
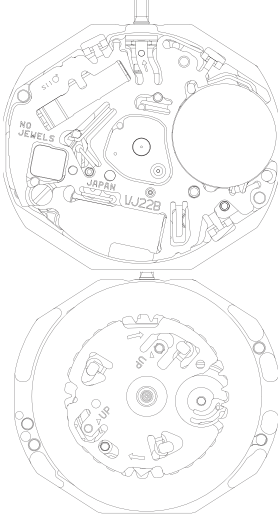
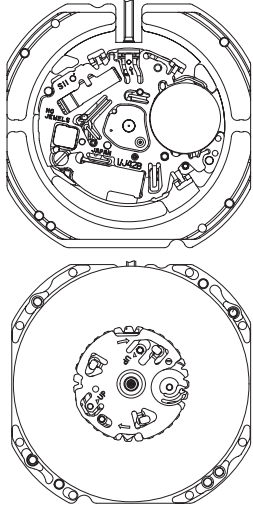


# PARTS LIST/TECHNICAL GUIDE

## ANALOGUE QUARTZ Cal. 6N22A / 6N42A

[SPECIFICATIONS]

Item	Cal. No.	6N22A	6N42A
 <ul style="list-style-type: none"> <li>• 3 Hands (Hour / Minute / Second)</li> <li>• Calendar</li> </ul>		 <ul style="list-style-type: none"> <li>• Diameter                             <ul style="list-style-type: none"> <li>Outside : <math>\phi</math> 18.50 mm</li> <li>3H - 9H : 16.1</li> <li>12H - 6H : 18.2</li> <li>Casing : <math>\phi</math> 18.10 mm</li> <li>3H - 9H : --</li> <li>12H - 6H : 17.8</li> </ul> </li> <li>• Height 2.79 mm</li> </ul>	 <ul style="list-style-type: none"> <li>• Diameter                             <ul style="list-style-type: none"> <li>Outside : <math>\phi</math> 26.40 mm</li> <li>3H - 9H : 23.5</li> <li>12H - 6H : 23.5</li> <li>Casing : <math>\phi</math> 25.60 mm</li> <li>3H - 9H : 21.9</li> <li>12H - 6H : 23.5</li> </ul> </li> <li>• Height 2.79 mm</li> </ul>
	<b>Driving System</b>		Step motor (Load compensated driving pulse system type)
<b>Additional function</b>		<ul style="list-style-type: none"> <li>• Electronic circuit reset switch</li> <li>• Train wheel setting device</li> <li>• Date setting</li> </ul>	
<b>Crown operation</b>	<b>Normal position</b>	Free	
	<b>1st click position</b>	Date setting (clockwise)	
	<b>2nd click position</b>	Time setting, hand position adjustment / resetting the circuit	
<b>Loss / Gain</b>		Monthly rate: Less than 20 seconds (at normal temperature range)	
<b>Regulation system</b>		Nil	
<b>Current consumption</b>		Movement: Less than 0.94 $\mu$ A	
		Circuit Block: Less than 0.2 $\mu$ A	
<b>Gate time for rate measurement</b>		Use 10-second gate *Set the crown at the normal position	
<b>Coil resistance</b>		4004274 2.1 — 2.3 k $\Omega$	
<b>Power supply</b>	<b>Battery No.</b>	SEIKO SR621SW	
	<b>Battery voltage</b>	1.55 V	
	<b>Battery life</b>	Approx. 3 years	
<b>Number of jewels</b>		0 jewels	

