

## §1. OUTLINE

This is an analog multi-hand watch having the world-time function, which can indicate the home time (basic watch) and the time and calendar in 23 cities (districts) in the world by simply pushing a button.

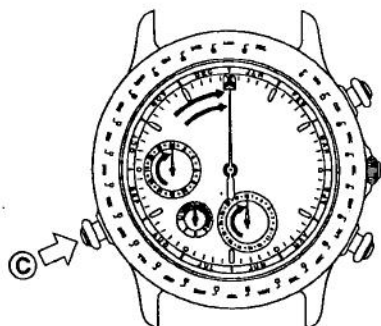
## §2. SPECIFICATIONS

Caliber No.	6720-00A		
Type	Analog quartz watch (multi-hand)		
Module size (mm)	ø32.5 x 4.3 t		
Accuracy	±20 sec./month (at normal temp.)		
Oscillation	32.768 Hz		
Converter	Bipolar step motor (4 units)		
Integrated circuit	C/MOS-LSI (One CPU and one for driving motor)		
Effective temperature range	-10 °C ~ +60 °C (14 °F ~ 140 °F)		
Adjustment of time rate	Trimmer condenser		
Measurement of time rate	10 seconds		
Additional functions	<ul style="list-style-type: none"> <li>• Hand-type calendar Year (with recognition of leap year), month, and date</li> <li>• Hand-type world time City selection [Indication of 23 cities (district)/24 zones] World time (24-hour system)</li> <li>• Changeover of day-light saving time</li> <li>• Warning for incompleteness of initial setting</li> <li>• Second hand stopping device</li> </ul>		
Battery	Part No.	280-74	
	Battery code	SR936W	
	Size (mm)	ø9.4 x 3.6 t	
	Nominal voltage	1.55 V	Nominal capacity 75 mAH
	Lifetime	Approx. 3 years	
Current consumption	3.1 µA		
Coil resistance	Coil unit	2.1 kΩ ~ 2.5 kΩ	
	Date coil unit, World time coil unit City oil unit	2.0 kΩ ~ 2.4 kΩ	

## §3. OPERATING METHOD

### A. Before Using this Watch

Before using this watch, be sure to confirm that it is so set that all the functions can be used (it is at the initial position) according to the following procedure..... Initial monitor.



#### Keep the crown at the normal position.

If the © button is pressed for about 3 seconds, the hands move quickly to the following positions to confirm if they are set to the initial positions.

World time watch:

City selecting hand: 12 o'clock (top) position

World time hand: 24 o'clock (top) position

Calendar:

Date and month hands: Dec. 31th

Year hand: 12 o'clock (top) position

If any hand is not set to the above position when the initial monitoring is performed, set it according to procedures 1 to 3 in 8.

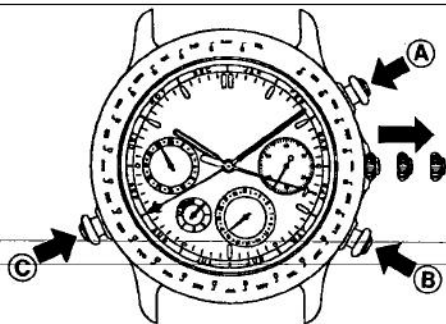
Countermeasures against troubles.

After the initial position setting is confirmed by the initial monitoring, press any one of the a, b and c buttons, the watch is returned to the present world time and calendar.

Even if none of them is pressed, the watch is returned automatically to the present world time and calendar about 20 seconds later.

### B. How to Set Initial Positions

#### 1 Perform the All Reset Operation.



#### Pull the crown to the second click.

- 1) Press the ©, ©, and © buttons at the same time.
- 2) About 1 second after the ©, ©, and © buttons are released, the world time hand, city selecting hand, and date hand (month hand, year hand) are rotated in order.

#### 2 Set the Hands to the Initial Positions.



#### Keep the crown at the second click.

\* If any one of the ©, ©, and © buttons is pressed and held, the corresponding hand moves quickly.

- 1) Press the © button to set the city selecting hand to the 12 o'clock (top) position.
- 2) Press the © button to set the year hand to the 12 o'clock (top) position, then set the month and date hands to Dec. 28th (top) position. The year and month hands are interlocked with the date hand.
- 3) Press the © button to set the world time hand to the 24 hours (top) position.

