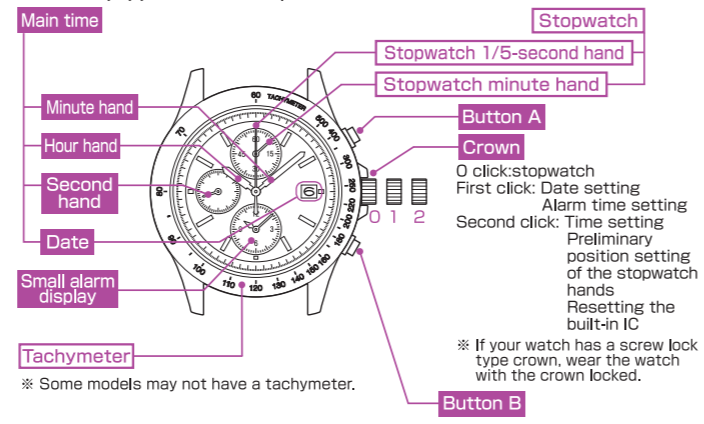


## Features

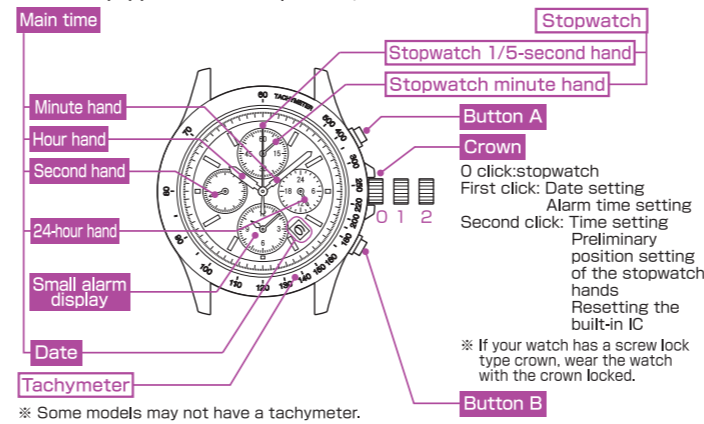
- This solar watch is equipped with a stopwatch function.
- A full-scale stopwatch, which can measure in 1/5-second increments with the center hand, is equipped.
  - A solar cell under the dial converts any form of light into "electrical energy" to operate the watch.
- \* "Chronograph" means a watch with a stopwatch function.
- **Stopwatch function** ..... The stopwatch can measure up to 60 minutes in 1/5-second increments. After measuring 60 minutes, the stopwatch will automatically stop.
- **Alarm function** ..... The single-time alarm can be set to sound only once at the set time. The alarm time can be set in one-minute increments to the time until 11 hours 59 minutes is reached. (Only available for V172 and V174)
- **Solar Charging Function** ..... A solar cell underneath the dial converts any form of light into "electrical energy" to operate the watch. Once fully charged, the watch continues to run for approximately six months.

## Names of the parts and functions

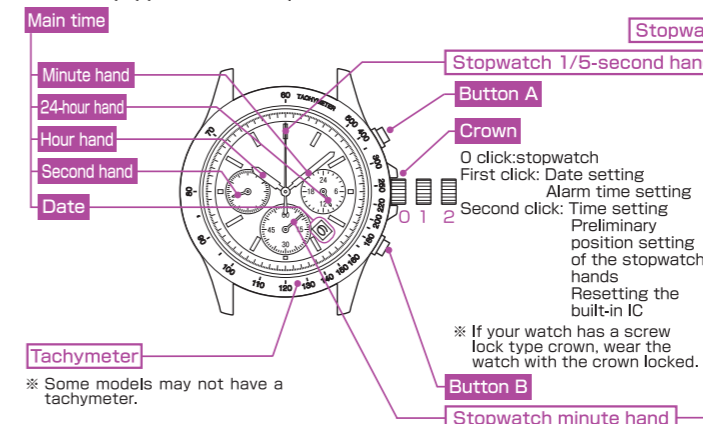
V172: Equipped with a stopwatch and alarm



V174: Equipped with a stopwatch, alarm and 24-hour hand



V175: Equipped with a stopwatch and 24-hour hand



## How to operate the screw lock type crown

- **To unscrew the crown:**  
Turn the crown counterclockwise.  
(Then, pull it out for time/calender setting)
- **To screw in the crown:**  
With the crown at the normal position, turn it clockwise while pressing it.