SEIKO WATCH CORPORATION

# PARTS LIST

Cal. 6N22A / 6N42A

Disassembling procedures Figs. : ①→⑳

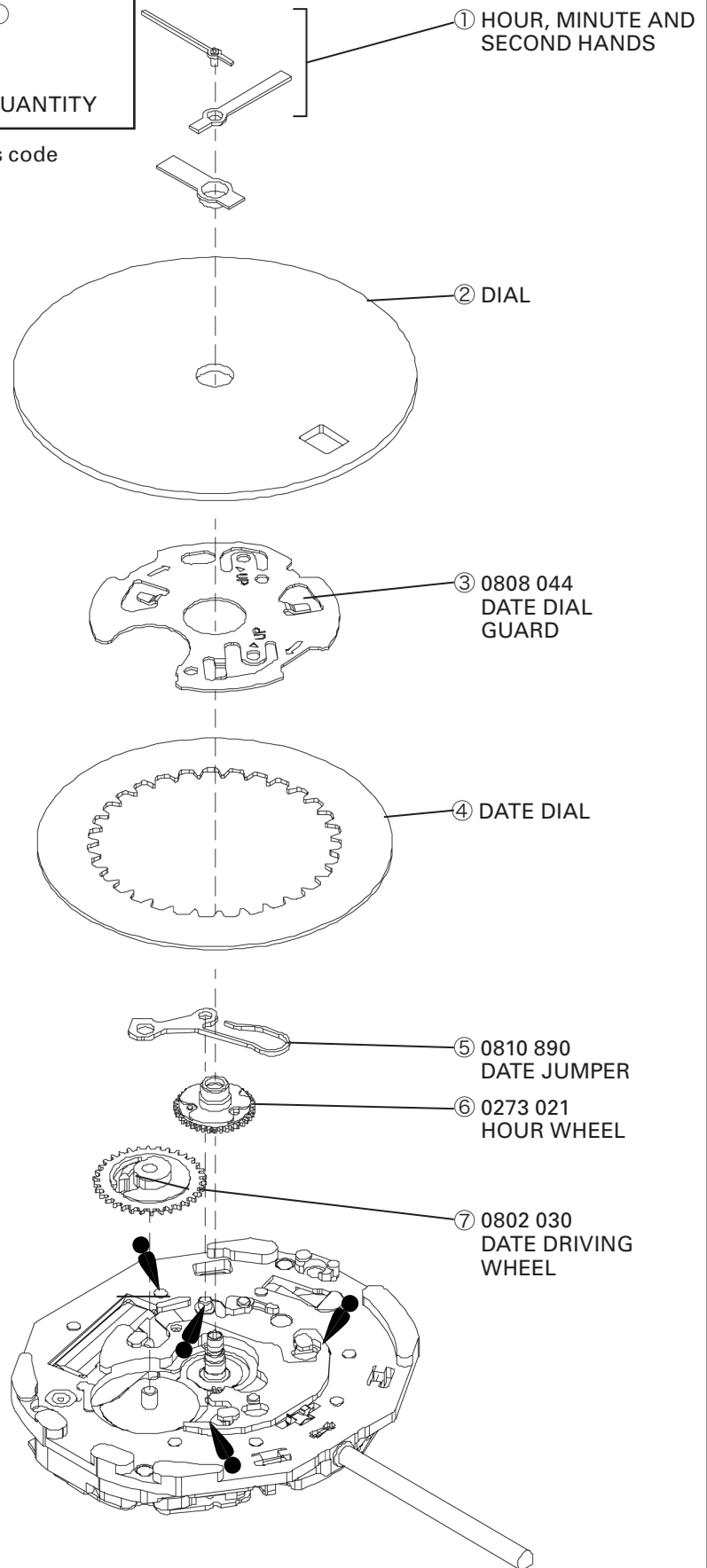
Reassembling procedures Figs. : ㉘←①

**Types of oil**    ● AO-3

● AO-2

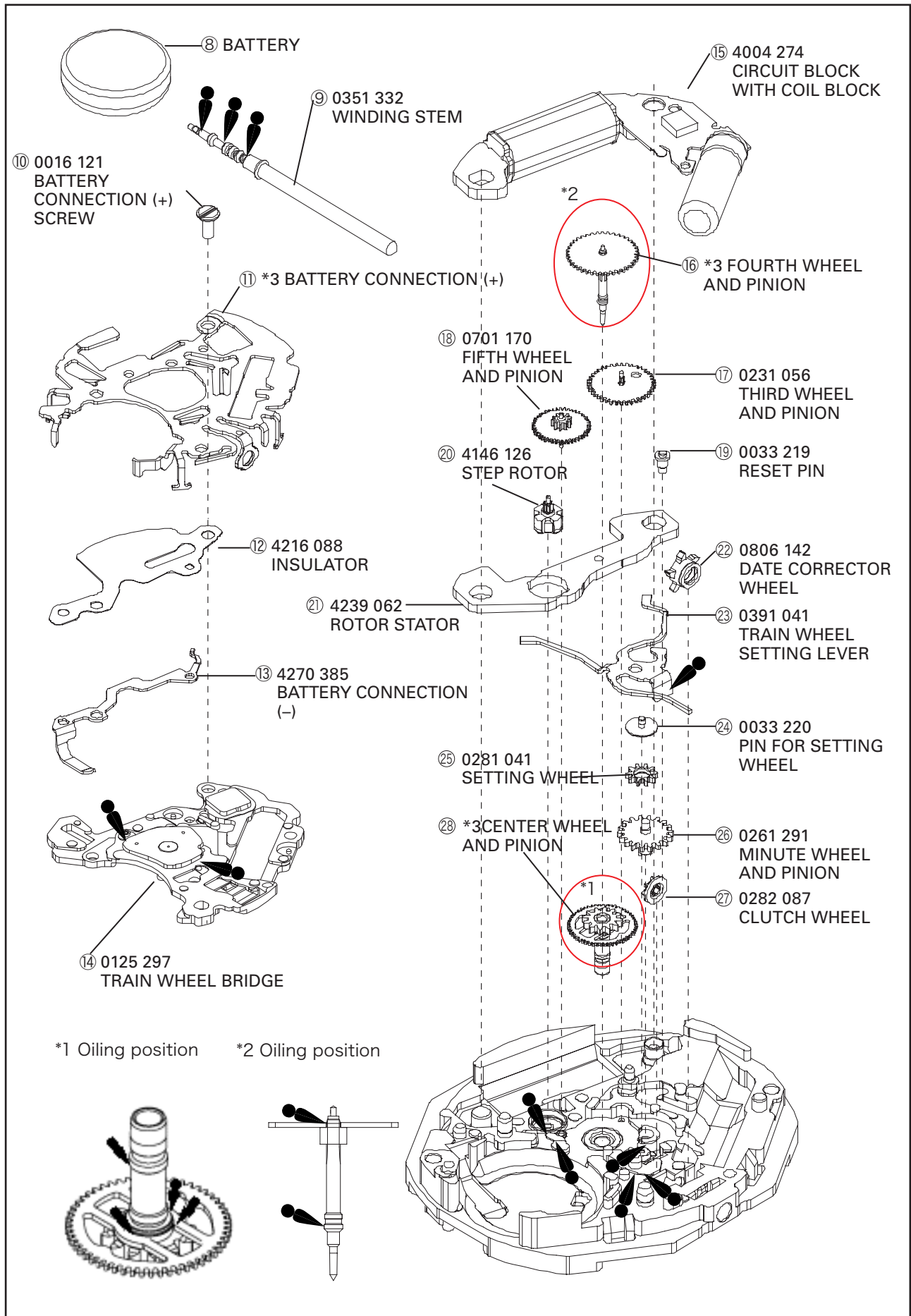
**Oil quantity**    ○ NORMAL QUANTITY

\* Refer to the 4 pages for the each parts code



# PARTS LIST

Cal. 6N22A / 6N42A

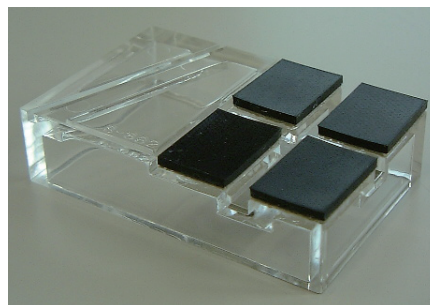


# PARTS LIST

Cal. 6N22A / 6N42A

## ● Tools and consumables required for disassembling/reassembling

- **Movement holder**  
UNIVERSAL MOVEMENT HOLDER (S-682)



- **Watch oils**  
SEIKO watch oil AO-3 and AO-2.

AO-3



AO-2



# TECHNICAL GUIDE

Cal. 6N22A / 6N42A

## Remarks:

### ④ DATE DIAL

Please refer to the following table in order to find the appropriate part number of date dial:

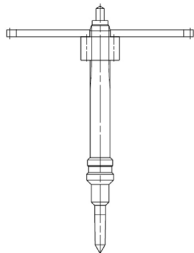
