

⚠ WARNING

The symbol and character indicate that unless the following safety regulations are strictly observed, serious personal injury may result.

⚠ CAUTION

The symbol and character indicate that unless the following safety regulations are strictly observed, slight personal injury or property may result.

■ FEATURES

Cal. VD is a quartz analog watch featuring a stopwatch function in addition to the time display.

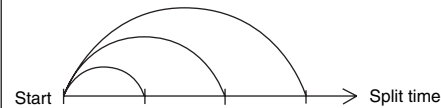
● Time

Indicated in hours, minutes, seconds; 24-hour readout (VD54) / date (VD57, 67).

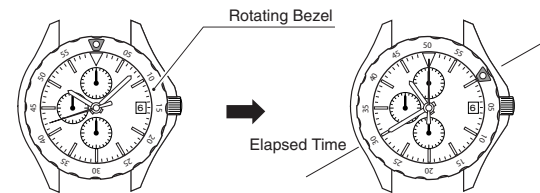
● Stopwatch

It can measure up to 60 minutes in seconds, 1/10 seconds (VD54, 57), and 1/5 seconds (VD67). Split time measurement is also available.

* "Split time" refers to an elapsed time required to cover a distance from the start to a given point.

**■ HOW TO USE THE ROTATING BEZEL**

The illustration below indicated that 30 minutes have elapsed since the timing started at 10:10 ("∇" mark indicated the time when you started timing.)



● HOW TO MEASURE THE ELAPSED TIME
Turn the rotating bezel to set "∇" mark to the minute hand. After certain amount of time elapsed, read the graduation on the rotating bezel which the minute hand points to. The elapsed time is indicated.

* For safety's sake, the rotating bezel rotates only counterclockwise with clicks. Therefore, accidental rotation of the bezel is prevented, and also the bezel can be easily set to measure the elapsed time.

■ REMARKS ON LUMINESCENCE

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

Luminescence is a newly-developed luminous paint that absorbs the light energy of the sunlight and lighting apparatus in a short time and stores it to emit light in the dark.

For example, if exposed to a light of more than 500 lux for approximately 10 minutes, Luminescence can emit light for 4 to 5 hours. Please note, however, that, as Luminescence emits the light it stores, the luminance level of the light decreases gradually over time. The duration of the emitted light may also differ slightly depending on such factors as the brightness of the place where the watch is exposed to light and the distance from the light source to the watch.

<Reference data on the luminance>

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: 1m]: 1,000 lux

[Distance to the watch: 3m]: 500 lux

[Distance to the watch: 4m]: 250 lux

■ SPECIFICATIONS

1. Oscillating frequency	32,768 Hz (Hz=Hertz ··· Cycles per second)
2. Loss/gain	Average monthly rate: ±20 seconds (at temperatures of 5°C to 35°C) on your wrist
3. Operating temperature range	-5°C to +50°C
4. Display system	Hours, minutes, seconds; 24-hour readout (VD54) / date (VD57, 67)
	Minutes, seconds, 1/10 seconds (VD55, 57), 1/5 seconds (VD67)
5. Drive system	Stepping motor (3 pieces) (VD54: 2 pieces)
6. Battery	Miniature silver oxide battery (SR920SW) (1 piece)
7. IC (Integrated Circuit)	C-MOS-LSI (1 piece)

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

■ REMARKS ON REPLACEMENT PARTS

- ① Periods during which a watch can be overhauled may vary depending on its operating conditions, and its accuracy may not be achieved in some cases.
- ② The case, dial, hands, glass and bracelet, or other parts may be replaced with substitutes if the originals are not available.
- ③ Repair charge may exceed the standard retail price depending on the kind of repairs. If you have any questions, please contact the watch dealer.

■ REMARKS ON THE BATTERY**● BATTERY LIFE**

When a new battery is installed, this watch operates for approximately two years. However, if the stopwatch is used for 60 minutes a day, the battery life may be less than the specified period.

