## SEIKO

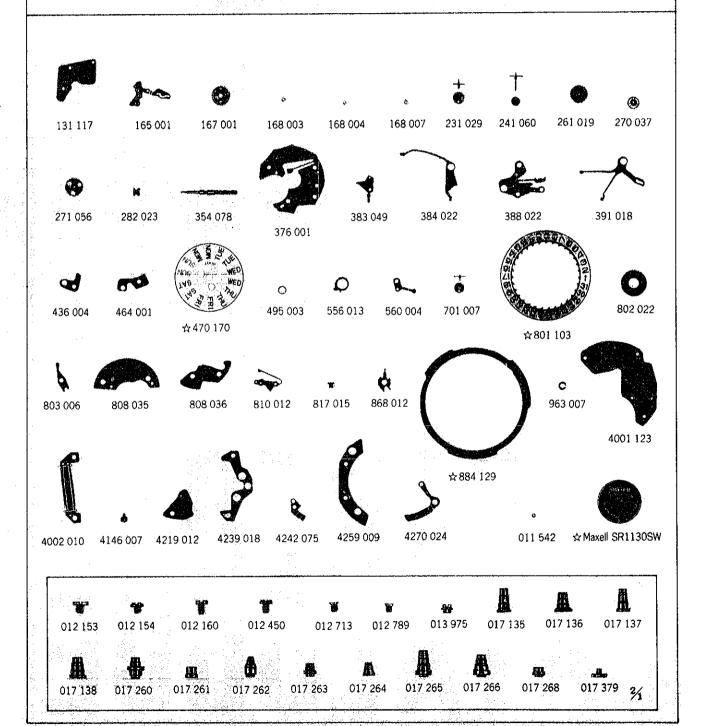
QUARTZ

Cal. 9726A

## Cal. 9726A







### Cal. 9726A

### Characteristics

Casing diameter :

 $\mathbf{26.0} \times \mathbf{23.7} \; \mathrm{mm}$ 

Maximum height :

3.8 mm without battery

Jewels:

**2** j

Frequency of quartz crystal oscillator : 32,768 Hz (Hz=Hertz..... Cycles per second)

Driving system : Step motor (2 poles)
Regulation system : Trimmer condenser

Train wheel setting Calendar (day and date)

Time differential adjusting device : Pull the crown out to the first click and the hour hand move one hour every click.

Instant setting device for day and date calendar

Battery life indicator: Second hand moves in two-second interval.

PART NO.	PART NAME	PART NO.	PART NAME
131 117	Third wheel bridge	4270 024	Battery connection
165 001	Hour corrector lever	011 542	Upper hole jewel for step rotor
167 001	Time corrector setting wheel	011 542	Lower hole jewel for step rotor
168 003	Intermediate wheel for time correction	012153	Day finger screw
	(C)	012 154	Screw for rocking bar holder
168 004	Intermediate wheel for hour correction	012 154	Lower end-piece screw for third wheel
	(D)	012 160	Third wheel bridge screw
168 007	Intermediate wheel for time correction	012 160	Coil block screw
	(G)	012 450	Circuit block screw
231 029	Third wheel & pinion	012713	Hour wheel guard screw
241 060	Fourth wheel & pinion	012789	Setting lever spring screw
261 019	Minute wheel	013 975	Eccentric dial pin
270 037	Center minute wheel	017 135	Tube for coil block (A)
271 056	Hour wheel	017 136	Tube for coil block (B)
282 023	Clutch wheel	017 137	Tube for circuit block
354 078	Winding stem	017 138	Tube for yoke
376 001	Hour wheel guard	017 260	Tube for third wheel bridge (B)
383 049	Setting lever	017 261	Tube for setting lever spring
384 022	Yoke (Clutch lever)	017 262	Tube for hour wheel guard (A)
388 022	Setting lever spring	017 263	Tube for hour wheel guard (B)
391 018	Train wheel setting lever	017 264	Tube for hour wheel guard (C)
436 004	Lower end-piece for third wheel	017 265	Tube for third wheel bridge (A)
464 001	Rocking bar holder	017 266	Tube for third wheel bridge (C)
☆470 170	Day star with dial disk	017 268	Tube for rocking bar holder
495 003	Spacer for third wheel bridge	017 379	Tube for date jumper screw
556 013	Date finger	☆ Maxell SR1130SW	
560 004	Friction spring for fourth wheel &	☆ SEIKO SB-AU	Silver oxide battery
	pinion	☆SEIKO SR1130SW丿	
701 007	Fifth wheel & pinion		
☆801 103 )	Date dial		
☆801 104 月			
802 022	Date driving wheel		
803 006	Rocking bar		
808 035	Date dial guard (A)		
808 036	Date dial guard (B)		
810 012	Date jumper	1	
817 015	Intermediate date wheel	]]	
868 012	Day finger		
☆884 129	Holding ring for dial		
963 007	Snap for day star with dial disk		
4001 123	Circuit block		
4002 010	Coil block		
4146 007	Step rotor		
4219 012	Insulator for battery connection		
4239 018	Rotor stator		
4242 075	Plus terminal of battery connection  Anti-magnetic shield plate		
4259 009	windingsheric straig higgs	1	

