Setting Instructions for Movement Caliber C050

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OUTLINE

- **CAL C050**
  This is a combination watch having full functions for yacht sports.
  - Time/Calendar function
  - Alarm I/II function (Snooze time can be set in Alarm II mode.)
  - Stopwatch function
  - Racing timer function
  - Timer function

OPERATING METHOD  CAL C050 (Yacht)

§1 Name of Each Part

- Digital indication
- Left-hand circle (Graphic indication)
- Register ring
- Mode indication
- Right-hand circle (Graphic indication)
- Crown
- Functions of each button
  - S button: Selection of column to be corrected, start/stop
  - M button: Mode changeover
  - R button: Correction, split/reset
- Pull the crown to the click to set analog time
Handling of Digital Section.

INDICATION CHANGEOVER

The mode is changed in the following order every time the button is pressed.

* For details, see the section of each function.

The time and calendar are changed to each other by pressing the button.
(Returning to time/calendar mode)
If the button is pressed and held for about two seconds, the watch is forcibly returned to time/calendar mode. However, the watch is kept under the normal condition of each mode during correction.

(Lighting up of mode mark)
Under the normal condition of the time/calendar mode, each mode mark lights up when the alarms I and II are turned on and the stopwatch, racing timer and timer are running.

Example

Time/Calendar mode
(With alarm I turned on)
a. HANDLING METHOD IN TIME/CALENDER MODE

Press the S button to call the part to be corrected, and correct it with the R button. The part to be corrected can be corrected quickly by pressing and holding the R button while the part is flashing (except the second indication and change of 12/24 hour system.)

(Auto return)
If the watch is left untouched for about two minutes in the correction mode, the watch is automatically brought to the normal mode.

(Instant manual return)
If the M button is pressed in any correction mode, the watch is forcibly returned to the time/calendar mode.
(Other precautions)
- If the second is corrected when the second indicator is between 30 and 59 seconds, the minute is raised by one minute.
- If a date which does not exist is set, the watch automatically indicated the 1st of the next month when returned to the normal mode.
  Example: Feb. 31th → Mar. 1st
- Year can be set to 1989 — 2004, and it is not necessary to adjust the date at the end of any month during these years.
- Day is automatically set when year, month and date are set.

(Graphic indication of second)
- The right-hand and left-hand circles graphically indicate seconds according to the normal time.

b. SETTING METHOD OF ALARM I

Setting of alarm time
- The alarm is turned on and off and the confirmation sound comes out every time the \( R \) button is pressed in alarm mode \( I \).
  Call the part to be corrected by pressing the \( S \) button, and set the alarm with the \( R \) button.
  The alarm can be set quickly by pressing and holding the \( R \) button in the correction mode (while correction part is flashing).

- The 12/24 hour systems are in accordance with the time/calendar mode.
- If the watch is left untouched for about two minutes in the correction mode, the watch automatically returns to the normal condition (Auto return).
- If the \( M \) button is pressed in the correction mode, the watch can be forcibly returned to the normal condition (Instant manual return).
- The alarm sounds for about 20 seconds. It can be stopped by pressing any button.

(Graphic indication of rest of alarm time)
The difference between the normal time and set time of alarm I (the rest of set time) is indicated graphically.

Left-hand circle:
While rest of alarm time is longer than 60 minutes, all are lighted up. When it becomes shorter than 60 minutes, it is indicated graphically.

Right-hand circle:
While rest of alarm time is longer than 10 minutes, all are lighted up. When it becomes shorter than 10 minutes, it is indicated graphically.
c. SETTING METHOD OF ALARM II

Setting of alarm time and snooze time

- Alarm II is set similarly to alarm I. However, snooze time can be additionally set in case of alarm II. (Note: Snoozing is repeated only one time.)
- Snooze time can be set from 0 to 10 minutes by the unit of 1 minute.

(Snooze)

- The mechanism sounds alarm again at the setting time after the alarm II. This is effective to prevent the user from sleeping after the alarm is stopped.
- Note: If the snooze time is set to 0 minute, the snooze sound does not come out.

Example:
- If the snooze time is set to three minutes, the snooze sound comes out three minutes after alarm II sounds.

