

***TECHNICAL  
INFORMATION***

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**CITIZEN QUARTZ  
Cal.No.890※※**

## §1. OUTLINE



This unique watch combines the advantages of a digital quartz watch and an analog quartz watch together. It is finished in a well unified design thanks to adoption of an L-shaped LC display panel completed through special processing, furthermore featuring a stopwatch function.

## §2. FEATURES

- 1) A compact and multi-function watch for gentlemen's use.
  - a) One chip of C/MOS-LSI controls both the digital and analog functions.
  - b) The module size is as follows: Outer diameter 30.0mm $\phi$  (max.); Thickness 4.50mm (without power cell); Thickness with power cell 5.51mm.
- 2) A high accuracy can be maintained about three years with only one unit of small-size silver oxide power cell.
  - a) Accuracy at the normal temperature:  $\pm 15$  sec. per month
  - b) Power cell No.: 280-15; Nominal power cell life: about 3 years
- 3) Digital display function
  - a) Time display (24-hour, minute & second)  $\leftrightarrow$  calendar display (month, date & day), plus stopwatch display
  - b) Automatic calendar setting at the end of each month and year (including the leap year)
  - c) Power cell life indicating device (with blinking of service mark, (The colon and the time or calendar mark start flashing).
- 4) Analog display function
  - a) 2 hands (4-second step movement for hour and minute hands)
  - b) Power conservation switch (to be actuated with pull-out of crown)
- 5) An easy time adjustment is possible by means of the trimmer condenser.
- 6) High-contrast and long-life FE-type LC display.

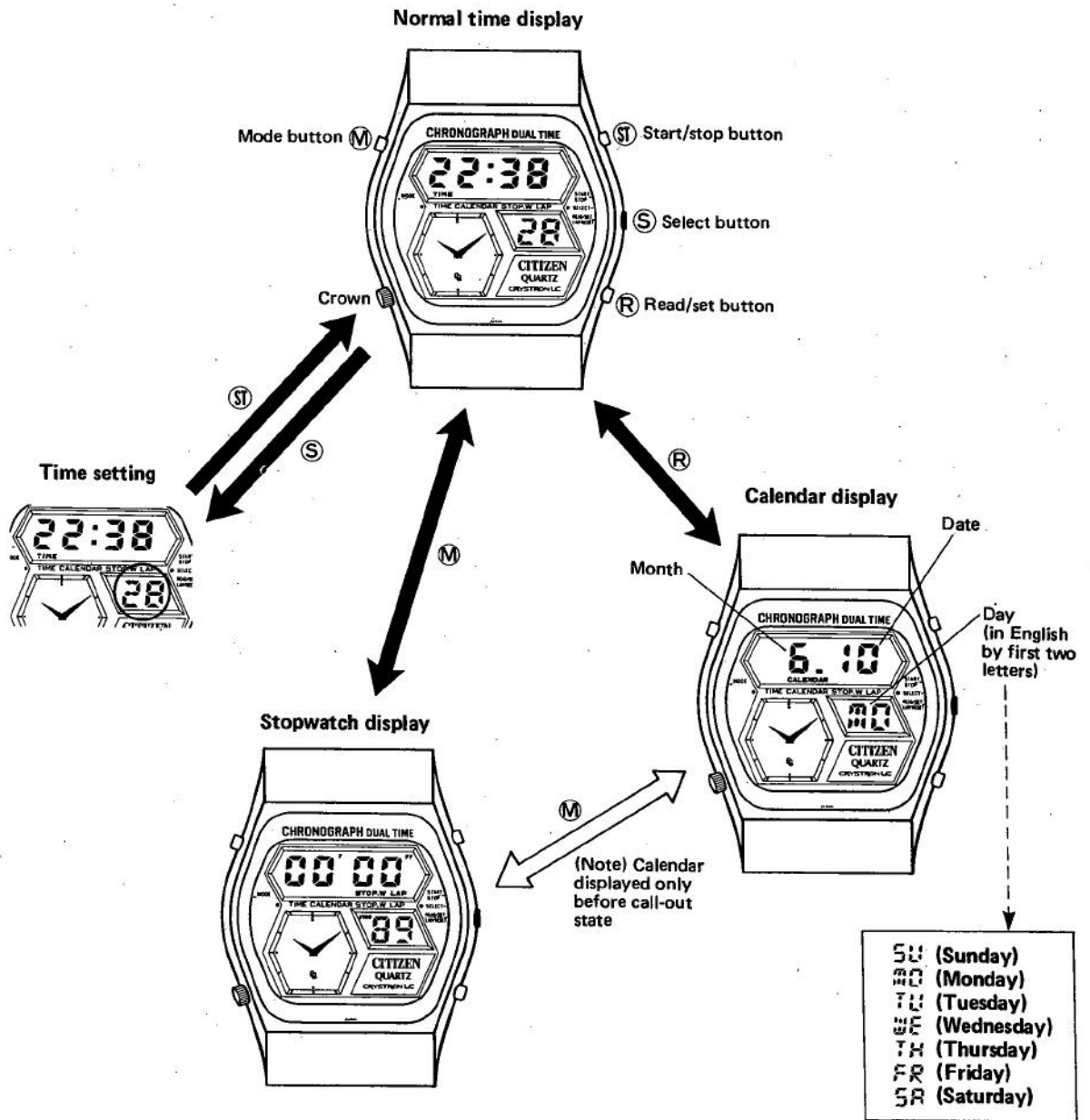
With application of a special-form LC display panel, an easy-to-see display screen is obtained with increased functional efficiency.