● MONITOR BATTERY

The battery in your watch may run down in less than the specified period after the date of purchase, as it is a monitor battery inserted at the factory to check the functions and performance of the watch.

● BATTERY REPLACEMENT

- ① For battery replacement, be sure to have the battery replaced with a genuine battery at the retailer or the dealer from whom you purchased the watch.
- ② If the old battery is left in the watch for a long time, a malfunction may be caused due to battery leakage, etc. Have it replaced with a new one as soon as possible.
- ③ Battery replacement is charged even if it runs down within the guarantee period.

⚠ WARNING

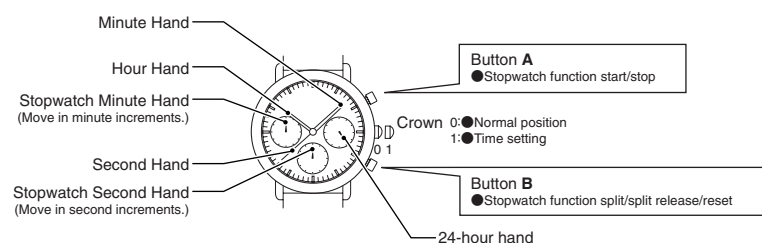
- The battery is not rechargeable. Never attempt to recharge it, as this may cause battery leakage or damage to the battery.
- Do not remove the battery from the watch.
- If it is necessary to take out the battery, keep it out of the reach of children.
- If the child swallows it, consult a doctor immediately as it will affect the health of the child.

⚠ CAUTION

- Do not leave your watch out of the room temperature from 5°C to 35°C for a long time. Doing so may shorten the battery life or cause a malfunction due to battery leakage.

HOW TO SET (VD54)

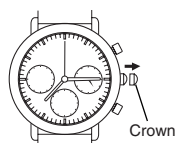
PART NAMES AND FUNCTIONS



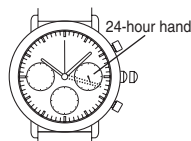
* The measured time is indicated by the stopwatch hands that move independently of the center and 24-hour hands.

TIME SETTING

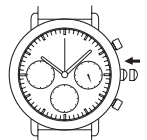
* Before setting the time, check that the stopwatch second and minute hands are at the "0" (12 o'clock) position. If either of the stopwatch hands are not at the "0" position, see "●ADJUSTING THE STOPWATCH HAND POSITION."
 * Before setting the time, check that the chronograph measurement is stopped.



① Pull out the crown when the second hand is at the 12 o'clock position. The second hand will stop on the spot.
 * If the crown is of a screw lock type, unscrew it by turning it counterclockwise, and then pull it out.
 * While the crown is at the extended position, do not press any button. Otherwise, the stopwatch second hand will move. (For details, see "●ADJUSTING THE STOPWATCH HAND POSITION.")



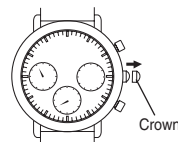
② Turn the crown to set the hour, minute and 24-hour hands to the desired time. As the hour hand moves, the 24-hour hand also moves correspondingly. When setting the hour hand, check that the 24-hour hand is set properly.
 * The mechanism of a quartz watch is different from that of a mechanical one. To set the time accurately, first advance the minute hand 4 to 5 minute ahead of the desired, and turn it back to the exact minute.



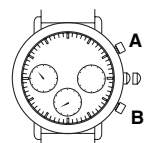
③ Push the crown back into the normal position in accordance with a time signal.
 * If the crown is of the screw lock type, screw it in completely by turning it clockwise while pressing it.
 * The telephone time signal service (TEL 117) is helpful for setting the exact time.

ADJUSTING THE STOPWATCH HAND POSITION

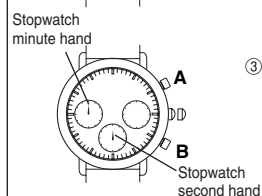
When the battery is replaced with a new one, the time information saved in the built-in IC and the time indicated by the stopwatch hands do not correspond with each other. Reset the stopwatch hands to the "0" position according to the following procedures. If the stopwatch hands move improperly, follow the same procedures.



