rate

The accuracy of a mechanical watch  
Is usually shown in this daily rate

The accuracy of a mechanical watch changes delicately day by day  
Depending on the condition in which the watch is used or the outside environment

Thus,

By only observing loss/gain in one day  
You cannot judge how accurate the watch works

If you check the average of the daily loss/gain rate,  
You can judge the accuracy of the watch

In the case of quartz watches, the accuracy is usually shown by the monthly/yearly rate  
Total losses/gains for a month/year are called the loss/gain rate of quartz watches

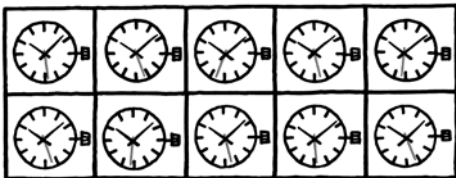
# 7

## The accuracy of a mechanical watch movement at rest / the accuracy of a mechanical watch in use

The accuracy of a mechanical watch varies depending on many things,  
Such as the amount the spring is wound by movements of your arm, temperature, or resting position of the watch

Thus to show the accuracy of a mechanical watch evenly, not depending on the environment  
Loss/gain of a mechanical watch is measured  
Before the inside movements of the watch are put in the case,  
Under controlled conditions,  
With many days of tests  
And the measured rate is called "the accuracy of mechanical watch movement at rest"

In both the Official Swiss Chronometer Inspectorate and Grand Seiko Standard  
The standard rate is the accuracy of mechanical watch movement at rest  
\*Refer to the instruction manual for further information on the Grand Seiko Standard and Rating Certificate.



This rate is the data measured in an environment that is artificially controlled  
In order to fairly evaluate/show the abilities of mechanical watches without being influenced by environmental changes  
So it is different from "the accuracy of mechanical watches in use"  
When you are actually wearing the watch

The accuracy of a mechanical watch varies delicately day by day, depending on the environment  
This is like a living thing  
One of the charms that a mechanical watch has

The accuracy of a mechanical watch in use should be from  $-1$  second/day to  $+10$  seconds ( $+8$  seconds for Cal. 9S86 and 9S85) /day. If the average of the daily rates exceeds this level, we would like the responsibility for adjusting it accordingly ([Only in Japan]). The cost of adjusting the watch is free of charge for two years from the date of purchase.

To adjust the accuracy as accurately as possible, information such as the rate of loss/gain of your watch and how you use it, are very important. Please let us know the following when you ask for adjustment of your watch by our service center.

- (1) The average daily loss/gain rates for one week to ten days  
Ex. an average of  $+11$  seconds
- (2) Approximate hours of wearing the watch in one day in the above period  
Ex. Approximately 10 hours
- (3) The resting position of the watch while you don't wear it  
Ex. Horizontal - Dial up  
Vertical - the crown up

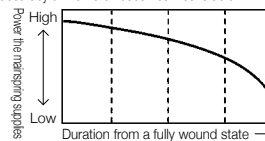
## For lifelong use of your mechanical watch rule No.1

### Wind the mainspring of your mechanical watch at a fixed time.

As there are rules for everything  
There is a rule for winding the spring

You have not heard this before?  
Please keep it in mind

The mainspring - the source of energy for a mechanical watch  
When it is fully wound, it can supply the most stable energy to every part of the watch movement, and the accuracy of the watch becomes most stable



Even if your watch is a self-winding type,  
when you feel the accuracy is not stable,  
Shake the watch or turn the crown about thirty times to wind the mainspring further  
If you work at a desk, etc., and do not move too much,  
The spring will not be wound sufficiently

If your watch is a wind-up mechanical type,  
Turn the crown thirty to forty times every day,  
at a fixed time

To wind the mainspring sufficiently

To use the watch with better accuracy,  
Wind the mainspring every day, at a fixed time

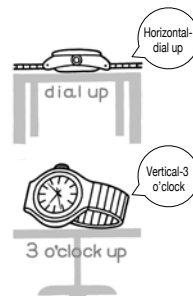
Please keep to this rule as best as possible

For instance,  
You may make it a rule to wind the spring  
When you wake up, or at lunchtime



## For lifelong use of your mechanical watch rule No.2

### Place your watch correctly, like this.



Half of one day, twenty-four hours  
When you do not wear your watch  
The accuracy while you do not wear the watch is included in "the accuracy of a mechanical watch in use"

The mechanical watch that you take off  
Which position should the watch be put in?

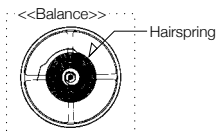
The loss/gain of a mechanical watch  
Depends on the resting position of the watch  
In one position, the watch tends to gain, in another position, it doesn't

For instance, while you are sleeping at night,  
When you do not wear your watch  
Put the watch in various positions for seven to eight hours, such as placing it with its face turned up, or with the crown up  
To find the best resting position for the watch for reducing the loss/gain that occurs while you are wearing your watch

## For lifelong use of your mechanical watch rule No.3

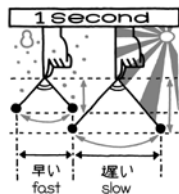
### Accuracy will vary depending on the temperature.

A piece of metal of about 0.1 mm, as thin as a hair, is wound That is the key that controls the accuracy of all mechanical watches



Metals expand and contract depending on the temperature  
This characteristic of all metals also applies to the hairspring  
This affects the accuracy of a mechanical watch

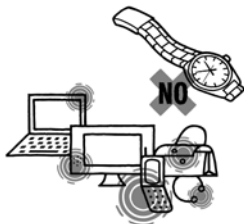
In other words,  
When it is hot, the hairspring expands and the watch tends to lose  
When it is cold, the hairspring contracts and the watch tends to gain  
This is typical



## For lifelong use of your mechanical watch rule No.4

### Keep your mechanical watch away from magnetic objects.

After you take off your watch  
Do you leave it by your cell phone?  
Or put it on a television or next to your PC?  
Do you put it in your bag with your cell phone?