## § 3. SPECIFICATIONS

Caliber No.	8900-08A
Type	Quartz crystal watch with digital-analog simultaneous display
Movement	Size: 30.00mm $\phi$ Thickness: 4.50mm (5.51mm with power cell)
Accuracy	$\pm 15$ sec./month (at normal temperatures)
Oscillation	32,768Hz
Digital watch (Display system)	<ul style="list-style-type: none"> <li>●FE twist type nematic LC display</li> <li>●6-digit time display (hour, minute &amp; second)</li> <li>●Calendar display by switching (month, date, day &amp; year)</li> <li>●"Year" displayed only at display correction time</li> <li>●Stopwatch function by selecting button</li> </ul>
Analog watch (Display system)  (Converter)	<ul style="list-style-type: none"> <li>●Time display (hour &amp; minute) by two hands in 4-second step movement</li> <li>●Bipolar step motor</li> </ul>
Effective temperature range	0°C ~ +60°C (32°F ~ 140°F)
Integrated circuit	C/MOS-LSI (1 unit)
Additional mechanisms	<ul style="list-style-type: none"> <li>●Automatic calendar setting at the end of each month and year (Digital)</li> <li>●Power cell life indicating device (Digital)</li> <li>●Power conservation switch (Analog)</li> </ul>
Power cell	<p>Small-size silver oxide power cell (1 unit)</p> <p>Parts No. : 280-15 Voltage : 1.5V Capacity : 75mAH Size : 11.6mm<math>\phi</math> X 3.00mm Life : About 3 years</p>