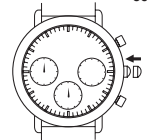
① Pull out the crown.



② Keep buttons **A** and **B** pressed at the same time for 2 seconds, and then, release the buttons.
 * The stopwatch second hand moves and returns to where it was.



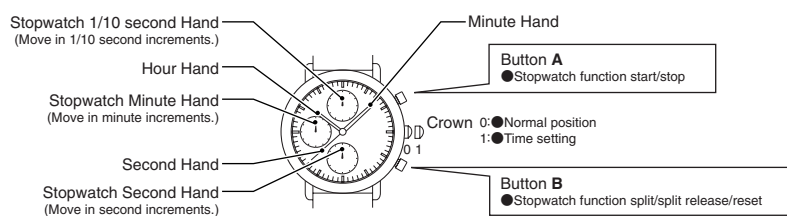
③ Press button **A** or **B** to reset the stopwatch hands to the "0" position.
 * By pressing button **A**, the hands move counterclockwise.
 * By pressing button **B**, the hands move clockwise.
 * The stopwatch minute hand moves correspondingly with the stopwatch second hand.
 * The hands move quickly if the respective buttons are kept pressed.



④ Turn the crown to set the hour and minute hands to the desired time, and push the crown back into the normal position. (For details, refer to "●TIME SETTING.")

HOW TO SET (VD55)

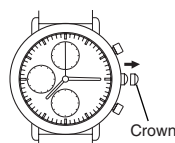
PART NAMES AND FUNCTIONS



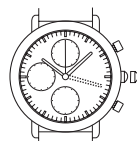
* The measured time is indicated by the stopwatch hands that move independently of the center hands.
 * Stopwatch 1/10 second hand moves for a first minute. After one minute, it indicates the measured time when it is stopped.

TIME SETTING

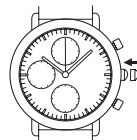
* Before setting the time, check that the stopwatch 1/10 second, second and minute hands are at the "0" (12 o'clock) position. If either of the stopwatch hands are not at the "0" position, see "●ADJUSTING THE STOPWATCH HAND POSITION."
 * Before setting the time, check that the chronograph measurement is stopped.



① Pull out the crown when the second hand is at the 12 o'clock position. The second hand will stop on the spot.
 * If the crown is of a screw lock type, unscrew it by turning it counterclockwise, and then pull it out.
 * While the crown is at the extended position, do not press any button. Otherwise, the stopwatch second hand will move. (For details, see "●ADJUSTING THE STOPWATCH HAND POSITION.")



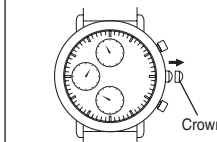
② Turn the crown to set the hour and minute hands to the desired time.
 * The mechanism of a quartz watch is different from that of a mechanical one. To set the time accurately, first advance the minute hand 4 to 5 minute ahead of the desired, and turn it back to the exact minute.



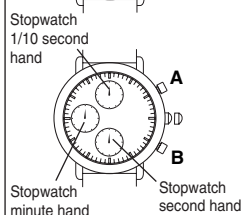
③ Push the crown back into the normal position in accordance with a time signal.
 * If the crown is of the screw lock type, screw it in completely by turning it clockwise while pressing it.
 * The telephone time signal service (TEL 117) is helpful for setting the exact time.

ADJUSTING THE STOPWATCH HAND POSITION

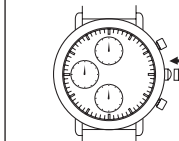
When the battery is replaced with a new one, the time information saved in the built-in IC and the time indicated by the stopwatch hands do not correspond with each other. Reset the stopwatch hands to the "0" position according to the following procedures. If the stopwatch hands move improperly, follow the same procedures.



① Pull out the crown.