Watches do not like magnetism  
They may lose or gain when affected by magnetism

To make your mechanical watch work more accurately  
It is important not to leave the watch close to magnetic objects for a long time

In particular, cell phones, televisions and speakers of PCs have strong magnetism  
A magnetic necklace, a clasp of a handbag, magnetic parts of refrigerators  
There are many magnetic objects around us  
Please be careful

## For lifelong use of your mechanical watch rule No.5

### Do not give your mechanical watch a strong shock.

When you play golf, tennis or baseball

For instance,  
At the moment you hit a golf ball with a club  
The impact of the ball against the club is about 1 ton

When you play a sport that gives your arm a strong impact  
Please take off your mechanical watch

The impact is given to your wrist  
And this will affect very small parts inside your mechanical watch

There are reasons for this

Sometimes the impact will deform or break a watch part  
"Good shot" for you becomes "bad shock" for your watch



## For lifelong use of your mechanical watch rule No.6

### Overhaul, once every three years

Love your watch, once every three years  
Talk about an overhaul

Especially  
The first three years after you start using your watch is the period when  
Each part gets used to one another  
And contacting each other causes additional metal powder

In the case of a mechanical watch, there is no need to change your battery  
However  
Maintenance of your watch is also necessary

An overhaul after the first three years is  
The key to the life of your mechanical watch

Once every three years  
Please take your watch to our service center  
An overhaul, once every three years  
watch

Please keep in mind  
An overhaul, once every three years

Once you start using it  
Your watch never takes a rest

Can be considered  
Love for your watch

And in the case of a mechanical watch, power given to its gear is stronger,  
Compared to a quartz watch  
So parts may wear,  
Oil may dry or be insufficient in some parts



## ■ CHECK THE CALIBER NUMBER

### About the caliber number

The caliber number is a four-digit number that indicates the model of a movement (mechanical part of a watch). The Grand Seiko watch is mounted with an exclusive caliber. The mechanical caliber number starts with "9S", the spring drive caliber number starts with "9R" and the quartz caliber number starts with "9F".

### How to check the caliber number

The four-digit model number on the case back is the caliber number.

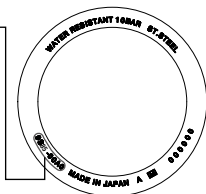
In the case of mechanical models, the attached "Grand Seiko Standard Inspection Certificate" is printed with "Caliber No." So, the caliber number can also be checked on the certificate.

#### <Regular case back>



Model Number  
(Ex.)  
9S85-00A0  
Caliber Number

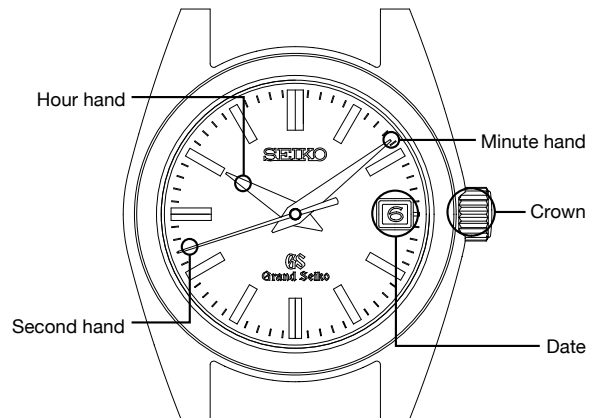
#### <See-through case back>



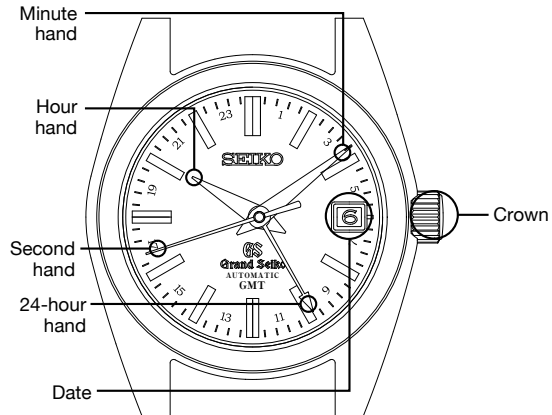
※ The above figures are examples and may differ from the figure on the case back of your watch.

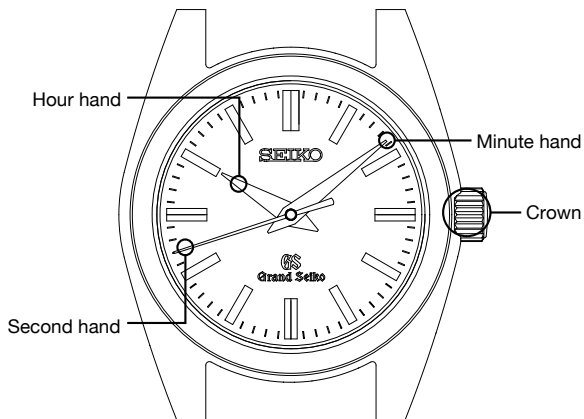
## ■ NAMES OF THE PARTS

### 9S85, 9S65



### 9S86, 9S66



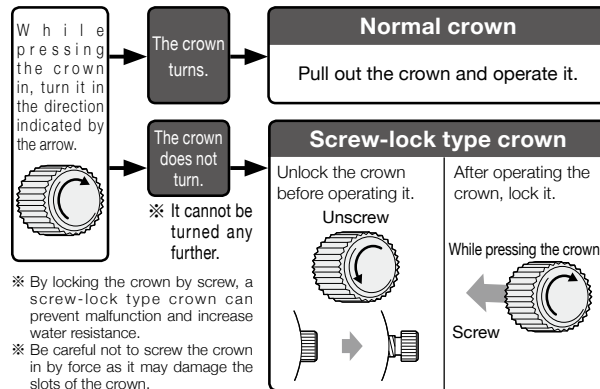


※ The orientation and design of the display may vary depending on the model.

## HOW TO USE

### Crown

There are two types of crowns, a normal crown and a screw-lock crown.



### Screw-lock type crown

The screw-lock type crown features a mechanism that can securely lock the crown when they are not being operated in order to prevent any operational errors and to improve its water resistant property.

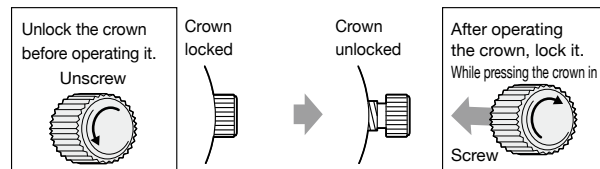
- It is necessary to unlock the screw-lock type crown before operating it.
- Once you have finished operating the crown, make sure to relock it.