### 3 Set the Watch to the Present Time/Calendar.

See 2. HOW TO SET TIME and 3. HOW TO SET CALENDAR above explained in this manual.

\* For the name of each hand, etc., see 4. NAME OF EACH PART on page 7 of this manual.

After the power cell is replaced, set watch according to the following procedure. If it is not set correctly, the world time watch (city selecting hand/world time watch) and the calendar hands do not work normally.

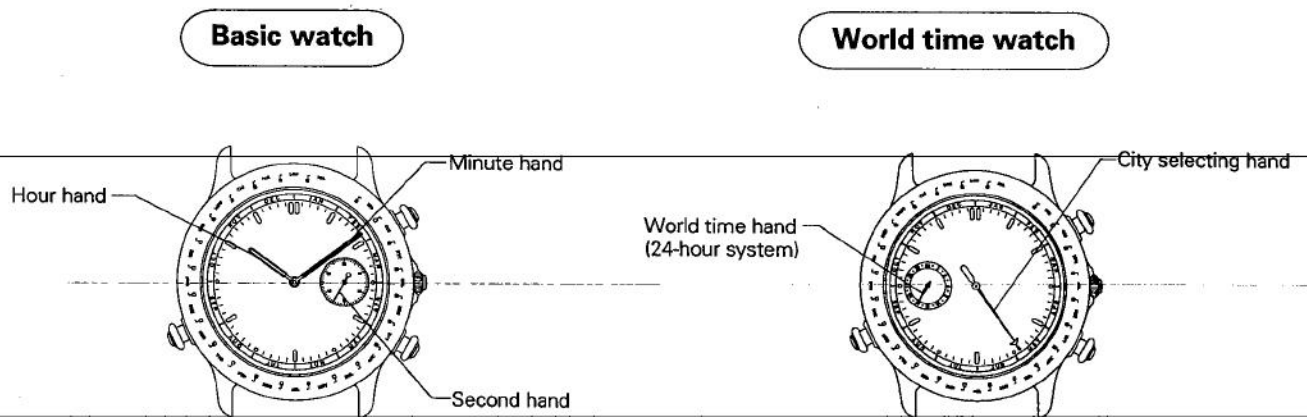
★ The city selecting hand moves quickly in reverse.

- This indicates that the alarm for incompleteness of initial setting is working. In this case, set the watch according to following procedure 1 to 3.

## C. Precautions for Using

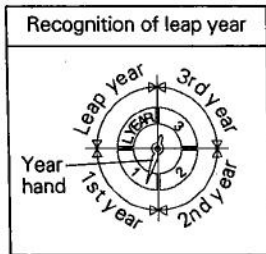
- For the normal use, keep the crown pressed in (at the normal position). If the crown is kept pulled out, the power cell runs out more quickly than in the normal position. Keep the crown at the normal position while this watch is not used.
- Since the calendar of this watch does not need to be adjusted at each month end and in each leap year, you can use it without adjusting it as long as it is used normally.

## 1. How to Read the Watch



- Set the city selecting hand to the city (district) for which you wish to set the watch, and the world time hand indicates the present time of that city (district).
- Since the world time hand is an hour hand which moves every 15 minutes, it may be deviated a little from the correct position. Accordingly, read the "minutes" of the world time watch from the basic watch.

## Calendar

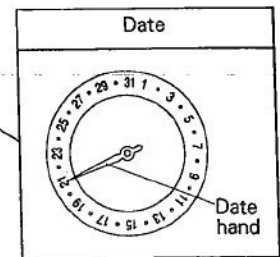
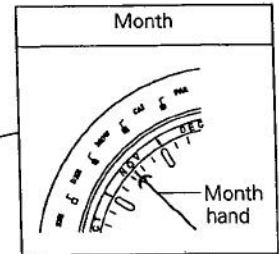


LY: Leap year

This hand indicates a leap year and how many years have passed after it. It takes four years for this hand to rotate by one turn.

