

# *TECHNICAL INFORMATION*

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**CITIZEN QUARTZ**

**Cal. No. 4921**



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## ■1. OUTLINE

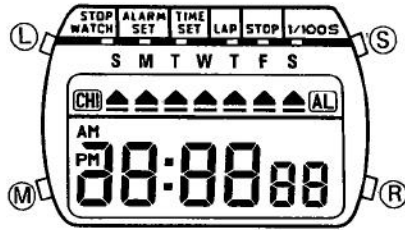
This is a liquid crystal-displayed quartz watch with alarm and stopwatch, and was designed to be popularly used by men.

## ■2. SPECIFICATIONS

Caliber No.	4921-00	
Type	Digital quartz watch	
Movement (mm)	Diameter: 27.0 $\phi$ Thickness: 3.75 <sup>t</sup> (Thickness of the power cell part: 5.45 at maximum)	
Accuracy	$\pm$ 30 seconds at normal temperatures	
Oscillation	32,768Hz	
Display method	FE-nematic liquid crystal, multiplex drive	
Integrated circuit	C/MOS—LSI (1 unit)	
Effective temp. range	0°C ~ +55°C (32°F ~ 131°F)	
Adjustment of time rate	By trimmer condenser	
Measurement of time rate	2 seconds	
Display functions	Time	Hour, minute, second, AM/PM, day
	Calendar	Month, date, day
	Alarm	Hour, minute, AM/PM, set mark
	Stopwatch	Minute, second, 1/100 (Over 30 minutes; hour, minute, second)
	Hourly chime	Set mark
Additional functions	<ul style="list-style-type: none"> <li>●Fully automatic calendar (February ends with 28th)</li> <li>●Switching function between 12H and 24H display</li> <li>●Sound monitor</li> <li>●Illumination lamp</li> <li>●Previous condition restoration</li> <li>●Alarm</li> <li>●Hourly chime</li> </ul>	
Power cell	Parts No.	280-44
	Cell code	SR926W
	Size	9.5 $\phi$ x 2.6 <sup>t</sup> (mm)
	Voltage	1.55V
	Capacity	55mAH
	Lifetime	About 2 years
Value of current	Within 2.3 $\mu$ A (for the operation of the module)	
Remarks		

