INDEPENDENT

INSTRUCTION MANUAL

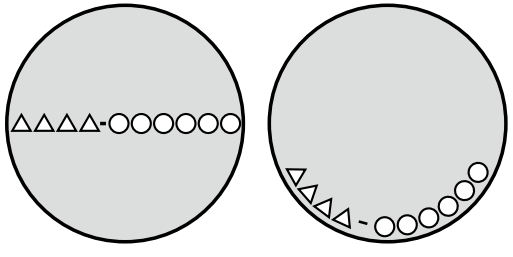
Thank you for your purchasing our product.
Before using the watch, read this instruction manual carefully to ensure correct use.
After reading the manual, store it in a safe place for future reference.

English

To check the movement number

A case number—4 alphanumeric characters and 6 or more alphanumeric characters—is engraved on the case back. (Figure on the right)
The first 4 characters of the case number represent the movement number of the watch. In the example on the right, "△△△△" is the movement number.

Engraving position example



The engraving position may differ depending on watch model.

Safety precautions (IMPORTANT)

This manual contains instructions that should be strictly followed at all times not only for optimal use, but to prevent any injuries to yourself, other persons or property.
We encourage you to read the entire booklet (especially, pages 24 to 31) and understand the meaning of the following symbols:

▪ Safety advisories are categorized and depicted in this manual as follows:

⚠ **DANGER**	Highly likely to cause death or serious injury
⚠ **WARNING**	Can cause serious injury or death
⚠ **CAUTION**	Can or will cause minor or moderate injury or damage

▪ Important instructions are categorized and depicted in this manual as follows:

⚠	Warning (caution) symbol followed by instructions that should be followed or precautions that should be observed.
⃠	Warning (caution) symbol followed by prohibited matters.

Before using this watch

◆ Protective Stickers

Be sure to remove any protective stickers that may be on your watch (case back, band, clasp, etc.). Otherwise, perspiration or moisture may enter the gaps between the protective stickers and the parts, which may result in a skin rash and/or corrosion of the metal parts.

◆ Band adjustment

We do not recommend attempting to adjust the watch band yourself. If not adjusted correctly, the band may become detached leading to an injury or loss of your watch. (Some retailers may supply a band adjustment tool with your purchase).

For band adjustment, we recommend you consult the retailer where the watch was purchased or your nearest Authorized Service Center. Some repair shops may charge a nominal fee for adjustment if the watch was not purchased directly from them.

◆ How to use a specially designed crown

Some models are equipped with a specially designed crown to prevent accidental operation.

Screw down crown

Unlock the crown prior to operate your watch.

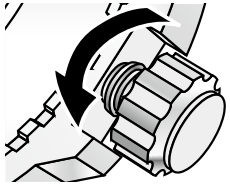
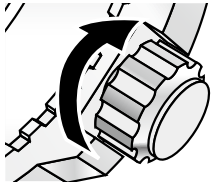
	Unlock	Lock
Screw down crown	 Rotate the crown counterclockwise until it releases from the case.	 Push the crown in to the case. With gentle pressure towards the case, rotate the crown clockwise to secure it to the case. Be sure to tighten firmly.

Table of contents (Cal.0510)

