TECHNICAL INFORMATION

CITIZEN QUARTZ
Cal. No. C700

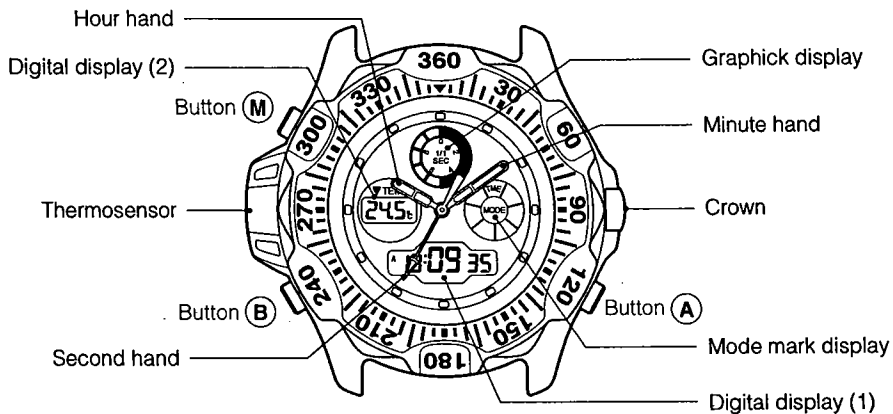● CITIZEN

Contents

§1. OUTLINE

This watch is a combination quartz watch, with a race timer function for various races such as yacht racing, etc., chronograph function, and timer function.
It also has a thermometer function and an EL (electroluminescence) light funciton.
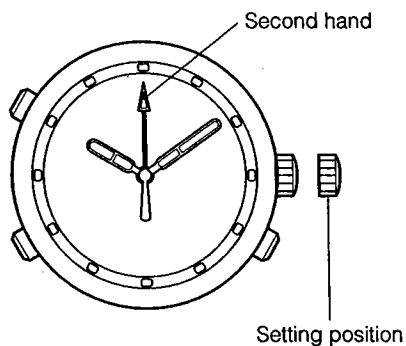
§2. SPECIFICATIONS

Caliber No.			C700
Type			Combination quartz watch
Movement size (mm)			ϕ 30.8 x 5.45t
Accuracy (At normal temperature)			±20 sec/month (+5°C ~ +35°C / 41°F ~ 104°F)
IC			2 units of C/MOS-LSI
Operating temperature			0°C ~ +55°C (32°F ~ 131°F)
Converter			Bipolar step motor
Time adjustment			No adjustment terminal for in the market
Measurement gate			10 sec.
Display functions		Analog time	Hour, Minute, Second
	Digital functions	Time	Hour, Minute, Second, Temperature
		Calendar	Month, Date, Day of the week, Temperature
		Alarm 1 & 2	Set time (hour, minute), ON/OF (off)
		Chronograph	24-hour measurement (1/1000 second unit), Split time measurement
		Race timer	Set in 15 ways, Time-up warning sound, Automatic chronograph function
		Timer	60-minute timer (1 minute unit)
Additional functions			• EL light function • Thermometer function • Low battery indicator function
Battery	Parts No. / Code		280-44 / SR927W
	Normal voltage / Capacity		1.55V / 60mAH
	Life time		Approx. 2 years. (Alarm sound: 20 sec./day, Timer sound: 5 sec./day, EL illuminate: 3 sec,/day)

§3. NAME OF PARTS

Hour hand

Digital display (2)

Button (M)

Thermosensor

Button (B)

Second hand

Graphick display

Minute hand

Crown

Button (A)

Mode mark display

Digital display (1)

§4. SETTING THE HANDS

Second hand

Setting position

(1) Pull the crown out to stop the second hand.

(2) Turn the crown to set the correct time.

(3) Press the crown back in to restart.

Analog and digital time can be set individually as a dual-time watch.

§5. CHANGING DIGITAL FUNCTIONS (MODES)

Besides the time function, this watch has six other functions. Calendar, alarm 1, alarm 2, chronograph, race timer and timer.

The current mode can be checked by the mode mark. Each timer button (M) is pressed, the watch mode changes in the following sequence.
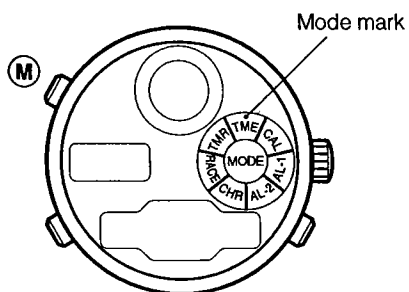
Mode mark

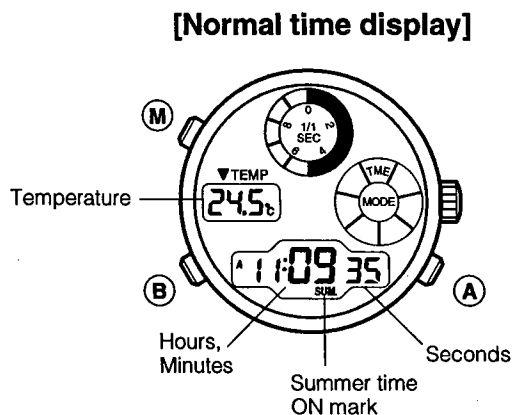| Mode mark	Mode (function)
TME	Time
CAL	Calendar
AL-1	Alarm 1
AL-2	Alarm 2
CHR	Chronograph
RACE	Race timer
TMR	Timer

<Automatic return function>

When the watch is left in alarm 1 or alarm 2 mode for more than 2 minutes, it automatically returns to time mode.