(Graphic indication of snooze time)

The snooze time set by alarm II is indicated graphically by the righthand circle only.

d. HANDLING METHOD OF RACING TIMER

- This watch contains two types of racing timers; racing timer I and racing timer II. These timers can be changed from one to another by pressing the (R) button and (S) button at the same time in the initial setting mode. At this time, the confirmation sound comes out.
(Items common to racing timers I and II)

- Set the timer by pressing the \(^\text{R}\) button in the initial setting mode. If the \(^\text{R}\) button is kept pressed, the timer can be set quickly.
- The timer can be set to 3 minutes through 60 minutes by steps of 5 minutes (60, 55, —— 10, 5, 3 minutes).
- Stopping the sound
  The alarm sounds for about five seconds each time the timer is up. This sound can be stopped by pressing any button.
- Forecast sound
  The forecast sound comes out when the rest of the set times 10, 5 and 3 minutes and 50, 40, 30, 20, 10, 5, 4, 3, 2, 1 seconds. (This function is used for preparation of start.)
- Fly-back (manual return and start)
  If the \(^\text{R}\) button is pressed while the timer is running, the timer is returned to the initial setting mode, then it starts again. (This function is used to adjust the timing of start.)

(Other remarks)

- Racing timer I is equipped with the automatic repeating function and II is equipped with the automatic chronograph function. It is required to set either one of timer I and II, and they cannot be set independently.

(Racing timer I)

**Use:** Convenient for repeated starts of yacht races

- Racing timer I is equipped with the automatic repeating function.

**Automatic repeating function**

(For timer operation)

The timer is automatically operated three times. After it is repeated three times, (00’00’’) is indicated, then it returns to the initial setting mode and stops.

However, the fly-back operation is performed or the timer is changed, the number of automatic repeating time is renewed.

(Fly-back operation: The function of returning to the initial setting mode and starting again automatically when the \(^\text{R}\) button is pressed while the timer is running.)
(Racing timer II)

Use: Convenient for measurement of time required for a yacht race

- Racing timer II is equipped with the automatic chronograph function.

Automatic chronograph function
(Combined timer and stopwatch)
If the racing timer is up, the time-up sound comes out and the automatic chronograph starts counting from 00 minute 00 second.
If the automatic chronograph reaches 60 minutes, it starts counting again from 00 minute 00 second. (It repeats this operation until it is stopped.)

(Graphic indication of racing timer)
The set time and the rest of the time of the racing timer and the timer are indicated graphically.

<table>
<thead>
<tr>
<th>Left-hand circle:</th>
<th>While rest of alarm time is longer than 60 minutes, all are lighted up. When it becomes shorter than 60 minutes, it is indicated graphically.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-hand circle:</td>
<td>While rest of alarm time is longer than 10 minutes, all are lighted up. When it becomes shorter than 10 minutes, it is indicated graphically.</td>
</tr>
</tbody>
</table>
e. HANDLING METHOD OF TIMER

The timer is operated similarly to the racing timer. The difference between the timer and racing timer is as follows.

- The timer is set to 1 to 60 minutes by the unit of 1 minute.
- The timer is not equipped with the forecast sound function, automatic repeat function and automatic chronograph function.

* For the graphic indication, see the section of the racing timer.
Handling of Analog Section

SETTING OF ANALOG SECTION

The digital section and analog section can be set independently, that is, this watch can indicate dual times.

(How to set analog sections)

Pull the crown to the first click position so that the second hand will stop at 0 point, then set the hour hand and minute hand. Push in the crown according to a time signal, and the analog section is set correctly.

Advance the minute hand by four or five minutes over the time to which you want to set, then return it to that time.

After the analog section is set, be sure to push in the crown.

How to Use Rotary Ring

PREPARATORY KNOWLEDGE

In case of a common yacht race, the marks shown in right figure are set, and the racers sail around those marks in order as fast as they can.

The directions are indicated by angles, e.g. North: 0°, South: 180°, West: 270°, etc.

To sail the yacht receiving wind from the right of its center is called starboard reach, and to sail it receiving wind from its left is called port reach.

USING METHOD 1

1. Before starting the race, read the position of the windward mark with a compass, then set it to the triangle mark at 12 o'clock point.

2. The course from the windward mark to the side mark (starboard reach) is in the direction indicated by the green triangle mark at left lower point. Accordingly, even if the side mark is not soon because of weather condition, you can reach the side mark by sailing in the indicated direction.

3. Similarly, the course from the side mark to the leeward mark (port reach) is indicated by the red triangle mark at the right lower point. Accordingly, you should sail in that direction.

4. Similarly, it is possible to know the course from the windward mark to leeward mark by reading the numeral indicated by the white triangle mark at the lower point.

* However, the above operation is effective only when is set to 45°. If it is set to 60°, for example, it is required to read the numerals above the green and red triangle marks to see the correct course. If it is set to 30°, it is required to read the numerals under the green and red triangle marks.
USING METHOD 2

Usually, a yacht can sail against wind at up to about 45° to it (even at 40° in case of a high performance yacht). If the yacht is sailed against the windward at the limit angle to it and that angle is set to the red (green) mark at the right upper (or left upper) point, the shifting of the wind can be seen. By this operation, you can sail your yacht in a more advantageous direction.