## How to set the time and date

### How to set the time and date

- Check that the watch is operating.  
Check that the second hand is moving at one-second intervals.  
If the second hand is moving at two-second intervals or the second hand has stopped, charge the watch by exposing the dial of the watch to light.
- Check that the watch hands are not displaying any time between 9 p.m. and 1 a.m.  
If the watch hands are displaying a time between 9 p.m. and 1 a.m., pull out the crown to the second click and turn it to advance the hands to set the time later than 1 a.m.

### 3 Pull out the crown to the first click.

- \* When setting the date only, refer to "Manual date adjustment at the end of the month".
- \* If your watch has a screw lock type crown, unlock the crown.

### 4 Turn the crown in the direction of the arrow mark to set the date to the previous day's date.

- \* The date will not change if the crown is turned in the opposite direction.
- Ex. If you would like to set the date to "5", first set it to "5".

### 5 Pull out the crown to the second click when the second hand is at the 0 second position.

- \* This procedure is required to ensure the proper engagement of the date driving wheel.
- \* Each time the hour hand makes two full rotations by turning the crown, the date is adjusted one day. While turning the crown, the date changes at exactly midnight. When setting the hour hand, be sure that AM/PM is set correctly. (For the models V174 and V175, the 24-hour hand can be used as an AM/PM indicator.)

### 6 For advancing the hands clockwise, turn the crown in the direction of the arrow mark to set the date to the desired day's date.

- \* The watch continues operating.
- \* If your watch has a screw lock type crown, unlock the crown.

### 7 For advancing the hands clockwise, turn the crown in the direction of the arrow mark to set the main time.

- \* When setting the time, be sure that AM/PM is set correctly.
- \* For models V174 and V175, the 24-hour hand can be used as an AM/PM indicator.
- \* Set the minute hand a few minutes ahead of the correct time, and then advance it to the exact minute(s).
- \* If you own model V172 or V174: It is recommended to set the minute hand two minutes ahead of the correct time (proceed to operation of the procedure 8).
- \* If you own model V175: Continue to procedure 9.

### 8 Press button B to set the alarm time to the same time as the main time (only for models V172 and V174).

- \* If button B is kept pressed, the alarm hands advance quickly.
- \* Alarm time can be set on a 12-hour basis.

### 9 Push the crown back in to the normal position in accordance with a time signal.

- \* The alarm time setting is completed.
- \* If your watch has a screw lock type crown, lock the crown.

### Manual date adjustment at the end of the month

- The watch automatically plays the date from "1" to "31". Adjust the date on the first day after a month that has less than 31 days: February, April, June, September and November.
- \* When adjusting the date only, carry out this procedure.

### 1 Make sure that the watch is operating.

- Make sure that the second hand is moving at one-minute intervals. If the second hand is moving at two-second intervals, or it has stopped, charge the watch by exposing the dial to light.
- \* If the watch hands are displaying a time between 9 p.m. and 1 a.m., set the time according to the procedure of "How to set the time and date" - page 78, or first change the time to the time outside this period, and then set the date and reset the correct time.

### 3 Pull out the crown to the first click.

- \* The watch continues operating.
- \* If your watch has a screw lock type crown, unlock the crown.

### 4 Turn the crown in the direction of the arrow mark to set the date.

- The date will not change if the crown is turned in the opposite direction.

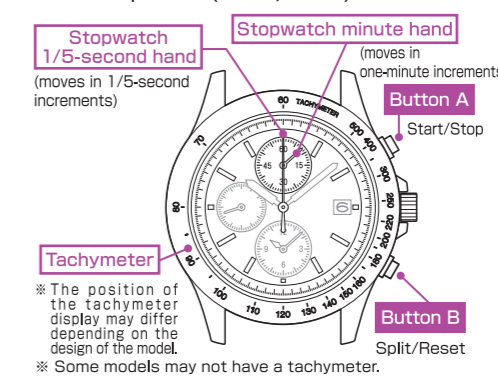
### 5 Push the crown back in to the normal position.

- \* If your watch has a screw lock type crown, lock the crown.

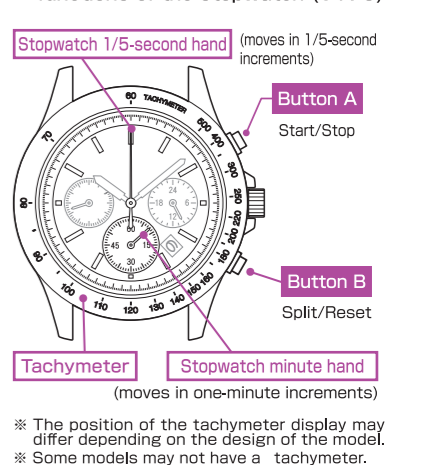
## Stopwatch function

The stopwatch can measure up to 60 minutes in 1/5-second increments. After measuring 60 minutes, the stopwatch hands will automatically stop at the 0 minute 0 second position.