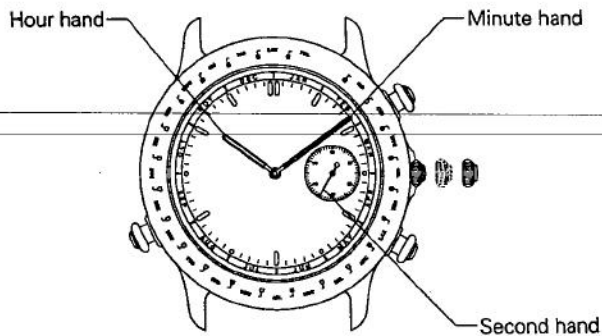
### Example:

If the year hand is at the 1 position as shown above, this year is the first year after the last leap year.



## 2. How to Set Time

### a. HOW TO SET THE BASIC WATCH



**Pull the crown to the second click so that the second hand will stop at 0 second.**

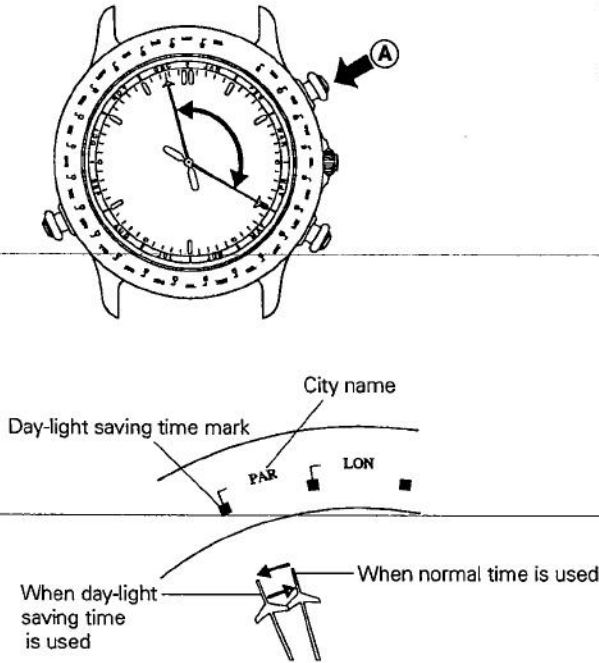
- Rotate the crown to right or left to set the time. After the time is set, press the crown to the normal position to a time signal.

\* The calendar cannot be changed by setting the time.

## b. HOW TO SET THE WORLD TIME

Before using the world time watch, set its time an (including cities) to the time of basic watch for convenience.

### 1 Set the City Selecting Hand.

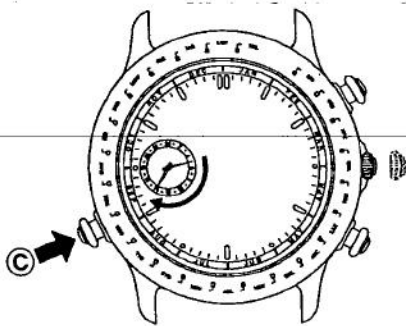


#### Pull the crown to the first click

Press the (A) button to set the city selecting hand to the city (district) of the present time indicated by the base watch.

- When the basic watch is set to the normal time, set the city selecting hand to the city name, and when the former is set to the day-light saving time, set the later to the day-light saving time mark ( ).
- Every time the (A) button is pressed, the city selecting hand is move by 1/2 city, and if the former is pressed and held, the latter is moved quickly.

### 2 Set the World Time Watch



#### Keep the crown pulled to the first click.

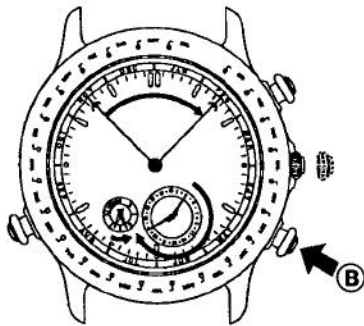
Press the (C) button to set the world time watch to the time indicated by the basic watch.

- Every time the (C) button is pressed, the world time hand is move by 15 minutes, and if the former is pressed and held, the latter is moved quickly.
- The world time hand moves by 15 minutes. It can be set more quickly if it is set when the basic watch is indicating 00, 15, 30, or 45 minutes.
- Since the world time watch operates by 24-hour system, confirm am and pm when setting it.

