

# ***TECHNICAL INFORMATION***

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**CITIZEN QUARTZ**

**Cal. No. C50※**

## Contents

<b>§1. OUTLINE</b> .....	1
<b>§2. SPECIFICATIONS</b> .....	1
<b>§3. HANDLING INSTRUCTIONS</b> .....	3
3-1. Name of Parts .....	3
3-2. Switching Modes.....	4
3-3. Time/Calendar Mode .....	5
3-4. Alarm Mode .....	6
3-5. Chronograph Mode .....	7
3-6. Log Mode .....	8
3-7. Dive Alarm Mode.....	11
3-8. Diving Mode .....	13
3-9. Various Alert Functions .....	15
3-10. In Case of the Following .....	16
3-11. All Reset .....	17
<b>§4. HANDLING FOR APPEARANCE PARTS</b> .....	17
<b>§5. DISASSEMBLY AND ASSEMBLY FOR MOVEMENT</b> .....	18
<b>§6. TROUBLESHOOING AND AJUSTMENT</b> .....	21

## §1. OUTLINE

This watch is a diver's watch (200M water resistant) equipped with an electronic depth meter.

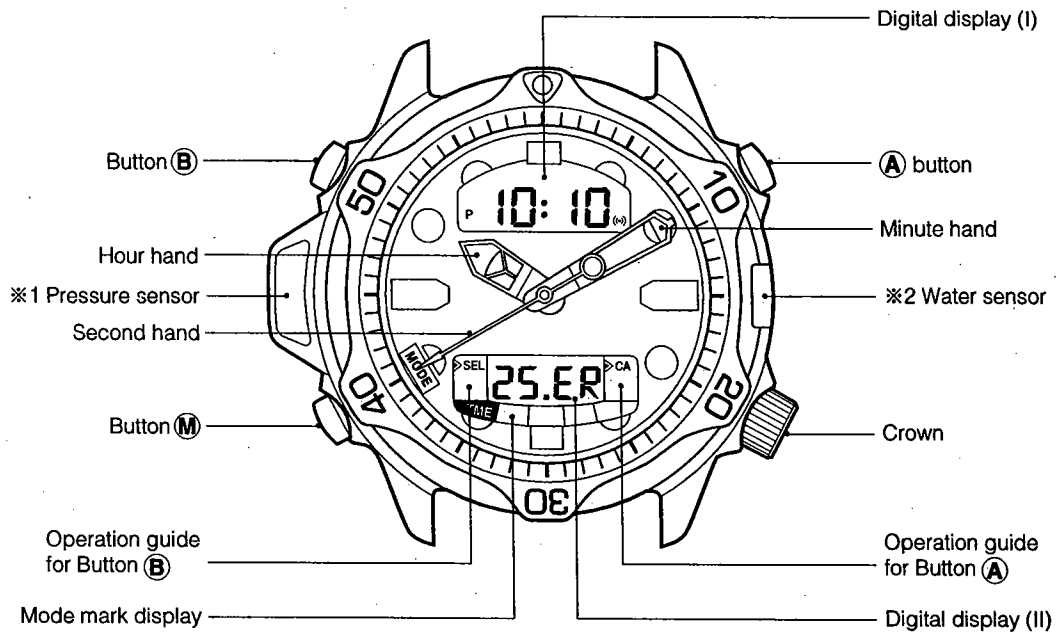
## §2. SPECIFICATIONS

Caliber No.		C500	C506
Type		Combination quartz watch	
Module size (mm)		ø30.8 x 5.2t	
Time accuracy		±20 Sec/month (at 5°C/41 °F ~ 35°C/95°F)	
Accuracy of depth reading		± (Indicated value x 3% +30cm)	± (Indicated value x 3% +1ft)
		Conditions: constant temperature and excluding margin of error by sight * Assured accuracy temperature range: +10°C/50°F ~ +40°C/104°F Accuracy of depth reading is affected by surrounding temperatures.	
Accuracy of temperature reading		-5°C/23°F ~ +14°C/57.2°F:within ±3°C/5.4°F +15°C/59°F ~ +40°C/104°F:within ±2°C/3.6°F	
Watch operational temperature range		-10°C/14°F ~ +60°C/140°F	
Time adjustment		Non	
Measurement time		10 Second	
Display functions	Analog display	Time	Hours, Minutes, Seconds
	Digital display	Time	Hours, Minutes, Seconds
		Calendar	Date, Day of the week
		Temperature	-5°C ~ +40°C/23°F ~ 104°F
		Alarm	Hours, Minutes, ON/OFF
		Chronograph	Hours, Minutes, Seconds, 1/100 seconds (24 hour system), Split measurement
		Log memo	Dive month and date Dive number .....1~9 Maximum depth.....1.0m ~ 80.0m (4ft ~ 260ft) Dive time.....0 min ~ 100 min Dive start time.....Hours, Minutes Dive completed time .....Hours, Minutes Average depth.....1.0m ~ 80.0m (4ft ~ 260ft) Lowest temperature.....-5°C ~ +40°C/23°F ~ 104°F * Stored log date memos for the last 4 dives can be recalled
		Dive alarm mode	Depth alarm .....1.0m ~ 80.0m/4ft ~ 260ft (to be set in units of 1m/5ft, with the provision to set the number of times of alarms) Dive time alram .....5min ~ 95min (5mintes unit)

Caliber No.			C500	C506
Display functions	Digital display	Dive	<p>Ready for diving .....DIV mark flashing</p> <p>Present depth .....1.0m ~ 80.0m (10 cm units)/4ft ~ 260ft (1ft units)</p> <p>* At depth less than 1.0m/4ft of depth indication is shown</p> <p>Over 80m/260ft, the display is --, --, --</p> <p>Dive time (in seconds, measure able up to 100 minutes) or temperature indication (in units of 0.1°C/1°F, between -5°C and +40°C/23°F and 104°F)</p> <p>Dive and 0m/0ft display .....0.0m/0ft</p> <p>Dive time (in seconds, measure able up to 100 minutes) or Maximum depth (in units of 10cm/1ft, readings up to 80m/260ft max.)</p>	
Alarm functions			<p>Daily alarm</p> <p>Dive alarm: Depth alarm</p> <p>Dive time alarm</p> <p>Ascending speed warning alarm</p>	
Additional features			<p>Low battery warning function</p> <p>Alarm monitor</p>	
Battery lifetime			<p>Approx 2 years (after a new battery is installed) under normal use conditions</p> <ul style="list-style-type: none"> <li>• Number of times of diving: 50/year</li> <li>• One dive duration: 1 hour</li> </ul> <p>The life of the battery depends on the use frequency of the alarms of other functions. Futhermore, if the watch is wet in a sitiation other than diving. While the sensor is activated, watch reduces the battery lifetime, so take care.</p>	

## §3. HANDLING INSTRUCTIONS

### 3-1. Name of Parts



\* Never manipulate the crown or press the buttons during a dive, except button (A).  
This illustration shows a watch using meters to indicate depth readings.

※1. Pressure sensor

Senses water pressure to measure the corresponding depth.

※2. Water sensor

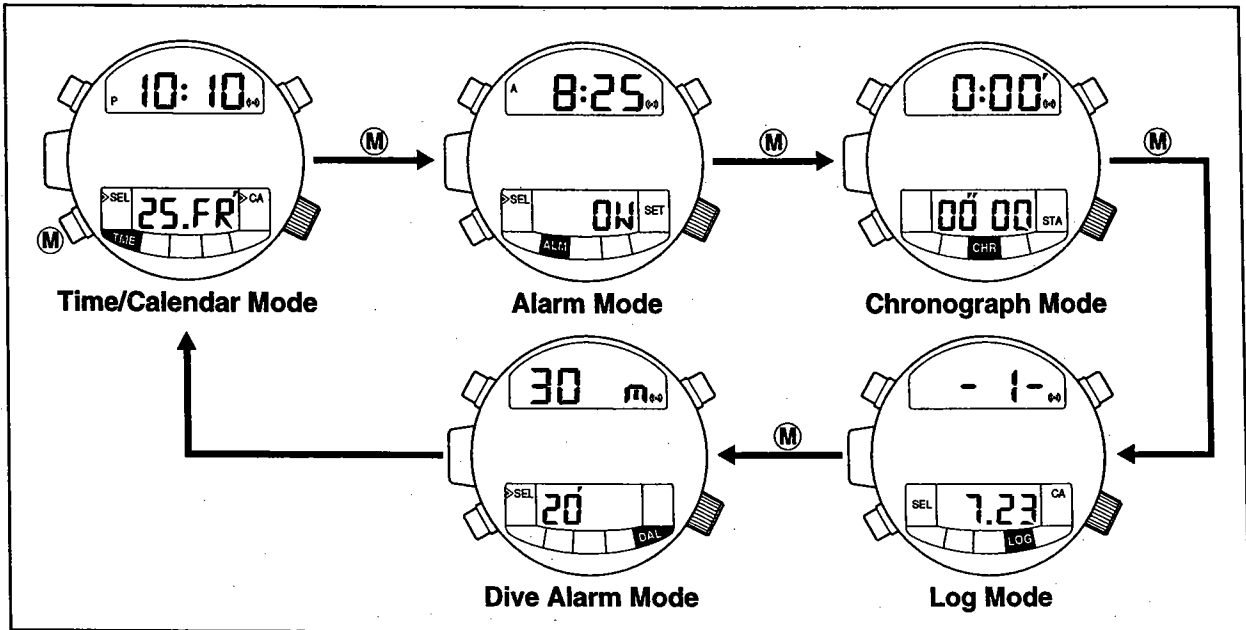
Whenever this sensor senses traces of water, the watch automatically enters the diving mode with [Ready display] \*In addition, the watch contains the temperature sensor as an internal device.