### Cal. 9726A

### Remarks:

### Day star with dial disk

### Date dial

\$801 103(Black figures on white background) } ......

Used when both the crown and the salendar frame are located at 3 o'clock position. If any other type of date dial is required, specify ① Cal. No. ② Jewels ③ The crown position ④ The calendar frame position and ⓒ Dial No.

### Holding ring for dial

★884 129 ······ The type of holding ring for dial is determined based on design of cases and dials.

 If the shape of holding ring for dial is different from the photograph, check the case number and refer to "SEIKO Quartz Casing Parts Catalogue" to choose a corresponding holding ring for dial.

#### Battery

☆ Maxell SR1130SW

☆ SEIKO SR1130SW

☆ SEIKO SB-AU

The substitutive battery might be added to the applied battery in the future. In that case, please refer to separate "BATTERY LIST FOR SEIKO QUARTZ WATCHES".

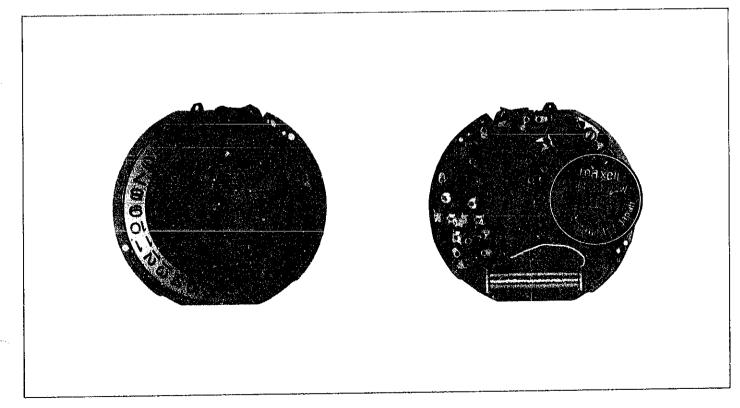
Note that SEIKO battery is marked with "SEIZAIKEN" on its (+) side.

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## TECHNICAL GUIDE

# SEIKO

CAL. 9726A



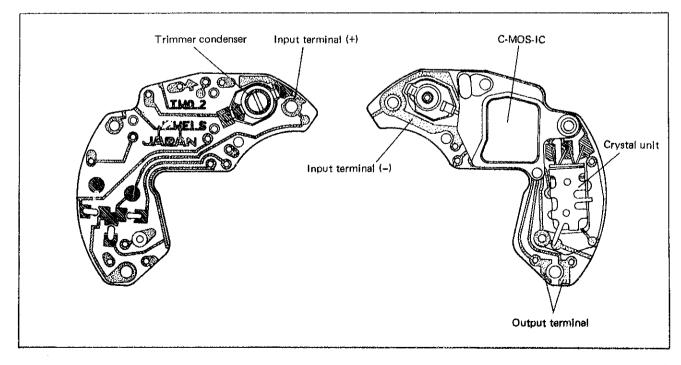
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### I. SPECIFICATIONS