[ To unlock the crown ]

Turn the crown counterclockwise (downward) to unscrew it. Now the crown can be operated.

[ To lock the crown ]

Turn the crown clockwise (upward) while gently pressing it in toward the watch body until it stops.



※ When locking the crown, turn it slowly with care, ensuring that the screw is properly engaged. Be careful not to push it in forcefully, as doing so may damage the screw hole in the case.

## HOW TO USE (FOR CAL. 9S85, 9S65)

### How to wind the mainspring

- This watch is an automatic winding type (with manual winding function).
- The mainspring can be sufficiently wound automatically by natural movement of the arm while normally worn on the wrist. In addition, it can be wound by turning the crown.
- A stopped watch can be started by arm movement when it is worn on the wrist, however, before wearing the watch, wind the mainspring sufficiently and adjust the time and date. When turning the mainspring, turn the crown at the normal position clockwise (12 o'clock direction) slowly. If you turn the crown counterclockwise (6 o'clock direction), it will turn free. The mainspring is sufficiently wound when the crown is turned approximately 45 times (60 times for Cal. 9S65). When the mainspring is in the full-winding state, it is structured so that the mainspring slips if it is wound. Therefore, it is not necessary to worry about cutting the mainspring, however, please refrain from excessive operation.

※ It is recommended that you wear the watch on your wrist more than 10 hours a day to keep the mainspring wound up. If the mainspring is not wound up sufficiently, the watch may lose or gain time. If you do not wear the watch on your wrist, wind the mainspring up sufficiently by turning the crown by hand every day at a fixed time.

### ⚠ CAUTION

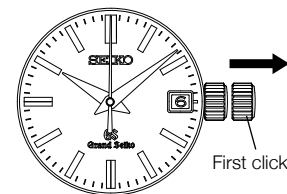
- Do not adjust the date between 10 o'clock p.m. and 1 o'clock a.m. If the date is adjusted during this period of time, the date may not change when the next day comes, or this may cause damage.
- Due to its wheel train mechanism, for setting the time of the mechanical watch correctly, the hands should be set back once slightly and then set forward to the correct time.

### How to set the time and date

This watch is equipped with the date display function. The date changes once every 24 hours at around 12 o'clock a.m. Therefore, if the a.m./p.m. is incorrectly set, the date will change around 12 o'clock p.m.

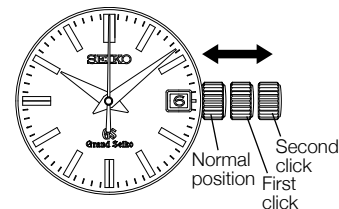
- 1 Pull out the crown to the first click. (If the watch is equipped with the screw lock type crown, unscrew the crown before pulling it out.)
- 2 The date can be adjusted by turning the crown clockwise (12 o'clock direction). First turn the crown clockwise until the previous day's date from the desired date appears.

[Ex.] If you want to set the date to "6," set the date to "5" by turning the crown clockwise.



- 3 Pull out the crown to the second click when the second hand is at the 12 o'clock position. (The second hand stops.) Turn the crown clockwise until the desired date appears. When the date changes, the time is a.m. Further turn the crown to set the current time.

- 4 Push the crown back into the normal position in accordance with a time signal. The watch starts operating.



⚠ CAUTION For models with a screw lock type crown, remember to screw the crown in.

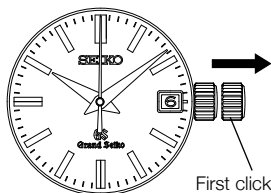
## Date adjustment at the end of the month

It is necessary to adjust the date after February (which has 28 days, 29 days in a leap year) and a 30 day month.

[Ex.]

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

On the first day, "31" is displayed. Pull out the crown to the first click. Turn the crown clockwise to set the date to "1", and push the crown back in to the normal position.



**CAUTION** For models with a screw lock type crown, remember to screw the crown in.

## HOW TO USE (FOR CAL. 9S86, 9S66)

### How to wind the mainspring

- This watch is an automatic winding type (with manual winding function).
- The mainspring can be sufficiently wound automatically by natural movement of the arm while normally worn on the wrist. In addition, it can be wound by turning the crown.
- A stopped watch can be started by arm movement when it is worn on the wrist, however, before wearing the watch, wind the mainspring sufficiently and adjust the time and date. When turning the mainspring, turn the crown at the normal position clockwise (12 o'clock direction) slowly. If you turn the crown counterclockwise (6 o'clock direction), it will turn free. The mainspring is sufficiently wound when the crown is turned approximately 45 times (60 times for Cal. 9S66). When the mainspring is in the full-winding state, it is structured so that the mainspring slips if it is wound. Therefore, it is not necessary to worry about cutting the mainspring, however, please refrain from excessive operation.

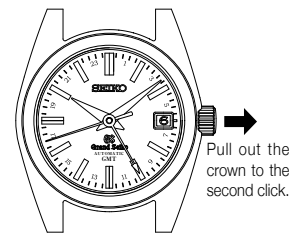
※ It is recommended that you wear the watch on your wrist more than 10 hours a day to keep the mainspring wound up. If the mainspring is not wound up sufficiently, the watch may lose or gain time. If you do not wear the watch on your wrist, wind the mainspring up sufficiently by turning the crown by hand every day at a fixed time.

### How to set the time and calendar

- To set the time and calendar, set the 24-hour hand and minute hand first, and then set the hour hand and calendar.
- When setting the time, make sure that the mainspring is sufficiently wound.

### How to set the time

- ① Make sure that the mainspring is sufficiently wound and the watch is working.
  - ※ When setting the date and time, ensure that the watch is working.
- ② Unlock the crown.
  - ⇒ "How to use the screw lock type crown" page 13.
- ③ Pull out the crown to the second click when the small second hand is pointing at the "0" second position. The small second hand will stop on the spot.



- ④ Turn the crown to rotate the 24-hour hand and minute hand clockwise and set them to the current time. While doing so, set the minute hand a few minutes behind the correct time, and then slowly advance it to the desired time.

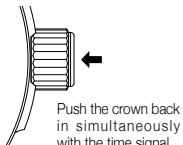


Set the 24-hour hand and minute hand.

- ※ Only the 24-hour and minute hands are to be set first. Even if the hour hand is indicating incorrect time, or the date may be altered depending on the position of the hour hand, it is not necessary to make an adjustment at this stage.