### 3-2. Switching Modes

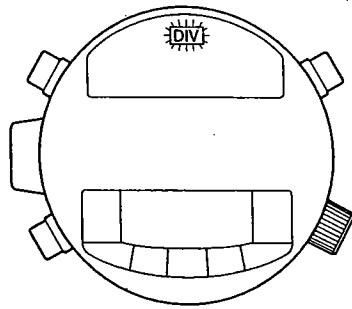
From any mode shown in the box below:

1. The watch can be made to enter the diving mode (Ready state) by pressing button **M** for 2 seconds or more.
2. The watch will enter the diving mode (Ready state) whenever the water sensor is activated.



Each time button **M** pressed, the display is changed to another mode as shown below.



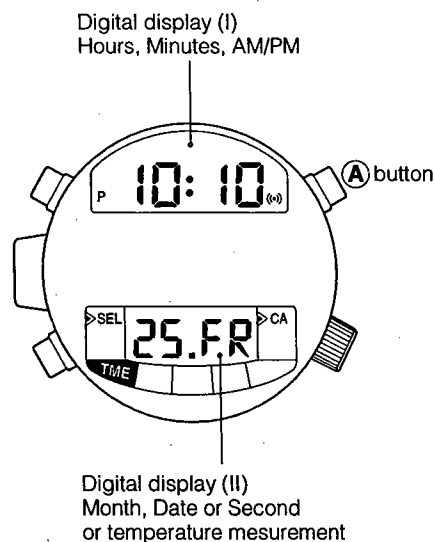
Refer to "DIVING MODE" **M** or whenever the water sensor is activated.



**Dive mode  
(Ready state)**

-  Press once
-  Press 2 seconds or more

### 3-3. Time/Calendar Mode



#### Switching the digital display (II)

1. Press button **(A)** and select month/date or seconds.
2. Press button **(A)** two seconds or more, temperature measurement will display. Please refer to [temperature measurement] on 14 page.

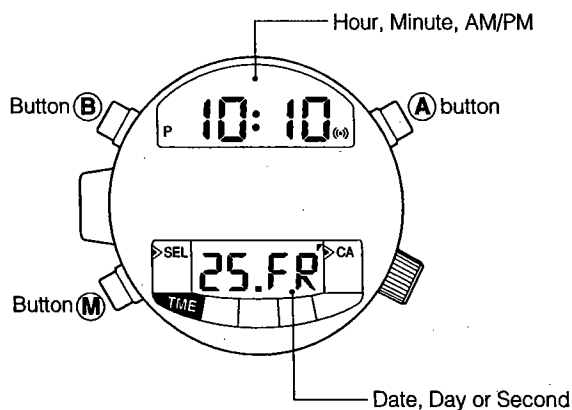
#### When manipulating the crown...

##### About the screw lock

1. Always return the crown to its original position and lock it when finished setting the watch.
2. Do not press any of the buttons while the crown is pulled out.
3. Do not pull out or turn the crown when it is wet. Doing so may allow water to seep inside the watch and cause malfunction.

### Setting the Time and Calendar

Always perform the digital first. then the Analog setting



#### a. Digital setting

##### Setting the Time and Calendar

1. While in the time mode, press button **(B)** for 2 seconds or more, seconds will flash. and switch to correcting state.
2. While seconds flash, press button **(A)** to reset the seconds to "00" after than seconds start again.
3. When in the seconds correcting state (second flash). Press button **(B)**, the flashing digit will change in the order of second-minute-hour-month-date-year-12/24 hour system, select the digit to correct.
4. Correct the flashing digit by pressing button **(A)** (Press and hold down button **(A)** quick advance the flashing digit.)

- Press button **(A)**, the 12 hour/24 hour will switch alternately
- If the time correct state (flashing digit) remains for longer than 2 minutes, the watch will automatically return to normal time display mode.
- Press button **(M)** while in the time correct state, can be return the watch to normal display mode (Manual return)
- Due to the autocalendar, no correcting at the end of the month is required.

## b. Analog setting

### Setting the Analog Time

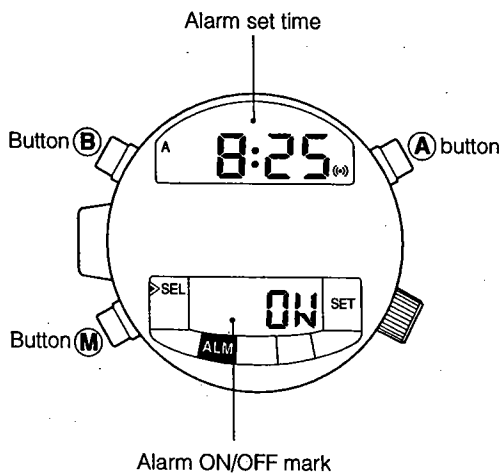
1. Unscrew the crown and pull it out to stop the second hand at "0" position.
2. Turn the crown and position the hour and minute hands 1 minute in advance of the digital time.
3. Press the crown into place when the seconds display of digital time has just come to 0 start the second hand.

## 3-4. Alarm Mode

When the alarm indicator is ON, the alarm will sound for 15 seconds at the alarm set time, once a day.

### Note:

The alarm is disabled during the diving mode, so take care.



### Setting the alarm

1. While in the alarm mode, press button **(B)** for 2 seconds or more, hour will flash, and alarm will indicate ON automatically.
2. While hour flash, press button **(A)** to set the hours.
3. Press button **(B)**, the flashing digit will change in the order hour-minute.
4. Press button **(A)** to set the minutes (Press and hold down button **(A)** to quick advance the flashing digit.)
5. Press button **(B)** or **(M)** to finalize setting.

Alarm 12 hours/24 hours is set in synchronized with the time/calendar mode.

### Alarm ON/OFF

Switch the alarm ON/OFF by pressing button **(A)**.

### Alarm monitoring

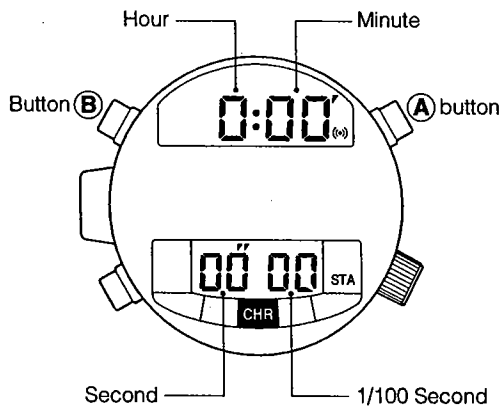
In the alarm mode, while pressing button **(A)**, 2 seconds or more, the alarm monitor will sound.

### <Auto-return system>

If the watch is kept the alarm mode for 3 minutes or more, it is automatically switched to the time/calendar mode.



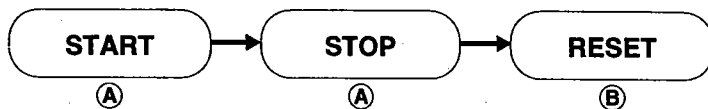
### 3-5. Chronograph Mode



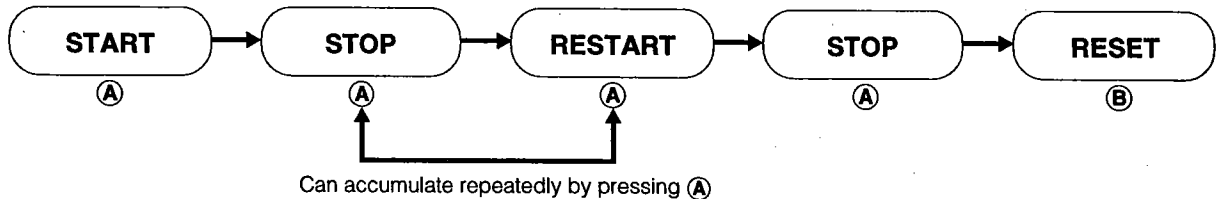
- The chronograph can measure up to 24 hours in 1/100 second.
- The chronograph display automatically returns to 00 and stops.