USING METHOD 3

The rotary ring can be used to see the inclination of the start line. Usually, the start line is set at a right angle to the wind direction. However, since the wind constantly changes, the start line is seldom set at a right angle to it.

First, set the wind direction to the white triangle mark at 12 o’clock position, and sail the yacht from one end to the other. At this time if the yacht sails on + side of the white line at 3 o’clock position (or 9 o’clock position), you should start from a point near the end at which you are aiming at now. If the yacht is on − side, you should start from a point near the opposite end.

* By using the above three functions, you can bring your yacht to a more advantageous position.
PRECAUTIONS ABOUT CARE AND HANDLING OF WATCHES

TEMPERATURE CARE
Avoid temperature extremes. Exposing your watch to high temperatures, such as placing it on the dashboard of a vehicle or use in a hot tub, may cause the watch to malfunction, shorten battery life or damage certain components. Leaving the watch in extreme cold temperatures may cause irregular timekeeping until the watch returns to normal operating temperature.

SHOCK-RESISTANT
The watch may be worn while playing golf or other activities, but avoid severe shocks such as dropping it on a hard surface.

MAGNETIC-RESISTANT
No problem should occur from using the watch around ordinary household electric appliances such as TV sets or stereos. Keep away from magnets.

CHEMICAL/GAS RESISTANT
Do not expose the watch to chemicals or gases for long periods.

WATCH CLEANING
Stains, waterspots and accumulated dirt on the case, crystal or band should be removed with a soft cloth to prevent damage and premature wear.

HANDLING OF WATER-RESISTANT WATCHES
Although water-resistant watches are warranted, steps should be taken to avoid damage that may result from accidents or mishandling:

■ Do not operate the crown or push-button in the water or while the watch is wet. Tighten screw lock crown completely.
■ Should the watch become immersed in water, dry it off right away. If the watch comes in contact with salt water, be sure to rinse it thoroughly in warm fresh water to remove any trace of salt.
■ If a watch is wet from cleaning or by accident, never store it in a closed container. It should be dried immediately or taken to a watchmaker or jeweler if moisture is inside the case to prevent damage from rust.
■ Vital components necessary to resist the entrance of moisture deteriorate with time and use. Gaskets, crowns and other materials should be replaced every year or two to ensure that water resistant quality remains at factory specifications.

CARE FOR METAL BRACELETS
To extend the life and maintain the good appearance of the metal watch bracelet, the following recommendations are given:

■ Be aware that since the watch and bracelet is worn next to the skin, it collects dust and perspiration and becomes soiled if not cleaned regularly. This is particularly true of the inner parts of the links or mesh of the bracelet.
■ Soil and rust, when present in a bracelet, are dissolved by perspiration and can cause staining of cuffs and irritation of the skin in some instances.
■ Heavy perspiration should be wiped off the watch and bracelet with a soft dry cloth. The bracelet should be cleaned occasionally by using an old toothbrush and warm soapy water after which the soap is thoroughly rinsed with clear water and the bracelet dried completely. The foregoing manner of cleaning should not be done if the watch is not water-resistant but should instead be done by your jeweler.

CARE FOR STRAPS
LEATHER
■ Heavy perspiration, if not removed from a leather strap, can wash out the natural oils and cause the leather to become dry and deteriorate. Any moisture should be blotted with a soft dry cloth or paper towel and the strap allowed to dry naturally.
■ Salt residue and soil can be removed from the leather by cleaning with a dampened soft cloth and mild soap or saddle soap.
■ Occasionally, the inside surface of the strap should be cleaned by using a soft cloth dampened with alcohol.
■ The strap should always be worn a little loosely (one finger space between wrist and strap) to allow air to circulate thus causing any moisture to evaporate.

RUBBER
■ Rubber straps should be washed frequently with mild soap and warm water using a soft brush.
■ Thorough cleaning, using the same method, should especially be done after use in salt water.
■ Solvents, oils, perspiration, tanning lotion and salt can cause rubber to deteriorate if not removed.