§6. USING EACH FUNCTION (MODE)

A. Time mode <TME>

When button Ⓐ is pressed or being pressed in time mode, the EL light is turned on.
When button Ⓑ is pressed, the current temperature is recalculated.

[Normal time display]

Temperature
Hours, Minutes
Summer time ON mark
Seconds

<Switching to summer time (daylight saving time)>

(1) Press button Ⓑ in time mode for more than 2 seconds. The "SUM." and "ON/OF" starts blinking to indicate that the watch enters time setting mode.

(2) Press button Ⓐ to set summer time on or off. Each time button Ⓐ is pressed, the summer time setting mode is switched on (ON) or off (OF) alternately.

(3) Press button Ⓜ to return the watch to normal time display.

* When watch is set to the summer time (ON).
  The "SUM." appears and the watch indicates time that is one hour ahead of standard time.

<Setting digital time>

(1) Press button Ⓑ in normal time mode for more than 2 seconds. The "SUM." and "ON/OF" starts blinking to indicate that the watch enters time setting mode.

(2) Each time button Ⓑ is pressed in time setting mode, the blinking figures change from the "SUM." to "seconds", "minutes", "hours", "12-hour/24-hour", and to "SUM." again. Use button Ⓑ to select the figures you want to change.

(3) Adjust the blinking figures by pressing button Ⓐ. (If button Ⓐ is pressed continuously, the figures change quickly.)

• The summer time display is switched ON/OF each time button Ⓐ is pressed.

• For resetting seconds, press button Ⓐ to restart from "00" second.

• The "12-hour/24-hour" indication system is switched alternately each time button Ⓐ is pressed.

(4) Press button Ⓜ to return the watch to normal time display.

• When setting time in 12-hour indication system, make sure it is correctly set for the morning Ⓐ or the afternoon (P).

• If the watch is left in time setting mode (figures blinking) for more than 2 minutes, if returns to normal time display automatically.

• If button Ⓜ is pressed in time setting mode, the watch returns to normal time display.

B. Calendar mode <CAL>

When button Ⓐ is pressed or being pressed in calendar mode, the EL light is turned on.
When button Ⓑ is pressed, the current temperature is recalculated.

[Normal calendar display]

Temperature

Month, Date   Day of the week

<Setting calendar>
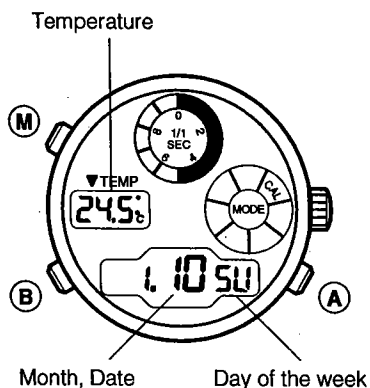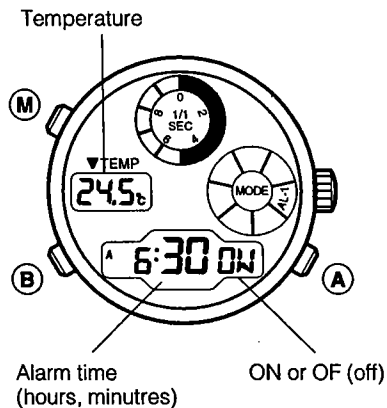
(1) Press button Ⓑ in calendar mode for more than 2 seconds. The "Month" starts blinking to indicate that the watch enters calendar setting mode.

(2) Press button Ⓑ to select the setting "Month", "Date", or "Year". Blinking figures move in order from "Month" to "Date", to "Year".

(3) Press button Ⓐ to adjust the blinking figures. (If button Ⓐ is pressed continuously, the figures changes quickly.)

(4) Press button Ⓜ to return the watch to normal calendar display.

- The Year (in the Christian era) can be set between 1998 and 2099. (Year display appears in calendar setting mode only.)
- If the watch is left in calendar setting mode (figures blinking) for more than 2 minutes, the watch returns to normal calendar display automatically.
- The correct day of the week is automatically set as a result of setting the year, month and date.
- If the date is set to a non-existing date (for example, Februaly 30), the watch automatically displays the first day of the next month when it returns to normal calendar display.
- This watch need not to set for the 1st day of every month due to the automatic calendar function.
- If button Ⓜ is pressed in calendar setting mode, the watch returns to normal calendar display.

C. Alarm 1 & 2 modes <AL-1, AL-2>

The only difference between alarm 1 and alarm 2 is the sound. The two modes are the same in use and setting manner. When either alarm is set (ON) once, it sounds for 20 seconds at the same time every day.

[Normal alarm display (ON)]

Temperature

Alarm time
(hours, minutres)

ON or OF (off)

<Setting alarms>

(1) Press button ⓑ in alarm mode for more than 2 seconds. The "Hours" starts blinking to indicate that the watch enters alarm setting mode. The blinking figures can be adjusted.

(2) Press button Ⓐ to adjust "Hours".

(3) While the "Hours" is blinking, press button ⓑ to start the "Minutes" blinking.

(4) Press button Ⓐ to adjust "Minutes". (Pressing button Ⓐ continuously changes the figures quickly.)