### The names of the parts and functions of the stopwatch (V172, V174)



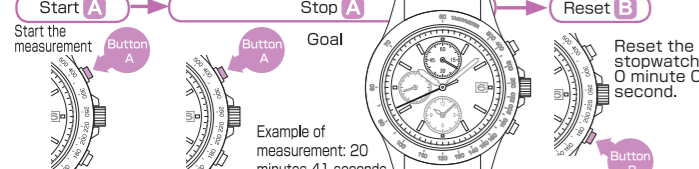
### The names of the parts and functions of the stopwatch (V175)



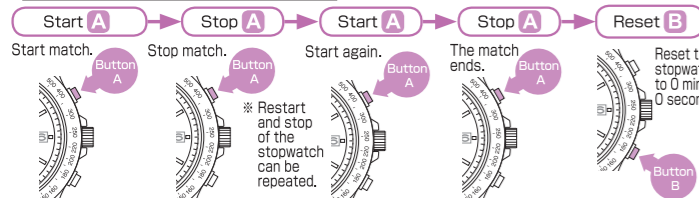
## How to use the stopwatch

\* When the second hand is moving at two-second intervals, the stopwatch can not be operated. About energy

### Standard measurement Ex. 500 meters running

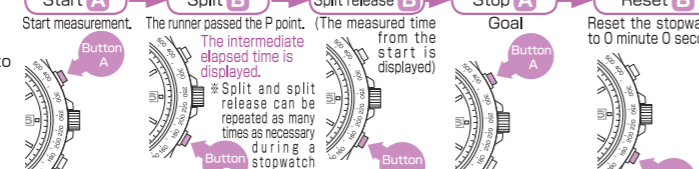


### Accumulated elapsed time measurement Ex. Measuring the time for a soccer match

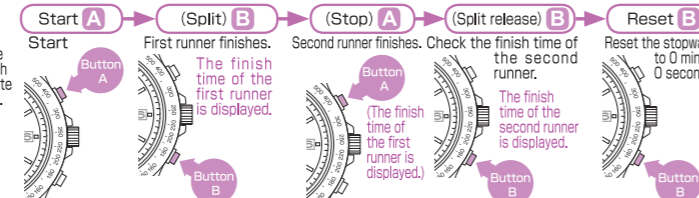


### Split time (intermediate elapsed time) measurement Ex. 5000 meter run

\* "Split time" is the time that has elapsed from the start of an activity to any given stage.



### Measurement of two competitors



## Adjusting the preliminary position of the stopwatch 1/5-second and minute hands

If any of the stopwatch hands do not return to the 0 minute 0 second position when the stopwatch is reset, the preliminary hand position may be misaligned. The preliminary position of the stopwatch 1/5 second and minute hands is 0 minute 0 second. The preliminary position may be misaligned due to the following reasons.

- In the case of a strong impact: Misalignment may occur when dropping or hitting the watch.
  - In the case of a magnetic influence: Misalignment may occur when bringing the watch close to an object which generates magnetism.
- \* If the preliminary position adjustment is carried out, the watch gains or loses time. After adjusting the preliminary hand position, make sure to reset the main time and alarm time.

### 1 Make sure that the watch is operating.

- Make sure that the second hand is moving at one-minute intervals. If the second hand is moving at two-second intervals, or it has stopped, charge the watch by exposing the dial to light.

### 2 Pull out the crown to the second click.

- The second hand will stop.
- \* If your watch has a screw lock type crown, unlock the crown.

### 3 Press and hold button A (for 3 seconds) until the stopwatch minute hand starts moving.

- The stopwatch minute hand moves one full rotation, and the watch enters the preliminary position adjustment mode of the stopwatch minute hand.
- \* If you do not know which hand is the stopwatch minute hand, refer to Names of the parts and functions.

### 4 Press button B to reset the stopwatch minute hand to 0 minute.

- One minute Advance: Press button B once and then release it.
- Continuous Advance: When button B is kept pressed for two seconds or longer, the hand will start moving. When button B is released, the hand will stop.
- \* If the stopwatch minute hand is reset to 0 minute, continue to procedure 6.

### 5 Press and hold button A (for 3 seconds) until the stopwatch 1/5 second hand starts moving.

- The stopwatch 1/5-second hand moves one full rotation, and the watch enters the preliminary position adjustment mode of the stopwatch 1/5-second hand.

