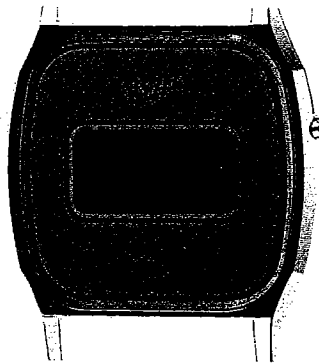


TECHNICAL INFORMATION

CITIZEN QUARTZ

Cal. No. 4811



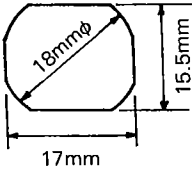
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■1. OUTLINE OF NEW PRODUCT

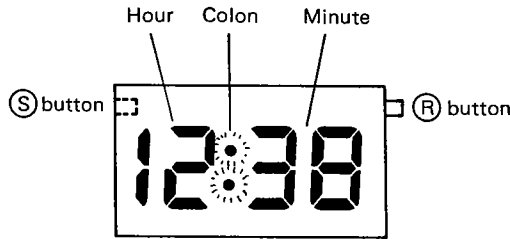
This is designed as one of popular price digital watches for ladies, and thinly and compactly constructed as a standard liquid crystal digital watch.

■2. SPECIFICATIONS

Caliber No.	4811	
Type	Digital type quartz watch	
Size of module		
Accuracy	Within ± 30 seconds/month at normal temperature	
Oscillation	32,768Hz	
Display method	FE twist nematic liquid crystal, 2-split multiplex drive	
Integrated circuit	C/MOS-LSI (1 unit)	
Effective temperature range	$\pm 0^{\circ}\text{C} \sim +55^{\circ}\text{C}$ ($32^{\circ}\text{F} \sim 131^{\circ}\text{F}$)	
Adjustment of time	Impossible	
Measurement of time rate	2 seconds	
Display function	Time display	Hour: minute, AM/PM (only in time correction)
	Calendar	Month, Date
	Second	Second
Additional function	Auto return, automatic calendar (February 28)	
Power cell	Parts No.	280-45
	Maker code	SR916SW (Hitachi Maxel, $\text{Ag}_2\text{O}/\text{NaOH}$)
	Size	9.5mm diam. x 1.6mm thick
	Nominal voltage	1.55V
	Nominal capacity	18mAH
	Life time	about 2 years
Current consumption	Within $1.1\mu\text{A}$ (by module)	
Remarks		

3. HANDLING INSTRUCTIONS

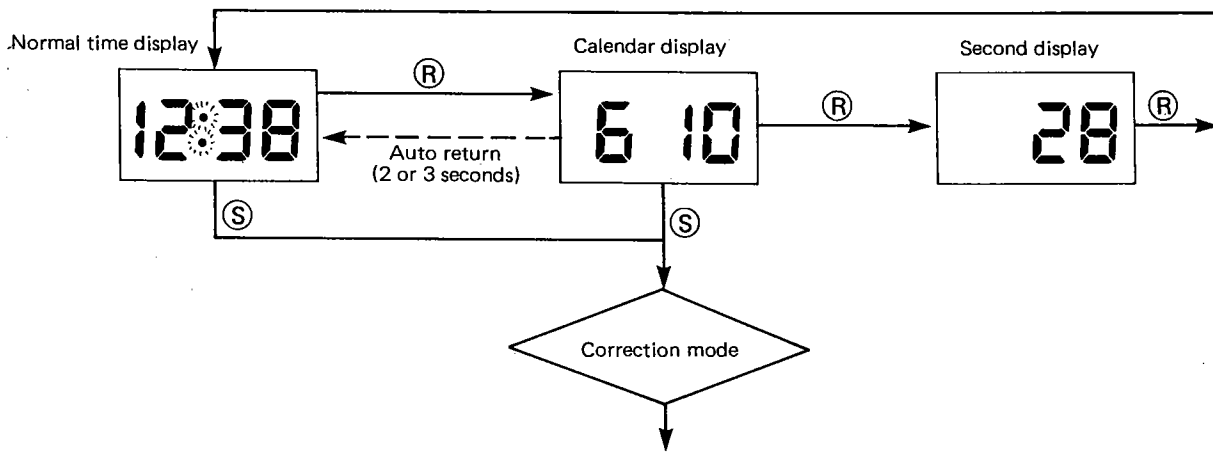
(1) Name of Each Control



Ⓢ button
Selects a digit to correct and corrects second.

