



You are now the proud owner of a CREDOR watch. Before using your watch, please read the instructions in this booklet carefully for its proper use and care, and keep this manual for ready reference.

**⚠ 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.

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## ●HOW TO USE

### ○FEATURES

Unlike the conventional quartz watch powered by the button-type battery, the KINETIC is equipped with an automatic power generating system developed by SEIKO.

It generates the electrical energy to power the watch, utilizing the movement of the arm or wrist, and stores it in a rechargeable power supply. So, the battery replacement procedures are completely eliminated.

### ⚠ CAUTION

- The movement of the arm while the watch is worn causes the automatic power generating system to work, and the watch is powered by the electrical energy thus generated. Therefore, the watch will not be charged while left unused.
- As a guideline of recharging, it is recommended that the watch be worn on your wrist daily for more than 10 hours.
- When the energy stored in the rechargeable battery is reduced to an extremely low level, the second hand starts moving at two-second interval instead of the normal one-second interval, indicating that the watch needs recharging. Please see "○HOW TO CHARGE THE WATCH." in "●HOW TO USE."

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### ○HOW TO CHARGE THE WATCH

- When you start your AGS or when the energy stored in the rechargeable battery has been reduced to an extremely low level, follow the procedure below to charge the watch.
- Swing the watch from side to side rhythmically at a rate of twice a second as shown in the illustration below. Approximately 120~150 swings will reserve up to 12 hours of power. The second hand starts moving at the normal one-second interval instead of two-second interval.



At that stage,  
there will be about 12  
hours of power  
reserve available.

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- \* To charge the rechargeable battery efficiently, swing the watch from side to side, drawing an arc of about 20 cm.
- \* Even if the watch is swung extremely quickly with vigor, it will not be charged efficiently.
- \* When the watch is swung, the oscillating weight in the generating system rotates to drive the mechanism. As it rotates, it gives out sound, which is not a malfunction.
- \* When the watch is fully charged, it will keep operating for more than one month. It is not necessary, however, to fully charge the watch before use.
- \* The watch is equipped with a system to prevent overcharge. Even if it is further swung after being fully charged, no malfunction will result.

### ○TWO-SECOND INTERVAL MOVEMENT OF THE SECOND HAND

· If you find the second hand moving at two-second interval while the watch is in use or while it is left unused, the watch may run down in 12 hours. Therefore, be sure to swing the watch and recharge the watch. (Refer to the page 35 "○HOW TO CHARGE THE WATCH.")

- \* The watch remains accurate even while the second hand is moving at two-second interval. Battery replacement procedures are completely eliminated.

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### ○TIME SETTING

1. After checking that the watch operates normally, pull out the crown when the second hand is at the 12 o'clock position.
2. Turn the crown to set the time.
3. The watch starts operating as the crown is pushed back in to the normal position.

\* The mechanism of the quartz watch is different from that of the mechanical one. To set the time accurately, first turn the minute hand 4 to 5 minutes ahead of the desired time and then return it to the correct time.

\* The telephone time signal service (TEL 117) is helpful in setting the second hand.



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### ○INTERCALARY SECOND (Leap Second)

Usually one day consists of 86,400 seconds but strictly is shorter than these seconds because of irregular changes of the rotation cycle of the earth. When these daily gaps accumulate to exceed  $\pm 0.9$  second, it has to be corrected by adding or reducing one second. It is called an "intercalary second". Upon the execution of correction of such intercalary second, your watch becomes to show bad time, namely, one second faster or later than the corrected one. Then please reset your watch right by the corrected time.

Correction of each intercalary second is executed simultaneously throughout the world on the same day decided by the International Bureau of Weights and Measures in Paris on the basis of observatory information collected by astronomical observatories all over the world.

By Greenwich Mean Time, correction of every intercalary second is effected between 11:59:59 PM and 0:00:00 AM on the last day of relevant month, during which one second is added or reduced, while by Japanese Standard Time, it is during 8:59:59 AM and 9:00:00 AM on the succeeding first day of the

month. (Up to now in Japan, correction of each intercalary second has been effected almost one time per 1 or 2 years, on "January 1st" or "July 1st" by Japanese Standard Time. Please confirm the day of such effectuation by newspaper, etc.)