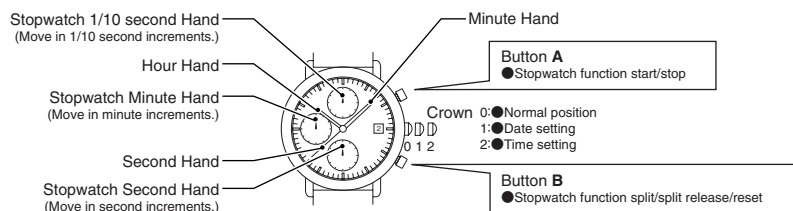
② Press button **A** or **B** to reset the stopwatch hands to the "0" position.
 * By pressing button **A**, set the stopwatch 1/10 second hand.
 * By pressing button **B**, set the stopwatch second and minute hands.
 * The stopwatch minute hand moves correspondingly with the stopwatch second hand.
 * The hands move quickly if the respective buttons are kept pressed.



③ Turn the crown to set the hour and minute hands to the desired time, and push the crown back into the normal position. (For details, refer to "●TIME SETTING.")

HOW TO SET (VD57)

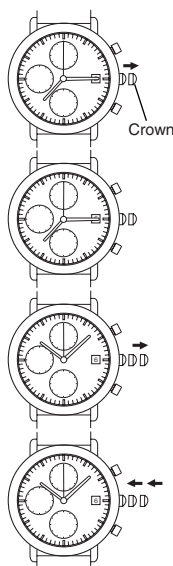
PART NAMES AND FUNCTIONS



- * The measured time is indicated by the stopwatch hands that move independently of the center hands.
- * Stopwatch 1/10 second hand moves for a first minute. After one minute, it indicates the measured time when it is stopped.

TIME/DATE SETTING

- * Before setting the time, check that the stopwatch hands are at the "0" (12 o'clock) position. If either of the stopwatch hands are not at the "0" position, see "●ADJUSTING THE STOPWATCH HAND POSITION."
- * Before setting the time, check that the chronograph measurement is stopped.



- Pull out the crown to the first click.
 - * If the crown is of a screw lock type, unscrew it by turning it counterclockwise, and then pull it out to the first click.
 - * The crown can be pulled out to the second click. Check that it is pulled out to the first click when you change the date.
- Turn the crown clockwise until the previous day's date appears.
 - * Do not set the date between 9:00 P.M. and 1:00 A.M. Otherwise, the date may not change properly. If it is necessary to set the date during this time period, first change the time to any time outside it, set the date and then reset the correct time.
- Pull out the crown all the way to the second click, and advance the hour and minute hands by turning the crown until the desired date appears. And then, set the hands to the desired time by turning the crown. (Check that AM/PM is set correctly.)
 - * Pull out the crown to the second click when the second hand is at the 12 o'clock position. It will stop on the spot.
 - * When the crown is at the second click position, do not press any button. Otherwise, the stopwatch hands will move. (For details, refer to "●ADJUSTING THE STOPWATCH HAND POSITION.")
 - * The mechanism of a quartz watch is different from that of a mechanical one. To set the time accurately, first advance the minute hand 4 to 5 minute ahead of the desired, and turn it back to the exact minute.
- Push the crown back into the normal position in accordance with a time signal.
 - * If the crown is of a screw lock type, screw it in completely by turning it clockwise while pressing it.
 - * The telephone time signal service (TEL 117) is helpful for setting the exact time.

DATE ADJUSTMENT AT THE END OF THE MONTH

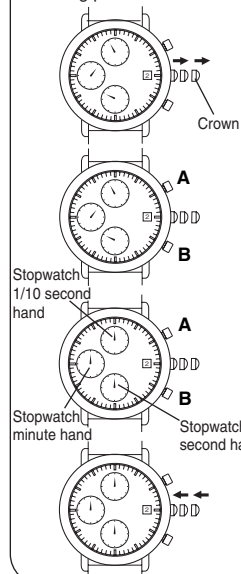
It is necessary to adjust the date at the end of February and 30-day months.