Component identification 7

Using the chronograph 8

Zero positioning of chronograph hands 10

Setting the time 11

Setting the date 12

Specifications 13

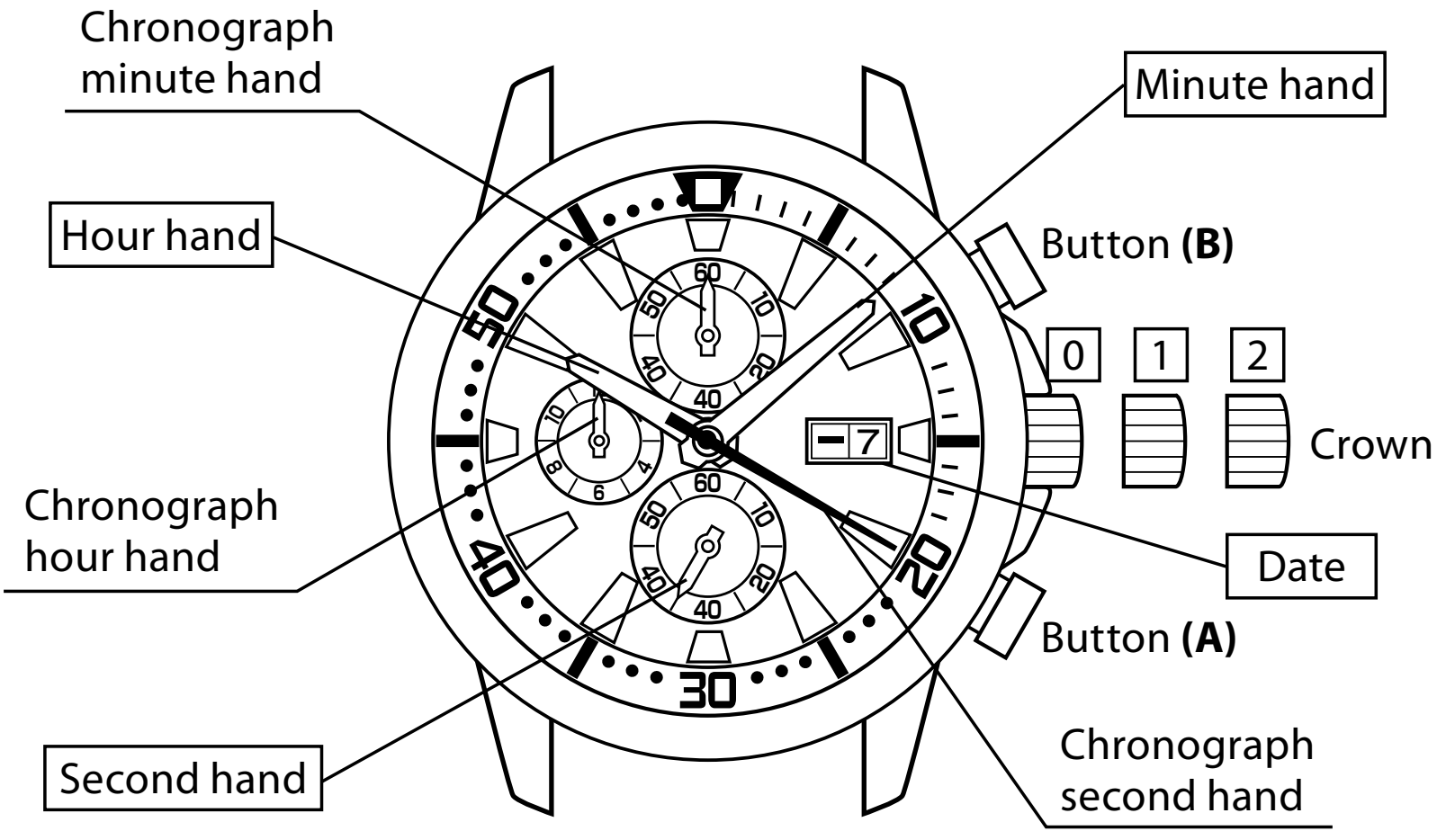
Tachymeter 22

Water resistance 24

Precautionary items and usage limitations 26

* Operating instructions of Cal. 0520 starts from page 14.

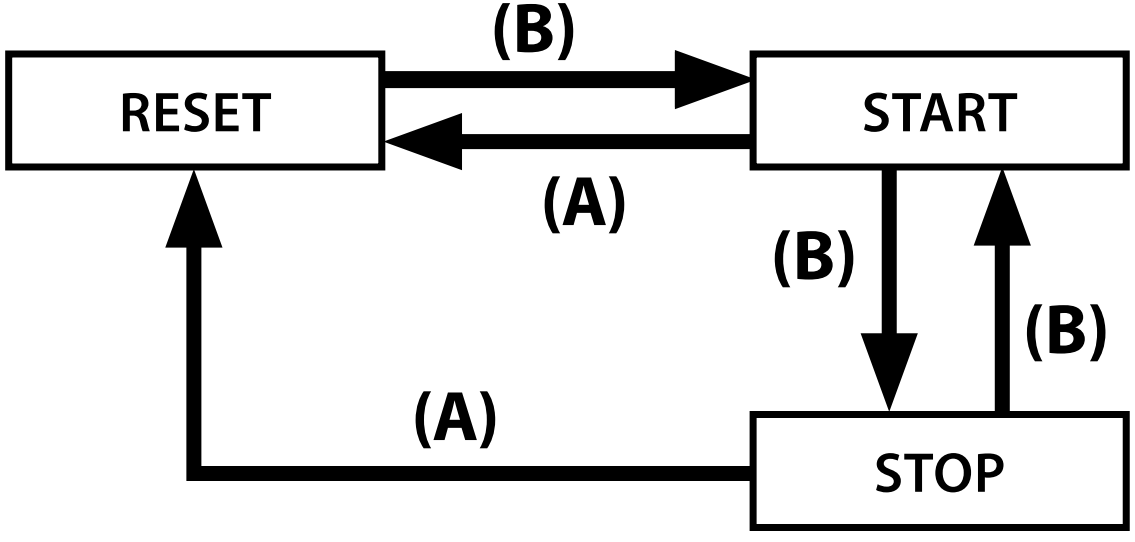
Component identification

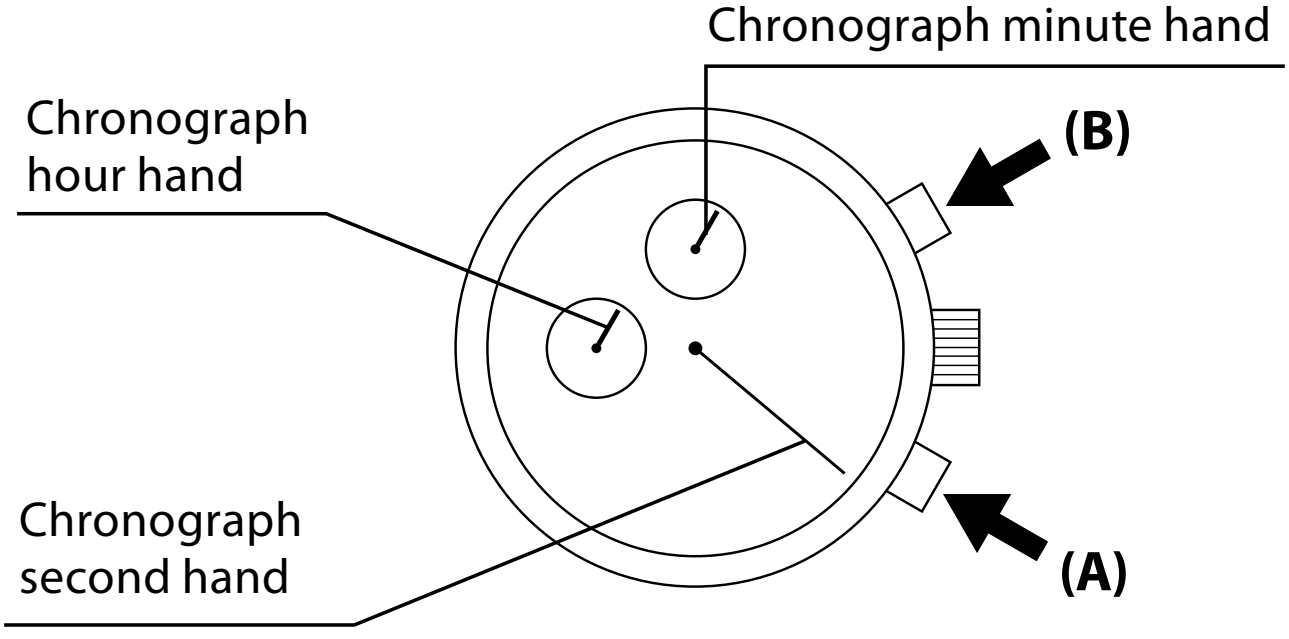


*The illustrations in this instruction manual may differ from the actual appearance of your watch.

