

***TECHNICAL  
INFORMATION***

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**CITIZEN QUARTZ**

**Cal. No. 945※※**

**Cal. No. 947※※**

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## §1. OUTLINE

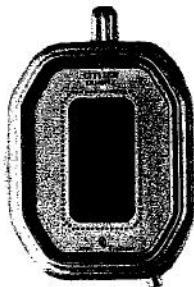


This is a digital quartz watch for ladies, featuring a thin-gage and fancy design along with a reasonable price. With addition of this new ladies' watch, the Citizen digital fashion watch group will find a larger watch of ladies.

## §2. FEATURES

- 1) A simple display of the hour and minute, which can be switched to the calendar display or the second display with operation of a push-button.
- 2) The soft and rounded shapes of display characters enhances the fashionableness of the ladies' watch.
- 3) A simple operation of the watch functions is ensured by two push-buttons.
- 4) The DFC (Digital Frequency Control) method is applied.

### Cal No. 947\*\*



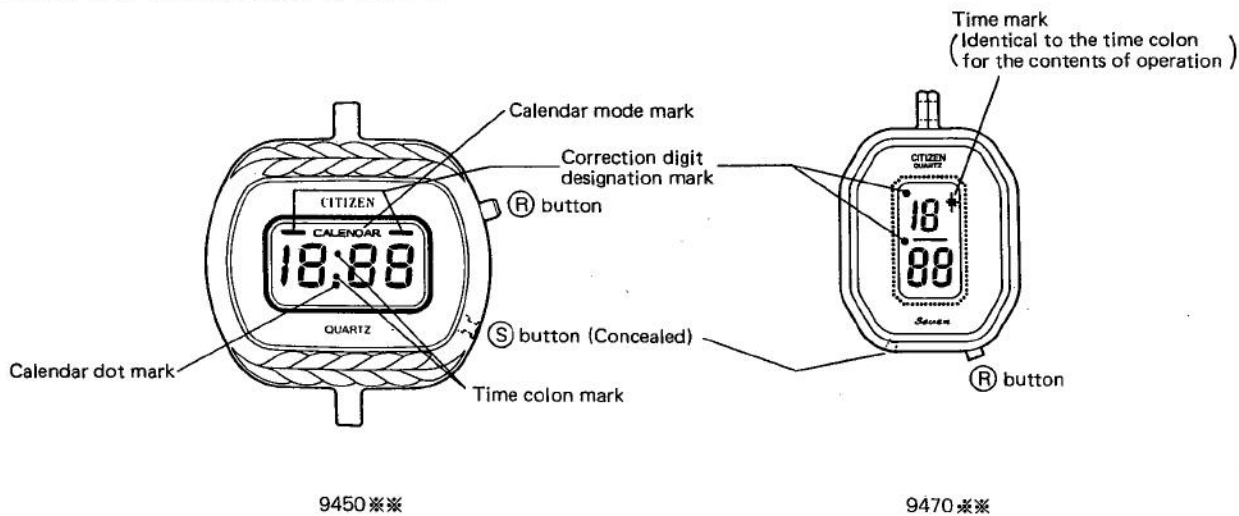
This caliber is exactly identical to Cal. No. 945\*\* in terms of the specifications and operation except for the vertical display screen against the horizontal one.

This technical information is based mainly on Cal. No. 945\*\*, and refer to the "External View of Cal. Nos. 945 and 947" on the following page for the difference between the display screens.

§3. SPECIFICATIONS

Caliber Nos.	9450A/B, 9470A/B	
Type	Digital quartz crystal watch	
Size of module (mm)	(3-9h) 18.0 x (12-6h) 14.4 x 4.35 <sup>†</sup> (Power cell part 4.4 <sup>†</sup> )	
Accuracy	±20 sec./month at normal temperatures	
Oscillation	32,768 Hz	
Method of display	FE-twist nematic LC (Liquid Crystal), 2-split multiplex driving	
Integrated circuit	C/MOS-LSI unit	
Effective temperature range	±0°C ~ 55°C (32°F ~ 131°F)	
Adjustment of time rate	D.F.C. method (Adjustment terminal for market available) *Measure time 10 sec.	
Display functions	Time	Hour & minute
	Calendar	Month & date
	Second	Second
	*Setting time	Shown by correction digit designation mark
Additional functions	<ul style="list-style-type: none"> <li>● Automatic calendar (Feb. 28-day display system)</li> <li>● Auto-return</li> </ul>	
Power cell (Silver oxide)	Parts No.	: 280-29 1 unit
	Cell Code	: SR721SW (Ag <sub>2</sub> O/NaOH)
	Nominal voltage	: 1.55V
	Capacity	: 23mAH
	Size (mm)	: 7.9φ x 2.1 <sup>†</sup>
	Lifetime	: About 2 years
Others	A → Reflecting plate	: Silver color
	B → Reflecting plate	: Gold color