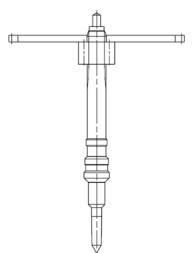
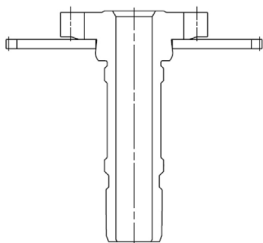
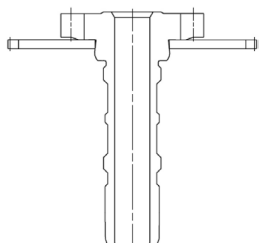
For Cal. 6N22

Part code	Positing of crown	Positing of date frame	Color of figure	Color of Background
0878 152	3H	3H	Black	White
0878 385	3H	6H	Black	White

For Cal. 6N42

Part code	Positing of crown	Positing of date frame	Color of figure	Color of Background
0878 182	3H	3H	Black	White
0878 183	3H	3H	White	Black
0878 288	3H	6H	Black	White

\*3 The part which is not common in Cal. 6N22A and Cal. 6N42A

Parts name	6N22A	6N42A
⑪ Battery connection (+)	4268 067 SEIKO TIME CORP NO JEWELS 2 JAPAN 6N22A	428 068 SEIKO TIME CORP NO JEWELS 2 JAPAN 6N42A
⑯ Fourth wheel and pinion	0144 097 	014 105 
⑳ Center wheel and pinion	0221 055 	0221 065 
㉑ Center wheel and pinion		

\* All parts cord are subject to change without notice.