#### Using the chronograph

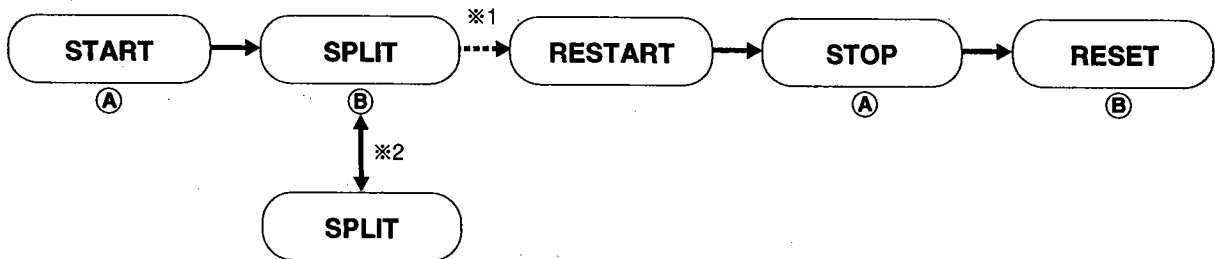
##### <Standard measurement>



##### <Accumulated elapsed time measurement>



##### <Split time measurement>



\*1 Automatically switched after 10 seconds

\*2 When the same button (B) is pressed again during the display of a split time, the next split time is displayed.

#### Note:

- Change over to another mode is disabled during the chronograph measurement. To change the mode to another mode, make the chronograph measurement stop or reset.

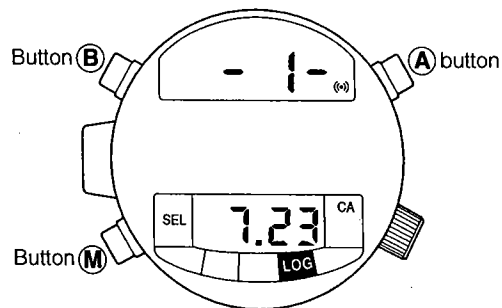
#### Additional feature

##### <Auto-return system>

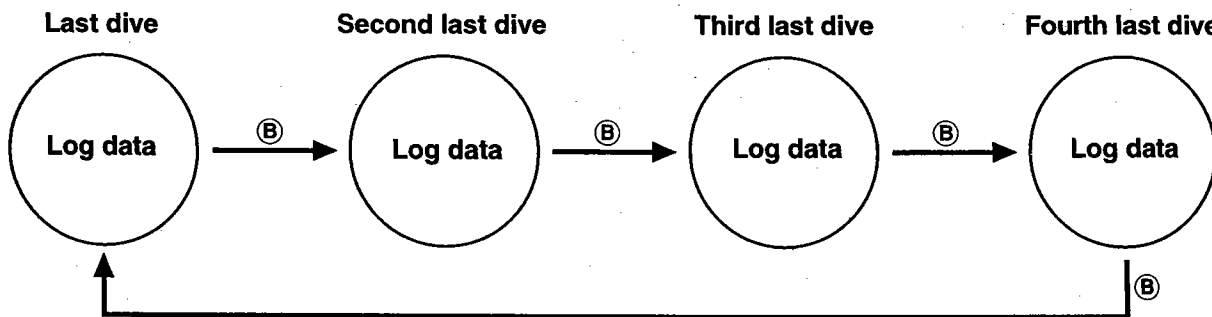
- If the chronograph reset state remains for 3 minutes or more, the watch is automatically switched to the time/calendar mode.

### 3-6. Log Mode

By pressing button **(M)**, change the mode from chronograph to log mode.  
The dive log date can be retained in the watch, counting the last 4 dives.



- To recall the log date for the last 4 dives, press button **(B)**. Each time button **(B)** is pressed, the log date is displayed in the order going back from the latest one.
- If the watch is left in the going mode with any date being displayed for 3 minutes or more, it is automatically switched to the time/calendar mode (auto-return)



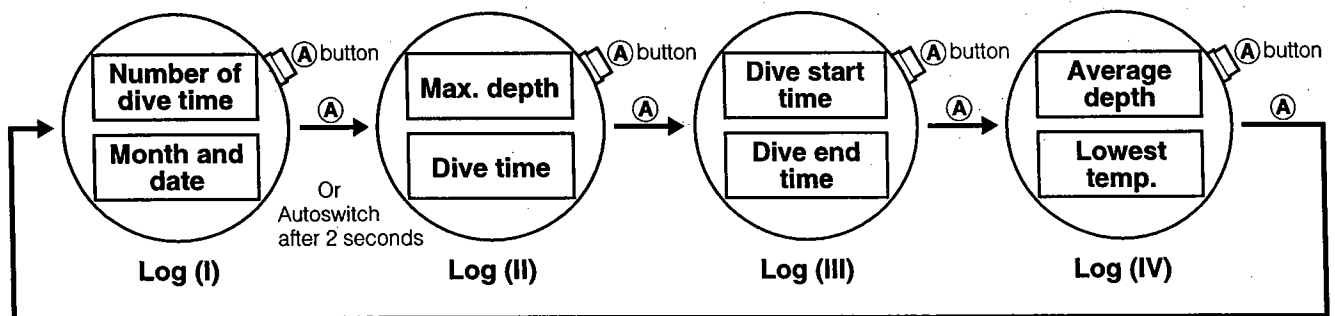
- When you begin a dive, the oldest log data (Fourth last log date) is erased automatically. It is recommended to record the date on a log book, etc.

## Changing the Log Display

Every dive makes the watch memorize the following 8 types of log data automatically, which can be recalled in the order of (I), (II), (III) and (IV) as shown below.

- When the watch is switched from the chronograph mode to the log modes by pressing button **(M)**, log (I) is displayed.
- Each time button **(A)** is pressed, the log display is changed to the next in the order of (I), (II), (III) and (IV).
- Only when log (I) is displayed, the display is automatically changed to log (II) after 2 seconds without pressing button **(A)**.  
On rare occasions, even if the water sensor senses traces of water and the watch is switched to the dive mode (dive ready state), however, log (I) display may fail to change to log (II) display automatically.

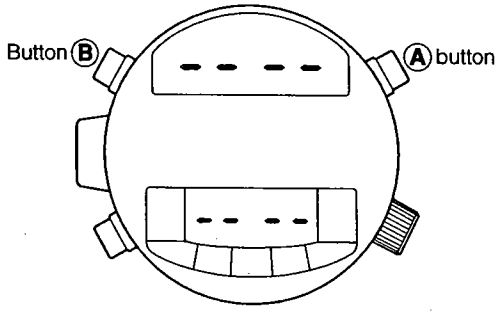
In case this happens, press button **(A)** change the display.



- 1. Number of dives:** The number of dives performed in a particular day. A maximum of 9 dives can be counted. Counting is initiated day by day.
- 2. Dive month and date:** Date and month when diving is performed.
- 3. Maximum depth:** The maximum depth that was reached in one diving.
- 4. Dive time:** Total time when the diver remains deeper than the depth of one meter.  
In the diver goes again into the water deeper than 1m (4ft) within 10 minutes after the diving depth becomes shallower than 1 m (4ft), the dive time counting resumes at the time when the measurement is stopped and the accumulative time is recorded successively. Measurement is taken in units of seconds and up to 100 minutes at maximum, when the maximum is reached, the measurement starts again with zero.
- 5. Dive start time:** The time when a dive depth reaches 1m (4ft).
- 6. Dive end time:** The time when the dive depth becomes shallower than 1m (4ft).
- 7. Average depth:** Average depth in one dive.
- 8. Minimum temperature:** The minimum temperature recorded in one dive.

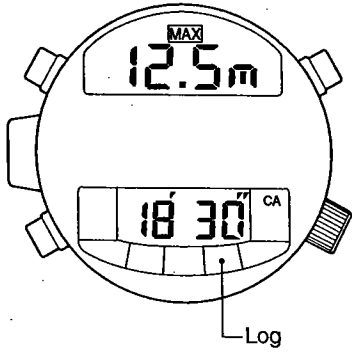
**These log data are displayed as log (I), (II), (III) and (IV) separately.**

**To delete all log data**



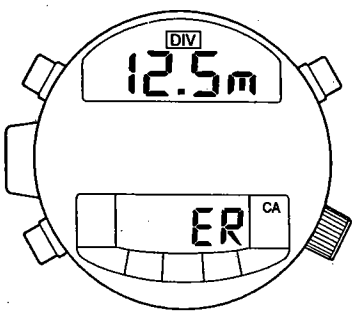
Depress button **A** and button **B** together for 2 seconds or more and log data will be deleted.