<table>
<thead>
<tr>
<th>Marking on the Dial</th>
<th>Marking on the Caseback</th>
<th>Face washing, splashes, sweat, raindrops, etc.</th>
<th>Swimming</th>
<th>Skin diving (diving without air tanks)</th>
<th>Scuba diving (diving with air tanks)</th>
<th>Water-resistant characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td>NONE</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>Non water-resistant watch and must be kept away from water.</td>
</tr>
<tr>
<td>NONE</td>
<td>WATER RESIST</td>
<td>OK</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>An ordinary water-resistant watch and can withstand splashes, sweat, rain-drops and etc. for daily life use.</td>
</tr>
<tr>
<td>WR100M WR10bar WR150M</td>
<td>WATER RESIST</td>
<td>OK</td>
<td>OK</td>
<td>NO</td>
<td>For frequent use with water. It is not specially designed for scuba diving.</td>
<td></td>
</tr>
<tr>
<td>WR200M</td>
<td>WATER RESIST</td>
<td>OK</td>
<td>OK</td>
<td>OK</td>
<td>For skin and scuba diving. Usable up to the respective indicated depths.</td>
<td></td>
</tr>
</tbody>
</table>
Water Resistance

The water-resistant quality of our timepieces is offered in varying degrees depending on the model. This ranges from non-water resistant models to those suitable for SCUBA diving. Water resistance of our timepieces is measured in BAR or Barometric Pressure. Each BAR of pressure is equal to 14.5 pounds per square inch of pressure.

Water resistance is measured when the watch is at a static, or motionless state. As the watch is moved in water, such as from the motion of swimming, pressure is added from velocity. While you may be swimming in a pool at surface level, the watch may be experiencing forces equal to that of 100 feet of water pressure (3 BAR). Diving into a pool can cause forces on the watch to exceed those pressures. As such, you should always allow a margin of safety when exposing your watch to moisture. Never "push the limit" of the degree of water resistance of your timepiece.

A primary factor to keep in mind about water resistance is that periodic maintenance is needed to maintain original factory specifications for water resistance. When a watch is new, it meets specifications for water resistance as indicated on the case back. However, as the watch ages, the gaskets that seal the watch become dry and brittle, diminishing its water resistant quality. Exposure to environments such as chlorinated pools, salt water or soaps from showering can accelerate drying of the gaskets. We recommend that the gaskets be changed at least every 18 to 24 months to maintain the water resistant quality of your timepiece. If the watch is frequently exposed to chlorinated pools, soaps salt water, etc., we recommend that the gaskets be changed on a yearly basis.

From time to time, you may notice condensation that appears then goes away after a short period of time. This is a normal occurrence and happens primarily from sudden temperature changes. When there are sudden temperature changes such as entering a cool building from the hot out of doors, or jumping into pool on a hot day the watch may fog. Conversely, if you go to the cold outdoors from a warm building, fogging may occur. As long as the fogging clears in a short period of time, there is no need for concern.

Be sure the crown is completely pushed in prior to any contact with moisture. If your model is equipped with a screw down crown, be sure it is properly seated against the case. Do not operate the crown or any push button when the watch is wet as this may allow the entrance of moisture. If at anytime, you notice moisture in your timepiece that does not clear in a short period of time, you should send your timepiece as soon as possible to the nearest Authorized Service Center for inspection.

You can determine the level of water resistance of our watches from the markings on your case-back. Additionally, models that are water resistant to 100 or 200 meters have an indication on the dial as well. The case-backs and dials are normally marked as follows:

**The case back has no indication of water resistance**
This indicates the watch is a non water-resistant model and is not designed for contact with moisture at all. Caution should be exercised to avoid any contact with moisture, such as when washing your hands or from a rainstorm.

**“Water Resist”**
This watch is designed to withstand water from accidental splashing, such as from washing your hands or rain. Any submersion into water may result in the entrance of moisture.

**“Water Resist 10BAR” or “W.R. 10BAR”, Dial marked “WR100”**
This watch is designed to withstand water pressure up to 333 feet. This includes water exposure from accidental splashing and rain, but also from showering, swimming in a pool and snorkeling. Be sure to rinse the watch with fresh water after exposure to a chlorinated pool, salt water, soaps, etc. After rinsing with fresh water, be sure to dry the exterior with a soft cloth.

**“Water Resist 20BAR” or “W.R. 20BAR”, Dial marked “WR200”**
This watch is designed to withstand water pressure up to 666 feet. This includes all exposure to water up to and including recreational SCUBA diving. Be sure to rinse the watch with fresh water after exposure to a chlorinated pool, salt water, soaps, etc. After rinsing with fresh water, be sure to dry the exterior with a soft cloth.

**Special Note about Jacuzzis and Hot Tubs**
The various components used in the manufacture and assembly of your watch expand at various rates. This results in a loss of the sealing capabilities of gaskets, which may allow moisture to enter. In addition, heat from these sources can cause deformation of certain materials leading to mechanical failures. For these reasons, you should remove your watch before entering a hot tub or Jacuzzi.