Ⓡ button
Changes and corrects display.

(2) Display Change

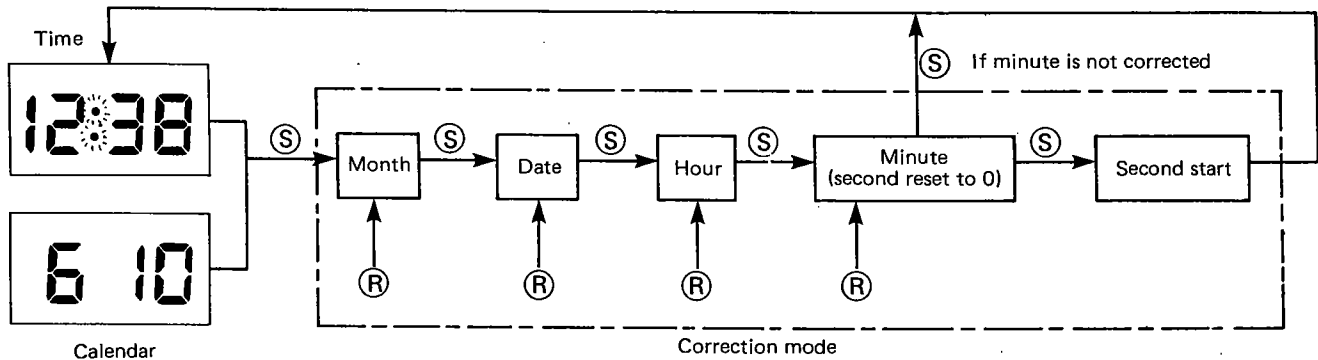


Auto return: Function mode returns automatically to time display mode 2 or 3 seconds after display of the calendar.

Colon flash: The colon flashes in normal time display mode. It is not displayed in month/date display and second display modes.

(3) Correction

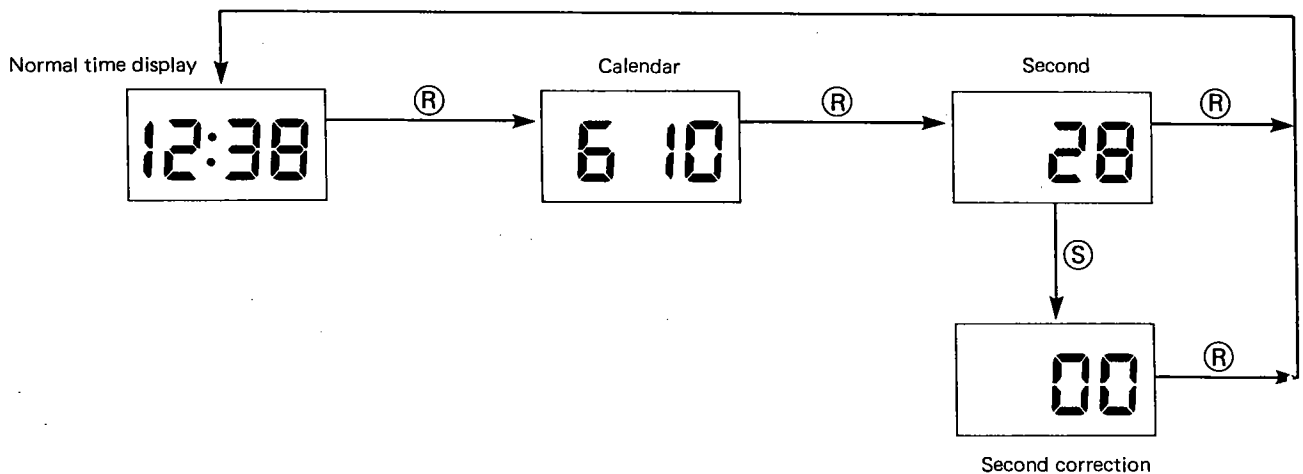
When the Ⓢ button is depressed in time display or calendar display, correction mode is set. At that time, the digit to be corrected flashes. For correction, proceed as follows.