(5) Press button Ⓜ to return the watch to normal alarm display.

<Switching alarm ON/OFF>

Each time button Ⓐ is pressed while in normal alarm display, the alarm is switched ON/OF (off) alternately.
("ON"; alarm is on, "OF"; alarm is off.)

<Alarm sound duration, Stopping alarm>
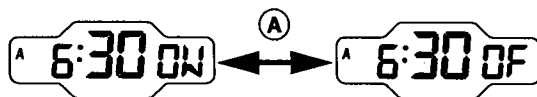
The Alarm sound duration is 20 seconds. Alarm sound stops by pressing any button.

<Monitoring sound>

While button Ⓐ is being pressed in alarm mode, the alarm continuous to sound.

- When time mode is in 12-hour system, the alarm mode is in the same system. Be aware of A/P indication whether it is set for morning (A) or afternoon (P).
- If time mode is set for summer time, it does not affect the alarm mode.
- If the watch is left in alarm setting mode for more than 2 minutes, it automatically returns to normal alarm display.
- If button Ⓜ is pressed in alarm setting mode, the watch returns to normal alarm display.

D. Chronograph mode <CHR>

The chronograph is capable of measuring and indicating a maximum of 23 hours, 59 minutes, 59 seconds and 999 milliseconds in increments of 1/1000 second. After 24 hours, if stops with a reset display of "00°00'00"000". The chronograph can also meausre split time (elapsed time).
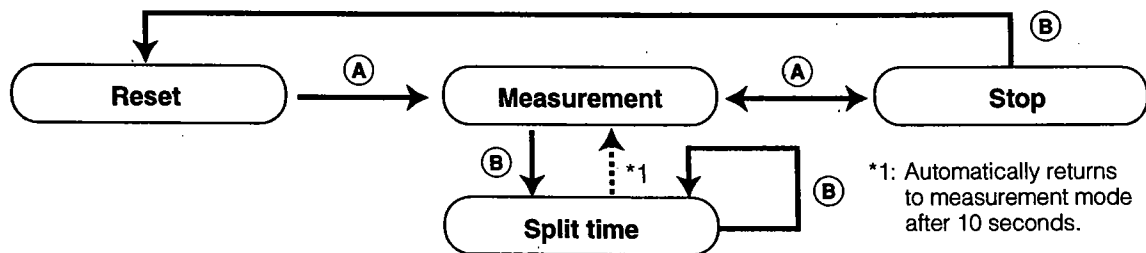
[Chronograph reset display]

Measured time
(milliseconds)

Measured time (hours, minutes, seconds)

<Total elapsed time measurement>
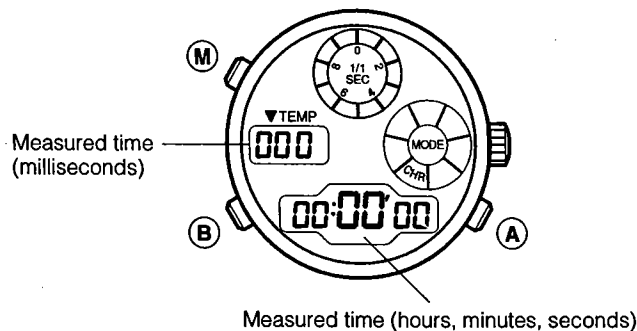
(1) The chronograph starts or stops each time button Ⓐ is pressed.

(2) To reset the chronograph, press button Ⓑ after it is stopped.

<Split time measurement>

(1) The chronograph starts or stops each time button Ⓐ is pressed.

(2) Press button Ⓑ during a time measurement, and the watch shows a split time for 10 seconds. While a split time is shown, "SPLIT" will blink.
Each time button Ⓑ is pressed, the chronograph shows the latest split time.

(3) To reset chronograph, press button Ⓑ after it is stopped.

Ⓑ

| Reset | →Ⓐ | Measurement | ←Ⓐ→ | Stop |

Ⓑ↓ ⤴*1 ↱ Ⓑ

Split time

*1: Automatically returns to measurement mode after 10 seconds.

<Changing the mode during time measurement in chronograph mode>

Even if button Ⓜ is pressed during a time measurement in chronograph mode and mode is changed, time measurement is continued internally. The measured time is shown when the mode is returned to chronograph again. However, if the time measurement is continued for more than 24 hours, the chronograph stops at the reset state.
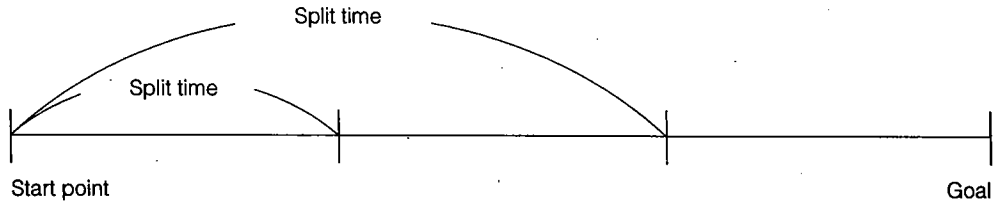
* Confirmation sound and EL light

At the time of start, stop, split time check or reset operation in chronograph mode, a confirmation sound is heard.

At the time of stop or a aplit time measurement, the EL light is turned on for 3 seconds with the sound.