Using the chronograph

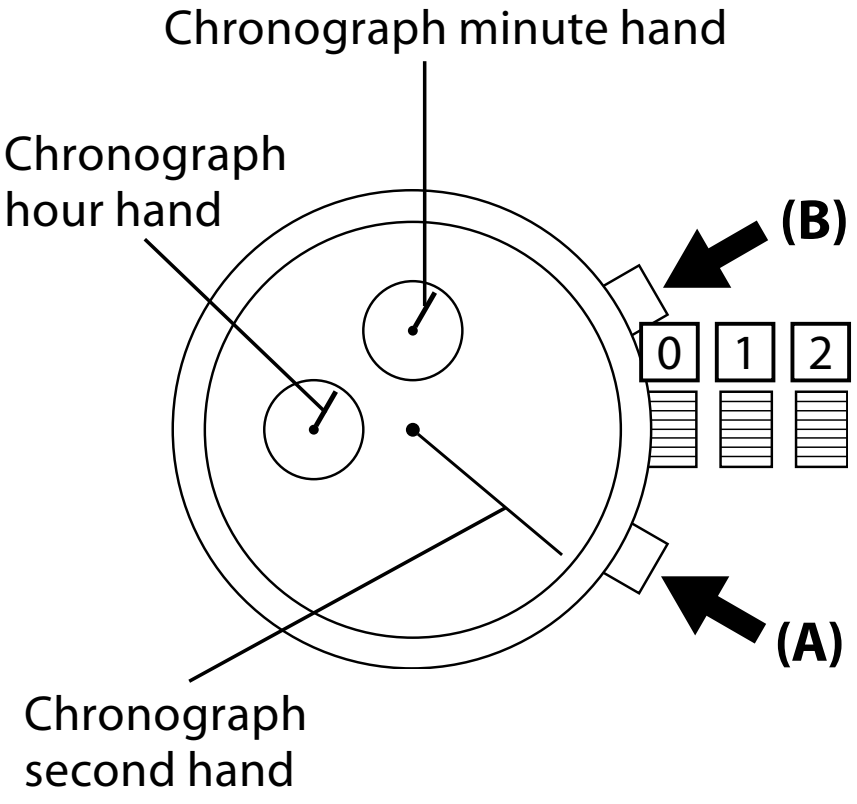
This chronograph can measure and display up to 11 hours 59 minutes 59 seconds in 1 second units.




Chronograph minute hand
Chronograph
hour hand
(B)
Chronograph
second hand
(A)

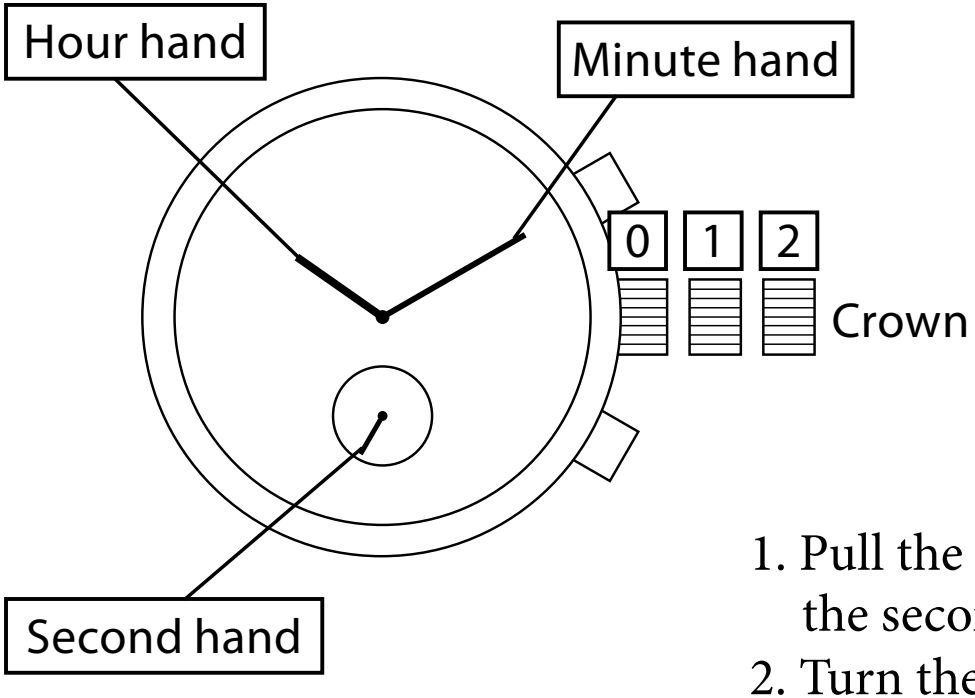
Zero positioning of chronograph hands

When resetting the chronograph, if the chronograph hands do not return to the 0 seconds position, perform zero positioning of the chronograph hands.



1. Pull the crown out to position 2 .
2. Press button **(B)** to position the chronograph second hand at the 0 position.
   * The chronograph second hand can be advanced rapidly by pressing and holding button **(B)**.
3. Press button **(A)** to reset the chronograph minute/hour hand to the 0 position.
4. Once the chronograph second hand has been positioned at the 0 position, reset the time and return the crown to the normal position.

Setting the time

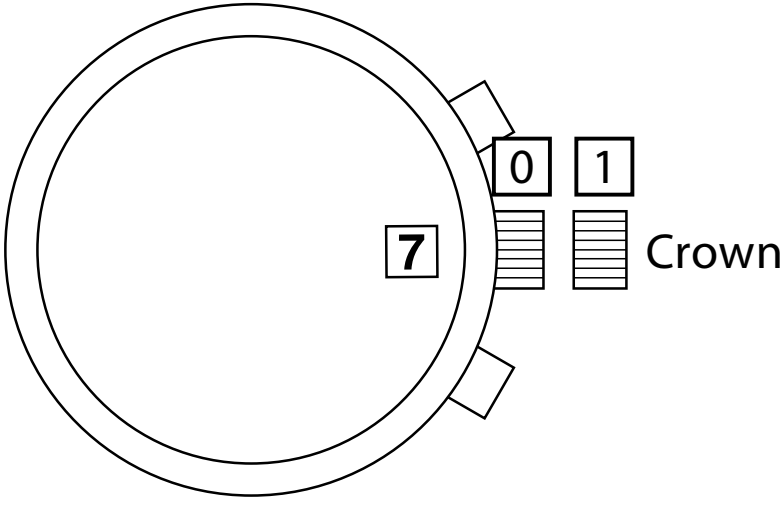


[Tips for Accurate Time Setting]
First of all, with the second hand stopped at the 0 seconds position, advance the minute hand 4 to 5 minutes ahead of the correct time. Secondly, adjust it back to the correct time. Finally, push in the crown by a time signal to set the time accurately.