The world time watch stops when the crown is pulled to the first or second click, and the former starts when the latter is returned to the normal position.

### 3. How to Set Calendar

The calendar is interlocked with the world time watch, but not with the basic watch. The calendar changes when the world time indicates 00:00 am.



#### Pull the crown to the first click.

Press the (B) button to set the calendar to today of this year. The day hand, month hand, and year hand are interlocked with one another. Confirm how many years have passed by this year since the last leap year in advance. (see the leap years list shown below.) Set the year hand, month hand, and date hand in order.

- \* Every time the b button is pressed, the date hand is advanced by one day, and if the former is pressed and held, the latter is advance quickly.

This watch does not need to be adjusted at each month end and in each leap year.

#### Example:

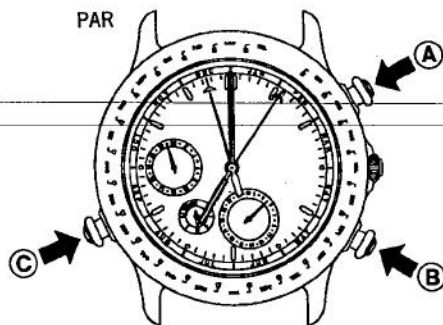
- No need of adjustment at month end:  
The date is automatically changed from Nov. 30 to Dec. 01.
- No need of adjustment in leap year:  
The date is automatically changed from Feb. 29 to Mar 01 leap year and from Feb. 28 to Mar 01 in normal year.

- \* Return the crown to the normal position after the calendar is changed. If it is dept at the first click, the calendar does not change.
- \* The month hand may deviates at the borderline between the end of each month and the beginning of the next month. In this case, judge the correct month by the position of the date hand.

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### 4. How to use World Time Watch (How to Read the Present Time in Various Places in the World)

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#### Keep the crown at the normal position.

If the city selecting hand is set to a city (district) by pressing the (A) or (B) button, the world time watch indicates the present time of that city (district). At this time, the calendar also indicates the date of that city. The city selecting hand can be moved with the (A) and (B) buttons as follows.

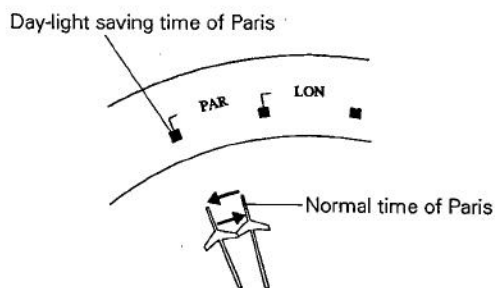
- (A): Turning in reverse
- (B): Turning forward

Every time the (A) or (B) button is pressed, the city selecting hand moves by one city (district), and if either of them is pressed and held, the latter moves quickly.

