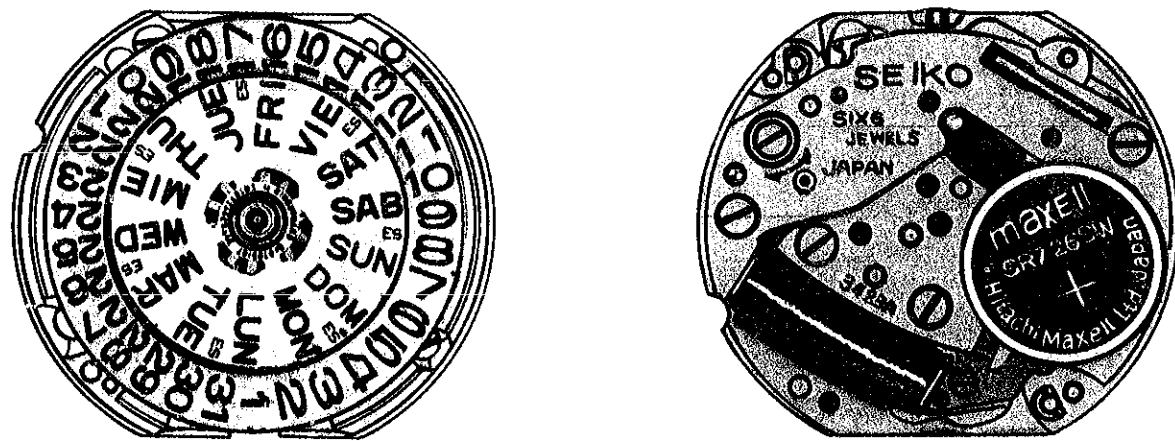


# TECHNICAL GUIDE

**SEIKO**  
QUARTZ

CAL. 3421 A  
CAL. 3423A



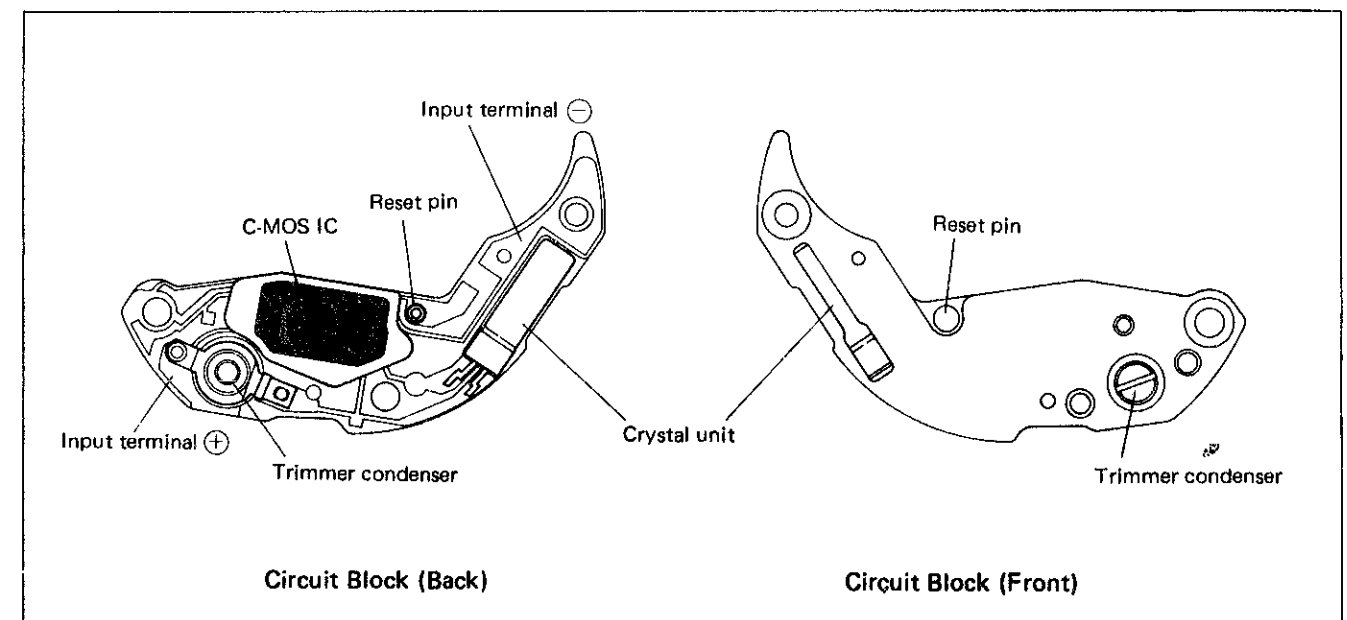
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## I. SPECIFICATIONS