1. Pull the crown out to position 2 to stop the second hand at the 0 seconds position.
2. Turn the crown to set the minute/hour hands to the desired time.
   * The date changes at 12:00 AM. Pay attention to AM and PM when setting the time.
3. Push the crown back to position 0 by a time signal, and then the second hand starts running again.

English

Setting the date



1. Pull the crown out to position 1 .
2. Turn the crown until the desired date appears.
   * Do not set the date between 9:00 PM and 1:00 AM. Otherwise, the date may not change properly.
3. After the date has been set, push the crown back to position 0 .

Specifications

Model	0510
Type	Analog quartz watch
Timekeeping accuracy	Within ±20 seconds per month when worn at normal operation temperatures (+5˚C to +35˚C)
Quartz oscillation frequency	32, 768Hz
Operating temperature range	–10°C to +60°C
Display functions	Time: hours, minutes, seconds
Converters	Bi-polar step motor x 2 pcs
Calendar	Date
Chronograph	• Measurement and display up to 11 hours 59 minutes 59 seconds in 1 second unit • Automatic stop function not available
Battery number	280-44 (SR927W) 1pce
Battery life	Approximately 2 years

* For product improvement, specifications may be subject to change without notice.

Table of contents (Cal.0520)

Component identification **15**

Using the chronograph **16**

Zero positioning of chronograph hands **18**

Setting the time **19**

Setting the date **20**

Specifications **21**

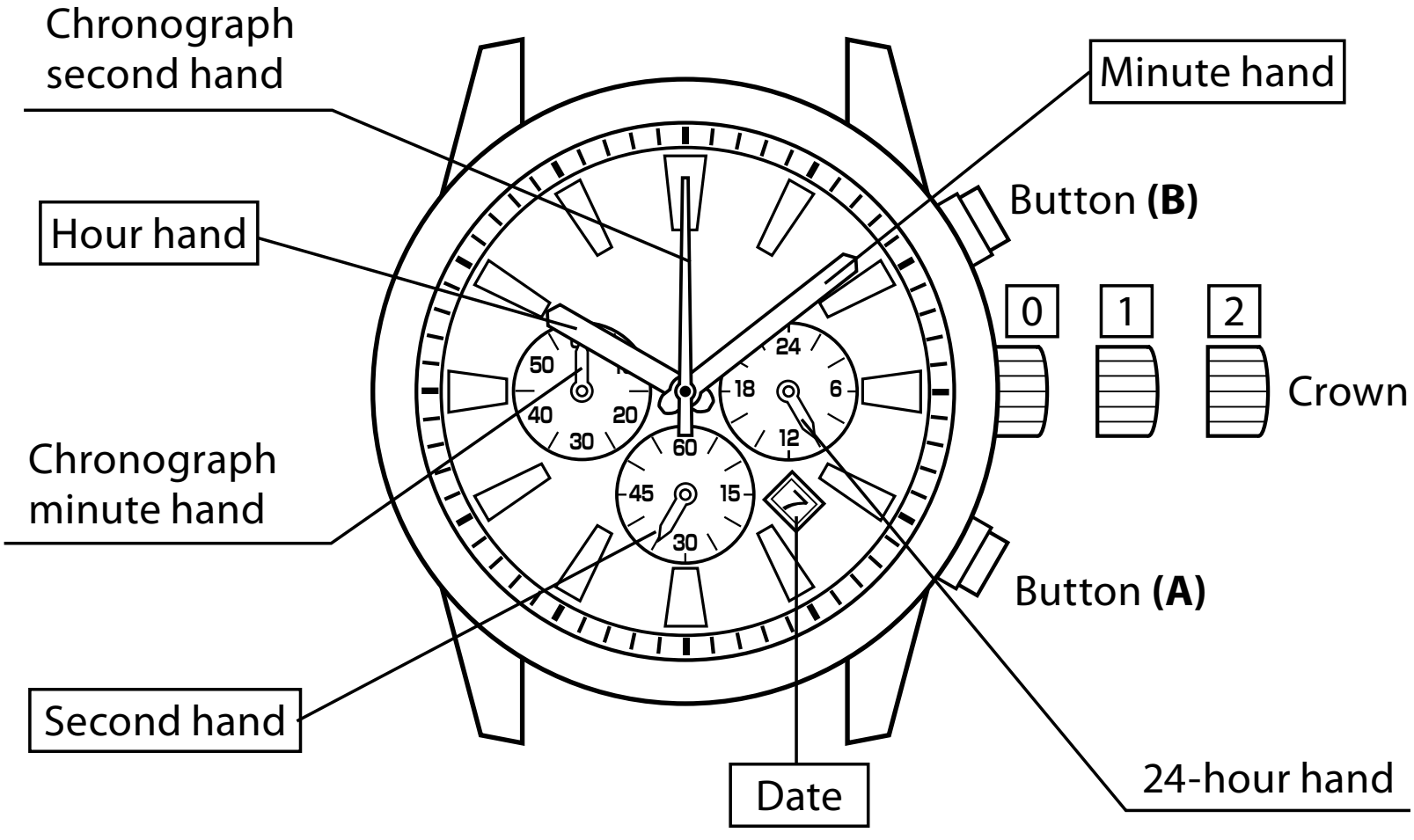
Tachymeter **22**

Water resistance **24**

Precautionary items and usage limitations **26**

* Operating instructions of Cal. 0510 starts from page 6.

Component identification



* The illustrations in this instruction manual may differ from the actual appearance of your watch.