Split time: Elapsed time from start point

E. Race timer mode <RACE>

Race timer mode has an automatic chronograph function that starts time measurement when set time is up. The timer can be set in 15 ways; for 1, 3, 5 or 6 minutes, and for 10 to 60 minutes in increments of 5 minutes. Set the timer according to the race.

[Race timer setting display]

Temperature

Remaining time
(minutes, seconds)

Set time (minutes)

<Setting race timer>
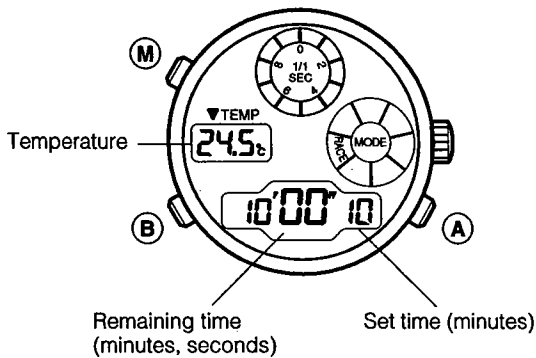
Press button Ⓑ in race timer setting display to select a set time (set time blinks). Each time button Ⓑ is pressed, the set time changes from 60, 55, 50, ...5, 3, 1 (minutes). (If button Ⓑ is pressed continuously, the set time changes quickly.)

<Race timer countdown>

(1) Press button Ⓐ in race timer setting display and the race timer starts counting down.

(2) If button Ⓐ is pressed during the countdown, the race timer stops. If button Ⓐ is pressed again, the race timer restarts the countdown.

(3) If button Ⓑ is pressed after the race timer is stopped, the set time of the race timer is shown.

(4) When the countdown of the set time si complete, the automatic chronograph starts while a time-up signal is sounding for 5 seconds.
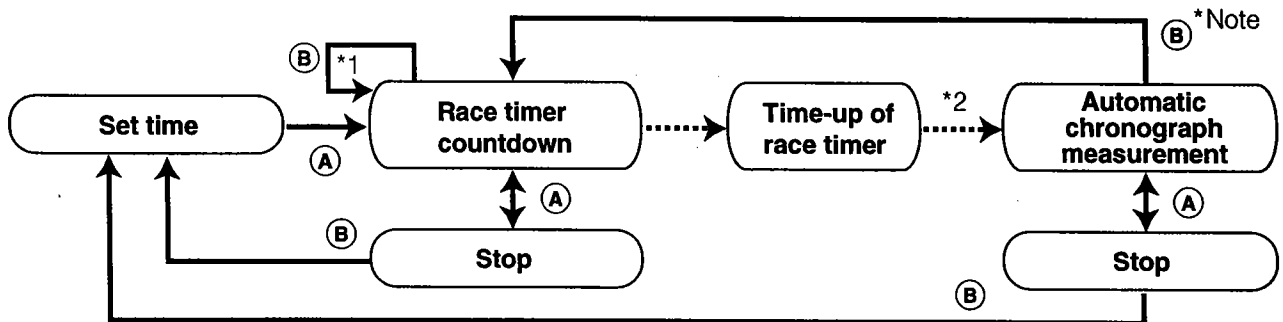
*1: Race timer restart function (flyback function)

If button Ⓑ is pressed during the countdown, the race timer returns to the set time and restarts.

*2: Automatic chronograph start function

When the set time of the race timer is up, the automatic chronograph starts.

<Automatic chronograph measurement>

The automatic chronograph starts time measurement the instant the race timer time is up. The maximum time is 23 hours, 59 minutes, 59 seconds in increments of 1 second. After 24 hours, it returns to race timer set time.

(1) Each time button Ⓐ is pressed while the automatic chronograph is in the time measurement display, the automatic chronograph alternately stops and restarts.

(2) If button Ⓑ is pressed while the automatic chronograph is in the time measurement display, the display returns to race timer countdown.

(3) If button Ⓑ is pressed when the automatic chronograph is stopped, and the display returns to the race timer set time.

*Note

After race timer is switched to the automatic chronograph display, the race timer repeats the countdown internally according to the set time.

If button Ⓑ is pressed in automatic chronograph display to change to the race timer display, the race timer indicates the remaining time (in the countdown) that has repeatedly been checked internally. (However, if the automatic chronograph is stopped halfway, the timer that internally continues checking time will not stop.)

Example: When the race timer is set for 5 minutes.

The race timer repeats for 5 minutes while the automatic chronograph is in time measurement. If button Ⓑ is pressed 3 minutes after the automatic chronograph display, 2 minutes in indicated as the remaining time of the race timer.

• Time-up warning sound

A time-up warning sound is heard when the remaining time is 10, 5, 3 minutes, 1 minute, 50 seconds, 40, 30, 20 10, 5, 4, 3, 2 seconds and 1 second before the set time is up.

• Confirmation sound

At the time of start, stop, reset or restart operation in race timer or automatic chronograph mode, a confirmation sound is heard.

### <Changing modes during race timer countdown>

If button Ⓜ is pressed in race timer or automatic chronograph display, the time measurement is continued internally. If the mode is moved to race timer again, the time that is continuously measured by the race timer is indicated. However, if automatic chronograph continues for more than 24 hours, the display is returned to the set time of the race timer.