### 6 Press button B to reset the stopwatch 1/5-second hand to 0 minute.

- One minute Advance: Press button B once and then release it.
- Continuous Advance: When button B is kept pressed for two seconds or longer, the hand will start moving. When button B is released, the hand will stop.
- \* If the stopwatch 1/5-second hand is reset to 0 minute, continue to procedure 7.

### 7 Push the crown back in to the normal position.

- 8 Set the main time and alarm time.
- If the preliminary position adjustment is carried out, the main time and alarm time may gain or lose time. When the main time and alarm time are set, the operation is completed.

## How to use the tachymeter

The numbers on the tachymeter scale can be read to determine how many seconds it takes to run 1 km or to measure the time required to complete 1 job.

### How to measure kilometers / hour

- Measure the time (within 1 minute) it takes to run 1 km.
  - Read the number on the tachymeter scale that the stopwatch 1/5-second hand is pointing to.
- Ex. If it takes 45 seconds to run 1 km, 80 km/h

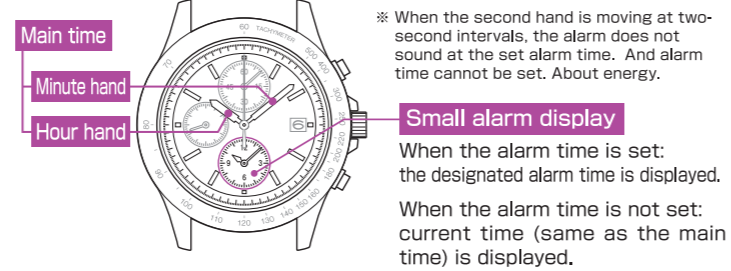
### How to measure the hourly rate of operation

- Measure the time (within 1 minute) required to complete 1 job.
  - Read the number on the tachymeter scale that the stopwatch 1/5-second hand is pointing to.
- Ex. If it takes 20 seconds to complete one product... 180 products/hour

## How to use the alarm (V172, V174)

The single-time alarm can be set to sound only once at a designated time.

When the time of the main time reaches the designated alarm time, the alarm sounds. The alarm time can be set in one-minute increments within the coming 11 hours 59 minutes.



### How to set the alarm time

- Pull out the crown to the first click.  
\* The watch continues operating.  
\* If your watch has a screw lock type crown, unlock the crown.
- Press button B to set the alarm time.  
If button B is kept pressed, the alarm hands are fast forwarded.  
\* If the alarm hands advance more than the desired alarm time, continue pressing button B to adjust the alarm time to the desired alarm time.  
\* If button B is kept pressed until the alarm hands stop at the same time as the main time, the alarm hands stop and the alarm is disengaged.
- Push the crown back in to the normal position.  
\* If your watch has a screw lock type crown, lock the crown.

### How to stop the alarm

- The alarm sounds for 20 seconds at the set alarm time.
- For stopping the sounding alarm, press button A or B.
- \* While the stopwatch hands are moving, the alarm sounds differently than the normal alarm sound. This is not a malfunction.
- \* When the alarm is sounding, if button A or B is pressed, the alarm stops sounding, but the alarm cannot be operated. After the alarm sound stops, the stopwatch can be operated.

### How to disengage the set alarm time

- \* If you want to disengage the set alarm time, reset the alarm time to the same time as the main time.

### Alarm sound test

- To test the alarm sound, pull out the crown to the first click, and then long press button A (for about 4 seconds). The alarm sounds while the button A is kept pressed.
- \* Because some fiton 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.

### How to stop the alarm

- The alarm sounds for 20 seconds at the set alarm time.
- For stopping the sounding alarm, press button A or B.
- \* While the stopwatch hands are moving, the alarm sounds differently than the normal alarm sound. This is not a malfunction.
- \* When the alarm is sounding, if button A or B is pressed, the alarm stops sounding, but the alarm cannot be operated. After the alarm sound stops, the stopwatch can be operated.

### How to disengage the set alarm time

- \* If you want to disengage the set alarm time, reset the alarm time to the same time as the main time.

### Alarm sound test

- To test the alarm sound, pull out the crown to the first click, and then long press button A (for about 4 seconds). The alarm sounds while the button A is kept pressed.
- \* Because some fiton 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.

## About charging

### How to charge the watch

Expose the dial to light to charge the watch.

- To ensure optimal performance of the watch, make sure that the watch is kept sufficiently charged at all time.
- Under the following situations, the energy of the watch is likely to be depleted, resulting in stoppage of the watch.
  - The watch is concealed under a sleeve.
  - The watch is used or stored under conditions where it cannot be exposed to light for a long time.