**In case the depth indication flashes**



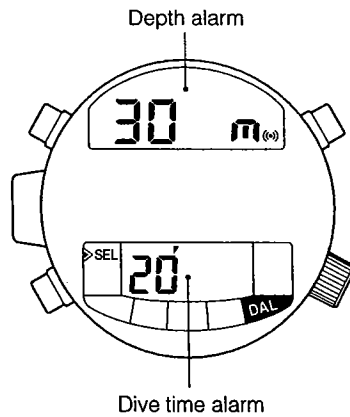
This signifies that the log data is faulty.

**In case ER (error) is shown**



This signifies that log data is faulty.

### 3-7. Dive Alarm Mode



**Note:**

The alarms may be hard to hear depending on the surroundings (such as the sound of air bubbles) and the watch wearing conditions, so take care in using the alarm.

The following two alarm functions are provided as dive alarms used in this watch.

**1. Depth alarm function:**

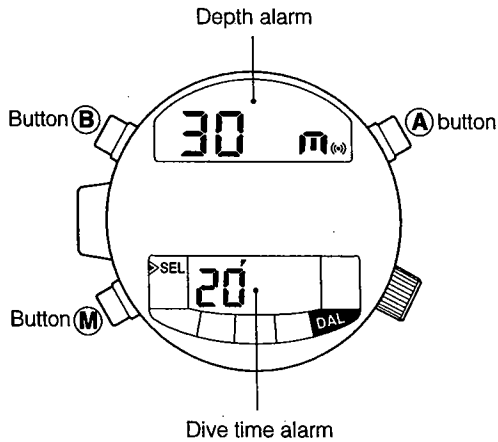
When the set depth is reached during a dive, the alarm will beep for 15 seconds. The depth alarm setting range is 1m to 80m/4ft to 260ft (units of 1m/4ft) If you continue to dive deeper than the set depth alarm, every minutes the alarm can be activated repeatedly. The number of times the alarm will be activated can be chosen from 0 to 5 or every minutes.

\* The number of times the alarm will sound during one dive is preset on the watch. For example, if you set the number of times at "1", the alarm sounds only once during one dive.

**2. Dive time alarm function:** When the set time comes after starting a dive, the alarm will beep for 15 seconds. This alarm will not be repeated.

If the ascending speed is over 1.5m (5ft) for 10 seconds during a dive, the ascending speed alarm will beep for the duration of at least 10 seconds to alert the diver of overspeed.

## Setting the Depth Alarm/Dive Time Alarm



- 1) Press button **(B)** for 2 seconds or more to switch to the DIVE ALARM correcting mode (the preset depth value starts flashing). At this time, the digital display (II) change from the dive time alarm display to the display for the number of times the alarm will be activated.
- 2) Set a diving depth at which you want the alarm to sound by pressing button **(A)**. Each time button **(A)** is pressed, the depth setting becomes deeper by 1m (4ft). A maximum setting is 80m (260ft). With the maximum exceeded, the setting is returned to 1m (4ft).
  - \* Rapid advance of settings is made by pressing and holding down the button **(A)**.
- 3) Press button **(B)** to switch to the number of times of alarm occurrences correcting mode (the preset number of times starts flashing).
- 4) Change and set the number of times of alarm occurrences by pressing button **(A)**. The display for the alarm frequency is changed and cycled in the following order:  
ON → OFF → 1 → 2 → 3 → 4 → 5.  
ON: The depth alarm will beep every minute when the diving depth is deeper than the set depth  
OFF: Depth alarm is disabled.
- 5) Press button **(B)** to switch the dive time alarm display to the correcting mode (the preset value for dive time alarm starts flashing).
- 6) Change and set the dive time alarm time by pressing button **(A)**. The display for dive time alarm is changed and cycled in the following order:  
-- → 05 → 10 → 15 ..... → 95 → --.  
\* With the display of "--", the dive time alarm is disabled.
- 7) Press button **(B)** or **(M)** to finish the setting procedure.

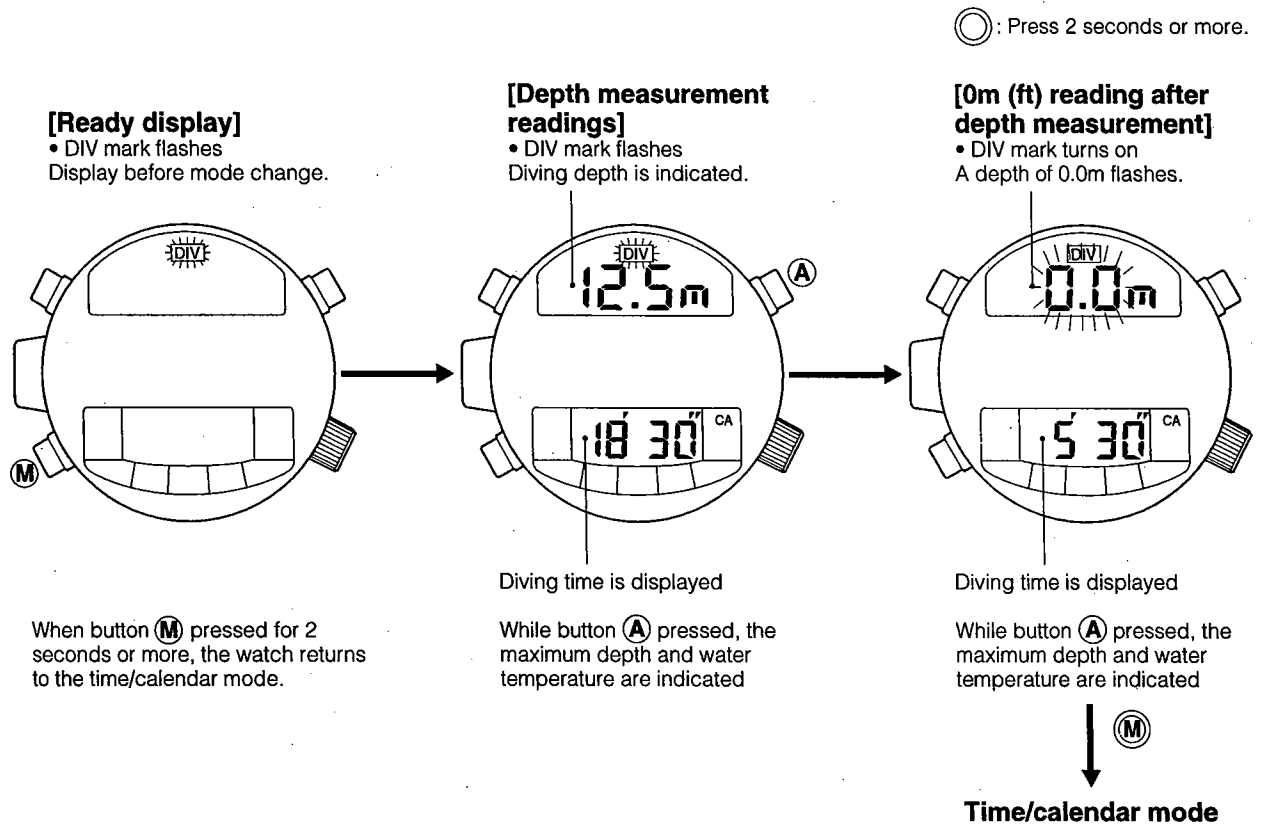
### Dive Alarm Monitor

By keeping button **(A)** depressed, repetitive alarm monitoring at 4 second intervals can be performed in the following order: depth alarm → dive time alarm → rapid ascent warning alarm.

### 3-8. Diving Mode

When any in other mode, the watch will enter the diving mode with the display changing to [ready display] by pressing button **(M)** for 2 seconds or more. If [ready display] put in this way is allowed to stand for about 60 minutes, the display automatically returns to the preceding mode.

One of the following three displays is shown in the diving mode.