1. Month correction
Depress the (R) button in month correction mode, and the month will be corrected.
2. Date correction
Depress the (R) button in date correction mode, and the date will be corrected. If the non-existent day is set, it is carried to the first day of the next month when function mode is reset to normal time display mode.
3. Hour correction
Depress the (R) button in hour correction mode, and hour will be corrected. At that time, A or P that represents AM or PM is displayed on the less significant digit of minute display digits. The colon is lighting.
4. Minute correction (second reset to 0)
Depress the (R) button in minute correction mode. At that time, seconds are reset to 0 and stand-by mode is set.
If minute is not corrected at that time, seconds will not be reset to 0 and the current time will continue.
5. Second start
Depress the (S) button in minute correction mode, and function mode will be reset to time display mode and second counting will start at 00.

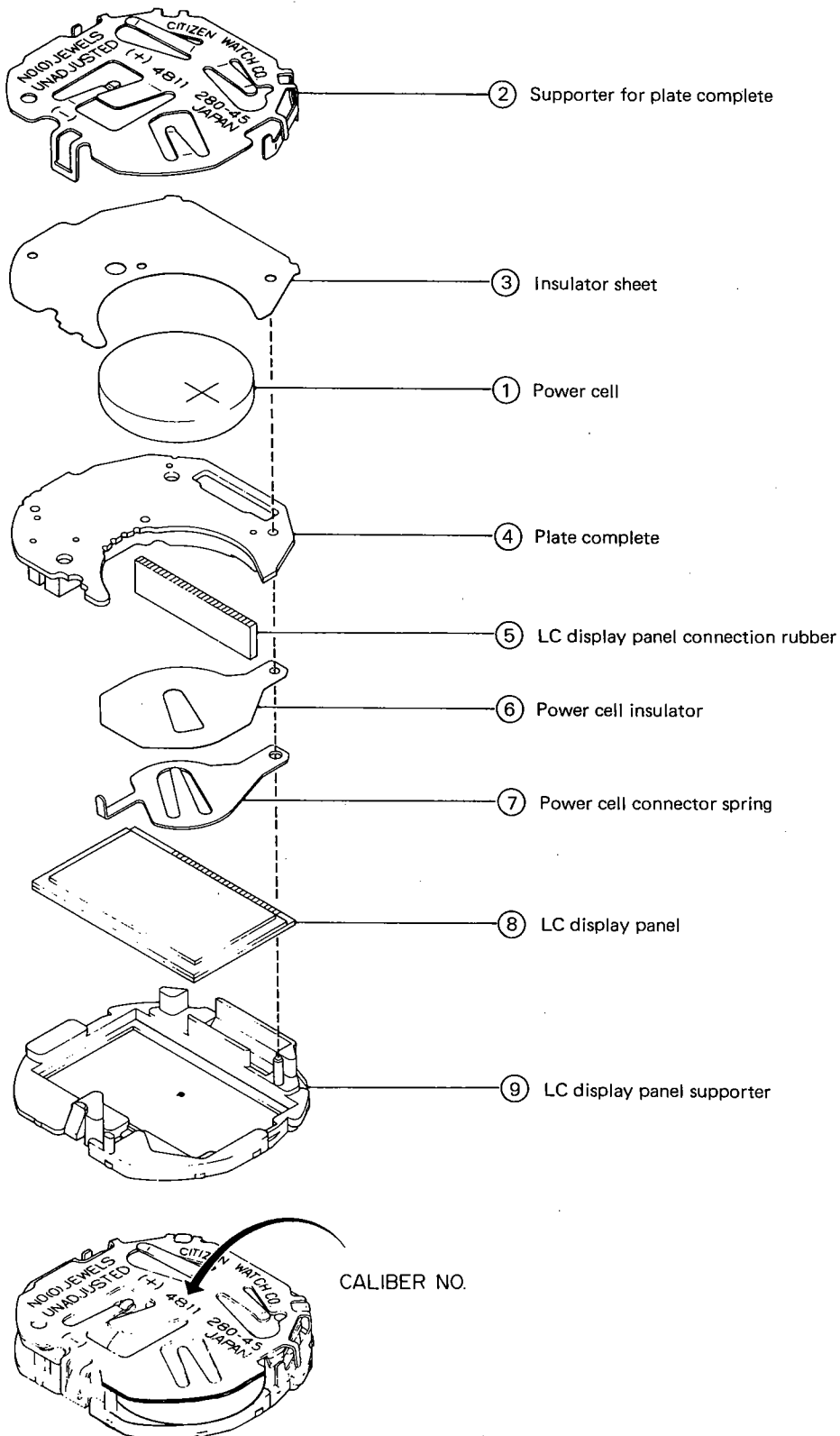
***Only Second Correction**

Depress the (R) button twice in current time display mode, and seconds will be displayed.
Depress the (S) button under that condition, and 00 will be displayed. If the seconds range from 30 to 59, those will be carried to a minute digit.

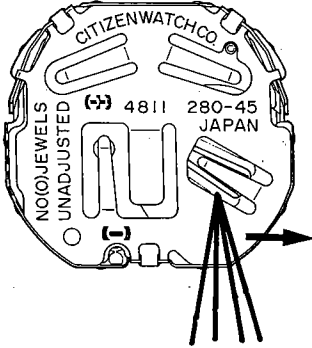

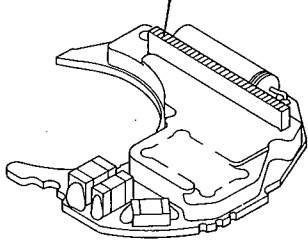
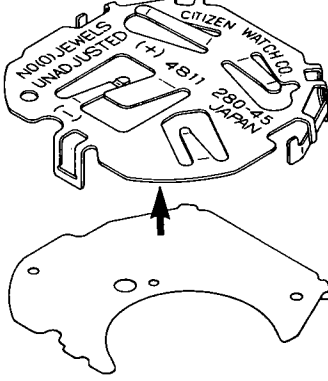


4. DISASSEMBLY/ASSEMBLY OF MODULE

For disassembly, be in accordance with the order of ① to ⑨, and for assembly, be in accordance with the order of ⑨ to ①.



■5. NOTES ON DISASSEMBLY/ASSEMBLY

Service item	Instruction
<p>1. Removing and mounting the power cell</p>	 <p>When removing the power cell from the movement, place tweezers on the top side of the power cell via the space in the supporter for plate complete to slide away the power cell.</p> <p>When mounting, slide in the power cell taking care of its polarity.</p>
<p>2. Removing the supporter for plate complete</p>	 <p>To remove the supporter for plate complete, remove three hooks marked by an arrow in the lefthand illustration with tweezers.</p>