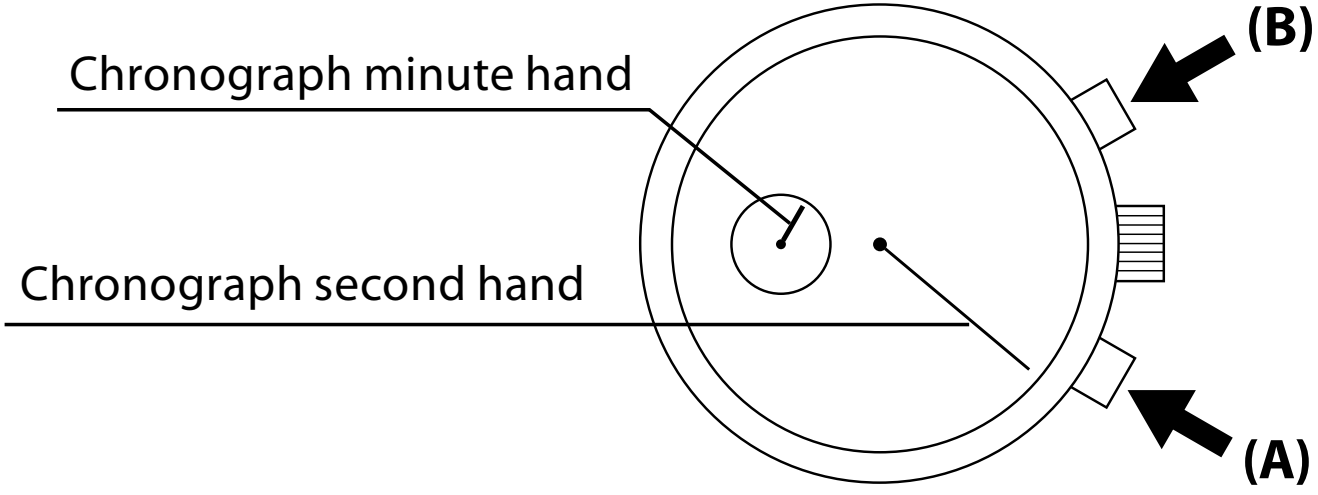
Using the chronograph

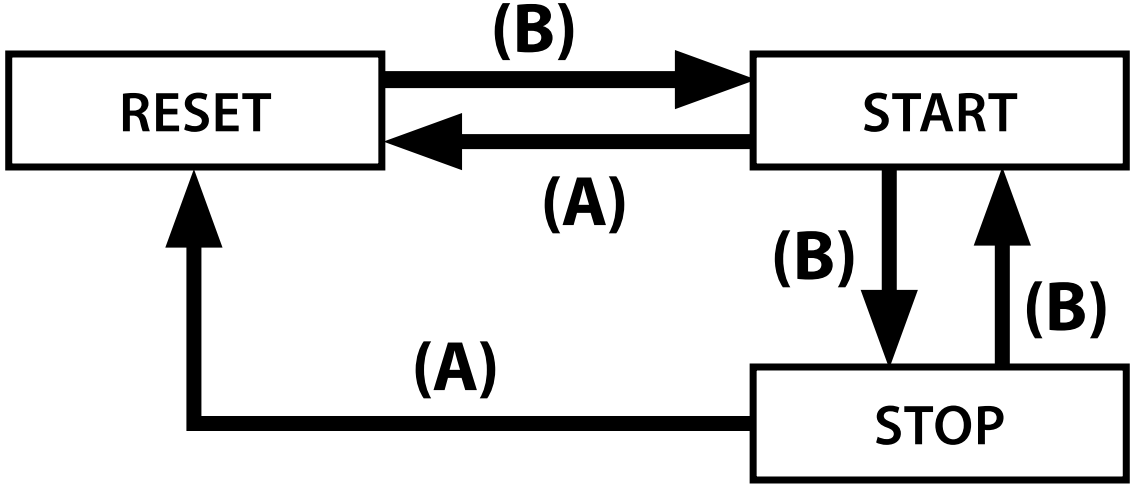
The chronograph function of this watch is able to measure and display elapsed time up to 59 minutes 59 seconds in 1 second units. After the chronograph displays 59 minutes 59 seconds, it resumes timing from 0 seconds.
The chronograph minute hand and second hand continue to move until the chronograph is stopped by pressing button **(B)** even after 59 minutes 59 seconds have elapsed.

NOTE: The chronograph hands continue timing until they are stopped even after 60 minutes have elapsed. Once timing is finished, promptly press button **(B)** to stop the chronograph, and then press button **(A)** to reset the chronograph to 0 seconds. If timing is allowed to continue, the battery will continue to wear down and the capacity of the battery will eventually run out before the indicated battery life causing the watch to stop running.

[Chronograph Timing]

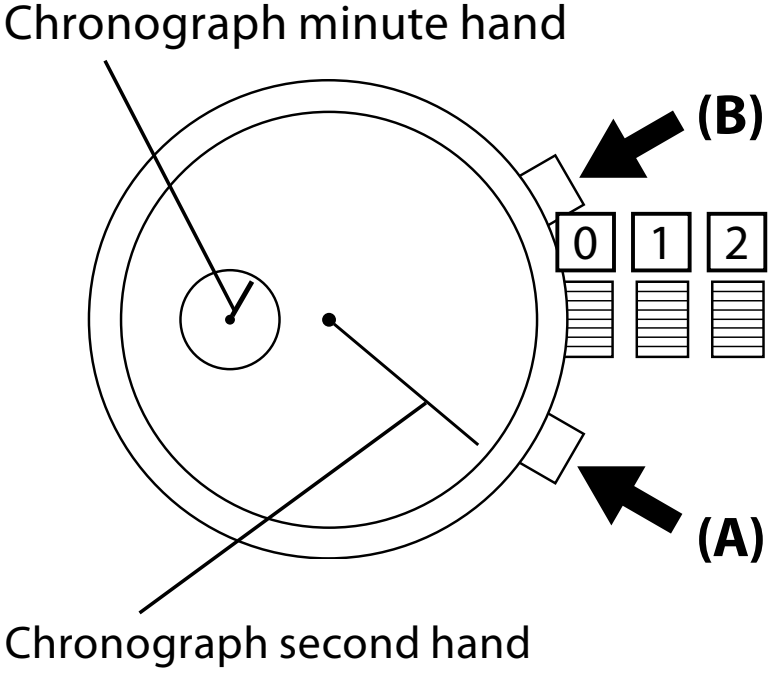
1. Start timing by pressing button **(B)**.
   The chronograph is repeatedly started and stopped by pressing button **(B)**.
2. Pressing button **(A)** resets the chronograph to 0 seconds.