F. Timer mode <TMR>

The timer can be set for 1 minute to 60 minutes in increments of 1 minute. When the set time is up, a time-up warning sound is heard for about 5 seconds. After that, the timer returns to set time and stops.
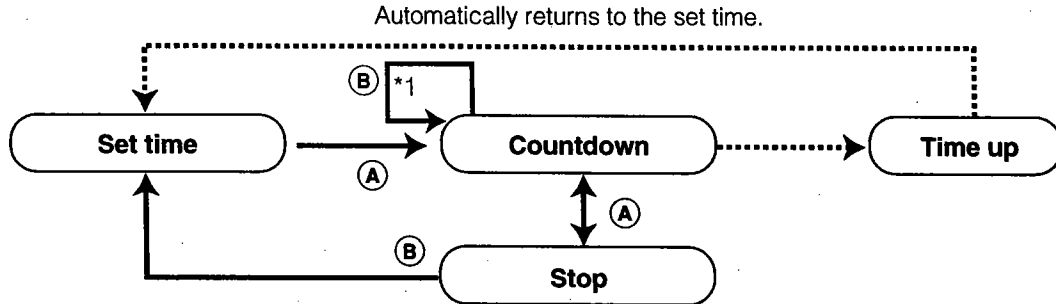
[Timer setting display]

Temperature

Remaining time (minutes, seconds)

Set time (minutes)

<Setting timer>
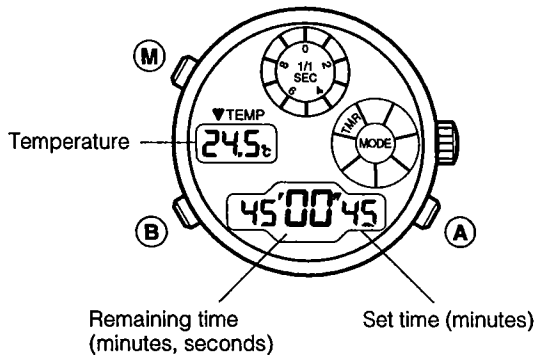
Press button Ⓑ in timer setting display (set time is blinking) to change the set time. Each time button Ⓑ is pressed, the indicated set time decreases by 1 minute. (If button Ⓑ is pressed continuously, the indicated value decreases quickly.)

<Timer countdown>

(1) Press button Ⓐ to start the timer at the set time.

(2) If button Ⓐ is pressed during timer countdown, the timer stops. If button Ⓐ is pressed again, the timer restarts.

(3) If button Ⓑ is pressed when the timer stops, the display returns to the timer set time.

Automatically returns to the set time.

Ⓑ *1

Set time — Ⓐ → Countdown ·······▶ Time up

Ⓐ

Ⓑ Stop

*1: Timer restart function

If button Ⓑ is pressed during timer countdown, the mode immediately changes to timer set time display and restarts.

• Confirmation sound

At the time of start, stop, reset or timer restart operation in timer mode, a confirmatin sound is heard.

<Changing modes during timer countdown>

If button Ⓜ is pressed in timer mode to change the mode, the time countdown is continued internally. If the mode is changed again to timer mode, the time continuously counted down by the timer is displaed. However, if the time time is up, the display returns to timer set time.

§7. USING THE THERMOMETER

The thermometer indicates the current or last measured temperature in all modes except the chronograph mode.

Temperature is measured in two ways:
1. By button operation at any time
2. Automatically measured every hour, on the hour

Temperature can be indicated either in centigrade (°C) or on Fahrenheit (°F).

<Automatic temperature measurement>

Temperature is automatically measured every hours, on the hour nad when the mode changes from chronograph to race timer.

However, if the watch is in the setting status (blinking indication) in time mode or chronograph mode at the moment of measurement, no temperature is measured.

<Temperature measurement by button operation>

If button ⓑ is pressed in the normal time mode or calendar mode, temperature is repeatedly measured for 3 minutes at intervals of 2 seconds.

<Temperature measurement range and accuracy>

	In Centigrade (°C)	On Fahrenheit scale (°F)
Temperature display range	-9.9°C ~ +59.9°C	14°C ~ 139°F
Measurement unit	0.1°C	1°F
Measurement accuracy	20°C ~ 30°C : ±1°C –5°C ~ +40°C : ±2°C	36°F ~ 86°F : ±2°F 23°F ~ 104°F : ±4°F

(Note)
- If the watch is worn on the wrist during temperature measurement, the body temperature affects measurement.

  For accurate temperature measurement, take the watch off and leave it in the measuring environment at least for 20 to 30 minutes. The influence of body temperature depends on environmental conditions such as difference between atmospheric temperature and body temperature before taking the watch off, etc.

- Do not use the thermometer out of the display range. Extremely hot or cold temperature may cause breakdown of the watch.

<Switching temperature display between centigrade and Fahreheit>

Press button ⓐ in time or calendar mode for more than 3 seconds while pressing button ⓜ. The temperature display changes from centigrade (°C) to Fahrenheit (°F) or vice versa.

If button ⓐ is pressed before button ⓜ, display does not change.

▼TEMP   ⓜ+ⓐ   ▼TEMP
[Centigrade display] [24.5℃] ◀━━▶ [76℉] [Fahrenheit display]
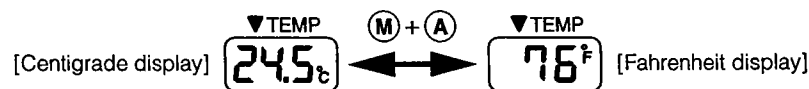
§8. LOW BATTERY INDICATOR

When the battery gets weak, the low battery indicator function appears in digital display 2 as shown below.
- The second hand moves at 2-second intervals (moves by 2 increments every 2 seconds).
- In time or calendar mode, the temperature display starts to blinking "- - -".