<p>3. Installing LC display panel connection rubber</p>	<p>LC display panel connection rubber</p>  <p>Assemble the LC display panel connection rubber to the slitted part of the plate complete as shown in the left-hand illustration in advance.</p>
<p>4. Installing insulator sheet</p>	 <p>Assemble the insulator sheet to the circuit unit supporter in advance.</p>

Checking items	How to check	Result and treatment
1 Measurement of power cell voltage	<p style="text-align: center;"><D.C. 3V></p>	<p>1.5V or more: → Acceptable</p> <p>Less than 1.5V: → Replace the power cell with a new one.</p>
2 Replacement of connection parts of LC display panel	<ul style="list-style-type: none"> ● Check the LC display panel connection rubber for damage. ● Check the LC display panel connection rubber for correct assembling. ● Check the LC display panel connection rubber for deposits such as dust and contaminants on it. 	<p>If anomalousness is noted, go to adjustment or parts replacement.</p>
3 Measurement of time rate	<p>a) Time measurement Measurable in either of the CQT-210 and CQT-101 ranges.</p> <p>b) Time adjustment Market adjustment is impossible. Replace the plate complete with a new one if the time is irregular.</p>	<p>Avoid time measurement under the direct sun-light or the incandescent lamp. Accurate measurement may not be performed due to a time gain or loss.</p>
4 Confirmation of using condition of watch	<p>There is a possibility that the watch may be affected in accuracy depending upon environments. Check environmental working conditions (magnetism, extreme temperature/relative humidity, shocks).</p>	

Checking items	How to check	Result and treatment
7 Check of appearance and functions	Check the following points with through-out checks of the watch being acceptable. <ul style="list-style-type: none">●Operating condition of pushbuttons●Displaying condition of segments.●No dust and fouling on the top side of the LC display panel.	

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