Chronograph minute hand
Chronograph second hand
(B)
(A)


RESET
START
STOP
(B)
(A)
(B)
(B)
(A)

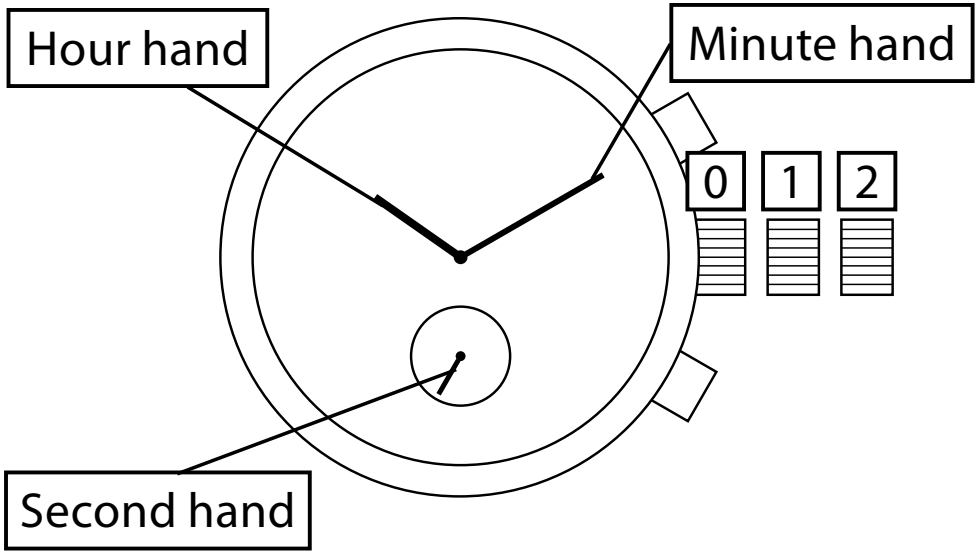
Zero positioning of chronograph hands

When resetting the chronograph after replacing the battery, if the chronograph second hand does not return to the 0 seconds position or if the chronograph second hand has shifted out of position due to a strong impact, perform zero positioning of the chronograph hands according to the procedure described below.



1. Pull the crown out to the position 2 .
2. Press button **(B)** to position the chronograph second hand at the 0 position.
   * The chronograph second hand can be advanced rapidly by pressing and holding button**(B)**.
3. Once the chronograph second hand has positioned at the 0 position, reset the time and return the crown to the normal position.
4. Press button **(A)** to check that each of the chronograph hands has been reset to the 0 position.

Setting the time



[Tips for Accurate Time Setting]
First of all, with the second hand stopped at the 0 seconds position, advance the minute hand 4 to 5 minutes ahead of the correct time. Secondly, adjust it back to the correct time. Finally, push in the crown by a time signal to set the time accurately.

In the case the crown is a screwlock crown, loosen the screw before operating the crown and securely retighten the screw after operating.

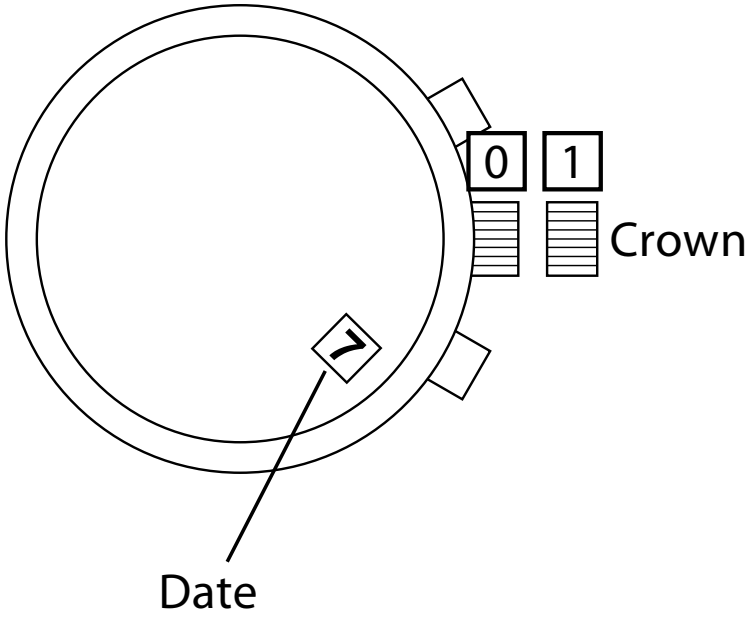
1. Pull the crown out to position 2 when the second hand has reached the 0 seconds position.
2. Turn the crown to set the time.

* The 24-hour hand moves in conjunction with the hour hand. Pay attention to AM and PM when setting the time.

3. Securely return the crown to the normal position in synchronization with a telephone or other time service.

* In models that do not have the date function, when the crown is pulled out to position 1 and is turned counterclockwise or clockwise, it rotates without having any effect.

Setting the date



1. Pull the crown out to position 1 .
2. Turn the crown counterclockwise to set the date.

* The crown turns freely, and the date does not change if turned clockwise.

* If the date is set while the time on the watch is between the hours of about 9:00 PM and 1:00 AM, the date may not change on the following day. If this happens, set the date after temporarily moving the hands to a time other than between the above times.

* The date has 31-day cycle. Reset the correct date at the start of March, May, July, October and December.