## ●TO PRESERVE THE QUALITY OF YOUR WATCH

### ○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 of 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, adding to the life of the gasket.
- Do not use chemicals, especially organic solvents such as benzene, thinner, alcohol or detergent to clean the watch.

#### ⟨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.  
(If a leather band gets wet, its durability may be adversely affected.)

#### ⟨METAL BRACELET⟩

- Clean the watch bracelet with a soft toothbrush dipped in water or soapy water. If your watch is not water-resistant, be careful not to get the case wet when cleaning.

#### ⟨Pearl bracelet⟩

- After using the watch, be sure to gently wipe perspiration or moisture with a soft, highly absorbent cloth.
- Do not use fresh water or soapy water to clean the bracelet as this will deteriorate the lustrous quality of the bracelet. Also, take care not to expose the bracelet to highly volatile cosmetics or chemicals such as perfume, cologne, nail polish, as they may discolor the bracelet.
- Wipe the watch thoroughly dry and keep it in a dry place. Do not keep it in a place where the watch is exposed to direct sunlight.
  - \* Do not keep the watch in a drawer having insecticides such as camphor balls or formalin inside, as they may discolor the bracelet.
- The pearls of the bracelet are threaded with a Tetron string. The Tetron string

is durable and rarely breaks, but after many years of use, perspiration, friction with pearls, deterioration, etc. may weaken the strength of the string.

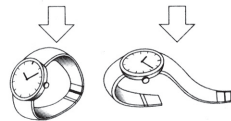
To prevent the string from breaking while the watch is in use, we recommend that the string be replaced with a new one every two years at the same time as the battery is replaced. Please note that the replacement of the string will be made at cost.

### ○INTEGRAL MODEL (watches having a one-piece case and bracelet construct)

- In case the watch whose case and metal band are designed integrally is put down as shown in the right figure and is pressed down strongly, a portion of the band may be bent or broken. So, please take care to handle such a watch carefully.

\* The same thing may happen if such a watch is put in a bag or handbag.

- **If your watch is not water-resistant**, be careful not to get wet with water or sweat. When it gets



wet with water or sweat, wipe it thoroughly dry with a hygroscopic cloth. If water or perspiration gets inside the watch, the dial may be stained or the watch may lose time or stop operating.

- **If your watch is 10 or 20 bar water resistant**, rinse it in a bowl of fresh water after used in seawater. Do not use chemicals to wash it.
- **If your watch has a rotating bezel**, clean the bezel regularly. Otherwise, dust will gather under it, making the rotation harder.

### ○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 an itch 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

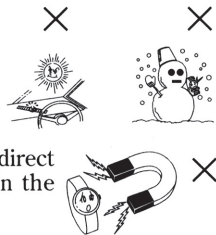
- If you develop any skin reactions, take off the watch and consult a doctor immediately.

### ○PLACES TO KEEP YOUR WATCH

- When taking off the watch, it is recommended that the watch should be kept in the individual box or something similar.

- Do not leave the watch under direct sunlight or extremely high or low temperatures for a long time.

- If a quartz watch is left in a temperature below -10°C or above +60°C for a long time, for example, under direct sunlight, in a closed car, near a heating unit or in the snow, the watch may function improperly.



- Do not leave the watch in a place where it is subjected to strong magnetism or static electricity. (Keep the watch away from magnets, health appliances, magnetic doors, microwave ovens, electric blankets, etc.)

- If your watch is affected by magnetism, it may temporarily stop operating, or gain or lose time.

- Do not leave the watch in a dusty place.

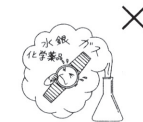
- Do not use the watch or keep it in a place where it is subjected to strong vibrations.

- Do not leave the watch in a hot spring, or do not keep it in a drawer having insecticides inside.

- Do not expose the watch to gases or chemicals.

Be careful not to expose the watch to them as this may cause the case, bracelet, dial, etc. to discolor and the wires of the mesh band made of precious metal to corrode and wear out.