#### Additional feature

##### <Water sensing function>

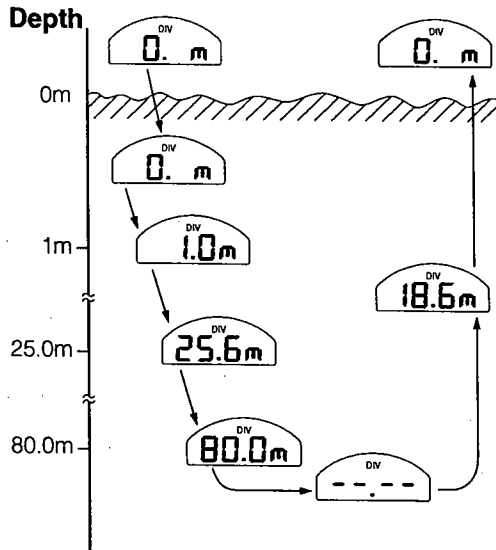
This watch is provided with a water sensor. Whenever this sensor senses traces of water in any other mode display, the watch automatically enters the diving mode with [ready display].

\* During the chronograph measurement, however, the mode change is disabled.  
When the moisture is removed, the watch is released from the [ready display].

1. When a depth of 1m (4ft) is reached after you begin diving with the watch displaying [ready display], the display will automatically change to [depth measurement readings].
  2. When the diving depth becomes less than 1m (4ft), the display will automatically change to [0m (0ft) reading after depth measurement].
  3. If button **(M)** is pressed for 2 seconds or longer with the display of [0m (0ft) reading after depth measurement], then the watch return to the time/calendar mode.
- If the display of [0m (0ft) reading after depth measurement] is allowed to stand for 10 minutes or longer, the watch automatically enters the time/calendar mode.
- If the diver dives again deeper than 1m (4ft) within 10 minutes, the dive time counting resumes.

# Depth Measurement Readings

## Depth Measurement



### 1. Depth measurement

The diving depth is measured every second, and the reading of the depth is displayed on the watch.

Units of depth measurement: 0.1m (1ft)

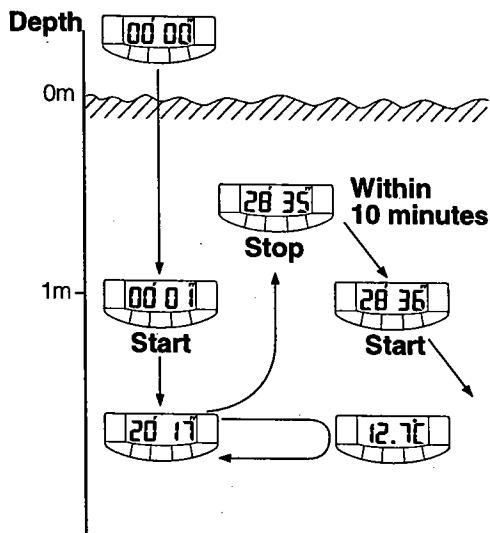
Range of measurement: 1.0m to 80m (4ft to 260ft)

When diving depth is less than 1m (4ft): the display will be 00.0m (000ft).

When diving depth exceeds 80m/260ft: display will be ---m (---ft)

**In case the ER (Error) displayed depth reading flashes:** This means that depth measurement is faulty.

## Dive time measurement



### 2. Dive time measurement

When the diving depth reaches to 1.0m (4ft), the dive time measurement will start. It stops when the depth becomes less than 1.0m (4ft).

If the diving depth becomes deeper than 1.0m (4ft) within 10 minutes after the end of the dive time, the dive time resumes at the time when the measurement is stopped and the accumulative time is recorded successively.

### 3. Water temperature measurement

Water temperature measurement starts 1 minute after a depth of 1.0m (4ft) is measured and displayed. Subsequently, temperatures will be measured very minute.

Units of water temperature measurement: 0.1°C (1°F)

Range of measurement: -5°C to +40°C (23°F ~ 104°F)

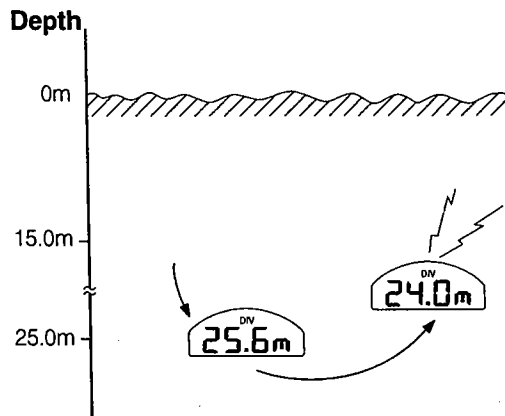
Before temperature measurement and out of the measurement range: the display will be ---°C (---°F)

\* While button **A** stays depressed during the display of the diving time, the display shows water temperature readings, not the diving time.



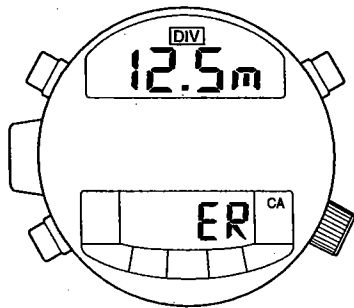
### 3-9. Various Alert Functions

This watch is provided with the following alert functions.  
These alerts are recommended to be used to increase the safety in diving.



#### 1. Ascending speed warning

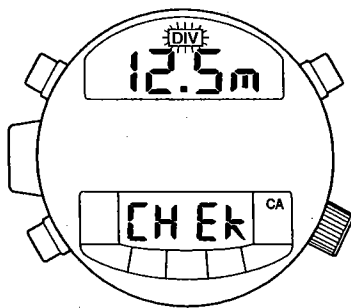
If the ascending speed exceeds 1.5m (5ft) in 10 seconds during a dive, the alarm will sound for more than 10-seconds as the ascending speed alert.



#### 2. Abnormal depth alert

In case of rapid change in depth over 4m (13ft) for one second, the flashing ER (Error) appears on the digital display (II).

If the pressure sensor is faulty, ER (Error) is shown even when the watch is used on land.



#### 3. Water sensor check alert

Although the water sensor is activated and the watch enters the diving mode with [ready indication], if one hour or longer is elapsed without any action, CHECK appears on the digital display (II) as the water sensor check alert.

### 3-10. In Case of the Following

The second hand goes at 2-second intervals.

The action occurs when the battery run down warning is activated, which warns the user that battery will run down soon.

In this case, replace the battery in advance of its lifetime. (The watch keeps correct time during this occurrence.) However, when this warning function is on, other functions are inhibited as follows:

1. All alarms do not sound.
2. Changeover to the diving mode [Ready display] is disabled.
3. When in the diving mode with [Ready display], changeover to [Depth Measurement Readings] is disabled.
4. With [Depth Measurement Readings] displayed on the watch, the dive alarms do not sound, stop diving immediately.
5. With [Temperature Measurement Readings] active on the watch, the watch returns to the pre-state.
6. In case of the water sensor check alert display, the alert display is disabled.

- **Changeover cannot be performed from the diving mode [Ready display] or [0m (off) Reading after Depth Measurement] to the time/calendar mode.**

- **In case the depth reading is one meter or more, though the watch is used on land.**

In this case, all reset should be performed by referring to page 17. If the watch display is changed to the pre-state of the diving mode [Ready display] or to the time/calendar mode when the crown is pulled out, there is no problem.

If the mode change cannot be made, all reset should be performed (see page 17)

- **Digital display malfunction**

Should strong impact or static electricity be applied to the watch by accident, the digital display may malfunction at times. If this occurs, all reset should be performed by referring to page 17.

- **After battery replacement**

After the battery is replaced, be sure to perform all reset by referring to page 17. If not done so, the watch does not operate properly, making correct displays. (Note 1)

#### **Note 1**

All reset operation will erase all the stored data.

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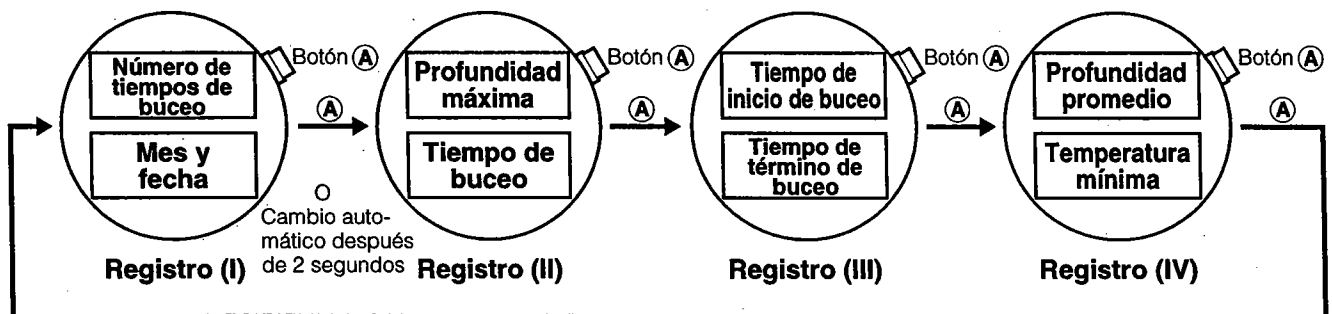
## Cambio de la indicación de registro

Cada buceo hace que el reloj memorice automáticamente los siguientes 8 tipos de registro de datos, que podrán ser rereclamados en el orden de (I), (II), (III) y (IV) como se muestra abajo.