Even when the watch falls into such condition, it still displays the time but the EL light, thermometer and alarm will not function. Immediately replace the battery with new one.

Blinking

2 seconds
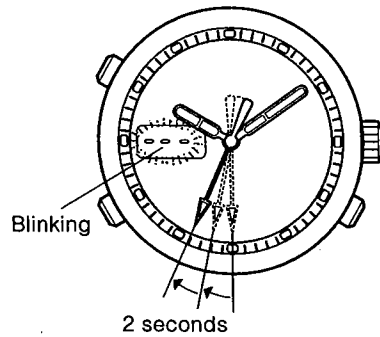
§9. ALL RESET

After replacement of the battery, be sure to perform the all reset operation as shown below.

If the watch malfunctions or shows an abnormal display as a result of an excessive shock or static electricity (for example, the watch indicates nothing, continuously sounds alarm, etc.). Perform the all reset operation.
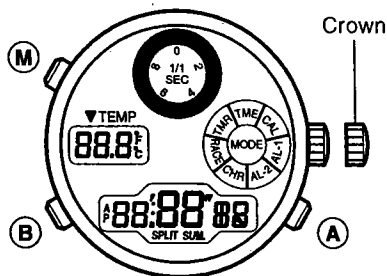
Crown

(1) Pull the crown out.
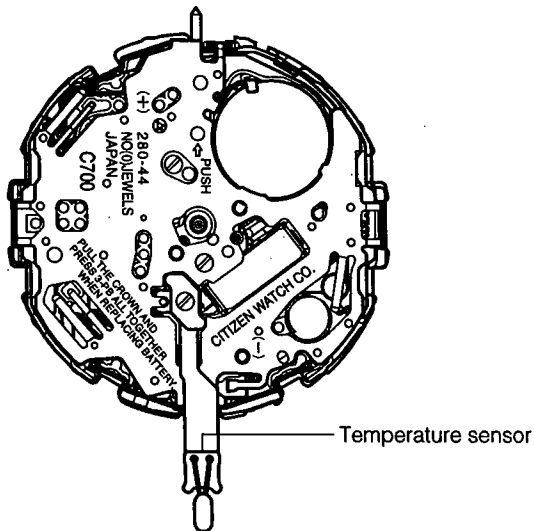
(2) Simultaneously press buttons Ⓐ, Ⓑ and Ⓜ.

(3) Release the three buttons.

(4) Press the crown back. (A confirmation sound is heard.)

All reset operation is complete.

Before use, reset the watch for the correct time in all modes.

§10. PRECAUTIONS FOR HANDLING TEMPERATURE SENSOR

When disassembling and reassembling the watch or when removing and installing the movement, take care not to bend the terminals of the temperature sensor sharply. If those terminals are bent badly, the temperature sensor may have a trouble in measurement or may be broken.

Since the temperature sensor is sensitive to static electricity, too, handle it with special care.
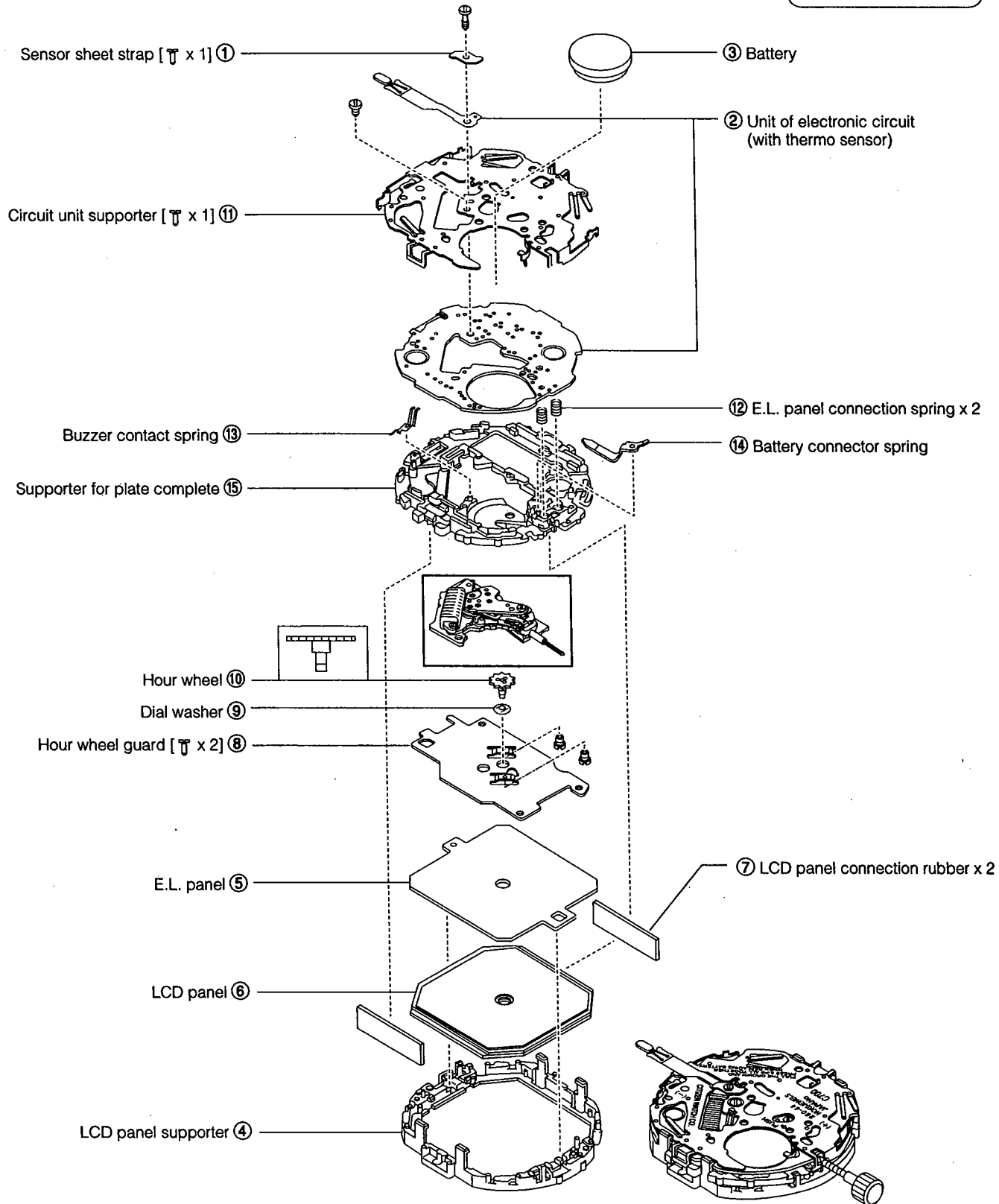
Temperature sensor