(Ex.: Organic solvents such as benzene and thinner, gasoline, nail polish, cosmetic spray, detergent, adhesives, mercury, and iodine antiseptic solution.)








## ○ WATER RESISTANCE

### ⚠ CAUTION

- Check case back of your watch for the water resistant quality, and then see the table below.
- Do not turn or pull out the crown when the watch is wet, as water may get inside the watch.

Indication on the case back	Condition of use			
	Degree of water resistance	 Your watch is designed to withstand accidental contact with water, such as splashes and rain.	 Your watch is designed to withstand kitchen work or swimming.	 Suitable for scuba diving and saturation diving.
No indication	Non-water resistance	×	×	×
"WATER RESISTANT"	Water resistance (3 bar)	○	×	×
"WATER RESISTANT" 10 BAR 20 BAR	Water resistance (10 bar) (20 bar)	○	○	×

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### ⚠ WARNING

- If your watch is 3 bar water resistant, do not use it in water.
- If your watch is 10 or 20 bar water resistant, do not use it in saturation diving or scuba diving.

## ○ Take utmost care in the following cases

### ⚠ CAUTION

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

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- Be careful not to drop or hit the watch against hard objects. Do not wear the watch when you play active sports. Exercise special care so that the precious metal-made case, band and winding stem are not scratched.
- 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.



## ○ Remarks on 18-karat gold

### 〈Pure gold and 18-karat gold〉

As a material of accessories, pure gold (24-karat gold) is too soft, and it is alloyed with silver, copper, nickel or other metals to increase the strength. The purity of gold is represented by the unit called "Karat (KT)". It shows the proportion that gold accounts for in the total weight of the alloy. 18-karat gold, for example, is comprised of 75% (18/24) of gold and 25% of the other metals.

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Pure gold has yellowish gold color, but the color of the gold alloy differs depending on the proportion of the metals mixed with gold. It looks reddish if relatively large proportion of copper is contained in it, while it looks bluish if relatively large proportion of silver is contained.

### 〈Discoloration of 18-karat gold〉

As an alloy for accessories, 18-karat gold has a superb characteristics. You may think, therefore, that its glittering quality will last permanently. If it is left soiled and unused for a long time, however, it will become reddish or blackish. This is because the surface of the metals other than gold contained in the alloy are oxidized or sulfurized, causing the alloy to discolor. To maintain the glittering quality of the gold, it is important to clean the alloy regularly.

If the discoloration or stain of the alloy persists after wiping it off, take your watch to the retailer from whom the watch was purchased or an AUTHORIZED CREDOR DEALER to refinish the gold portion of the watch. (Refinishing will be made at cost.)

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### 〈18-karat white gold〉

18-karat white gold is an alloy made by mixing pure gold with silver, nickel, zinc, palladium, etc. It looks yellowish, but the extent of yellowishness differs depending on what metals are mixed with pure gold.

Your CREDOR watch uses 18-karat white gold plated with rhodium, achieving a beautiful silver color finish. After many years of use, however, the plating may get scratched or wear off, showing the yellowish color of white gold.

### ○Remarks on spontaneous luminous paint

#### ⚠ CAUTION

· The spontaneous luminous paint used on CREDOR watches is composed of radioactive and luminous substances. It spontaneously emits light in the dark, and there is no need to expose it to light. The luminance level, however, decreases gradually over time. In Japan, the treatment of radioactive materials is regulated by the "Law concerning Prevention from Radiation Hazards due to

Radioisotopes, etc.". CREDOR luminous watches are manufactured in accordance with the law, using a proper amount of luminous paint, which is harmless to human beings. If the watch glass is broken, however, take care not to touch the paint directly.

If the watch glass is broken and luminous paint on the dial and hands is exposed, immediately take the watch to the retailer from whom your watch was purchased or an AUTHORIZED CREDOR DEALER.

It is specified in the law that the repairing work of watches using the spontaneous luminous paint should be made by the manufacturer, not by the retailer. Please note, therefore, that the repairing work of luminous watches require more time compared with such work for conventional watches.

