



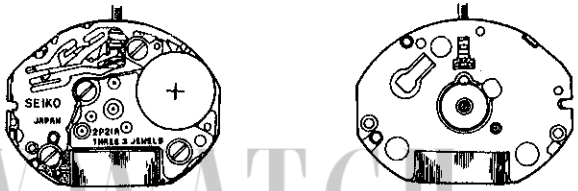
Seiko 2P21A Movement Parts (1)

Compiled by EmmyWatch - <https://www.emmywatch.com>

PARTS CATALOGUE/ TECHNICAL GUIDE

Cal. 2P21A

[SPECIFICATIONS]

Item		Cal. No.	2P21A
Movement			 <p style="text-align: right;">(x 2.0)</p>
Movement size	Outside diameter	15.5 mm between 6 o'clock and 12 o'clock sides 13.0 mm between 3 o'clock and 9 o'clock sides	
	Casing diameter	15.0 mm between 6 o'clock and 12 o'clock sides	
	Height	2.2 mm	
Time indication		3 hands	
Driving system		Step motor (Load compensated driving pulse type)	
Additional mechanism		<ul style="list-style-type: none"> • Electronic circuit reset switch • Train wheel setting device • Battery life indicator 	
Loss/gain		Monthly rate at normal temperature range: less than 15 seconds	
Regulation system		Pattern cutting system	
Measuring gate by quartz tester		Use 10-second gate.	
Battery		SEIKO TR521SW, Maxell SR521SW, SONY EVEREADY 379 Battery life is approximately 2 years. Voltage: 1.55V	
Jewels		3 jewels	

PARTS CATALOGUE

Cal. 2P21A

Disassembling procedures Figs. : ① → ②⑧

Reassembling procedures Figs. : ②⑧ → ①

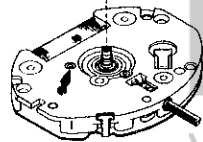
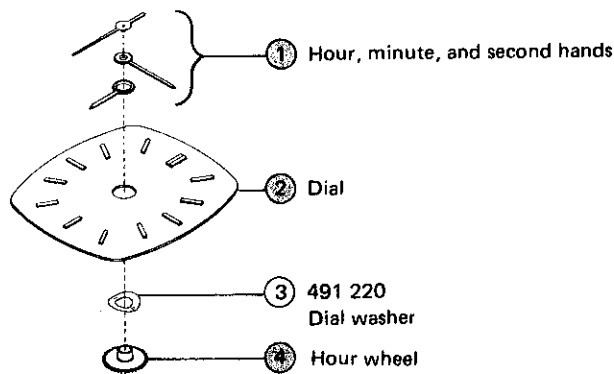
Lubricating: Types of oil

● Moebius A

○ SEIKO Watch Oil S-6

Oil quantity

○ Normal quantity



⑮ 282 035
Clutch wheel

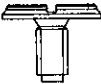

011 585
Upper hole jewel of step rotor

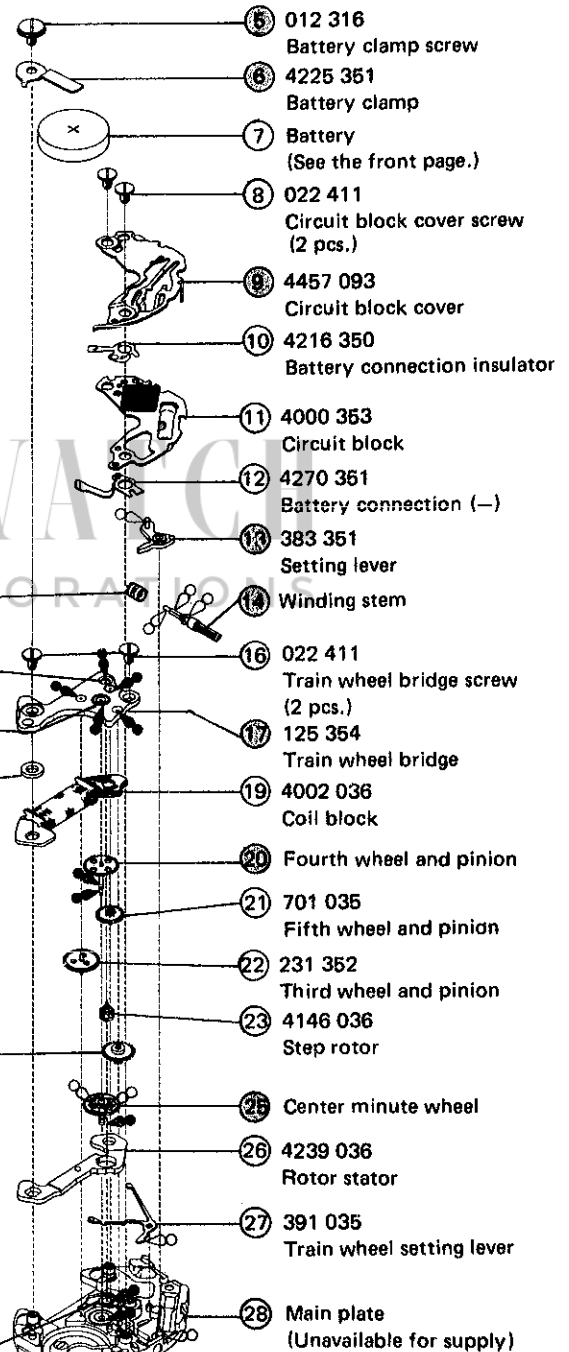
011 325
Upper hole jewel of fourth wheel