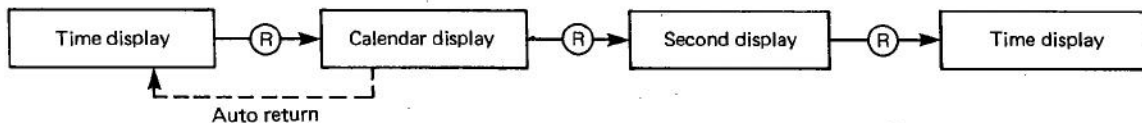
External View of Cal. Nos. 945 and 947



§ 4. HANDLING INSTRUCTIONS (The flashing is shown by ○.)

4-1. Switching of display

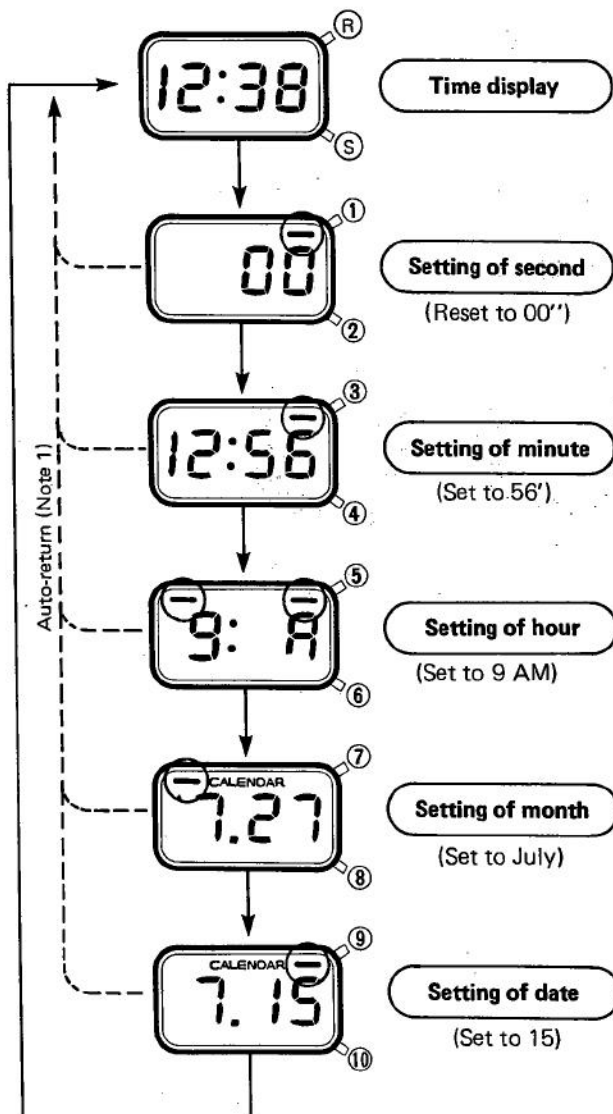
The display is changed as follows with operation of (R) button.



The auto-return functions in 2 ~ 3 seconds after release of (R) button.

4-2. Setting of time/calendar

With push of (S) button in the mode of the time display, the setting mode is secured. The digit of correction is indicated by the correction digit designation mark.



The setting mode is secured with push of (S) button.

① The resetting to 0 second is carried out with push of (R) button.

- 0-sec. reset up to 29 seconds → Omission
- 0-sec. reset at and after 30 seconds → Carry of "minute"

② The minute is corrected with (S) button.

③ The minute is set with (R) button

④ The hour is corrected with (S) button.

⑤ The hour is set with (R) button. Make sure **A** (AM) and **P** (PM).

⑥ The month is corrected with (S) button.

⑦ The month is set with (R) button.

⑧ The date is corrected with (S) button.

⑨ The date is set with (R) button. (Note. 2)

⑩ The time display is given again with (S) button.

The setting of time/calendar is over.

(Note 1) Auto-return

Any mode of display returns automatically to the time display in 1 ~ 2 minutes after push of (S) or (R) buttons.