#### Example:

Present time (Tokyo): 7:00 AM  
Time in Paris: 11:00 PM

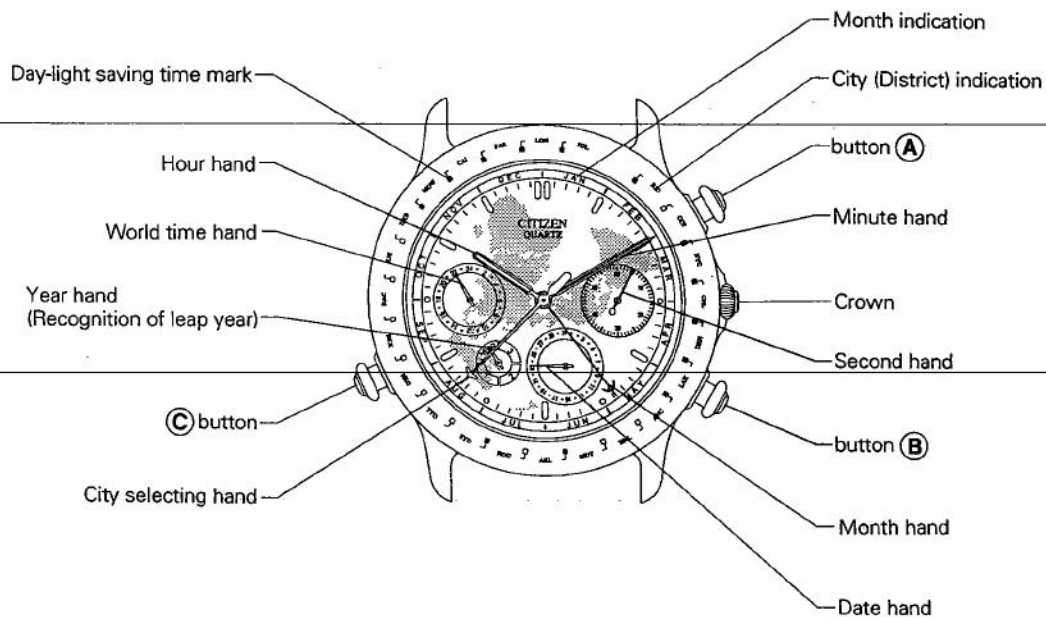
## <How to set day-light saving time>



If day-light saving time is used in the city (district), the time of which you want to know, press the © button to set the city selecting hand to the day-light saving time memory (☐). At this time, the world time watch is advanced by one hour to indicated the day-light saving time. If the © button is pressed again, the world time watch is returned to the normal time.

\* Mark of ☐ indicates the cities (districts) where the day-light saving time is used, and that of ☐ indicates the cities where the day-light saving time is not used (as of 1989).

## 5. Name of Each Part and List of Operations



Crown \ Button	Pressing (A) button	Pressing (B) button	Pressing (C) button	Turning crown
Normal position	Selection of city (City selecting hand moves in reverse)	Selection of city (City selecting hand moves forward)	Change over of day-light saving time (Note)	
1st	Setting of world time watch (City selecting hand)	Setting of calendar	Setting of world time watch (World time hand)	
2nd				Setting of base watch

### Note:

- If the © button is pressed while the day-light saving time is indicated, the watch is returned to the normal time.
- If the © button is press and held for about 3 seconds with the crown at the normal position, the initial monitor can be performed.

# LIST OF TIME DIFFERENCES FROM GREENWICH MEAN TIME

UTC (Universal Time Coordinated)

Time difference	Main city	City Code	Country	Day-light saving time	
	Greenwich Mean Time	UTC (G.N.T)			Application period
±0	LONDON	LON	England	○	
+1	PARIS	PAR	France	○	
+2	CAIRO	CAI	Egypt	○	
+3	MOSCOW	MOW	USSR	○	
+4	DUBAI	DXB	United Arabu Emirates	X	
+5	DARACHI	KHI	Pakistan	X	
+6	DHAKA	DAC	Bangladesh	X	
+7	BANGKOK	BKK	Thailand	X	
+8	HONGKONG	HKG	English territory	X	
+9	TOKYO	TYO	Japan	X	
+10	SYDNEY	SYD	Australia (East part)	○	
+11	NOUMEA	NOU	New Caledonia	X	
+12	AUCKLAND	AKL	New Zealand	○	
-11	MIDWAY MDY	USA		X	
-10	HONOLULU	HNL	USA (Hawaii)	X	
-9	ANCHORAGE ANC	ANC	USA (Alaska)	○	
-8	LOS ANGELES	LAX	USA (Pacific Ocean Coast)	○	
-7	DENVER	DEN	USA (Mountainous area)	○	
-6	CHICAGO	CHI	USA (Midland)	○	
-5	NEW YORK	NYC	USA (East area)	○	
-4	CARACAS	CCS	Venezuela	X	
-3	RIO DE JANEIRO	RIO	Brazil	○	
-2	* -----	-----	-----	-----	-----
-1	* AZORES (PONTA DELGADA)	----- PDL	Portuguese territory	○	

The cities (districts) where the day-light saving time is used are marked ○, and those where the day-light saving time is not used are marked X (as of 1989).

The time difference and day-light saving time of each country are subject to change.