■3. HANDLING INSTRUCTIONS

(1) Nomenclature

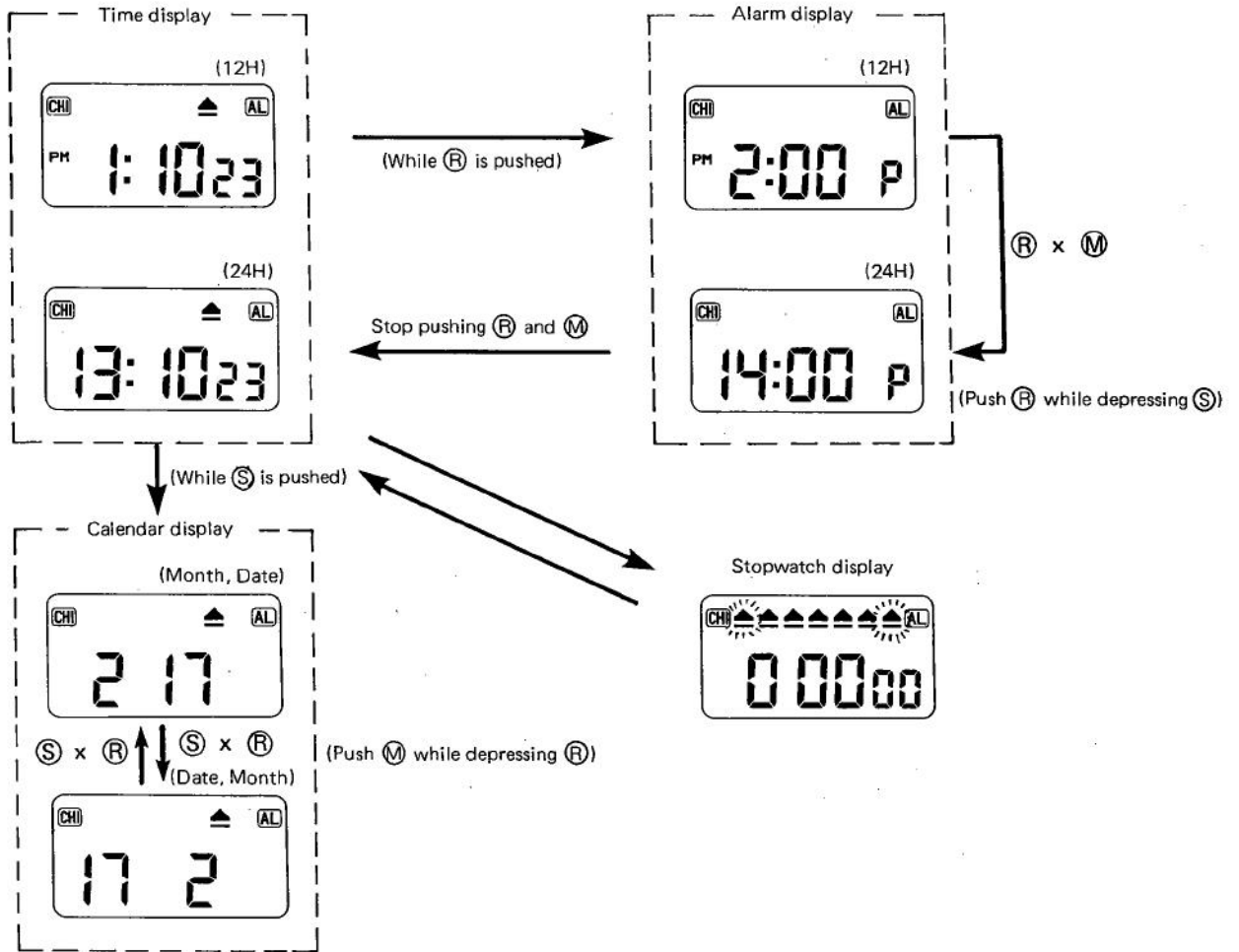


- Ⓢ : Select button
- Ⓡ : Read set button
- Ⓛ : Light button
- Ⓜ : Mode switching button
- CHI : Chime mode
- AL : Alarm mode

(2) Table of functions obtained by operating the buttons

	Time	Alarm (Keep pushing Ⓡ button)	Calendar (Keep pushing Ⓢ button)	Stopwatch
Ⓢ	*Calendar display, Selection of digits to be corrected	Alarm, chime ON/OFF		RUN/STOP
Ⓡ	*Alarm time display, Correction, Alarm stop		Switching between Month and Date display	
Ⓜ	*Selection of correction mode, Stopwatch, Previous condition restoration	Switching between 12H and 24H display		Restoration of time display
Ⓛ	Lamp	←	←	←
Ⓢ x Ⓡ	All the display keep lighting Sound monitor			

(3) Switching of the display



#### (4) Correcting procedures of time and calendar

##### <1> How to correct seconds

If the (M) button is pushed for more than 2 seconds when time is displayed, the hour correction mode of alarm time display is obtained. If the (M) button is pushed again at that moment, the second correction mode of time display is obtained and the second digits will flash.

Then, the seconds digits indicate "00" if the (R) button is pushed.

(If the (R) button is pushed when figures between 30 and 59 are being indicated on the second display, figures on the minute display will increase by one.)

##### <2> How to correct minutes

If the (S) button is pushed in the second correction mode, the minute correction mode is obtained and the minute digits will flash.

Then, push the (R) button, and minutes will be corrected.

##### <3> How to correct hours

If the (S) button is pushed in the minute correction mode, the hour correction mode is obtained, and the hour digits will flash.

Then, push the (R) button, and hours will be corrected.

(When 12H display is on, either "AM" or "PM" will flash.)

\* In the time correction mode, only the flag for "TIME SET" will flash and the remaining flags will keep lighting.

##### <4> How to correct dates

If the (S) button is pushed in the hour correction mode, the calendar will be displayed and the date digits will flash.

(At this moment, the colon will not be displayed.)

Then push the (R) button, and dates will be corrected.

(A non-existing date which has been set in the date correction mode, will be automatically corrected and changed to the first day of the following month if the normal calendar display is restored.)

##### <5> How to correct months

If the (S) button is pushed in the hour correction mode, the calendar will be displayed and the date digits will flash.

Then push the (R) button, and months will be corrected.

\* Calendar (month, date) will be corrected with the right-hand display first. Accordingly, in case calendar is displayed in such a way as "Date : Month", the month digits will have a priority over the date digits in correction.

## &lt;6&gt; How to correct days of the week

If the (S) button is pushed in the month or date correction mode, the day correction mode is obtained and the flag for days will flash.

Then push the (R) button, and days will be corrected.

- \* A push of the (R) button will generate one movement. A continuous push of the (R) button for more than 2 seconds will enable a quick correction at 4 Hz.  
(The above-described properties of the (R) button are effective in all the correction modes except in the second correction mode.)
- \* In any correction modes, time display will be restored by pushing the (M) button.
- \* Calendar will automatically change. However, it is necessary to set February 29th in a leap year because this caliber was originally designed to have 28 days in February.