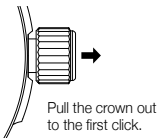
- ⑤ Push the crown back in simultaneously with the time signal.

- ※ The setting of the 24-hour, minute and small second hands to the current time is now completed.



Push the crown back in simultaneously with the time signal.

- ⑥ To move on to the hour hand and calendar setting, pull the crown out to the first click.



Pull the crown out to the first click.

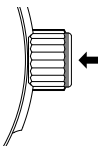
- ⑦ Turn the crown to set the hour hand. While turning the crown, the moment the date changes is midnight. When setting the hour hand, be sure that **AM/PM is set** correctly. Adjust the calendar also at this point if necessary.



- ※ The crown can be turned in either direction to adjust the date, however, it is recommended to turn the crown in the direction which enables you to set the date with a smaller adjustment.

- ※ Turn the crown slowly, checking that the hour hand moves in one-hour increments.
- ※ When adjusting the hour hand, the other hands may move slightly. However, this is not a malfunction.

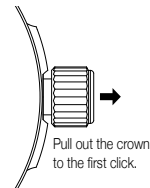
- ⑧ Push the crown back in to complete the time setting. Relock the crown.  
→ "How to use the screw lock type crown" page 13.



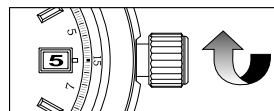
## How to set the calendar

Two full rotations of the hour hand will change the date for one day. The date advances one day by turning the hour hand two full rotations clockwise (for 24 hours), while the date is set back one day by turning the hour hand two full rotations counterclockwise.  
※ Manual date adjustment is required on the first day after a month that has less than 31 days: February, April, June, September and November.

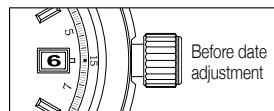
- ① Make sure that the mainspring is sufficiently wound and the watch is working.  
※ When setting the date and time, ensure that the watch is working.
- ② Unlock the crown.  
⇒ "How to use the screw lock type crown" page 13.
- ③ Pull out the crown to the first click.
- ④ Each time the hour hand makes two full rotations by turning the crown, the date is adjusted one day. While turning the crown, the moment the date changes is midnight. When setting the hour hand, be sure that a.m./p.m. is set correctly.



Pull out the crown to the first click.

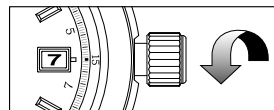


Turning the crown clockwise (upward):  
Each time the hour hand makes two full rotations, the date is advanced one day.



Before date adjustment

- ※ The crown can be turned in either direction to adjust the date, however, it is recommended to turn the crown in the direction which enables you to set the date with a smaller adjustment.
- ※ Turn the crown slowly.
- ※ When adjusting the hour hand, the other hands may move slightly. However, this is not a malfunction.



Turning the crown counterclockwise (downward):  
Each time the hour hand makes two full rotations, the date is set back one day.

- ⑤ Upon completion of setting, make sure that the time indicated is correct, and then push the crown back in. The calendar setting is now completed. Relock the crown.

⇒ "How to use the screw lock type crown" page 13.

- ※ The calendar is designed to work in conjunction with the movement of the hour hand, therefore, incorrect setting of a.m./p.m. will cause the date to change at noon.
- ※ The crown can be turned in either direction to adjust the date, however, it is recommended to turn the crown in the direction which enables you to set the date with a smaller adjustment.
- ※ Turn the crown slowly, checking that the hour hand moves in one-hour increments.
- ※ When adjusting the hour hand, the other hands may move slightly. However, this is not a malfunction.

## How to use the 24-hour hand

This watch has two different types of 24-hour hand usage.

<Type 1> 24-hour hand as an a.m./p.m. indicator

Simply using the 24-hour hand to show the 24-hour time as an a.m./p.m. indicator. (This is the standard usage type for the 24-hour hand.)

Both the hour hand and the 24-hour hand are indicating the Japan time 10:00 a.m.



<Type 2> 24-hour hand as a dual time indicator

Using the time difference adjustment function, set the 24-hour hand to indicate a time different from the time that the hour and minute hand indicate, which is of a place in a different time zone area with at least one hour of time difference from where you are.

Hour hand: Japan time 10:00 a.m.

24-hour hand: New York time 8:00 p.m.



## Time difference adjustment function

For example, while traveling abroad and staying in a place with a different time from where you live, you can conveniently set the watch to indicate the local time in the different time zone area without stopping the watch.

The hour hand indicates the time of the place where you currently are, while the 24-hour hand indicates the time of the place of origin.

The calendar works in conjunction with the movement of the hour hand. If the time difference is correctly adjusted, the watch displays the correct date of the place where you are staying.

## How to use the time difference adjustment function

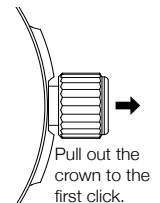
- ① Make sure that the mainspring is sufficiently wound and the watch is working.

※ When setting the hour hand to use the time difference adjustment function, ensure that the watch is working.

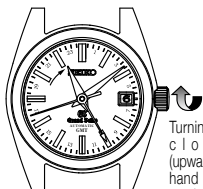
- ② Unlock the crown.

⇒ "How to use the screw lock type crown" page 13.

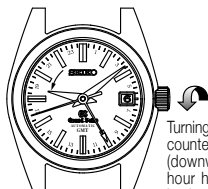
- ③ Pull out the crown to the first click.



- ④ Turn the crown to set the hour hand to indicate the time of the place where you are staying. Make sure that a.m./p.m. and date are correctly set.
- ※ The calendar is designed to work in conjunction with the movement of the hour hand, therefore, incorrect setting of a.m./p.m. will cause the date to change at noon.
  - ⇒ "List of time zone differences in major regions of the world" page 23.



Turning the crown clockwise (upward): The hour hand is advanced one hour.



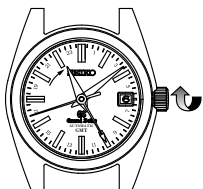
Turning the crown counterclockwise (downward): The hour hand is set back one hour.

- ※ The crown can be turned in either direction to adjust the time, however, it is recommended to turn the crown in the direction which enables you to set the date with a smaller adjustment.
  - ※ Turn the crown slowly, checking that the hour hand moves in one-hour increments.
  - ※ While turning the crown, the moment the date changes is midnight.
  - ※ When adjusting the hour hand, the other hands may move slightly. However, this is not a malfunction.
- ⑤ Upon completion of setting, make sure that the time indicated is correct, and then push the crown back in. The setting procedure is now completed. Relock the crown.  
⇒ "How to use the screw lock type crown" page 13.