## LEAP YEARS LIST

### <How to Read this Table>

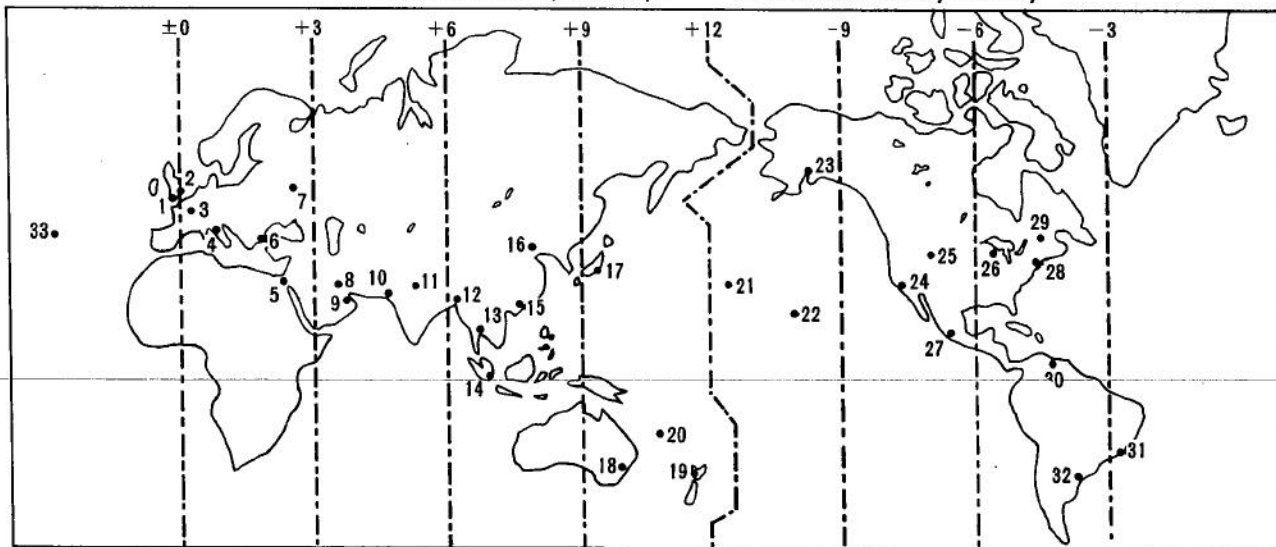
"L.Y" represents leap year, and 1, 2, and 3 represent the number of years after each leap year.

Example: 1992 is a leap year, and 1993 is the first year after the leap year.

LY	1988	LY	1992	LY	1996	LY	2000	LY	2004	LY	2008
1	1989	1	1993	1	1997	1	2001	1	2005	1	2009
2	1990	2	1994	2	1998	2	2002	2	2006	2	2010
3	1991	3	1995	3	1999	3	2003	3	2007	3	2011

**TIME DIFFERENCE FROM GREENWICH MEAN TIME (UPTAKE) AND 33 CITIES (DISTRICTS) INDICATED BY THIS WATCH.**

Advance date by one day ← → Turn back date by one day



- |                    |                     |                       |                          |
|--------------------|---------------------|-----------------------|--------------------------|
| 1. Greenwich (UTC) | 9. Dubai (DXB)      | 17. Tokyo (TYO)       | 25. Denver (DEN)         |
| 2. London (LON)    | 10. Karachi (KHI)   | 18. Sydney (SYD)      | 26. Chicago (CHI)        |
| 3. Paris (PAR)     | 11. New Delhi (DEL) | 19. Noumea (NOU)      | 27. Mexico City (MEX)    |
| 4. Rome (ROM)      | 12. Dhaka (DAC)     | 20. Auckland (AKL)    | 28. New York (NYC)       |
| 5. Cairo (CAI)     | 13. Bangkok (BKK)   | 21. Midway (MDY)      | 29. Montreal (YUL)       |
| 6. Istanbul (IST)  | 14. Singapore (SIN) | 22. Honolulu (HNL)    | 30. Caracas (CCS)        |
| 7. Moscow (MOW)    | 15. Hong Kong (HKG) | 23. Anchorage (ANC)   | 31. Rio de Janeiro (RIO) |
| 8. Kuwait (KWI)    | 16. Peking (PEK)    | 24. Los Angeles (LAX) | 32. Buenos Aires (BUE)   |
|                    |                     |                       | 33. Azores Islands       |