**(5) Operation procedures of alarm and chime**

## &lt;1&gt; Setting of On and Off

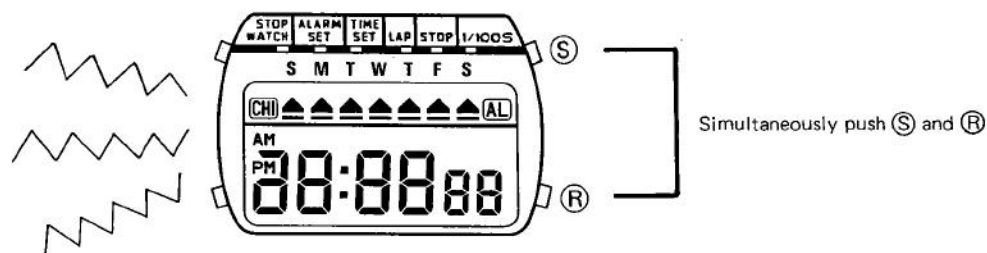
The time display will be replaced by the alarm time display with a continuous push of the (R) button.

Then push the (S) button, and both alarm and chime can be set.

The right table shows how alarm and chime switch from ON to OFF, and vice versa, according to the number of times the (S) button is pushed, starting with both alarm and chime set to OFF.

(R) x (S)	Alarm	Chime
(S) x 1 time	OFF	ON
(S) x 2 times	ON	ON
(S) x 3 times	ON	OFF
(S) x 4 times	OFF	OFF

- \* Whether alarm and chime are ON or OFF is confirmed by mode mark of their own. (ON is identified with the mode mark which lights up.)
- \* Alarm sounds for 20 seconds. Alarm stops sounding with a push of the (R) button, even if the 20-second period has not yet come to end.
- \* A simultaneous push of the (S) and (R) buttons enables all the displays to light up. At this moment, alarm sound is confirmed.



All the displays keep lighting. (Alarm sound is heard.)

## &lt;2&gt; Correcting procedures of alarm time

## 1. How to correct hours

If the (M) button is pushed for more than 2 seconds when time is displayed, the hour correction mode of alarm time display will be obtained and at the same time the hour digits and letters "AM" and "PM" will flash.

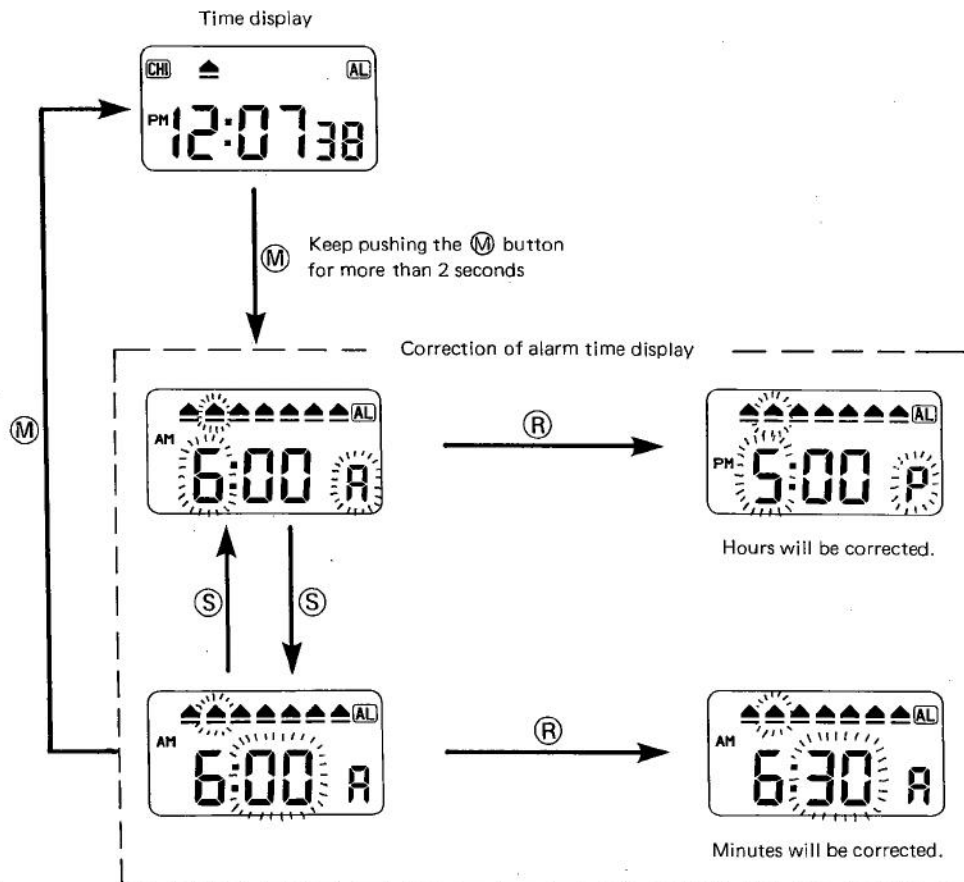
Then push the (R) button, and hours will be corrected.