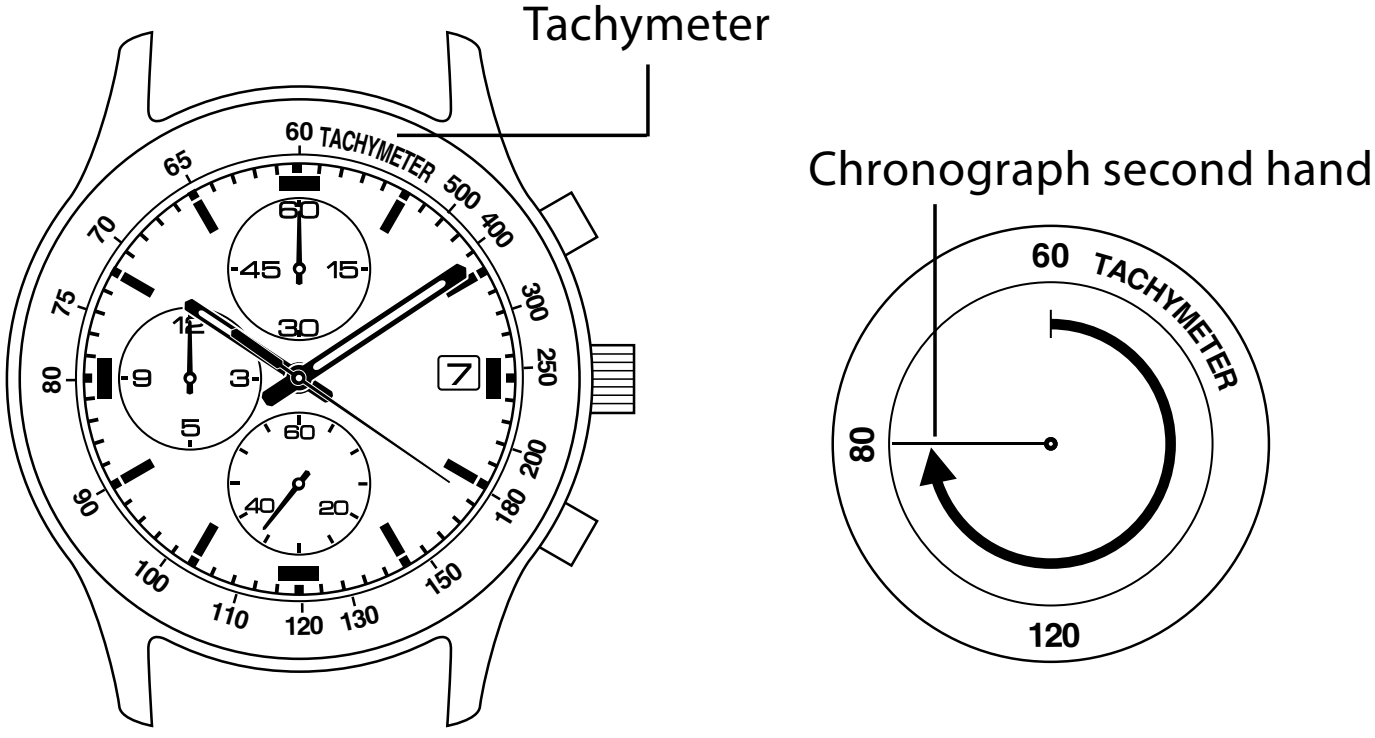
3. Once the date has finished being set, return the crown to the normal position.

Specifications

Model	0520
Type	Analog quartz watch
Timekeeping accuracy	Within ±20 seconds per month when worn at normal operation temperatures (+5˚C to +35˚C)
Quartz oscillation frequency	32,768Hz
Operating temperature range	–10°C~ to 60°C
Display functions	Time: 24 hour, hours, minutes, seconds
Calendar	Date
Chronograph	• Measurement and display up to 59 minutes 59 seconds in 1 second units • Automatic stop function not available
Battery number	280-44 (SR927W) 1pce
Battery life	Approx. 2 years (in the case of using the chronograph for 24 hours per day)

* For product improvement, specifications may be subject to change without notice.

Tachymeter (common feature for Cal. 0510 and 0520)



The tachymeter feature is used to measure traveling speed such as that of an automobile. In the case of this watch, the average speed can be approximately determined for a certain distance by measuring how many seconds it takes to travel 1 kilometer (measuring range: maximum 60 seconds).

To determine the average speed, start the chronograph simultaneously with the start of measurement.
Stop the chronograph at the point 1 kilometer away from the staring point. An approximation of the average speed over that distance can be determined by the position of the second hand at that time.
For example, if it takes 45 seconds to travel 1 kilometer, then the average speed over that distance is 80 kilometers/hour.

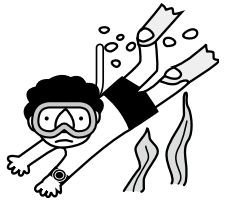
Water resistance

⚠ WARNIG Water Resistance

- Refer to the watch dial and the case back for the indication of the water resistance of your watch. The following chart provides examples of use for reference to ensure that your watch is used properly. (The unit “1bar” is roughly equal to 1 atmosphere.)
- WATER RESIST(ANT) ××bar may also be indicated as W.R.××bar.
- Non-water resistant models are not designed to come into contact with any moisture. Take care not to expose a watch with this rating to any type of moisture.

Name	Indication Dial or Case back	Specification
Non-water resistant watch	–	Non-water resistant
Everyday-use water resistant watch	WATER RESIST(ANT)	Water resistant to 3 atmospheres
Upgraded everyday-use water resistant watch	WATER RESIST(ANT) 5 bar	Water resistant to 5 atmospheres
	WATER RESIST(ANT) 10/20 bar	Water resistant to 10 or 20 atmospheres

- Water resistance for daily use (to 3 atmospheres) means the watch is water resistant for occasional accidental splashing.
- Upgraded water resistance for daily use (to 5 atmospheres) means that the watch may be worn while swimming, but is not to worn while skin diving.
- Upgraded water resistance for daily use (to 10/20 atmospheres) means that the watch may be worn while skin diving, but not while scuba or saturated diving using helium gas.

	Water-related use				
	Minor exposure to water (washing face, rain, etc.)	Swimming and general washing work	 Skin diving, marine sports	Scuba diving using an air tank	Operate the crown or button when the watch is wet
	NO	**NO**	**NO**	**NO**	**NO**
	OK	**NO**	**NO**	**NO**	**NO**
	OK	**OK**	**NO**	**NO**	**NO**
	OK	**OK**	**OK**	**NO**	**NO**

Precautionary items and usage limitations

⚠ CAUTION To Avoid Injury

- Be particularly careful when wearing your watch while holding a small child, to avoid injury.
- Be particularly careful when engaged in strenuous exercise or work, to avoid injury to yourself and others.
- Do NOT wear your watch while in a sauna or other location where your watch may become excessively hot, since there is the risk of burns.
- Be careful when putting on and taking off your watch, since there is a risk of damaging your fingernails, depending on the manner in which the band is fastened.
- Take off your watch before going to bed.