Cal. No.	9726A		
Item			
Indication system	3 hands		
Additional mechanism	Day and date		
	Instant day and date setting device		
	Time differential adjusting device		
	Train wheel setting device		
	Electronic circuit reset switch		
	Battery life indicator		
Crystal oscillator	32,768 Hz (Two crystal oscillators are used.)		
Loss/gain	Loss/gain at normal temperature range		
. •	Annual rate: less than 20 seconds		
Outside diameter	φ26.0 mm		
Height	3.3 mm without battery		
Regulation system	Trimmer condenser		
Measuring gate by Quartz Tester	Use the gate of 10 seconds		
Battery	Maxell SR1130SW, SEIKO (SEIZAIKEN) SR1130SW or SB-AU		
	Battery life is approximately 5 years.		
	Voltage: 1,55V		
Jewels	2 jewels		

### II. STRUCTURE OF CIRCUIT BLOCK



1

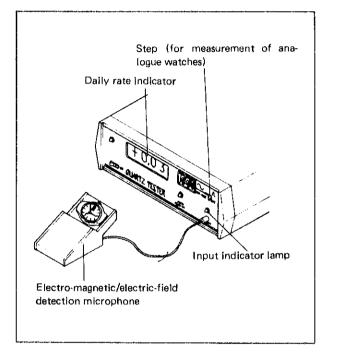
### III. CHECKING AND ADJUSTMENT

Cal. 9726A which is manufactured based on Cal. 7126A, is such a high precision watch that its loss/gain has been reduced to the annual rate.

As for disassembling, reassembling, checking and all adjustments except checking accuracy, please refer to the Technical Guide of Cal. 7126A.

### **Checking Accuracy**

- Use any Quartz Tester other than QT-10 for measuring the time accuracy.
- As for the measuring range, set the dial of the Quartz Tester to the 10-second gate (or 0.01 second gate).
- When the battery is replaced with a new one, measure the daily rate a few minutes later until the frequency of the crystal oscillator becomes stable.
- Be sure to measure the time accuracy with the watch case reassembled.
- Measure the daily rate over 5 times at the normal temperature of around 24°C (75°F) and take the average value.



### Time accuracy adjustment

2

The daily rate of quartz watches may be affected by reassembling of the case.
 This variation can be negligible in the time accuracy adjustment of ordinary watches, but it cannot be ignored in Cal. 9726A which is required to maintain extremely high accuracy.
 Reading the value indicated on the Quartz Tester, adjust the time accuracy by the procedures below.

### Conditions when adjusting the time accuracy

• Position : Set the watch with the crown side up.

• The number of measurings: 4 or 5 times

• Temperature : At a temperature of 24 ± 2°C

• Standard value : +0.01 sec./day

Note: As the time accuracy is required to be adjusted to 1/100 second, be sure to turn the trimmer condenser little by little.

### In case, loss and gain is indicated by the user

Step	Example	
Convert the indicated loss or gain into daily rate.	If it is told to gain 3 seconds per month, it will be calculated as follows:  3 sec. ÷ 30 days = 0.10 sec./day  It gains 0.10 second per day.	
2. Measure the daily rate by Quartz Tester.	If it is indicated +0.09 sec./day	
3. Adjust accuracy by turning the trimmer condenser.	<ul> <li>When the difference between the results of Step 1 and Step 2 is small (less than 0.05 sec./day), regulate the daily rate by the value gained by Step 1.  +0.09 - (+0.10) = -0.01 sec./day</li> <li>When the difference is large, be sure to check the movement.</li> </ul>	

<sup>\*</sup>The loss/gain, however, may be caused by the influence of magnetism and/or circumstances (temperatures, etc.) where the watch is used. When adjusting the time, be sure to check the place where the watch is used.

In case the user does not indicate the definite extent of loss/gain of the watch, or the adjustment of time accuracy is necessary in such a case as when removing case back or replacing circuit block.

	Step
1.	Regulate the daily rate with the movement alone to the standard value.
2.	. Measure the daily rate with the watch case reassembled (without case back).
3.	Measure the daily rate with the case back reassembled.
4.	. Through the results of Step 2, and 3, calculate the extent of loss/gain caused by reassembling the case back.
5.	Through the result of Step 4, regulate the daily rate gained with the case back reassembled to the standard value.

When the adjustment by the methods detailed above is completed, check the daily rate again a few times 24 hours later, to confirm the average value is within the standard value.