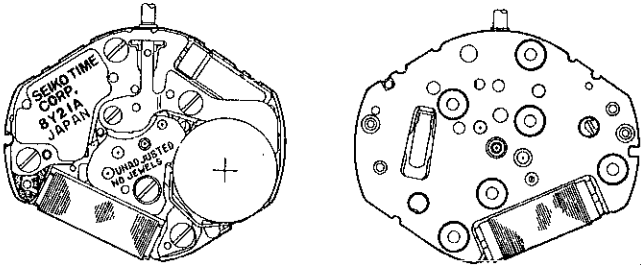


# PARTS CATALOGUE/TECHNICAL GUIDE

## Cal. 8Y21A

### [SPECIFICATIONS]

Item		Cal. No.	8Y21A
Movement			
Movement size	Outside diameter	18.4mm between 6 o'clock and 12 o'clock sides 15.3mm between 3 o'clock and 9 o'clock sides	
	Casing diameter	φ17.8mm	
	Height	2.8mm	
Time indication		3 hands	
Driving system		Step motor (Load compensated driving pulse type)	
Additional mechanism		<ul style="list-style-type: none"> <li>• Electronic circuit reset switch</li> <li>• Train wheel setting device</li> </ul>	
Loss/gain		Monthly rate at normal temperature range: less than 20 seconds	
Regulation system		Nil	
Measuring gate by quartz tester		Use 10-second gate.	
Battery		SEIKO SR621SW, Maxell SR621SW, SONY SR621SW, EVEREADY 364 Battery life is approximately 2 years Voltage: 1.55V	
Jewels		0 jewel	

**HATTORI SEIKO CO., LTD.**

# PARTS CATALOGUE

Cal. 8Y21A

Disassembling procedures Figs.: ① → ②⑨

Reassembling procedures Figs.: ②⑨ → ①

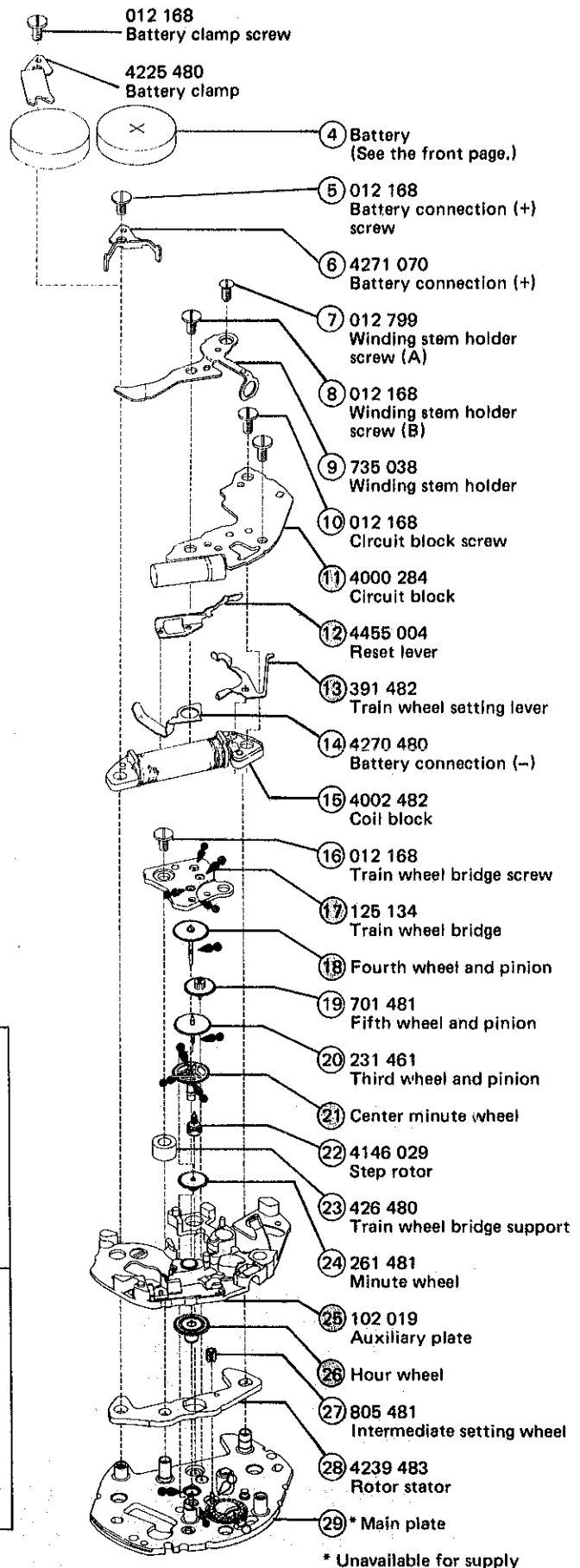
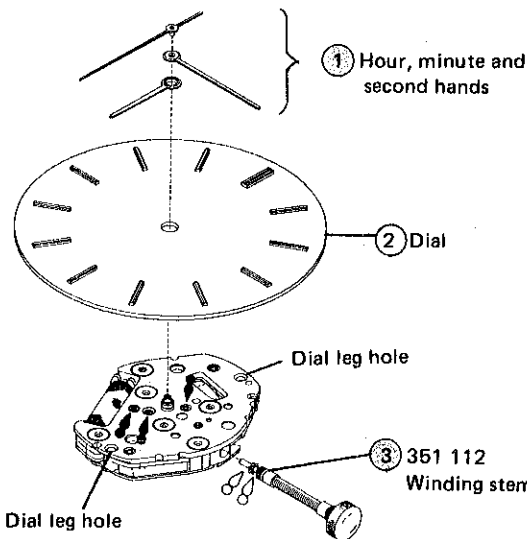
### Lubricating: Types of Oil