Cal. No.	3421A	3423A
Item		
Time indication	3 hands	
Additional mechanism	—	
	<ul style="list-style-type: none"> <li>● Second setting device (stops at every second)</li> <li>● Battery life indicator</li> <li>● Electronic circuit reset switch</li> </ul>	
Loss/gain	Loss/gain at normal temperature range Monthly rate: less than 15 seconds (Annual rate : less than 3 minutes)	
Mounting size	$\phi$ 18.2 mm (15.3 mm between 3 o'clock and 9 o'clock sides)	$\phi$ 18.4 mm (16.3 mm between 3 o'clock and 9 o'clock sides)
Casing diameter	17.8 mm (between 6 o'clock and 12 o'clock sides)	$\phi$ 18.0 mm
Height	3.0 mm	3.6 mm
Regulation system	Trimmer condenser	
Measuring gate by Quartz Tester	Any gate is available.	
Battery	SEIKO TR726SW, Maxell SR726SW or U.C.C. 397 Battery life: approx. 2 years Voltage : 1.55 V	
Jewels	6 jewels	

## II. STRUCTURE OF THE CIRCUIT BLOCK



### III. DISASSEMBLING, REASSEMBLING AND LUBRICATING

Disassembling procedures Figs.: ① → ④⑧

Reassembling procedures Figs.: ④⑧ → ①

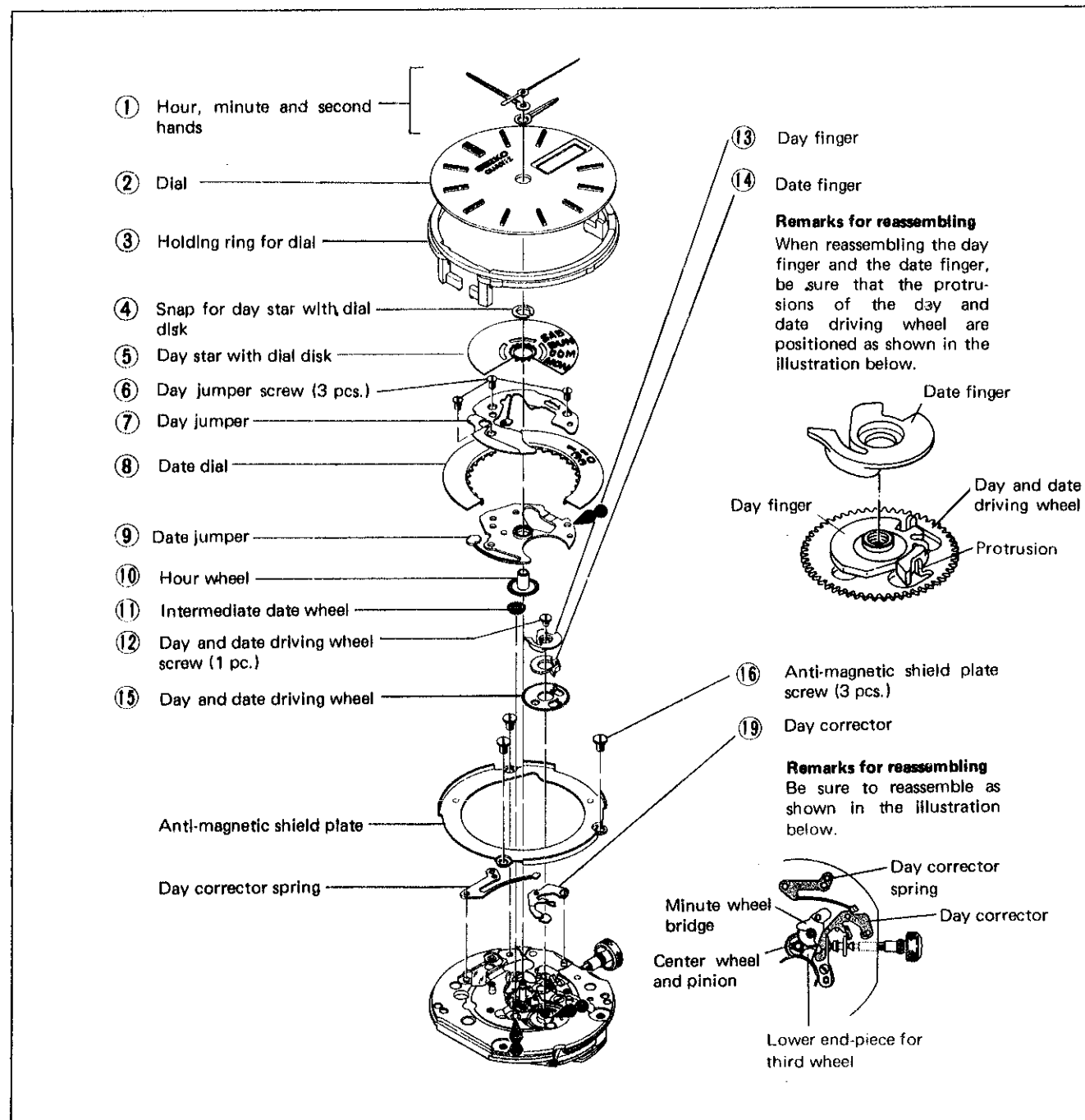
#### ● Lubricating

Moebius A 

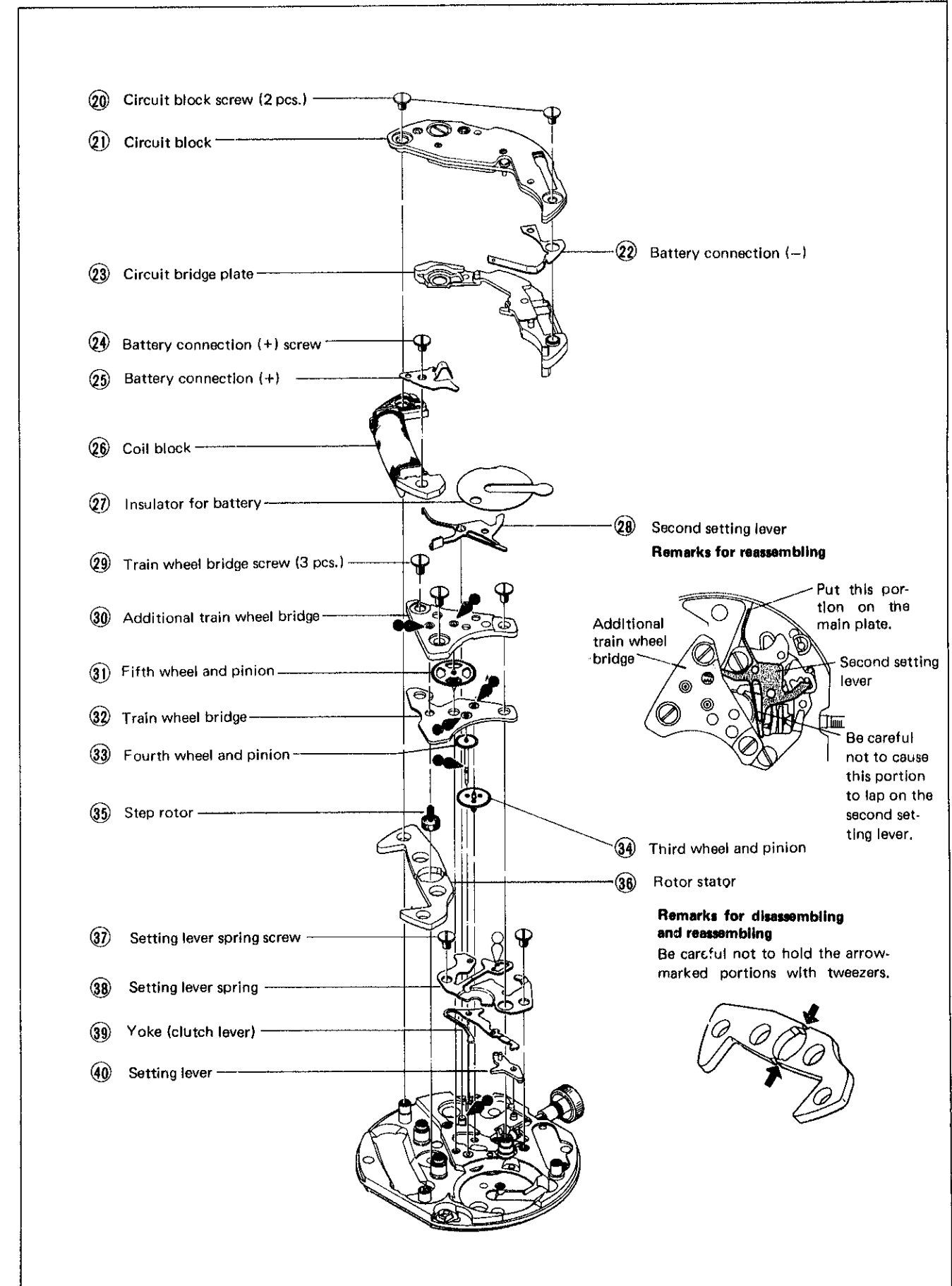
SEIKO Watch Oil S-6 

- Use the movement holder S-648 for disassembling and reassembling.