<Note>

The temperature sensor and electronic circuit unit are adjusted as a set for high accuracy. Accordingly, when either of them needs to be replaced, do not replace only that one but replace them with a set of a new temperature sensor and a electronic circuit unit.

§11. DISASSEMBLY AND ASSEMBLY OF MOVEMENT

Disassembly procedure: ① → ㉚
Assembly procedure: ㉚ → ①

● Lubrication mark

Ⓐ▷ : A-Lube oil
Ⓥ▶ : V-Lube oil
Ⓕ▷ : F-Lube oil
○○○▷ : CH-1 oil

Sensor sheet strap [T x 1] ①

③ Battery

② Unit of electronic circuit
(with thermo sensor)

Circuit unit supporter [T x 1] ⑪

⑫ E.L. panel connection spring x 2

Buzzer contact spring ⑬

⑭ Battery connector spring

Supporter for plate complete ⑮

Hour wheel ⑩
Dial washer ⑨
Hour wheel guard [T x 2] ⑧

⑦ LCD panel connection rubber x 2

E.L. panel ⑤

LCD panel ⑥

LCD panel supporter ④

Fourth wheel and pinion ⑲

Fifth wheel and pinion ⑳

Coil unit [🔩 x 1] ⑰

Rotor ㉖

Stator ㉙

⑱ Train wheel bridge
[🔩 x 1]

㉑ Third wheel and pinion

㉒ Setting stem guard

⑯ Setting stem

㉓ Resetting lever

㉔ Clutch wheel

㉕ Center wheel cock

㉗ Center wheel

㉘ Minute wheel and
pinion

㉚ Plate complete

§12. TROUBLESHOOTING AND ADJUSTMENT

No display watch stop

1 Measurement of battery voltage

O.K.

Low voltage → Replacement of battery

No digital display analog stop → Replacement of unit of electronic circuit

Defective digital display/Normal analog working

3 Check of LC display panel connection parts

O.K. → Replacement of unit of electronic circuit or LC display panel

No good → Correction or replacement

Normal digital display/analog stop

2 Check of output signals

No good → Replacement of unit of electronic circuit

O.K.

Normal display/working

4 Check of connection part

5 Measurement of coil resistance

No good → Replacement of coil

O.K.

6 Check of train wheel

7 Check of dial side mechanism

1 Measurement of battery voltage

13 Measurement of current consumption

8 Measurement of time rate

14 Check of appearance and functions

Completion

Wrong time rate

8 Measurement of time rate

O.K. → **9** Confirmation of using condition

No good → **1** Measurement of battery voltage

Low voltage → Replacement of battery

O.K. → Replacement of unit of electronic circuit

Defects in operation (Incomplete switch of displays, etc.)

10 Check of switch mechanism

O.K. → Correction

No good → Replacement of unit of electronic circuit

Defective alarm

11 Check of alarm mechanism

O.K. → Correction

No good → Replacement of unit of electronic circuit

Defective EL

1 Measurement of battery voltage

12 Check of EL panel connection

O.K. → Replacement of EL panel

No good → Correction

Temperature display error → Replacement of unit of electronic circuit

Check Points	How to Check	Results and Treatments
❶ Measurement of baterry voltage	[Refer to Technical Manual, Basic Course II-1-a] <Tester range: DC 3V> 	• **Over 1.5 V** → Normal • **Under 1.5 V** → Replace the baterry.
❷ Check of output signals	[Refer to Technical Manual, Basic Course II-1-b] <Tester range: DC 0.3V> (The tester lead pins have no polarity.)	• The tester pointer swings every 1 second. → Normal • The tester pointer does not swing. → Check the connections parts. ↓ • The connections are normal. → Replace the unit of electronic circuit.
❸ Check of LC display panel and connection parts	[Refer to the Digital Section of Technical Manual, Basic Course II-2-a] • Inspection of all segments Pull out the crown and push the three buttons at the same time to turn on all the segments, and check for defective ones. (Refer to §9. ALL RESET) • Continuity test on LC display panel, cell connection rubber and plate . Check the parts for stain, breakage, etc.	• LC display panel, connection rubber or metal plate is not installed correctly. → Install correctly. • Parts are stained or dirty. → Remove stain and dirt. • Parts are cut broken or scratched. → Replace parts.
❹ Check of connection part	[Refer to Analog Section of Technical Manual, Basic Course II-2-a]	