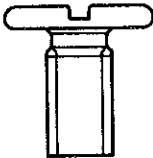
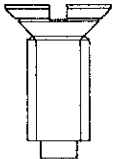
● Moebius A

○ SEIKO Watch Oil S-6

### Oil quantity

○ Normal quantity



012 168 	<ul style="list-style-type: none"> <li>● Battery clamp screw (1 pc.)</li> <li>● Battery connection (+) screw (1 pc.)</li> <li>● Winding stem holder screw (B) (1 pc.)</li> <li>● Circuit block screw (2 pcs.)</li> <li>● Train wheel bridge screw (1 pc.)</li> </ul>
012 799 	<ul style="list-style-type: none"> <li>● Winding stem holder screw (A) (1 pc.)</li> </ul>

⊙ ⇨ Please see the remarks on the following pages.

③ Winding stem 351 112

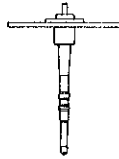
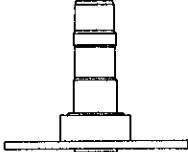

The type of winding stem is determined based on the design of case.

Check the case number and refer to "SEIKO Casing Parts Catalogue" to choose corresponding winding stem.

⑱ Fourth wheel and pinion

⑳ Center minute wheel

㉔ Hour wheel

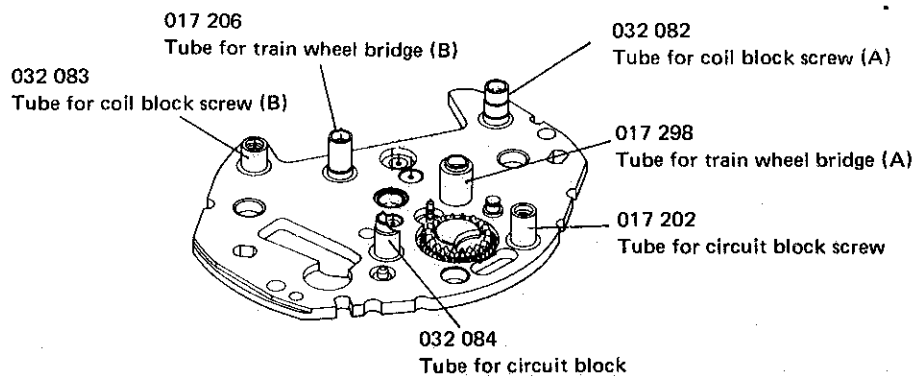
Part name Mov't type	Fourth wheel and pinion	Center minute wheel	Hour wheel
M	 241 461	 270 486	 271 486

Movement type: M ... Standard type

- Battery clamp

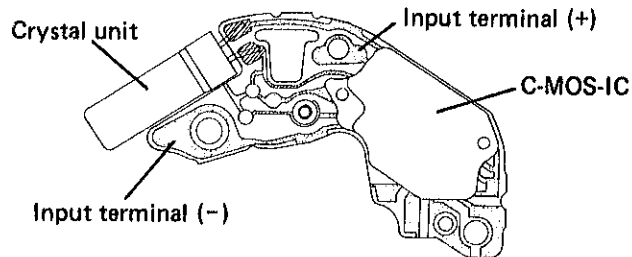
The types of battery clamp are determined based on the design of each model.

- Tubes



- The explanation here is only for the particular points of Cal. 8Y21A.
- For the repairing, checking and measuring procedures, refer to the "TECHNICAL GUIDE, GENERAL INSTRUCTIONS".

## I. STRUCTURE OF THE CIRCUIT BLOCK



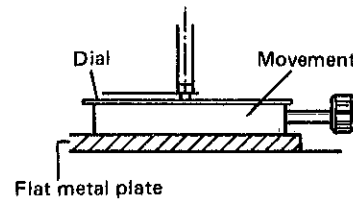
## II. REMARKS ON DISASSEMBLING AND REASSEMBLING

Use the universal movement holder for disassembling and reassembling.

### ① Hour, minute and second hands

- How to install

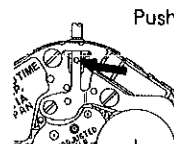
Place the movement directly on a flat metal plate or the like and install the hands.