- Cuando se cambie el reloj del modo de cronógrafo al modo de registro presionando el botón **(M)**, se visualiza el registro (I).
- Cada vez se presione el botón **(A)**, la indicación del registro cambia al próximo del orden de (I), (II), (III) y (IV).
- Solamente cuando se visualice el registro (I), la indicación cambia automáticamente al registro (II) después de 2 segundos sin presionar el botón **(A)**.

En raras ocasiones, aunque el sensor de agua detecte agua y el reloj cambie al modo de buceo (estado de disposición para buceo), sin embargo, el registro (I) podría ser que falle en cambiar automáticamente a registro (II).

En el caso de que esto suceda, presione el botón **(A)** para cambiar la indicación.



### 1. Número de buceos:

El número de buceos efectuados en un día particular. Se podrá contar un máximo de 9 buceos. El conteo se inicia día a día.

### 2. Mes y fecha de buceo:

La fecha y el mes cuando se realice el buceo.

### 3. Profundidad máxima:

La profundidad máxima que se alcanzó en un buceo.

### 4. Tiempo de buceo:

Tiempo de buceo: el tiempo total cuando el buceador permanece a una profundidad mayor que la del medidor. Si el buceador va de nuevo al agua a una profundidad mayor que 1m dentro de 10 minutos después que la profundidad de buceo se torne menos profunda que 1 m, el conteo de tiempo de buceo se reanuda en el momento en que se detenga la medición y el tiempo acumulativo se registra sucesivamente.

Las medidas se toman en unidades de segundos y hasta 100 minutos como máximo. Cuando se llegue al máximo, la medición comienza de nuevo desde cero.

### 5. Tiempo de inicio de buceo:

El tiempo en el que la profundidad de buceo alcanza a 1m.

### 6. Tiempo de término de buceo:

El tiempo en el que la profundidad de buceo se vuelve menos profunda que 1m.

### 7. Profundidad promedio:

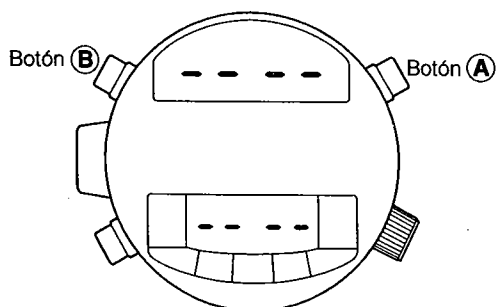
La profundidad promedio en un buceo.

### 8. Temperatura mínima:

La temperatura mínima registrada en un buceo.

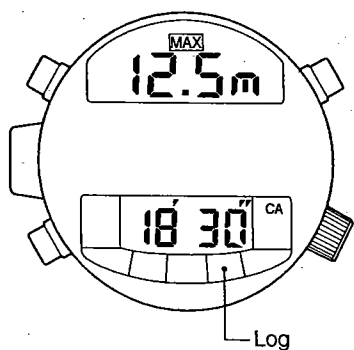
**Estos registros de datos se visualizan como registro (I), (II), (III), y (IV) separadamente.**

**Para borrar el registro de datos**



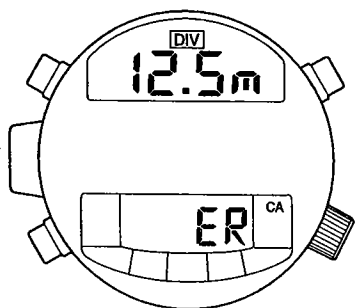
Pulse al mismo tiempo el botón **A** y el botón **B** durante 2 segundos o más y todos los datos del registro se borrarán.