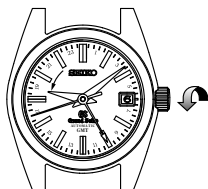
- ※ If you set the time during any time between 9:00 p.m. and 1:00 a.m., temporarily set the hour hand back to 8:00 p.m., and then set the time.

### Selectable display mode

With the time difference adjustment function, the watch features a dual time display which shows time in two different time zones. It offers two display modes which you can select to suit your needs and preference.



[Ex.1]  
Hour hand and calendar: Area A (Japan)  
24-hour hand: Area B (New York)



[Ex.2]  
Hour hand and calendar: Area B (New York)  
24-hour hand: Area A (Japan)

Set the 24-hour hand first, and then set the hour hand.

### List of time zone differences in major regions of the world

Names of the cities	UTC ± (Hours)	JST ± (Hours)	Other cities in the same region
Tokyo	+9:00	±0:00	Seoul
Beijin	+8:00	-1:00	Hong Kong, Manila, Singapore
Bangkok	+7:00	-2:00	Jakarta
Dacca	+6:00	-3:00	
Karachi	+5:00	-4:00	Tashkent
Dubai	+4:00	-5:00	
Jeddah	+3:00	-6:00	Nairobi, Mecca
★Cairo	+2:00	-7:00	★Istanbul, ★Athens
★Paris	+1:00	-8:00	★Rome, ★Berlin, ★Madrid
★London	±0:00	-9:00	★Casablanca
★Azores	-1:00	-10:00	
★Rio de Janeiro	-3:00	-12:00	
★Santiago	-4:00	-13:00	
★New York	-5:00	-14:00	★Montreal
★Chicago	-6:00	-15:00	★Mexico City
★Denver	-7:00	-16:00	
★Los Angels	-8:00	-17:00	★San Francisco
★Anchorage	-9:00	-18:00	
Honolulu	-10:00	-19:00	
Midway Island	-11:00	-20:00	
★Wellington	+12:00	+3:00	Fiji
Nouméa	+11:00	+2:00	
★Sydney	+10:00	+1:00	Guam

- ※ UTC = Coordinated Universal Time / JST = Japan Standard Time
- ※ Regions marked with ★ use daylight saving time
- ※ The time zone differences and use of daylight saving time in each city are based on data as of September, 2014. These are subject to change according to the governments of the respective countries or regions.

# HOW TO USE (FOR CAL. 9S64)

## How to wind the mainspring

- This watch is a manual winding type.
- In order to wind it up completely, please refer to the following table ;

In case the watch is supposed to be <u>wound up every day</u> .	<u>About 20 turns</u> of the crown will wind up the watch fully.
In case the watch was <u>not wound up more than three days</u> .	<u>About 60 turns</u> of the crown will wind up the watch fully.

- From the state of the mainspring being sufficiently wound, it continuously operates for approximately 72 hours or more.
- If the mainspring is not wound up sufficiently, the watch may lose or gain time.  
To attain a high accuracy, we suggest that the mainspring is wound up fully once a day at a fixed time.

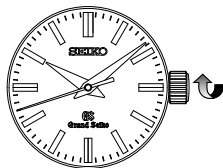
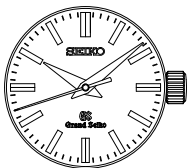
Generally speaking, the crown of the manual winding mechanical watch cannot be turned further when it is wound up fully. However, the crown of CAL. 9S64 can be turned endlessly even after the watch is fully wound up. If you keep turning the crown, that gives no effect to winding, but the watch is so designed as to make the winding a little tighter and not to damage the watch. However, please refrain from excessive operation.

※ When the watch is used from a state in which the mainspring is unwound to a stop, it does not move immediately even if the mainspring is wound with the winding crown. This is because of the mechanical watch's feature that the mainspring torque (force) is weak at the beginning of mainspring winding. The second hand starts moving when the mainspring is wound to reach a certain degree of torque strength, while the watch can be made to move advance by shaking it to rotate the balance wheel forcibly.

**Do not pull out the crown.**  
(If the watch is equipped with the screw lock type crown, unscrew the crown before pulling it out.)



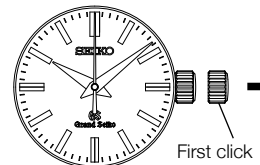
**Slowly turn the crown clockwise (12 o'clock direction) to wind the mainspring.**



**CAUTION** For models with a screw lock type crown, remember to screw the crown in.

## How to set the time

- ① Pull out the crown when the second hand is at the 12 o'clock position.  
(The second hand stops.)  
Turn the crown to set the current time.
- ② Push the crown back in to the normal position in accordance with a time signal.  
The watch starts operating.



## HOW TO USE (FOR CAL. 9S61)

### How to wind the mainspring

- This watch is an automatic winding type (with manual winding function).
- The mainspring can be sufficiently wound automatically by natural movement of the arm while normally worn on the wrist. In addition, it can be wound by turning the crown.
- A stopped watch can be started by arm movement when it is worn on the wrist, however, before wearing the watch, wind the mainspring sufficiently and adjust the time and date. When turning the mainspring, turn the crown at the normal position clockwise (12 o'clock direction) slowly. If you turn the crown counterclockwise (6 o'clock direction), it will turn free. The mainspring is sufficiently wound when the crown is turned approximately 60 times. When the mainspring is in the full-winding state, it is structured so that the mainspring slips if it is wound. Therefore, it is not necessary to worry about cutting the mainspring, however, please refrain from excessive operation.

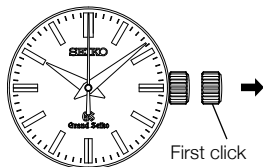
※ It is recommended that you wear the watch on your wrist more than 10 hours a day to keep the mainspring wound up. If the mainspring is not wound up sufficiently, the watch may lose or gain time. If you do not wear the watch on your wrist, wind the mainspring up sufficiently by turning the crown by hand every day at a fixed time.

### ⚠ CAUTION

- For models with a screw lock type crown, remember to screw the crown in.
- Due to its wheel train mechanism, for setting the time of the mechanical watch correctly, the hands should be set back once slightly and then set forward to the correct time.