### ③ Winding stem

- How to remove

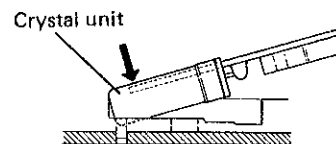
While pushing the indented portion of the winding stem holder, pull out the winding stem.



### ⑪ Circuit block

- How to install

First set the crystal unit side of the circuit block to the movement, and then set the entire block while pressing the crystal unit part of the circuit block with fingers.



### ⑫ Reset lever

### ⑬ Train wheel setting lever

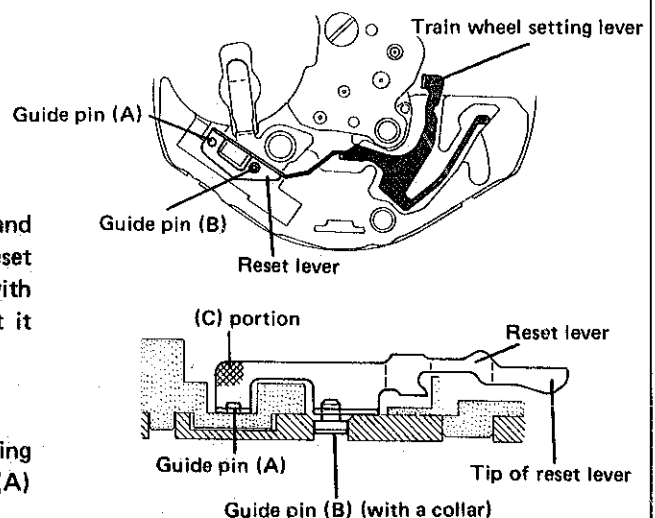
- Setting position

- How to remove the reset lever

The reset lever is fixed with guide pins (A) and (B), and the guide pin (B) has a collar. To remove the reset lever, therefore, catch (C) portion of the reset lever with tweezers, and slide it sideways while lifting it, lest it should catch the guide pin (A).

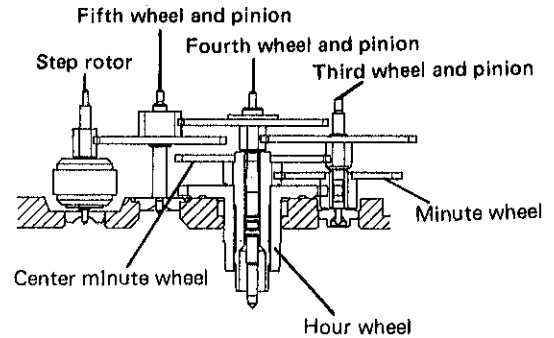
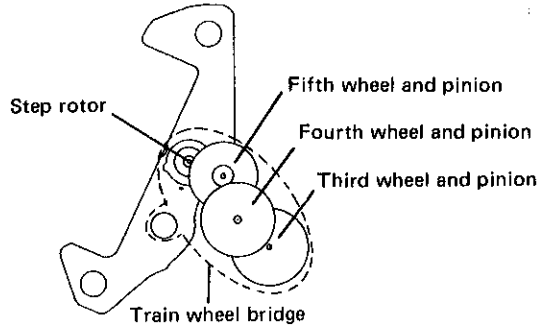
- How to install the reset lever

Hook the tip of the reset lever to the train wheel setting lever, and then set the reset lever to the guide pins (A) and (B) while holding its tip with fingers.



⑰ Train wheel bridge

- Setting position



⑳ Auxiliary plate

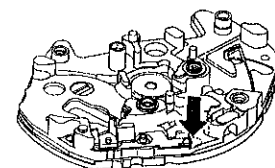
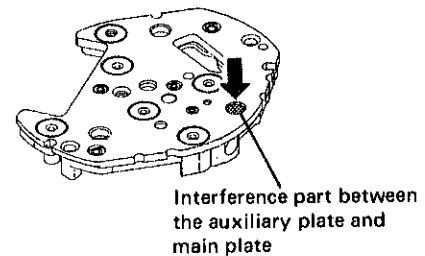
- How to remove

The auxiliary plate is fixed to the main plate using an interference. To remove it, push the arrow-marked portion in the illustration at right with tweezers or the like from the back side.

- How to install

As indicated in the illustration at right, press the arrow-marked portion of the auxiliary plate near the guiding hole for winding stem with something that has a flat face.

After the auxiliary plate is installed, check that there is no clearance between the auxiliary plate and the main plate.



### III. VALUE CHECKING

- Coil block resistance

2.0K $\Omega$  ~ 2.4K $\Omega$

- Current consumption

For the whole of the movement : less than 1.3 $\mu$ A  
 For the circuit block alone : less than 0.9 $\mu$ A

**Remarks:**

When the current consumption exceeds the standard value for the whole of the movement but is less than the standard value for the circuit block alone, overhaul and clean the movement parts and then measure current consumption for the whole of the movement again. The driving pulse generated to compensate a heavy load that may apply on the gear train, etc. is considered to cause excessive current consumption for the whole of the movement.