⑱ 494 350
Train wheel bridge support

⑳ 261 035
Minute wheel

011 584
Lower hole jewel of step rotor

	012 316 Battery clamp screw (1 pc.)
	022 411 Circuit block cover screw (2 pcs.) Train wheel bridge screw (2 pcs.)


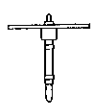



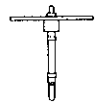






⊙ → Please see the remarks on the following pages.

Remarks:

- ④ Hour wheel
- ⑳ Fourth wheel and pinion
- ㉕ Center minute wheel

Combination:

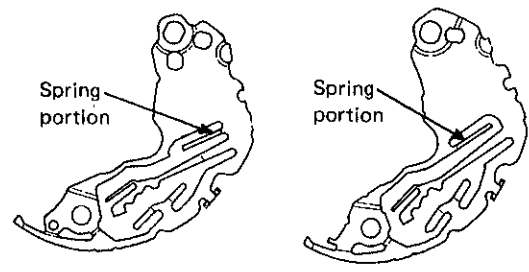
Type	Hour wheel	Fourth wheel and pinion	Center minute wheel	Main plate (Center part)
a	 271 136	 241 313	 270 323	
b	 271 137	 241 315	 270 325	
c	 271 138	 241 314	 270 324	

- ⑤ Battery clamp screw 012 316
- ⑥ Battery clamp 4225 351

Some models are not provided with the battery clamp screw and battery clamp, depending on the design of case.

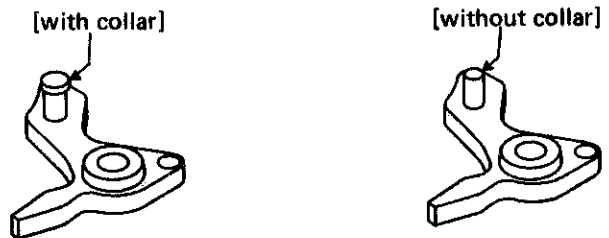
- ⑨ Circuit block cover 4457 093

The spring portion of some circuit block covers is shaped differently as shown. Both types, however, can be used interchangeably.



- ⑬ Setting lever 383 351

The setting lever is available in two types as shown below: one with a collar and the other without a collar. They can be used interchangeably.



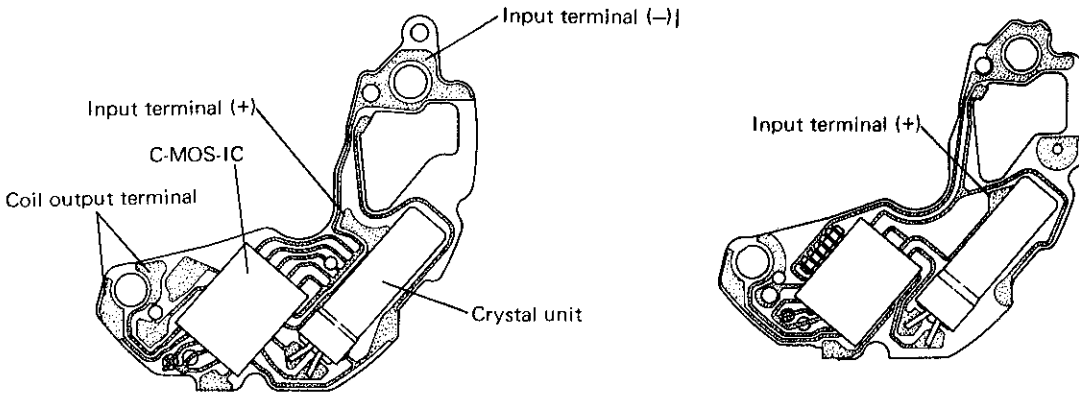
- ⑭ Winding stem 351 236/351 238

The type of winding stem is determined based on the design of cases. Check the case number and refer to "SEIKO Casing Parts Catalogue" to choose a corresponding winding stem.