### How to set the time

- ① Pull out the crown when the second hand is at the 12 o'clock position.  
(The second hand stops.)  
Turn the crown to set the current time.
- ② Push the crown back in to the normal position in accordance with a time signal.  
The watch starts operating.



## ■ GRAND SEIKO STANDARD

Due to the movement (driving body) structure, normal usage accuracy of a mechanical watch varies according to differences in environmental conditions of use such as winding state of the mainspring by movement amount of the wrist per day, temperature environment, and position = orientation of a watch.

"Grand Seiko Standard" is a Seiko-exclusive accuracy standard for mechanical watches, which has been established to check superior performance of Grand Seiko mechanical watches irrespective of differences in environmental conditions of use in which a watch is used.

⇒For details of the "Grand Seiko Standard," refer to pages 29 to 30.

It is conditioned that all of Grand Seiko mechanical watches are to be passed by the "Grand Seiko Standard Inspector" according to the exacting standard. Only products, in which the movement single unit before assembly in a case is measured for gain/loss (daily rate) under various environments which are artificially controlled in the manufacturing plant for 17 days in total, and the measured values fall under the standard range, are given the title of "Grand Seiko."

For normal usage accuracy when the watch is actually used by a customer, -1 to +10 seconds (+8 seconds for Cal. 9S86 and 9S85) per day are specified as target values. To properly judge the accuracy in the case of normal usage, check gain/loss by using for a week to ten days, not only for one day, in normal use condition. If the mean value per day exceeds the above-mentioned target range, we will adjust the watch. (Adjustment is provided free of charge within two years after purchase. After the two-year period, adjustments are charged.) We will respond to the following cases at cost regardless of the period of time after purchase.

- Disorder in accuracy has occurred due to customer's carelessness such as, incorrect usage method or magnetizing the watch.
- Disorder in accuracy has occurred due to repair by another company.
- Disorder in accuracy has occurred due to natural disasters such as fire, flood or earthquake.
- Guaranteed conditions have been altered.

## Grand Seiko Special Standard

The Grand Seiko Special Standard is an accuracy standard that sets even more exacting conditions than the Grand Seiko Standard.

As for a model mounted with a caliber that passes this standard inspection, as proof of passing, the logo "SPECIAL" is printed on the dial.

## Description of Grand Seiko Standard

Item	Unit	Standard	Special Standard
Mean daily rate in different positions	Second/date	-3.0 ~ +5.0	-2.0 ~ +4.0
Mean variation	Second/date	Less than 1.8	Less than 1.6
Maximum variation	Second/date	Less than 4.0	Less than 3.0
Difference between flat and hanging position	Second/date	-6.0 ~ +8.0	-5.0 ~ +7.0
Greatest difference between the mean daily rate and any individual rate	Second/date	Less than 8.0	Less than 7.0
First variation of rate per 1°C	Second/date /°C	-0.5 ~ +0.5	-0.3 ~ +0.3
Second variation of rate per 1°C	Second/date /°C	-0.5 ~ +0.5	-0.3 ~ +0.3
Rate-resumption	Second/date	-5.0 ~ +5.0	4.0
Number of positions in inspection	6 positions		
Condition of temperature in inspection	8, 23, 38°C		
Total days of inspection	17 days		

## Description of Grand Seiko Standard Terminology

Item	Meaning
Position in inspection	5 orientations are specified by the International Standard ISO3158 so as to carry out various kinds of tests for time keeping. In addition thereto, in the GS inspection, 12 o'clock Up position in the state where a watch taken off the wrist is placed, is added. 6 orientations are specified. (Dial Up, Dial Down, 12 o'clock Up, 3 o'clock Up, 6 o'clock Up, and 9 o'clock Up)
Mean daily rate	Mean value of a total of 12 daily rates measured in 6 different positions, respectively, for two days. This is a target value indicating basic gain/loss per day of a watch, however, it is required to comprehensively judge the actual accuracy performance in consideration of other items.
Mean variation	Mean value of a total of 6 variations of daily rates between the first day and second day when measured in 6 different positions for two days each. It indicates the degree which daily accuracy stabilizes in each position.
Maximum variation	Maximum value of a total of 6 variations of daily rates between the first day and second day when measured in 6 different positions for two days each. It indicates the degree which accuracy per day changes at maximum according to positions.
Difference between flat and hanging position	Indicates gain/loss in two positions at which a watch is most frequently used in daily life. It is a difference between mean daily rates for two days when a watch is placed in the dial Up position and mean daily rates for two days when a watch is placed in the 6 o'clock Up position.
Greatest difference between the mean daily rate and any individual rate	Maximum difference value between daily rates for twelve days in the test initial stage and mean daily rates. It indicates the degree at which the daily rate varies according to the manner for placing a watch.
First variation of rate per 1°C	Variation in daily rates per 1°C between 38°C and 8°C in the same position (Dial Up position). It indicates gain/loss in the temperature environment (taken-off state from the wrist) where a watch is used.
Second variation of rate per 1°C	Variation of daily rates per 1°C between 38°C and 23°C in the same position (Dial Up position). It indicates gain/loss in the temperature environment (worn state of the wrist) where a watch is used.
Rate-resumption	Value obtained by subtracting mean daily rates of initial two days from daily rate of the last inspection day. It indicates the degree at which daily rate stabilizes after usage for a predetermined period.

## Grand Seiko Standard Inspection Certificate

- Grand Seiko Standard Inspection Certificate certifies the values of a movement single unit before assembly in a case which were measured under an artificially controlled environment in the manufacturing plant have passed the Grand Seiko Standard Inspection. The certificate is printed with the caliber number, movement serial number, and case serial number.
- Normal usage accuracy of mechanical watches varies according to respective customer conditions of use (winding state of the mainspring by movement amount of the wrist per day, temperature environment, and position (orientation of a watch)). Accordingly, the actual normal usage accuracy when it is used by a customer may differ from the value of each item specified in the Grand Seiko Standard.

### CAUTION

The Grand Seiko Standard Inspection Certificate cannot be reissued when it has been lost. Also, it cannot be reissued after repair or adjustment.