If the luminous paint is used for a watch, the price tag attached to it has a description to that effect.

· The visibility of luminous watches depends on such conditions as brightness of rooms or environment, the eyesight of the user, etc. Likewise, when we enter a dark room, it is initially difficult to see things, but they gradually

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become visible as our eyes become used to the dark. This is called "dark adaptation". To check the time on a luminous watch in the dark, therefore, wait until your eyes have fully adapted to the dark.

### ○LUMIBRITE

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

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

For example, if exposed to a light of more than 500 lux for approximately 10 minutes, LumiBrite can emit light for 3 to 5 hours.

Please note, however, that, as LumiBrite emits the light it stores, the luminance level of the light decreases gradually over time. The duration of the emitted light may also differ slightly depending on such factors as the

brightness of the place where the watch is exposed to light and the distance from the light source to the watch.

### ○PERIODIC CHECK

· We suggest that you have your watch checked by CREDOR DEALER every 2 or 3 years or when the battery is replaced for oil condition, damage due to water or sweat. After checking the watch, adjustment and repair may be required.

· When the replacing the parts or battery, please specify "CREDOR GENUINE PARTS".

· Be sure to have the gasket and push-pin replaced with new ones by the CREDOR DEALER when checking the watch.



○ **Note on the power supply**

- This watch is provided with a rechargeable battery for exclusive use with the watch. Unlike conventional battery-powered watches, therefore, battery replacement is not necessary.
- The rechargeable battery does not contain any harmful materials such as mercury, and therefore, it is a clean energy source, having no adverse effect on the natural environment.

⚠ **WARNING**

Never insert a miniature silver oxide battery instead of the rechargeable battery.

○ **Tips on using the watch (Guideline of the power reserve).**

Your watch is equipped with an energy depletion forewarning function. (Two-second interval movement of the second hand: See page 36.) If you find the second hand moving at two-second intervals, this indicates that the watch will stop operating within 12 hours. But, the actual power reserve should be estimated from the manner in which the watch is worn.

<The relationship between the period (the number of days) during which the watch is worn and power reserve>

If the watch is worn for more than 10 hours a day, about 24 hours (1 day) of power reserve will be newly accumulated every day. Please note, however, that, if you live a rather sedentary life, which does not involve much arm movement, 24 hours of power may not be reserved.

Ex.1) In case the watch is worn for 5 days a week from Monday to Friday:

There will be 5 days of power reserve accumulated by the end of Friday. On the other hand, the watch is not worn during the weekend of 2 days, making 2 days of power reserve consumed without charging. Therefore, a total of 3 days of power will be newly reserved in a week in this case. In this way, about 15 days (half a month) of power will be reserved in 5 weeks, and about 1 month of power, full capacity of charging, will be reserved in 10 weeks.

Ex.2) In case the watch is worn almost every day

If the watch is worn for more than 10 hours a day about 1 month, about 1 month of power reserve is accumulated, and the watch is charged fully.

<In case the watch is worn only occasionally>

- The watch is not worn in the manner described in the examples "1" and "2" above. That is, the watch is left unused for more number of days than it is worn.
- the watch is usually left unused and is used only when necessary. In those cases, you will find the watch running down when you try to wear it. Before wearing the watch, swing the watch from side to side to charge it, following the procedure in "○How to charge the watch".

Precautions:

- Before wearing the watch, be sure to swing it from side to side until the second hand moves at one-second intervals instead of two-second intervals.
- It is recommended that the watch be swung further. If it is necessary, however, to wear it immediately, check periodically if the second hand is moving at two-second intervals.
- If the watch is worn again the next day, check if the second hand is moving at two-second intervals after removing the watch from your wrist.

⚠ **CAUTION**

Do not keep the watch with the crown pulled out to save the stored electrical energy. Even if the crown is pulled out, the stored energy is being consumed inside the watch to cause energy depletion.

## ●TROUBLE SHOOTING

### ●Your watch stops operating.

#### - All the electrical energy stored in the capacitor has been used up.

- Charge the watch referring to "○HOW TO CHARGE (see page35)".