Check Points	How to Check	Results and Treatments
❺ Measurement of coil resistance	[Refer to Technical Manual, Basic Course II-1-c] • Remove the unit of electronic circuit, then measure the resistance of coil. • The tester lead pins have no polarity. <Tester range: R x 10Ω>	• **1.9 kΩ ~ 2.3 kΩ** → Nomal • Outside range of **1.9 kΩ ~ 2.3 kΩ** → Replace coil unit.
❻ Check of train wheel	[Refer to Technical Manual, Basic Course II-2-b] • Check clearance of each wheel. Check rotor for dust and oil.	
❼ Check of dial-side mechanism	[Refer to Technical Manual, Basic Course II-2-c] • Confirm all parts are not deformed and are lubricated properly.	
❽ Measurement of time rate	[Refer to Technical Manual, Basic Course II-2-d] • Since this watch uses the D.F.C. (digital frequency control) method and has no control terminal, there is no way of adjusting its time rate in the field. (Measurement is made in a 10-second range.)	The watch loses or gains a substantial amount of time. → Replace the unit of electronic circuit.
❾ Confirmation of using condition	[Refer to Technical Manual, Basic Course II-2-e]	

❿ Check of switch mechanism	1. Inspection of movement.
	  • Press the switch spring of circuit unit supporter with tweezers, etc. to contact it to plate complete, and confirm the switching function.
	  • Check for removal of pattern of electronic circuit unit, deformation of switch return spring, etc.
	
	2. Inspection of push button
	  • Check push button for deformation, stain, etc.
	
	(Note)
	Be sure to apply silicone oil to the packing of push button for waterproofness and smooth operation.
		• Switching function is normal.
		→ Inspect push button.
		
		• Pattern is removed or deformed.
		→ Replace defective parts.
		
		• Push button is stained or deformed.
		→ Remove stain, or replace push button.

Check Points	How to Check	Results and Treatments
⓫ Check of alarm mechanism	[Refer to Technical Manual, Basic Course II-1-d] *1. Set the movement in the case, and check output of alarm signal with the case back removed. (1) Set the watch in alarm mode. (2) Apply ⊕ lead pin to battery surface and ⊖ lead pin to pattern of buzzer contact spring, them press Ⓐ button. <Tester range: DC 0.3V> *2. If the output of alarm is normal, perform the following inspection. • Check the piezo-electric element of vibrating plate for cracks and breakage. • Check the buzzer contact spring for bend and deformation. • Check the pattern of electronic circuit unit for dust and stain.	• Tester pointer does not swing. → Replace the electronic circuit unit. ⬇ • Tester pointer swings. → Normal ⬇ • Perform inspection in *2. ⬇ Normal indication. → O.K.
⓬ Check of EL panel connection	1. Confirmation of battery voltage 2. Check of EL panel connection • Check the EL panel for breakage. Particularly check the electrode pattern on the back side for stain, breakage, etc. which can lower electrical continuity. • Confirm that the EL connection spring is in contact with the EL panel and electrode pattern normally. If any cause is not found by inspections 1 and 2, the EL panel must have been deteriorated. Replace the EL panel.	• **Over 1.5 V** → Check EL panel connection. • **Under 1.5 V** → Replace battery. • **Trouble of EL panel** → Replace EL panel. • **Deformation of EL connection spring** → Repair or replace.

Check Points	How to Check	Results and Treatments
⓭ Measurement of current consumption	[Refer to Technical Manual, Basic Course II-1-f] (1) Set the battery to tester. (2) Set the lead bars of the tester to the movement. Pull the crown and push the three buttons at the same time, them push the crown (The all-reset operation procedure). Then, measure the current consumption. <Use the tester range: DC 10µA> ★ Precautions for measurment 1. Be sure to measure according to the above procedure. If measurement is not performed according to the above procedure, the watch may indicate and operate abnormally and the current power consumption cannot be measured correctly. 2. When the lead bars are applied to the measurement parts, the meter reading may exceeds the maximum value. In this case, wait for about 30 seconds, then measure again. **Influence of light** **Avoid taking measurements under an incandescent lamp or direct sunshine, because this may cause the current value to increase.** **The light of a fluorescent lamp has no influence on current consumption.**	• Current consumption of the movement **Under 2.8 µA.** → Nomal **Over 2.8 µA.** → Check and crean the train wheel and dial side mechanism ⬇ • Current consumption measured again. **Under 2.8 µA.** → Nomal **Over 2.8 µA.** → Electronic circuit unit is defective. ⬇ Replace the electronic circuit unit.
⓮ Check of appearance and functions	[Refer to Technical Manual, Basic Course II-2-f] • Check inside of case for dust and stain. • Check operation of setting switches for normality. • Check segment for normality (See ❸ Check of LC display panel and connection part.) * Be sure to apply silicone oil to packing of each push button. It is necessary for water resistance and smooth operation.	