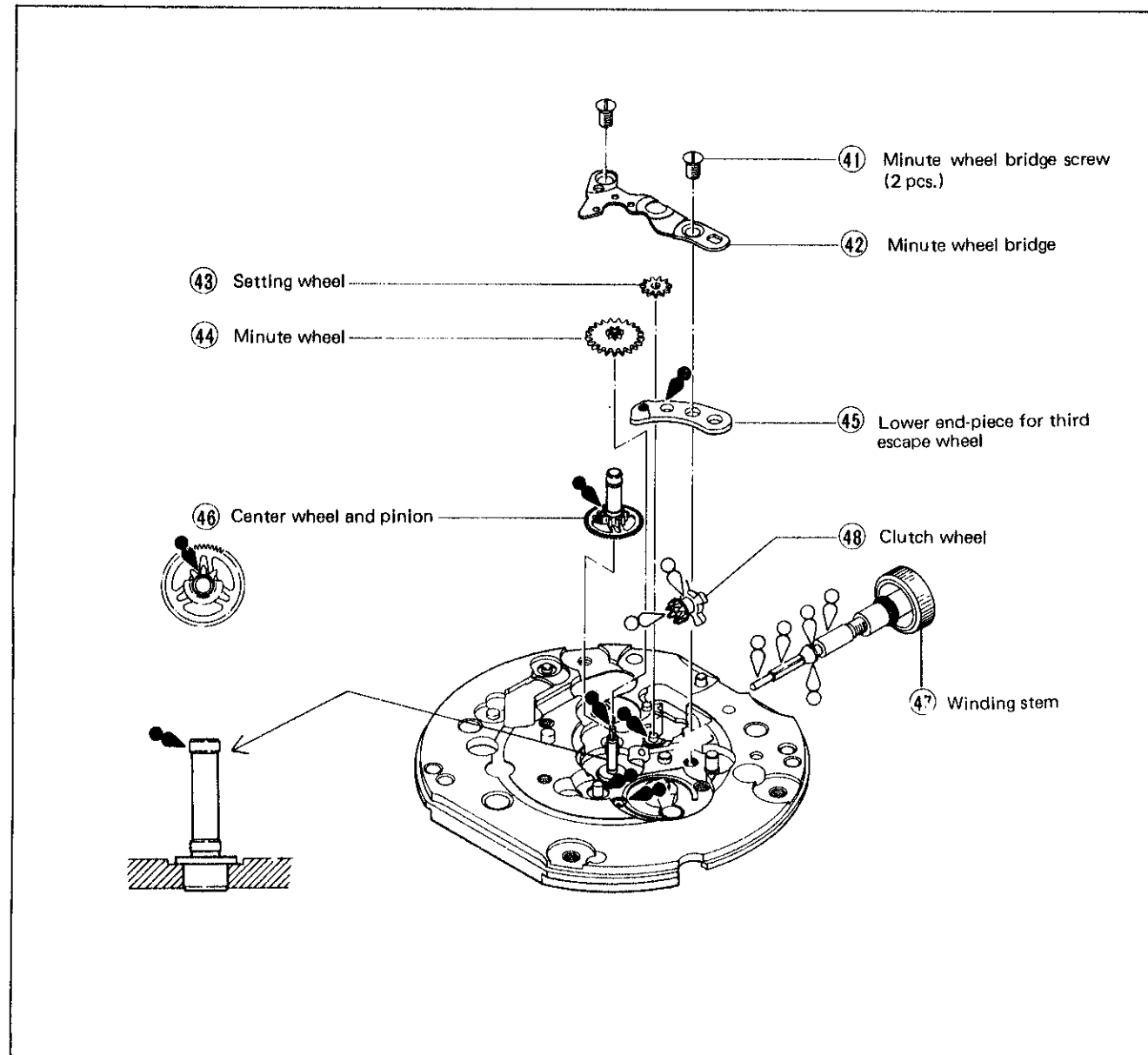
#### (1) Calendar mechanism (Cal. 3423A)



#### (2) Circuit block, coil block and gear train



(3) Setting mechanism



• List of screws used

Shape	Parts No.	Parts Name
	022 241	Train wheel bridge screw (3 pcs.) Battery connection (+) screw (1 pc.) Circuit block screw (2 pcs.) Setting lever spring screw (2 pcs.) Anti-magnetic shield plate screw (3 pcs.)
	022 282	Day and date driving wheel screw (1 pc.)
	022 754	Day jumper screw (3 pcs.) Minute wheel bridge screw (2 pcs.)