[To adjust the date in the A.M. period on the first day of the month following a 30-day month]

- The watch displays "31" instead of "1." Pull out the crown to the first click.
- Turn the crown clockwise to set the date to "1," and then push the crown back into the normal position.

ADJUSTING THE STOPWATCH HAND POSITION

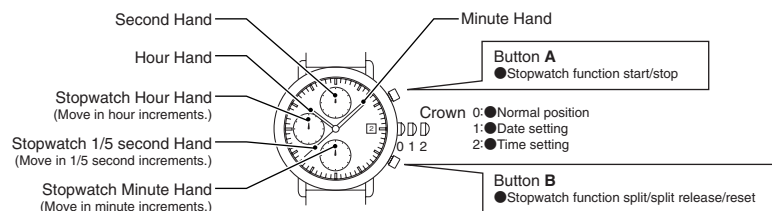
When the battery is replaced with a new one, the time information saved in the built-in IC and the time indicated by the stopwatch hands do not correspond with each other. Reset the stopwatch hands to the "0" position according to the following procedures. If the stopwatch hands move improperly, follow the same procedures.



- Pull the crown out to the second click.
- Keep buttons **A** or **B** pressed at the same time for 2 seconds, and then, release the buttons.
 - The stopwatch second hand moves and returns to where it was.
- Press button **A** or **B** to reset the stopwatch hands to the "0" position.
 - By pressing button **A**, set the stopwatch 1/10 second hand.
 - By pressing button **B**, set the stopwatch second and minute hands.
 - * The stopwatch minute hand moves correspondingly with the stopwatch second hand.
 - * The hands move quickly if the respective buttons are kept pressed.
- Turn the crown to set the hour and minute hands to the desired time, and push the crown back into the normal position. (For details, refer to "●TIME SETTING.")

HOW TO SET (VD67)

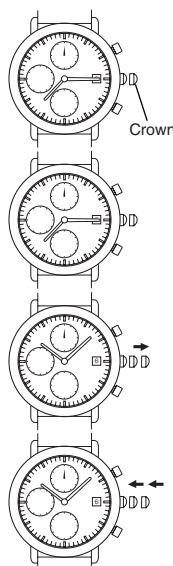
PART NAMES AND FUNCTIONS



- * The measured time is indicated by the stopwatch hands that move independently of the center hands.
- * Stopwatch 1/10 second hand moves for a first minute. After one minute, it indicates the measured time when it is stopped.

TIME/DATE SETTING

- * Before setting the time, check that the stopwatch hands are at the "0" (12 o'clock) position. If either of the stopwatch hands are not at the "0" position, see "●ADJUSTING THE STOPWATCH HAND POSITION."
- * Before setting the time, check that the chronograph measurement is stopped.



- Pull out the crown to the first click.
 - * If the crown is of a screw lock type, unscrew it by turning it counterclockwise, and then pull it out to the first click.
 - * The crown can be pulled out to the second click. Check that it is pulled out to the first click when you change the date.
- Turn the crown clockwise until the previous day's date appears.
 - * Do not set the date between 9:00 P.M. and 1:00 A.M. Otherwise, the date may not change properly. If it is necessary to set the date during this time period, first change the time to any time outside it, set the date and then reset the correct time.
- Pull out the crown all the way to the second click, and advance the hour and minute hands by turning the crown until the desired date appears. And then, set the hands to the desired time by turning the crown. (Check that AM/PM is set correctly.)
 - * Pull out the crown to the second click when the second hand is at the 12 o'clock position. It will stop on the spot.
 - * When the crown is at the second click position, do not press any button. Otherwise, the stopwatch hands will move. (For details, refer to "●ADJUSTING THE STOPWATCH HAND POSITION.")
 - * The mechanism of a quartz watch is different from that of a mechanical one. To set the time accurately, first advance the minute hand 4 to 5 minute ahead of the desired, and turn it back to the exact minute.
- Push the crown back into the normal position in accordance with a time signal.
 - * If the crown is of a screw lock type, screw it in completely by turning it clockwise while pressing it.
 - * The telephone time signal service (TEL 117) is helpful for setting the exact time.