### ●The watch gains/loses time.

#### - The watch may have been affected by strong magnetism.

- If the watch is affected by strong magnetism, a temporary time loss or gain may result. This condition, however, will be corrected when the watch is removed from close contact with the magnetic source.

#### - The watch may have been affected by strong vibrations.

- If the watch is exposed to strong vibrations generated by a motorcycle, chain saw, jackhammer, etc., a temporary time loss may result. Reset the correct time. (See page 37.)
- Light activities such as golf and horse riding will not affect the watch, but be careful not to drop the watch or hit it against hard surfaces.

#### - The watch may have been affected by extreme temperatures.

- If the watch is left in extreme temperatures, a slight time loss or gain may

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result. This condition, however, will be corrected when the watch temperature returns to normal. Reset the correct time.

- The watch is so designed that it works with stable accuracy when worn on your wrist at a normal temperature range of between 5°C and 35°C.

### ●The glass is blurred.

#### - In the case of a temporary blur

- As a small amount of moisture is contained inside the watch, the inner surface of the glass may be temporarily blurred if the atmospheric temperature is lower than that inside the watch. This is not a malfunction. The blurred glass will be cleared when the temperature difference is reduced.

#### - If the blur persists for a long time:

- Water may have got inside the watch. In that case, take the watch immediately to the retailer from whom the watch was purchased or an AUTHORIZED CREDOR DEALER for repair.

Otherwise, the dial or the parts inside the watch will rust or discolor.

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### ●The gold portion of the watch has suddenly discolored to gray.

#### - This is because the watch was exposed to mercury.

- If the watch is exposed to mercury from a broken thermometer, etc., a chemical reaction may be caused, discoloring its gold portion. This condition will not be corrected. Have the discolored case or bracelet replaced with a new one. (See page 45.)

### ●The second hand moves at two-second interval.

#### - The electrical energy stored in the rechargeable battery has been reduced to an extremely low level.

- The watch may stop operating in 12 hours. Charge the watch referring to "○HOW TO CHARGE THE WATCH".

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### ●Even if the watch is worn daily, the second hand continues moving at two-second intervals instead of the normal one-second intervals.

#### - You wear the watch daily but only a short time, or you lead a relatively sedentary life, which does not involve much arm movement.

It is recommended that the watch be worn daily for more than 10 hours.

For details, refer to "○How to wear your watch properly" on page 54.

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## ●REMARKS ON AFTER-SALES SERVICING AND GUARANTEE

If your CREDOR watch gets out of order with the correct way of use as described in this instruction booklet within the guarantee period, take your watch to the retailer from whom your watch was purchased or a CREDOR SHOP, together with the certificate of guarantee.

\* Guarantee coverage is spelled out in the certificate of guarantee. Please read it carefully and keep the certificate for ready reference.

CREDOR makes it a policy to keep stocks of replacement parts for its watches usually for 10 years. Your watch can be reconditioned in principle within this period if used in the normal way.

(This rule holds good in Japan.)

\* The replacement parts here refer to those essential to keeping functional integrity of the watch.

For further details, contact SEIKO SERVICE CENTER or the "CREDOR CUSTOMER SERVICE DEPARTMENT" (See the list on the following page.)

## ●SPECIFICATIONS

1. Frequency of crystal oscillator ······32,768 Hz
2. Loss/gain (monthly rate) ······Less than 15 seconds when the watch is worn on your wrist at a temperature between 5°C and 35°C
3. Operational temperature range ······-10°C ~ +60°C
4. Driving system ······Step motor
5. Power supply ······Titanium-lithium ion rechargeable battery
6. Expected life per charge ······From full charge to stoppage: More than 1 month  
From two-second interval operation to stoppage: Approx. half a day (12 hours)
7. Additional functions ······Energy depletion forewarning function and overcharge prevention function
8. IC (Integrated Circuit) ······Oscillator, frequency divider, driving and charge control circuit (C-MOS-IC), 1 piece

\*The specifications are subject to change without prior notice, for product improvement.