## 2. How to correct minutes

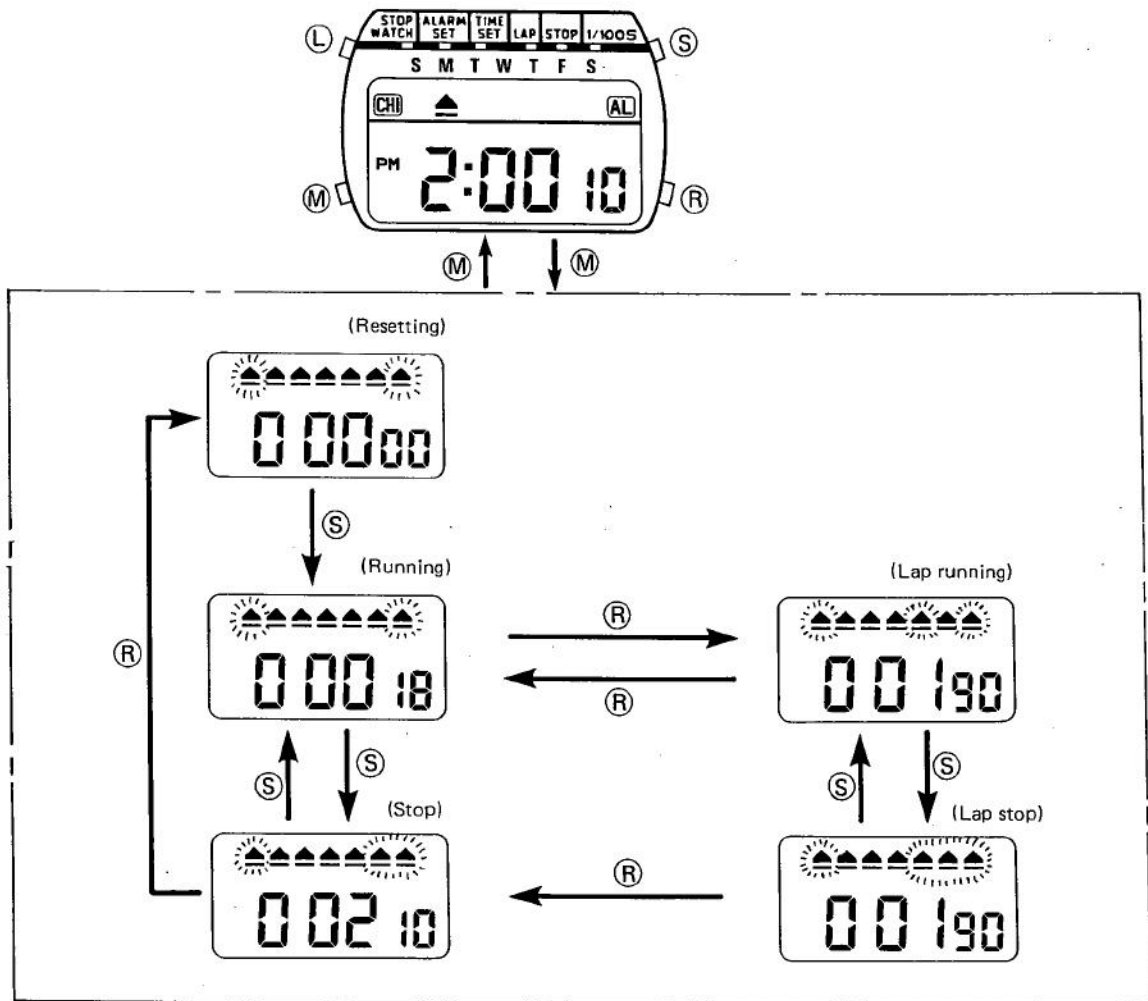
If the (S) button is pushed in the hour correction mode, the calendar will be displayed and the date digits will flash.

Then push the (R) button, and minutes will be corrected.

- \* The hour correction mode and the minute correction mode will alternately be obtained with each push of the (S) button.
- \* In the alarm time correction mode, only the flag for "ALARM SET" will flash and the remaining flags will keep lighting.
- \* A quick correction at 4 Hz is possible with a continuous push of the (R) button for more than 2 seconds.
- \* The time display will be restored with a push of the (M) button.



(6) Operation procedures of stopwatch



\* Stopwatch timing will be displayed differently between 0 min. 00 sec. 00 and 29 min. 59 sec. 99 from between 30 min. 00 sec. and 23 hr. 59 min. 59 sec., which will be explained below.

00:00 ( 0 min. 00 sec. 00/100, Colon does not light.)

29:59:99 (29 min. 59 sec. 00/100, Colon does not light.)

0:30:00 ( 0 hr. 30 min. 00 sec., Colon lights.)

23:59:59 (23 hr. 59 min. 59 sec., Colon lights.)

As known from the above, display digits are identified with the presence of the colon.