DATE ADJUSTMENT AT THE END OF THE MONTH

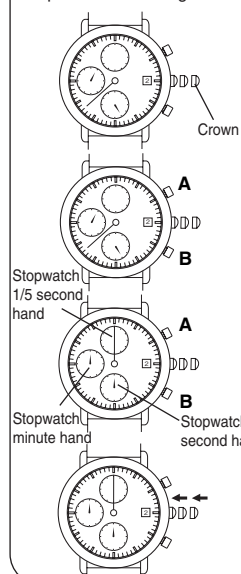
It is necessary to adjust the date at the end of February and 30-day months.

[To adjust the date in the A.M. period on the first day of the month following a 30-day month]

- The watch displays "31" instead of "1." Pull out the crown to the first click.
- Turn the crown clockwise to set the date to "1," and then push the crown back into the normal position.

ADJUSTING THE STOPWATCH HAND POSITION

When the battery is replaced with a new one, the time information saved in the built-in IC and the time indicated by the stopwatch 1/5 second, second and minute hands do not correspond with each other. Reset the stopwatch hands to the "0" position according to the following procedures. If the stopwatch hands move improperly, follow the same procedures.



- Pull the crown out to the second click.
- Keep buttons **A** or **B** pressed at the same time for 2 seconds, and then, release the buttons.
 - The stopwatch second hand moves and returns to where it was.
- Press button **A** or **B** to reset the stopwatch hands to the "0" position.
 - By pressing button **A**, set the stopwatch 1/5 second hand.
 - By pressing button **B**, set the stopwatch second and minute hands.
 - * The stopwatch minute hand moves correspondingly with the stopwatch second hand.
 - * The hands move quickly if the respective buttons are kept pressed.
- Turn the crown to set the hour and minute hands to the desired time, and push the crown back into the normal position. (For details, refer to "●TIME SETTING.")

■ TO PRESERVE THE QUALITY OF YOUR WATCH

● PRECAUTIONS ON WEARING YOUR WATCH

⚠ WARNING

- In case you tumble, fall or bump into others with the watch worn on your wrist, you may be injured by the reason of the fact that you wear the watch.
- When you make contact with children, especially with infants, they may get injured or develop a rash caused by allergy.
- Your watch may damage property or malfunction depending on your actions when wearing it. Special care should be taken.

⚠ CAUTION

- When clasping and unclasping the band, you may damage your nail, depending on the type of clasp used with the band.

● CARE OF YOUR WATCH

⚠ CAUTION

- The case and bracelet touch the skin directly just as underwear. If they are left dirty, the edge of a sleeve may be stained with rust or those who have a delicate skin may have a rash.
- After removing the watch from your wrist, wipe perspiration or moisture with a soft cloth. This will prevent the watch from being soiled, this allowing for prolongation of the life of the gasket.
- Your watch is extremely sensitive to chemicals, including benzine, thinner, alcohol, detergent and other organic solvents. Keep your watch away from chemicals and avoid their chemical reaction to your watch. If not, it may be deteriorated.
(Leather band)
When removing moisture from a leather band, do not rub the band with the cloth as this may discolor it or reduce its gloss. Be sure to blot up the moisture using a soft dry cloth.
(Metal band)
Clean the watch band with a soft toothbrush dipped in water or soapy water, and be sure to blot up the moisture using a soft dry cloth. If your watch is not water-resistant, be careful not to get the case wet when cleaning.
(Soft plastic band)
If your watch has a soft plastic band such as urethane band, do not leave the watch under a fluorescent lamp or direct sunlight for a long time, or do not leave the band soiled. Otherwise, the band may be discolored, hardened or broken. Also, do not keep the watch in a place where it is exposed to high humidity, or do not leave the band wet with perspiration or water. Otherwise, the band may be discolored in a very short time.
When the band is soiled, rinse it in soapy water. Do not use solvents for cleaning as some solvents may deteriorate the band. If your watch has a semitransparent urethane band, which is easily discolored, special care should be taken to keep it clean. Depending on the condition of use, the semitransparent band may be discolored after several months of use.