4. HANDLING INSTRUCTION

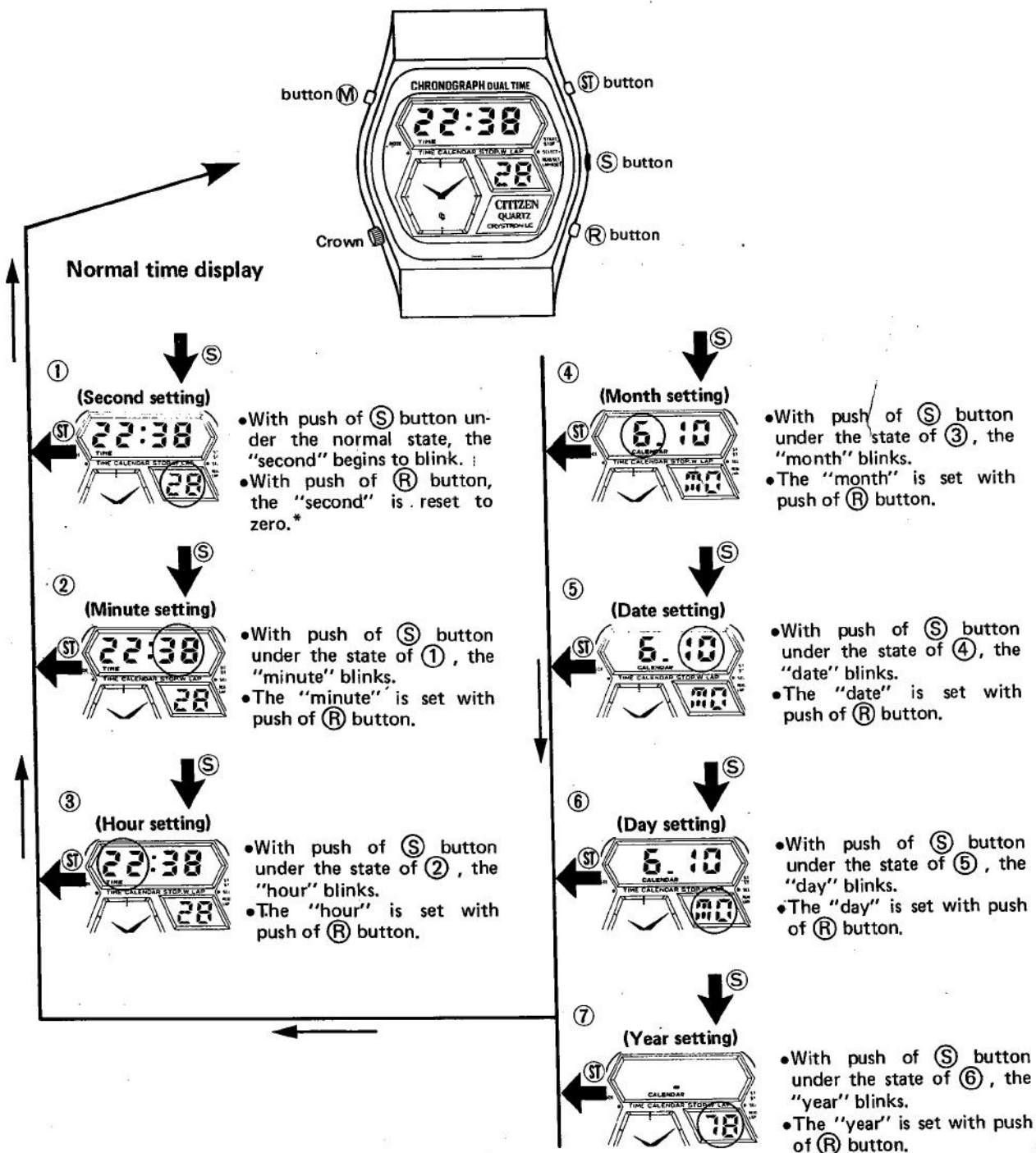
1) Digital watch



2) Analog watch

- a) The crown is pulled out by one step and turned right or left to set the "hour" and "minute".
- b) The crown is pushed in to the original place to start the hands.  
 \*The power conservation state is also secured with pull-out of the crown.  
 \*The operation of the crown does not affect the digital display mechanism at all.
- c) The hands move once per 4 seconds.

## § 5. TIME AND CALENDAR SETTING



In case of only the "month", for example, is set, the **(S)** button is pushed four times. Then the "month" begins to blink and can be set with push of **(R)** button in the necessary pushing frequency. After setting the "month", the **(ST)** button is pushed to secure the normal time display.

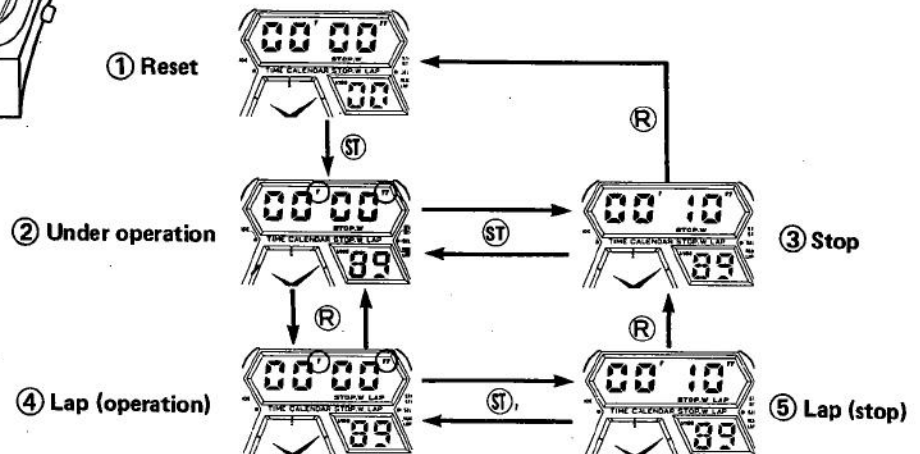
\*The "year" is set in a cycle of 1970 ~ 2009 with the last two digits of the year.

\* If **(R)** button pressed when indicating 30 to 59, then minutes will advance one minute.

## § 6. STOPWATCH OPERATION



The stopwatch display can be secured with push of (M) button under the state of either the normal time display or the calendar display.



## ① Reset

The service mark "TIME" disappears, and "▼▼▼", "STOP.W" and "1/100" are displayed instead. The "hour", "minute" and "second" of the normal time display are charged to the "minute", "second" and "1/100" of the stopwatch display respectively. Here, "00min. 00sec. 00" is secured for the stopwatch timing.

## ② Under operation

With push of (ST) button under the reset state, the service mark "▼▼▼" begins to blink to indicate that the timing is being carried out.

## ③ Stop

With push of (ST) button under the operation state, the service mark "▼▼▼" stops blinking. At the same time, the timing is also stopped and the elapsed time is displayed. If (ST) button is pushed under these conditions, the cumulative time can be displayed.

## ④ Lap (operation)

With push of (R) button under operation, "LAP" is displayed along with the elapsed time. In this case the time measurement is continued. With push of (R) button again, the continued time is displayed.

## ⑤ Lap (stop)

With push of (ST) button after pushing (R) button under operation, the timing is stopped under the "LAP" state. At this moment, the service mark "▼▼▼" stop blinking to indicate the stoppage of the timing. If (R) button is pushed under these conditions, the "LAP" display is erased and the "stop" state is secured.

## ⑥ Reset

With push of (R) button under the state of ③ shown in the above diagram, the zero-second reset is given with '00 00 00' displayed. Thus, the "reset" state is secured.