## Cautions for accuracy of mechanical watch

Mechanical watches have a mechanism that is moved by power generated when the mainspring is unwound, and small metal parts physically work together to control the accuracy. Fragile metal parts of a mechanical watch are easily influenced by external environment such as temperature, gravity, and shock. Also, conditions of use such as normal usage time and winding state of the mainspring can, influence the gain/loss of the watch.

### ① Accuracy of mechanical watch is "mean daily rate."

Accuracy of the quartz watch is indicated monthly or annually such as a monthly rate of  $\pm 15$  seconds or annual rate of  $\pm 10$  seconds. This indicates the degree of total difference in accuracy when the quartz watch is continuously used for a month or a year. To the contrary, accuracy of the mechanical watch is normally indicated as a "mean daily rate." Accuracy of the mechanical watch slightly varies each day as it is influenced by various conditions of use, and it is normally unstable. Then it is required to judge whether the accuracy is satisfactory or not by checking the mean values in the case of use for a week to ten days, but not for only one day. For normal usage accuracy of Grand Seiko mechanical watch, -1 to +10 seconds (+8 seconds for Cal. 9S86 and 9S85) per day are specified as target values. If the mean value exceeds the abovementioned target value in the normal usage condition when the watch is used for a week to ten days, we will adjust it.

\*Adjustment is provided free of charge within two years after purchase. After the two-year period, adjustments are charged. However, please note that the parts that are age-deteriorated due to long duration of use may not be adjusted to your desired accuracy. →For details, refer to pages 27 and 32.

### ② Factor influencing accuracy -1: Wound amount of the mainspring

In order to use the mechanical watch at better accuracies, it is required to supply a constant strong energy wherever possible to respective parts. In the state where the mainspring is fully wound, accuracy is stable, however, when the mainspring is unwound to weaken energy to be supplied, the parts controlling accuracy tends to be externally influenced, and accuracy becomes unstable. In order to use a mechanical watch at a steady accuracy, it is recommended to use it in a condition where the mainspring is sufficiently wound.

### ③ Factor influencing accuracy -2: Temperature influence

Mechanical watch parts are metal which slightly elongate and contract by change in temperature, and this influences accuracy. Normally, under high temperatures, it tends to lose time, and under low temperatures, it tends to gain time.

### ④ Factor influencing accuracy -3: Difference by position (orientation of a watch)

Parts related to accuracy of a mechanical watch are also influenced by the earth's gravity. For example, gain or loss differs when a watch is horizontally placed and when it is vertically placed in the 12 o'clock up position. When the watch is not worn on the wrist, accuracy errors that occur while wearing can also be compensated to some extent according to the position. Try to place it in various positions to find the position appropriate to your watch.

## TO PRESERVE THE QUALITY OF YOUR WATCH

### After-sale service

#### Notes on guarantee and repair

- Contact the retailer from whom the watch was purchased 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.
- For repair services after the guarantee period has expired, if the functions of the watch can be restored by repair work, we will undertake repair services upon request and payment.

#### Replacement parts

- SEIKO makes it a policy to typically keep a stock of replacement parts for this watch for 10 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.

#### Inspection and adjustment by disassembly and cleaning (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 movement of this watch has a structure that consistent pressure is applied on its power-transmitting wheels. To ensure these parts work together properly, periodic inspection including cleaning of parts and movement, oiling, adjustment of accuracy, functional check and replacement of worn parts is needed. Inspection and adjustment by disassembly and cleaning (overhaul) within 2 to 3 years from the date of purchase is highly recommended for 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 may occur due to contamination of oil, which may ultimately lead the watch to stop. As the parts such as the gasket may deteriorate, water-resistant performance may be impaired due to intrusion of perspiration and moisture. Please contact the retailer from whom 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.
- When your watch is inspected and adjusted by disassembly and cleaning (overhauled), the movement of your watch may be replaced.

## Guarantee

Within the guarantee period, 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 provided at cost even within the guarantee period or under guarantee coverage.

- Exchange of leather, urethane, or fabric band.
- Troubles or damage to the case, glass, or band, caused by accidents or improper usage.
- Scratches or grime caused by use.
- Troubles and damage caused by acts of God, natural disasters including fire, floods or earthquakes.
- Text in certificate has been altered.
- No certificate is presented.

#### 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.
- In the case where you cannot accept the guarantee from the retailer from whom the watch was purchased due to gift-giving or relocation, etc., ask SEIKO CUSTOMER SERVICE CENTER by attaching the certificate without fail.

#### Others

- For the watch case, dial plate, hands, glass, band etc., some alternative parts may be used for repair if necessary. Refer to page 32 of this booklet for retention period of the parts.
- For length adjustment service of 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 or may not undertake the service.
- 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 watch requires good daily care**

- Do not wash the watch when its crown is at the extended position.
- Wipe away moisture, sweat or dirt with a soft cloth.
- After soaking the watch in seawater, be sure to wash the watch in clean pure water and wipe it dry carefully.

※ If your watch is rated as “non-water resistant” or “water resistant for daily use”, do not wash the watch.

⇒ “The case back shows the caliber and performance of your watch” page 36.

⇒ “Water resistance” page 36.

**Turn the crown from time to time**

- In order to prevent corrosion of the crown, turn the crown from time to time.
- The same practice should be applied to a screw lock type crown.  
⇒ “Crown” page 13.

**The band touches the skin directly and becomes dirty from 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 titanium 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/20-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, have the band replaced with a new one. If you continue to use the band as it is, the band may develop cracks or become brittle over time.

**Notes on skin irritation and allergy**

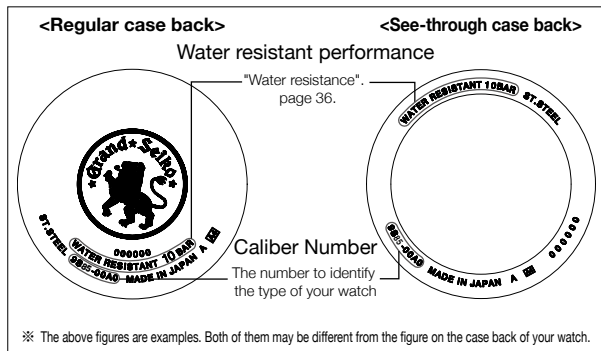
Skin irritation caused by a band has various reasons such as allergy to metals or leathers, or skin reactions against friction on dust or the band itself.

**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.



## The case back shows the caliber and performance of your watch



## Water resistance

Refer to the table below for the description of each degree of water resistant performance of your watch before using.