● RASH AND ALLERGY

⚠ CAUTION

- Adjust the bracelet or band so that there will be a little clearance between the bracelet or band and your wrist to avoid accumulation of perspiration.
- If you are constitutionally predisposed to rash, the band may cause you to develop a rash or disorder depending on your physical condition.
- The possible causes of the rash are as follows:
 1. Allergy to metals or leathers
 2. Rust, dust or perspiration on the watch or band
- If you develop any skin reactions, take off the watch and consult a doctor immediately.

● WATER RESISTANCE

Check the dial or case back of your watch for the water resistant quality, and then see the table below.

	Designed to withstand water usually experienced in daily living such as splashes and rain.	Designed to withstand swimming and kitchen work.	Skindiving without scuba.	Genuine diving using scuba or heliumgas.	Button operation when the watch is wet.	Crown operation when the watch is wet.	
"WATER RESISTANT" is not inscribed on the back of your watch case.	×	×	×	×	×	×	
"WATER RESISTANT" is inscribed on the back of your watch case.	○	×	×	×	×	×	
"WATER RESISTANT 5-10-15-20 ATM." on the back of your watch case.	5 BAR	○	○	×	×	○	×
	10-15-20 BAR	○	○	○	×	○	×

⚠ WARNING

- NEVER WEAR a 10-, 15-, or 20-bar water-resistant watch during saturated diving and air diving.
- NEVER WEAR a 5-bar water-resistant watch during any type of diving including skin diving.
- NEVER PUT a 3-bar water-resistant watch into water.

⚠ CAUTION

- After you use a 5-, 10-, 15-, or 20-bar water-resistant watch in a bathing place, remove salt, etc. as soon as possible. If not, the watch may be rusted. If you rinse the watch under running water, excessive water pressure applies to the watch, this causing a failure in its water resistance. Always rinse the watch in a pot or bowl and be careful not to apply excessive water pressure to the watch.
- If a leather band gets wet, its durability may be affected.

● PLACES TO KEEP YOUR WATCH

When not in use, the watch may be damaged, deteriorated or broken in any of the following cases:

- ① if the watch is exposed to a temperature below -5°C or above +50°C for a long time, its performance may be impaired or it may stop operating.
- ② if the watch is exposed to direct sunlight, high temperature or low temperature for a long time, it may gain or lose in timekeeping.
- ③ if the watch is exposed to magnetic leakage from TV sets, speakers, mobile phones, magnetic necklaces, etc., it may gain or lose in timekeeping.
- ④ if the watch is exposed to strong vibration, it may be broken or gain or lose in timekeeping.
- ⑤ if the watch is exposed to chemicals or chemical steam, it may deteriorate or broken.
Examples of chemicals: Benzine, thinner, manicure, cosmetics spray solvents, cleaners, toilet solvents, adhesive agents, mercury, iodized disinfectants, insect repellents, etc.
- ⑥ if the watch is exposed to hot spring water or other special environment or put in a box containing insect-killer, it may be deteriorated.
- ⑦ It is recommended that the watch be put in a clean box or case and stored in a well-ventilated place.

● PERIODIC CHECK

- We suggest that you have your watch checked every 2 or 3 years by the retailer from whom you purchased the watch. Depending on how the watch is used, the lubrication of the watch mechanism may become insufficient, parts may become worn due to impurities in the lubricating oil, or the watch may be running noticeably fast or late. Seals, etc., may also become worn and the watch may stop being waterproof. Take your watch to the retailer from whom you purchased it for inspection and adjustment through disassembly/cleaning.
- When replacing the parts such as battery, please specify "GENUINE PARTS".
- It is recommended that the gasket and the push-pin be also replaced with new ones.