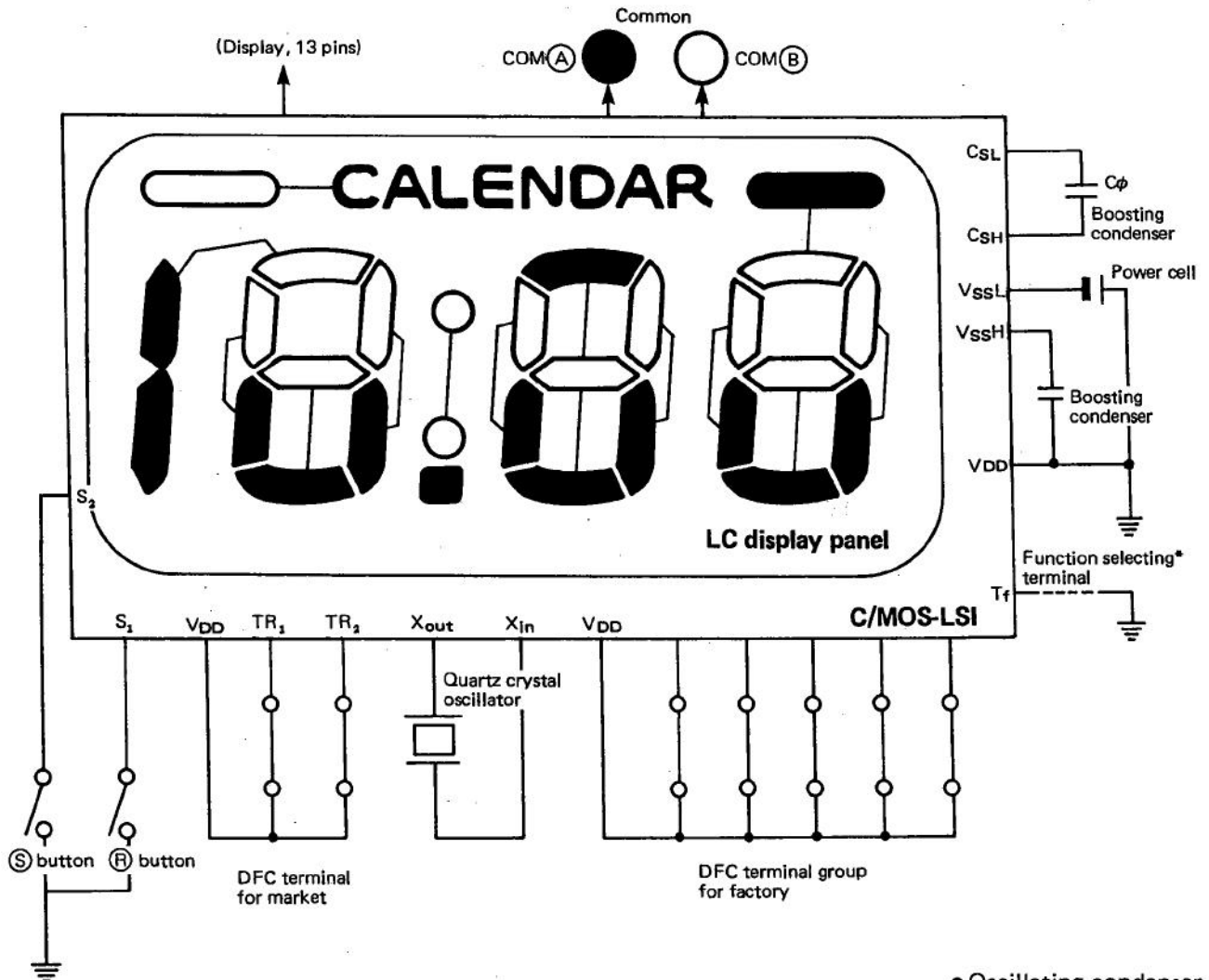
(Note 2) Setting of day

If a non-existing date is set, the date is changed automatically to the first day of the following month.

(Ex.) Set to June 31 → July 1 displayed automatically

\*In the case of a leap year, the date 29 must be set on the very February 29. This is due to the fact that February 28 jumps to March 1 since this watch applies the "February 28" system. And the "February 29" is not a non-existing date.

### §5. CIRCUIT DIAGRAM



● Oscillating condenser incorporated

\*Function selecting terminal (T<sub>f</sub>)

The IC this caliber can select the use of the calendar function. And this terminal is used for this selection.