Indication on the case back	Water resistant performance	Conditions of Use
No indication	Non-water resistance	Avoid drops of water or sweat
WATER RESISTANT	Water resistance for everyday life	The watch withstands accidental contact with water in everyday life <b>⚠ WARNING</b> Not suitable for swimming
WATER RESISTANT 5 BAR	Water resistance for everyday life at 5 barometric pressures	The watch is suitable for swimming.
WATER RESISTANT 10 (20) Bar	Water resistance for everyday life at 10 (20) barometric pressures	The watch is suitable for diving not using an air cylinder.

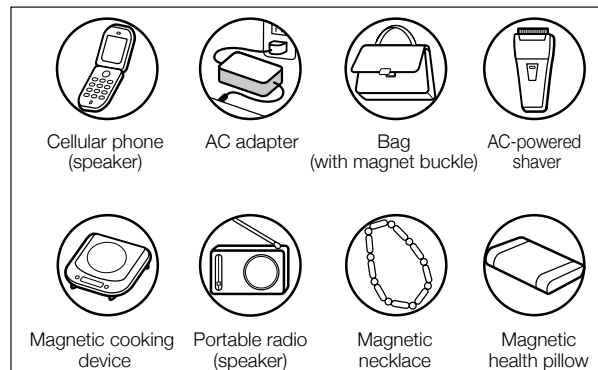
## Magnetic resistance (Magnetic influence)

Affected by nearby magnetism, a watch may temporarily gain or lose time or stop operating.

Indication on the case back	Condition of use	Certified level
No indication		
	Keep the watch more than 5 cm away from magnetic products.	4,800A/m
	Keep the watch more than 1 cm away from magnetic products.	16,000A/m
MAGNETIC RESISTANT 40000A/m	The watch can maintain its performance in most cases where it is brought close to (at least 1cm spaced from) magnetic products not only in normal daily life circumstances but also in a special work environments.	40,000A/m
MAGNETIC RESISTANT 80000A/m		80,000A/m

※ A/m (ampere meter) is the International unit (SI unit) for indicating the magnetic field.

## Examples of common magnetic products that may affect watches



If the watch becomes magnetized and its accuracy deteriorates to an extent exceeding the specified rate under normal use, the watch may need to be demagnetized. In this case, you will be charged for demagnetization and accuracy readjustment even if it happens within the guarantee period.

### The reason why watch is affected by magnetism.

The built-in balance spring is provided with a magnet, which may be influenced by a strong external magnetic field.

### If your watch has Lumibrite

Lumibrite is a luminous paint that is completely harmless to human beings and the natural environment; containing no noxious materials such as radioactive substance. Lumibrite is a newly-developed luminous paint that absorbs 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 3 to 5 hours.

Please note, however, 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.

※ In general, when you enter a dark place from a bright environment, your eye cannot adapt to the change in light levels quickly. At first, you can hardly see anything, but as time passes, your vision gradually improves. (Dark adaptation of the human eye)

### Reference data on the luminance

Condition		Illumination
Sunlight	Fine weather	100,000 lux
	Cloudy weather	10,000 lux
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
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

Troubles	Possible Causes	Solutions
The watch stops operating.	The mainspring has not been wound.	Wind the mainspring or swing the watch for a few times so that the watch will start operating. If this action does not correct the condition, consult the retailer from whom the watch was purchased.
The watch temporarily gains/loses time.	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.	Accuracy cannot be recovered. Consult the retailer from whom the watch was purchased.
	The watch was dropped, worn while playing active sports, hit against hard surfaces, or exposed to strong vibrations.	Accuracy cannot be recovered. Consult the retailer from whom the watch was purchased.
The date changes during daytime.	Inspection, adjustment, and overhaul cleaning have not been performed for the watch for more than 3 years.	Consult the retailer from whom the watch was purchased.
	A.m./p.m. is not correctly set.	Advance the hour hand for 12 hours and reset the time and date.
Blur in the display persists.	Small amount of water has got inside the watch due to deterioration of the gasket, etc.	Consult the retailer from whom the watch was purchased.

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

## SPECIFICATIONS (Movement)

Caliber no.	9S86, 9S85
Common features	Hour Hand, Minute Hand, Second Hand, Date.
Extra features for Cal. 9S86 only	24-hour hand, Time difference adjustment function interrelated with the day display
Vibrations	36,000/hour (10/second)
Loss/gain (Grand Seiko Standard)	Mean daily rate*: -3 to +5 seconds
Loss/gain (Grand Seiko Special Standard)	Mean daily rate*: -2 to +4 seconds
Driving system	Automatic winding type with manual winding function
Duration	For 55 hours or more. ※From the state of the mainspring being sufficiently wound
Jewels	37 jewels

Caliber no.	9S66
Features	Hour Hand, Minute Hand, Second Hand, 24-hour Hand, Date.
Vibrations	28,800/hour (8/second)
Loss/gain	Mean daily rate*: -3 to +5 seconds
Driving system	Automatic winding type with manual winding function
Duration	For 72 hours or more. ※From the state of the mainspring being sufficiently wound
Jewels	35 jewels

Caliber no.	9S65, 9S61
Common features	Hour Hand, Minute Hand, Second Hand.
Extra features for Cal. 9S65 only	Date
Vibrations	28,800/hour (8/second)
Loss/gain	Mean daily rate*: -3 to +5 seconds
Driving system	Automatic winding type with manual winding function
Duration	For 72 hours or more. ※From the state of the mainspring being sufficiently wound
Jewels	35 jewels

Caliber no.	9S64
Features	Hour Hand, Minute Hand, Second Hand.
Vibrations	28,800/hour (8/second)
Loss/gain	Mean daily rate*: -3 to +5 seconds
Driving system	Manual winding type
Duration	For 72 hours or more. ※From the state of the mainspring being sufficiently wound
Jewels	24 jewels

Mean daily rate\*: is a mean value of daily rates in a condition where the movement before assembly in a case are measured in 6 positions in a fixed manner under artificially controlled environment for 12 days.

Caution: Depending on conditions of use( such as normal usage time, temperature environment, and winding state), accuracy may exceed the abovementioned range. Therefore, for normal usage accuracy when it is actually used, -1 to +10 seconds (+8 seconds for Cal. 9S86 and 9S85) per day are specified as target values

※ The specifications are subject to change without prior notice due to product improvement.