IV. PROCEDURES FOR CHECKING AND ADJUSTMENT

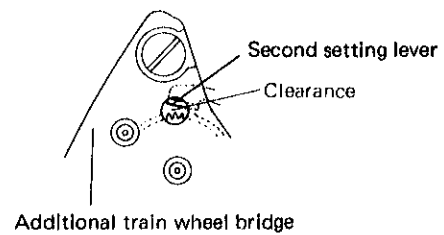
- Refer to the Checking and Adjustment of the "SEIKO QUARTZ TECHNICAL GUIDE, GENERAL INSTRUCTION for ANALOGUE WATCHES".

Procedure					
<b>CHECK OUTPUT SIGNAL</b>	<b>Result:</b> One-second blinking . . . Normal No one-second blinking . . . Defective				
<b>CHECK HAND SETTING CONDITION</b>					
<b>CHECK BATTERY VOLTAGE</b>	<b>Result:</b> More than 1.5V . . . Normal Less than 1.5V . . . Defective				
<b>CHECK BATTERY CONDUCTIVITY</b>					
<b>CHECK CIRCUIT BLOCK CONDUCTIVITY</b>					
<b>CHECK COIL BLOCK</b>	<ul style="list-style-type: none"> <li>• Standard resistance for Cal. 3421A and 3423A</li> </ul> <table> <tr> <td>2.0 ~ 4.0 K<math>\Omega</math> . . . . .</td> <td>Normal</td> </tr> <tr> <td>Less than 2.0 K<math>\Omega</math> or more than 4.0 K<math>\Omega</math> . . . . .</td> <td>Defective</td> </tr> </table>	2.0 ~ 4.0 K $\Omega$ . . . . .	Normal	Less than 2.0 K $\Omega$ or more than 4.0 K $\Omega$ . . . . .	Defective
2.0 ~ 4.0 K $\Omega$ . . . . .	Normal				
Less than 2.0 K $\Omega$ or more than 4.0 K $\Omega$ . . . . .	Defective				
<b>CHECK RESET AND SECOND SETTING CONDITIONS</b>	<ol style="list-style-type: none"> <li>1. Check to see if the second hand stops immediately when the crown is pulled out completely and if it starts promptly after one second when the crown is pushed in to the normal position.</li> <li>2. With the crown pulled out completely, check for the conductivity between the reset pin and the additional train wheel bridge by using the Volt-ohm-meter.</li> </ol> <div style="text-align: center;"> <p>Probe</p> <p>Reset pin</p> <p>Additional train wheel bridge</p> </div> <p><b>Result:</b> Less than 10<math>\Omega</math>: Normal More than 10<math>\Omega</math>: Defective</p>				

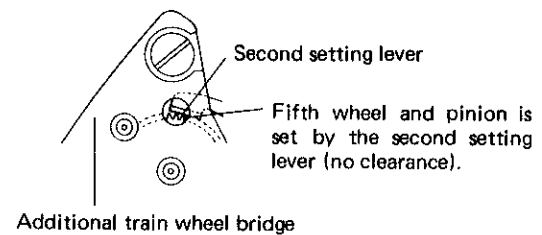
**Procedure**

3. Check to see if there is a clearance between the second setting lever and the fifth wheel and pinion.

Pull out the crown to the first click.



Pull out the crown completely.



**CHECK GEAR TRAIN MECHANISM**

**CHECK SETTING AND CALENDAR MECHANISM**

**CHECK ACCURACY**

**CHECK CURRENT CONSUMPTION**

- **Standard value:**  
Less than  $1.8\mu\text{A}$ : Normal  
More than  $1.8\mu\text{A}$ : Defective

**CHECK WATER RESISTANCE**

**CHECK APPEARANCE AND FUNCTIONING**

All procedures of Disassembling, Reassembling, Checking and Adjustment are completed.