**En caso de que la indicación de profundidad destelle**

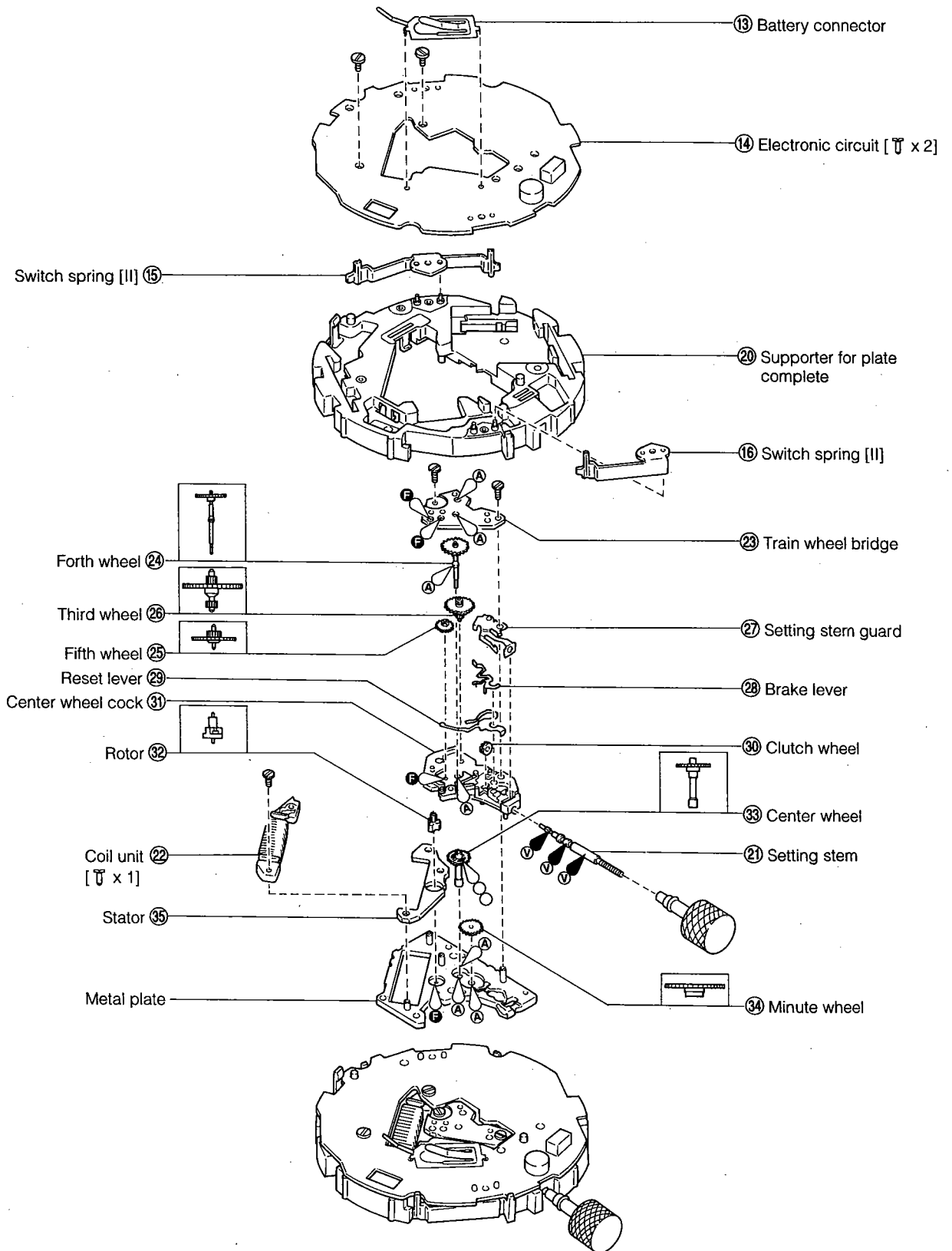


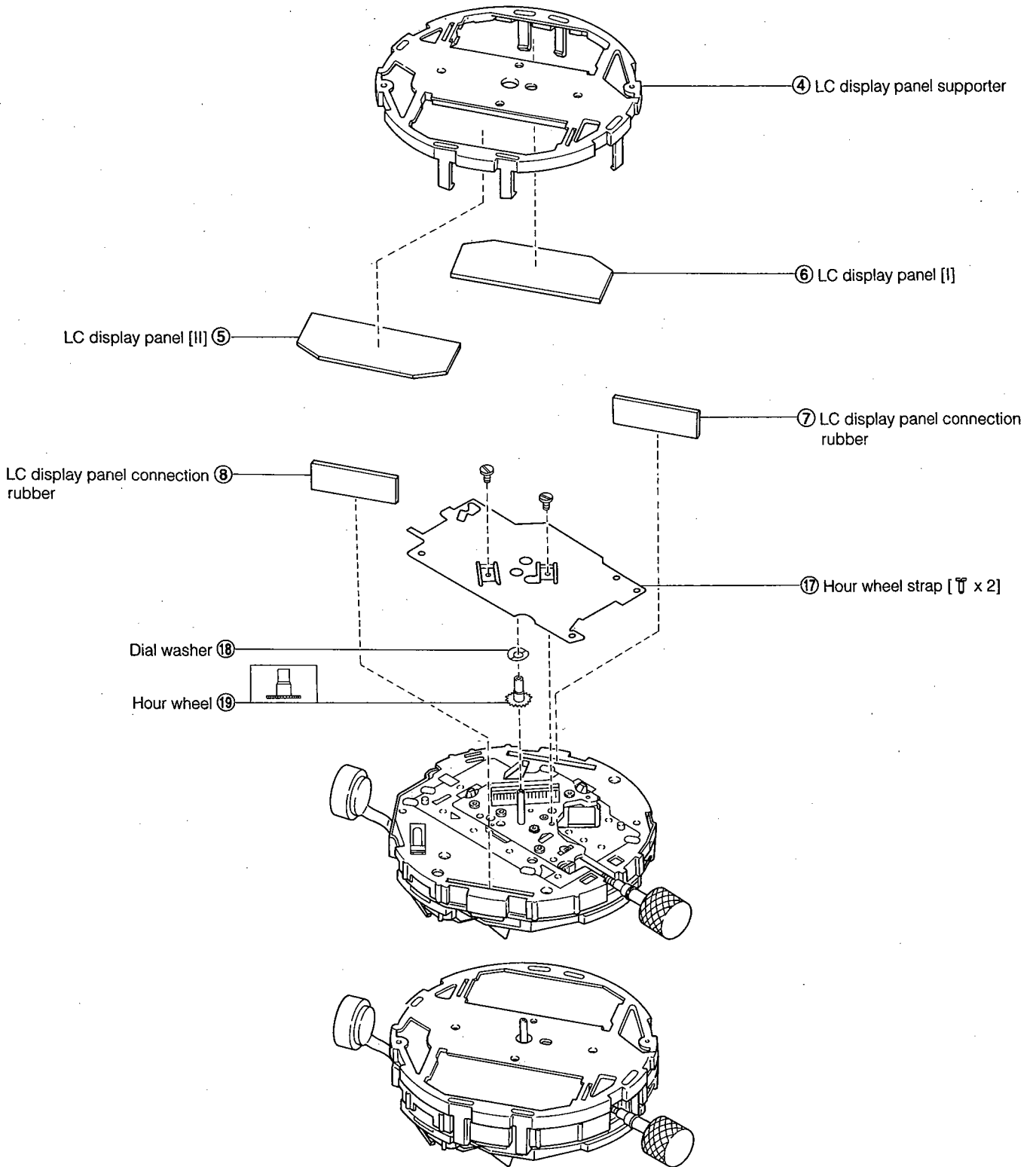
Esto significa que el registro de datos está fallando.

**En caso de que se muestre ER (error)**

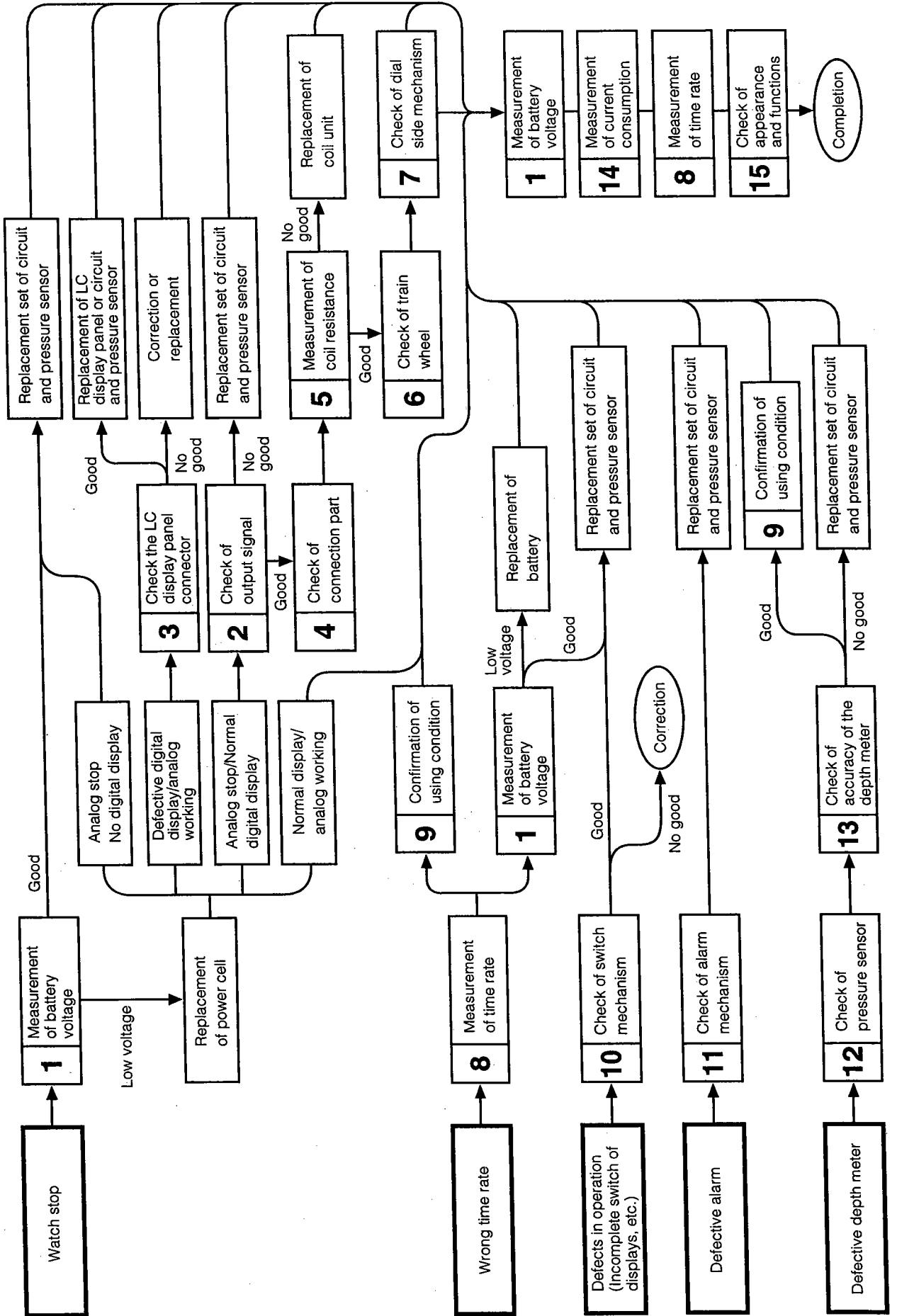


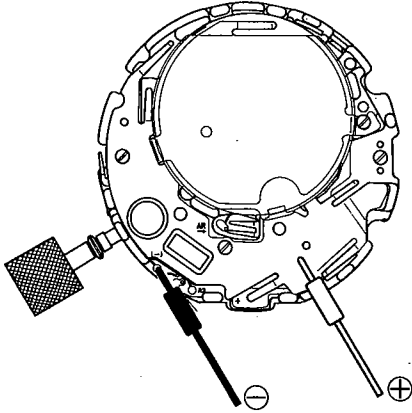
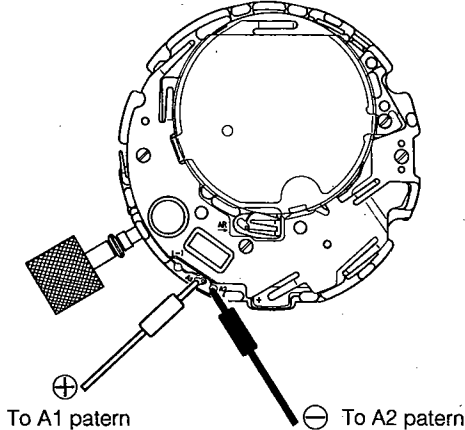
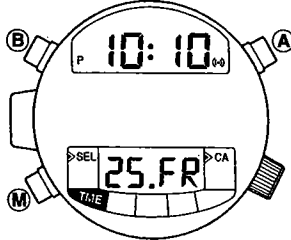
Esto significa que el registro de datos está fallando.