⚠ CAUTION Precautions

- Always use the watch with the crown pushed in (normal position). If the crown is of the screw lock-type, make sure it is securely locked.
- Do NOT operate the crown or any push buttons when the watch is wet. Water may enter the watch causing damage to vital components.
- If water enters the watch or the watch fogs up and does not clear up even after a long time, consult your dealer or Authorized Service Center for inspection and/or repair.

- Even if your watch has a high level of water resistance, please be careful of the following.
  - If your watch is immersed in sea water, rinse thoroughly with fresh water and wipe with a dry cloth.
  - Do not pour water from a tap directly onto your watch.
  - Take off your watch before taking a bath.
- If seawater enters the watch, place the watch in a box or plastic bag and immediately take it in for repair. Otherwise, pressure inside the watch will increase, and parts (crystal, crown, push button, etc.) may come off.

⚠ CAUTION When Wearing Your Watch

<Band>

- Leather, genuine skin and rubber (urethane) bands will deteriorate over time due to perspiration, body oils and dirt. Be sure to replace the band periodically.
- The durability of a leather band may be affected when wet (fading, peeling of adhesive), owing to the properties of the material. Moreover, wet leather may cause a rash.
- It is recommended to take off the watch if it gets wet, even if the watch itself is water resistant.

Precautionary items and usage limitations

- Do not wear the band too tightly. Try to leave enough space between the band and your skin to allow adequate ventilation.
- The rubber (urethane) band may be stained by dyes or soil present in or on clothing or other accessories. Since these stains may not be removable, caution is required when wearing your watch with items that tend to easily transfer color (articles of clothing, purses, etc.). In addition, the band may be deteriorated by solvents or moisture in the air. Replace with a new one when it has lost elasticity or become cracked.
- Please request adjustment or repair of the band in the following cases:
  - You notice an abnormality with the band due to corrosion.
  - The pin of the band is protruding.
- We do not recommend attempting to adjust the watch band yourself. Special expertise and experience is required for proper adjustment. If not adjusted correctly, the band may become detached leading to loss of your watch. (Some retailers may supply a band adjustment tool with your purchase).
  For band adjustment, we recommend you consult the retailer from where the watch was purchased or your nearest Authorized Service Center. Some repair shops may charge a nominal fee for adjustment if the watch was not purchased directly from them.

<Temperature>

- The watch may stop or the function of the watch may be impaired in extremely high or low temperature. Do not use the watch in places where the temperature is outside the operating temperature range as stated in the specifications.

<Magnetism>

- Analog quartz watches are powered by a step motor that uses a magnet. Subjecting the watch to strong magnetism from the outside can cause the motor to operate improperly and prevent the watch from keeping time accurately. Do not allow the watch to come into close proximity to magnetic health devices (magnetic necklaces, magnetic elastic bands, etc.) or the magnets used in the latches of refrigerator doors, clasps used in handbags, the speaker of a cell phone, electromagnetic cooking devices and so on.

<Strong Shock>

- Avoid dropping the watch or subjecting it to other strong impact. It may cause malfunctions and/or performance deterioration as well as damage to the case and bracelet.

<Static Electricity>

- The integrated circuits (IC) used in quartz watches are sensitive to static electricity. Please note the watch may operate erratically or not at all if exposed to intense static electricity.

<Chemicals, Corrosive Gasses and Mercury>

- If paint thinner, benzene or other solvents or products containing these solvents (including gasoline, nail-polish remover, cresol, bathroom cleaners and adhesives, water repellent, etc.) are allowed to come into contact with the watch, they may discolor, dissolve or crack the materials.
  Be careful when handling these chemicals. Contact with mercury such as that used in thermometers may also cause discoloration of the band and case.

Precautionary items and usage limitations

<Protective Stickers>

- Be sure to remove any protective stickers that may be on your watch (case back, band, clasp, etc.). Otherwise, perspiration or moisture may enter the gaps between the protective stickers and the parts, which may result in a skin rash and/or corrosion of the metal parts.

⚠ CAUTION Always Keep Your Watch Clean

- Rotate the crown while it is pressed in fully and press the buttons periodically so they do not become stuck due to accumulations of foreign matter.
- The case and band of the watch come into direct contact with the skin in the same manner as undergarments. Corrosion of the metal or unnoticed soiling such as that caused by perspiration and dirt can soil sleeves and other portions of clothing. Keep your watch clean at all times.
- The case and band of the watch come into direct contact with the skin. If you think there is something wrong, discontinue wearing the watch immediately and consult your physician.
  In the case of accumulation of sweat or dirt on a metal band or case, clean thoroughly using a brush and neutral detergent. In the case of a leather band, wipe clean using a dry cloth.
- Leather bands may become discolored by perspiration or dirt. Always keep your leather band clean by wiping with a dry cloth.

Caring for Your Watch

- Wipe any dirt or moisture such as perspiration from the case and crystal with a soft cloth.
- For a metallic, plastic or rubber (urethane) watchband, wash any dirt off with water. Remove the small amounts of dirt trapped between the crevices of the metallic band with a soft brush.
- For a leather band, wipe off dirt using a dry cloth.
- If you will not be using your watch for an extended period of time, carefully wipe off any perspiration, dirt or moisture and store in a proper location, avoiding locations subject to excessively high or low temperatures and high humidity.

<When Luminous Paint is used for your watch>

The paint on the dial and hands helps you with reading the time in a dark place. The luminous paint stores light (daylight or artificial light) and glows in a dark place.
It is free from any radioactive substance or any other material harmful to a human body or environment.

- The light emission gradually becomes weaker as time passes.
- The duration of the light ("glow") will vary depending on the brightness, types of and distance from a light source, exposure time, and the amount of the paint.
- The paint may not glow and/or may dissipate quickly if exposure to light was not sufficient.

Cal.0510・0520
TR-G8168