- The explanation here is only for the particular points of Cal. 2P21A.
- For the repairing, checking and measuring procedures, refer to the "TECHNICAL GUIDE, GENERAL INSTRUCTION".

I. STRUCTURE OF THE CIRCUIT BLOCK

There are two types of circuit block, and they can be used interchangeably.



II. REMARKS ON DISASSEMBLING AND REASSEMBLING

Use the universal movement holder for disassembling and reassembling.

① Hands

• Remarks on installing

When installing the hands, place the movement directly on a flat metal plate or the like, escaping the spring portion of the circuit block cover.

② Dial

• How to remove

Insert the tip of a screwdriver into the notch between the main plate and the dial, and remove the dial by prying it up alternately at both ends.

⑨ Circuit block cover

• How to install

- 1) Push in the winding stem to the normal position.
- 2) Set the circuit block cover so that its hook catches the main plate. (Fig. 1 & 2)

* Do not press the setting lever spring portion at this time.

- 3) Set the hole "A" of the circuit block cover onto the guide pin and hook the yoke portion to the protrusion of the setting lever. (Fig. 1 & 3)

* Do not bend the spring portion excessively.

- 4) Set the hole "B" of the circuit block cover securely onto the guide pin and tighten the two circuit block cover screws.

* Check that the battery connection insulator does not slip out of place at this time.

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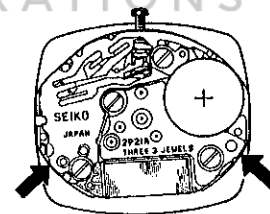


Fig. 1

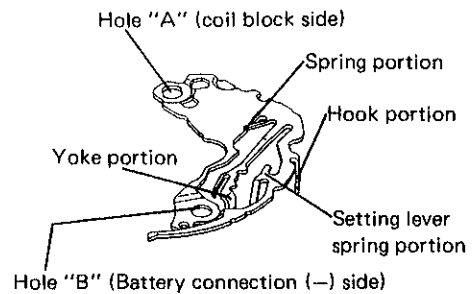
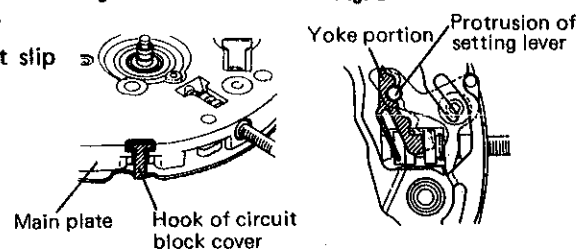


Fig. 2

Fig. 3



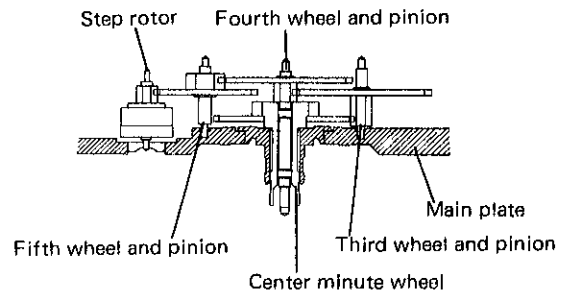
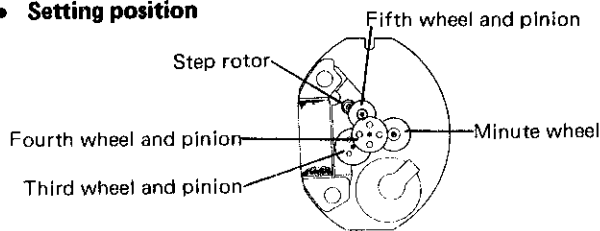
⑭ Winding stem

● **Remarks on installing**

To prevent any crack onto the main plate, gently set the winding stem while turning it.

⑰ Train wheel bridge

● **Setting position**



III. VALUE CHECKING

● **Coil block resistance**

2.8KΩ ~ 3.2KΩ

● **Current consumption**

For the whole of the movement : less than 0.9μA

For the circuit block alone : less than 0.3μA

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.

● **Time accuracy**

To adjust time accuracy, cut the (+) or (-) pattern on the backside of the circuit block. Be sure to cut the pattern with the circuit block alone.

(-) pattern : to lose approximately 0.26 sec./day

(+) pattern : to gain approximately 0.26 sec./day

Note: After cutting the pattern, remove the sludge completely.