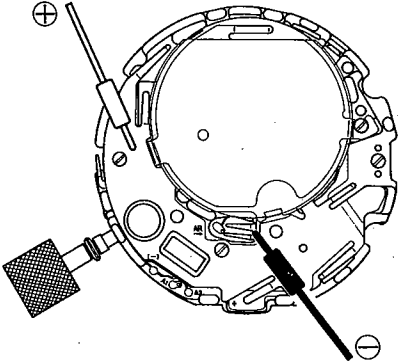
# §6. TROUBLESHOOTING AND ADJUSTMENT



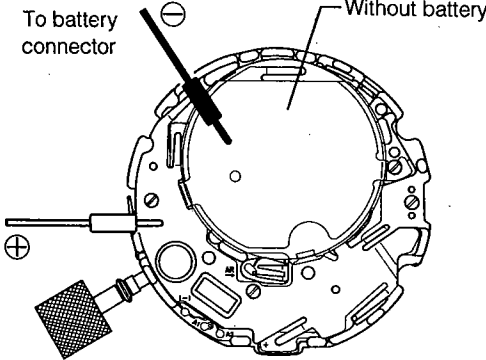
Check Items	How to Check	Results and Treatment
<p>① Measurement of battery voltage</p>	<p>* Refer to Technical Manual, Basic Course: II-1-a.</p> <p>&lt;Tester range: D.C. 6V&gt;</p> 	<p><b>Over 3.0 V</b> → Normal.</p> <p><b>Under 3.0 V</b> → Replace the battery</p>
<p>② Check out put signal</p>	<p>* Refer to Technical Manual, Basic Course: II-1-b.</p> <p>&lt;Tester range: DC 0.3V&gt;</p>  <p>To A1 patern      To A2 patern</p>	<p>The tester pointer swings every second → Non defective</p> <p>The tester pointer does not swings → Check the connection parts</p> <p>The connections are normal → Replace the electronic circuit and pressure sensor</p>
<p>③ Check the LC display panel connector</p>	<p>* Refer to the digital section of Technical Manual, Basic Course: II-1-b.</p> <ol style="list-style-type: none"> <li>1. Inspection of all segments Pull the crown out. Then press the (A), (B), and (M) buttons simultaneously to turn on all the segments, and check for defective ones.</li> <li>2. Continuity test on LC display panel, connection rubber and electronic circuit. Check the parts for stain, breakage, etc.</li> </ol> 	<ul style="list-style-type: none"> <li>• LC display panel, connection rubber or electronic circuit is not installed correctly. → Install correctly</li> <li>• Parts are stained or dirty. → Remove stain and dirt.</li> <li>• Parts are cut, broken or scratched. → Replace parts.</li> </ul>



Check Items	How to Check	Results and Treatment
④ Check the connection part	* Refer to Technical Manual, Basic Course: II-2-a.	
⑤ Measurement of coil resistance	* Refer to Technical Manual, Basic Course: II-1-c. <Tester range: R x 10Ω>	<b>1.9 kΩ ~ 2.3 kΩ</b> → Non defective Outside range of → Replace the coil unit
⑥ Check train wheels	* Refer to Technical Manual, Basic Course: II-2-b. • Check the appropriate clearance of each wheel and rotor for dust.	
⑦ Check dial side mechanism	* Refer to Technical Manual, Basic Course: II-2-c.	
⑧ Measurement of time rate	* Refer to Technical Manual, Basic Course: II-2-d.	
⑨ Confirmation of using condition of watch	* Refer to Technical Manual, Basic Course: II-2-e.	
⑩ Check the switch mechanism	To find which is faulty, push button or the movement, check the movement alone first. • Check the switch function while pushing the switch spring with tweezers. Next, check the push button. • Check that there is no dust or dirt on the case's push button and also check that the push button has not been deformed. * Be sure to apply silicon oil to the push button packing. When replacing the battery, replace the push button packing together with the case back packing.	• The switch function is not defective. → Check the push button. • The switch function is defective. → Remove dust or dirt on each connection. • Dust or dirt on the push button → Remove it. • The push button has been deformed → Clean or replace the push button.

Check Items	How to Check	Results and Treatment
<p>⑪ Check the alarm mechanism</p>	<p>* Refer to Technical Manual, Basic Course: II-1-d.</p> <ol style="list-style-type: none"> <li>Set the movement in the case, and check output of alarm with the case back removed. <ol style="list-style-type: none"> <li>Press <b>M</b> button to switch to the alarm mode.</li> <li>Apply <math>\oplus</math> lead pin to circuit unit supporter surface and <math>\ominus</math> lead pin to buzzer contact spring (flat part), then press <b>A</b> button.</li> </ol> <p style="text-align: right;">&lt;Tester range: D.C. 3 V&gt;</p>  </li> <li>If the output of alarm is normal, perform the following inspection. <ul style="list-style-type: none"> <li>Check the piezo-electric element of vibrating plate for cracks and breakage.</li> <li>Check the buzzer contact spring for bend and deformation.</li> <li>Check the pattern of electronic circuit unit for dust and stain.</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>The tester pointer swings → Non defective.</li> <li>The tester pointer does not swings → Replace the electronic circuit unit.</li> </ul>
<p>⑫ Check the depth sensor</p>	<p>Check the following points.</p> <ol style="list-style-type: none"> <li>Sand or dust has not entered the pressure sensor.</li> <li>There is no dust or dirt on the connection part on the sensor contact spring (each pattern of the pressure sensor and electronic circuit unit).</li> <li>There are no scratches or cuts on the pressure sensor.</li> </ol> <ul style="list-style-type: none"> <li>Even though either the pressure sensor or the electronic circuit unit can be defective, replace both together.</li> </ul> <p>This is because depth measurement accuracy is adjusted by the two.</p>	<ul style="list-style-type: none"> <li>Sand or dust → Remove it</li> <li>Dust or dirt → Remove it</li> <li>Scratches or dust → Replace the parts</li> <li>If the above phenomena are not found, replace the electronic circuit unit.</li> </ul>

Check Points	How to Check	Results and Treatments
<p>13 Check the accuracy of the depth meter</p>	<p>Check the accuracy using the master watch and water resistance tester (CW-50A)</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>★ Refer to [water-resistance tester CW-50A-handling procedure]</p> </div> <p>The checking procedures are as follows.</p> <ol style="list-style-type: none"> <li>1) Remove the respective band from the master watch and the watch to be repaired.</li> <li>2) Changing from the time display mode into the dive display mode in both watches. Summon the depth meter display.</li> <li>3) Make sure that the back case has been firmly screwed on place.</li> <li>4) Put both watches in the water resistance tester, apply all 5 atmospheric pressures.</li> <li>5) After finishing the above test, take them out of the water resistance tester. Then summon the maximum depth memory display and compare the two watches. At this time confirm the difference between the two watches.</li> </ol> <p>* Accuracy of depth meter is adjusted based on sea water (Specific gravity: 1.025) Depending on the pressure accuracy of the water-resistance test, 50m of depth value may not be measured when applying 5 atmospheric pressures. It is therefore necessary to check the watch by comparison with the master watch.</p>	<ul style="list-style-type: none"> <li>• There is substantial display difference between the two watches. → Check the depth sensor and replace the electronic circuit unit.</li> <li>• There is no substantial display difference. → Confirmation of watch use.</li> </ul>

Check Points	How to Check	Results and Treatments
<p>14 Measuring current consumption</p>	<p>* Refer to Technical Manual, Basic Course: II-1-f.</p> <p>When measuring current consumption, be sure to perform all-reset operation.</p> <ol style="list-style-type: none"> <li>1. Pull the crown out.</li> <li>2. Set the test lead to the module, then press the (A), (B), and (M) buttons, and the all functions are reset.</li> <li>3. Push the crown to the normal position.</li> <li>4. Under this condition, measure the current consumption</li> </ol> <div style="text-align: center;">  </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Influence of light</b>          Avoid measuring current consumption under an incandescent lamp or the direct rays of sun, because it may cause the current value to increase.</p> </div>	<ul style="list-style-type: none"> <li>• Current consumption of the movement</li> </ul> <p><b>Under 1.7μA</b>          → Nondefective</p> <p><b>Over 1.7μA</b>          → Check train wheel          → Remove dirt.</p> <p>Module is nondefective, but current consumption is over 1.7μA</p> <p style="text-align: center;">↓</p> <p>Replace set of electronic circuit unit and sensor.</p>
<p>15 Check of appearance and function</p>	<p>* Refer to Technical Manual, Basic Course: II-2-f.</p> <ul style="list-style-type: none"> <li>• Make sure that there is no dust or dirt inside the watch.</li> <li>• Make sure that each button functions correctly.</li> <li>• Make sure that all the segments have been provided.</li> <li>• Make sure that the alarm monitor operates in an expected manner.</li> </ul>	<p>→ See the section of all-reset operation.</p>