- \* When charging the watch, make sure that the watch is not heated to a high temperature. (The operational temperature range is between -10 °C and +60 °C.)
- \* When first using the watch or starting to use the watch after it has stopped because of the energy depletion, sufficiently charge the watch referring to the table.

### Standard charging time

For an approximate time required to charge the watch, refer to the table below.

Illuminance (lx/LUX)	Light source	Condition (Example)	Time required for fully charging the watch	Time required for charging the watch to start moving at one-second intervals	Time required for charging the watch to run for one day
700	Fluorescent light	General offices	-	60 hours	2.5 hours
3,000	Fluorescent light	30W 20cm	110 hours	13 hours	33 minutes
10,000	Fluorescent light	30W 5cm	30 hours	3.5 hours	9 minutes
10,000	Sunlight	Cloudy day	30 hours	3.5 hours	9 minutes
100,000	Sunlight	Sunny day (Under the direct sunlight on a summer day)	5 hours	36 minutes	2 minutes

The figures of "Time required for charging the watch to start moving at one-second intervals" are estimations of time required to charge the stopped watch by exposing it to light until it moves at steadily one-second intervals. Even if the watch is partially charged for a shorter period, the watch will resume one-second interval movement. However, it may start to return to two-second interval movement. Use the charging time in this column as a rough guide for sufficient charging time.

\* The required charging time slightly varies depending on the model of the watch.

## About energy

- When the energy stored in the watch is running down, the second hand starts moving at two-second intervals. If the energy runs out, the watch will stop.
- If the second hand starts moving at two-second intervals, fully charge the watch.
- \* Stopwatch cannot be operated while the second hand is moving at two-second intervals (this is not a malfunction).
- \* If the second hand starts moving at two-second intervals while the stopwatch is counting, the stopwatch hands return to 0 minute 0 second to reset the measurement.
- \* Alarm time setting cannot be carried out while the second hand is moving at two-second intervals.
- \* If the set alarm time is reached while the second hand is moving at two-second intervals, the alarm does not sound (the set alarm time will be disengaged).

## Power source

The battery used in this watch is a special secondary battery, which is totally different from ordinary silver oxide batteries. Unlike other disposable batteries such as dry-cell batteries or button cells, this secondary battery can be used over and over again by repeating the cycles of discharging and recharging. However, for various reasons such as long-term use or usage conditions, the capacity or recharging efficiency of the secondary battery may gradually deteriorate. Worn or contaminated mechanical parts or degraded oils may also shorten recharging cycles. If the efficiency of the secondary battery decreases, have the watch repaired.

### NOTICE

- **Remarks on replacing the secondary battery**
  - Do not remove the secondary battery yourself.
  - Replacement of the secondary battery requires professional knowledge and skill. Please ask the retailer from whom the watch was purchased for repair.
  - Installation of an ordinary silver oxide battery can generate heat that can cause bursting or ignition.

## To preserve the quality of your watch

### WARNING

- 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 a child swallows the watch or accessories, immediately consult a doctor, as it will be harmful to the health of the baby or child.
- \* Do not use the watch in scuba diving or saturation diving. The various tightened inspections under simulated harsh environments, 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.

### CAUTION

- 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
- \* For watches with batteries, do not leave a dead battery in contact with the watch for a long time as it may cause battery leakage.
- \* 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.
- \* Do not pour running water directly from 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.
- \* 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.
- \* Other cautions

- 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 reaction that may be caused when they touch the watch.
- When disposing of used batteries, follow the instructions of your local authorities.
- If your watch is of the top or pendant type, the strap or chain attached to the watch may damage your clothes, injure the hand, neck, or other parts of your body.

### Daily care

- The watch requires good daily care.
  - 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 "water resistant" or "water resistant for daily use," do not wash the watch.

### Water resistance

Refer 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	Condition 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>Not suitable for swimming</b>
WATER RESISTANT 5 BAR	Water resistance for everyday life at 5 bar	The watch is suitable for sports such as 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.

### Band

- The band touches the skin directly and becomes dirty with sweat or dust. Therefore, 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 fiton 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.

### Polyurethane 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.
- \* 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 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.
- \* **PERIODIC CHECK**  
It is recommended that the watch be checked once every 3 to 4 years. Have your watch checked at an AUTHORIZED DEALER or SERVICE CENTER to ensure that the case, crown, gasket and crystal seal remain intact.

## Specifications

Caliber number	V172	V174	V175
1. Basic function	Main time with 3 hands (hour, minute, second) Stopwatch (1/5-second and minute hands) Small alarm display (hour and minute hands)	Main time with 3 hands (hour, minute, second) 24-hour hand Date display Stopwatch (1/5-second and minute hands) Small alarm display (hour and minute hands)	