The explanation here is only for the particular points

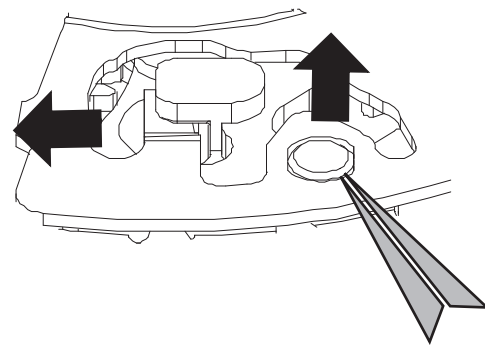
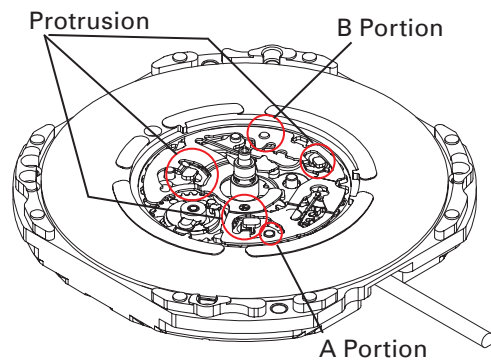
## 1. REMARKS ON DISASSEMBLING AND REASSEMBLING

### ③ DATE DIAL GUARD

The date dial guard has three protrusions to be caught under eaves of the MAIN PLATE and it is also fixed by two guide pins.

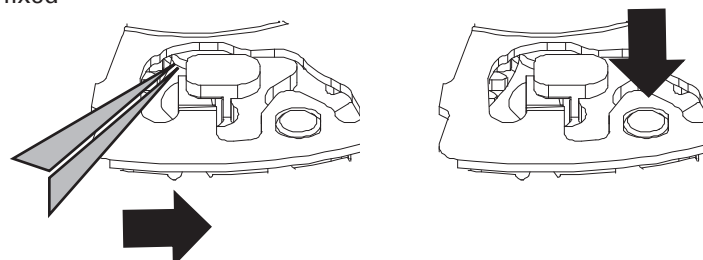
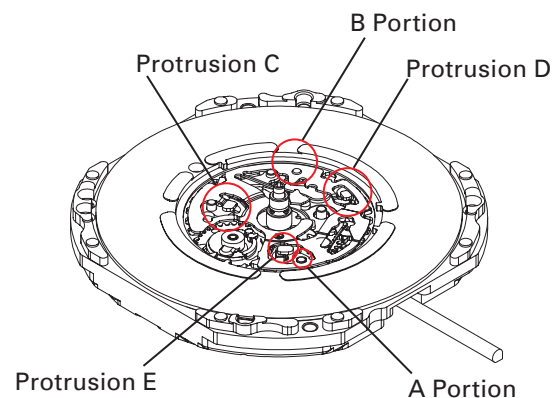
#### ● How to remove

- 1) Lightly lift the A portion of the DATE DIAL GUARD with tweezers to release it from the guide pin, and then move it in the clockwise direction until it gets off from the eave of the MAIN PLATE.
- 2) Release the B portion of the DATE DIAL GUARD in the same way as described above, and then move it in the clockwise direction until it gets off the guide pin.
- 3) Check that all three protrusions of the date dial guard have come off from the MAIN PLATE, and then remove the DATE DIAL GUARD.



#### ● How to install

- 1) Set to A and B position of DATE DIAL GUARD to the guide pins, as shown in the illustrations at right.
- 2) Turn the protrusion D of the DATE DIAL GUARD counterclockwise so that it is caught under the eaves of the MAIN PLATE.
- 3) Slightly move the protrusions C and E counterclockwise direction alternately to set them under the MAIN PLATE. Then, set the A and B portions of the DATE DIAL GUARD to the guide pins.
- 4) Check that the DATE DIAL GUARD is fixed securely to the MAIN PLATE.



## ⑪ BATTERY CONNECTION (+)

- BATTERY CONNECTION (+) is set to the MAIN PLATE with three hooks.  
Take care not to deform the hook is removing and installing.

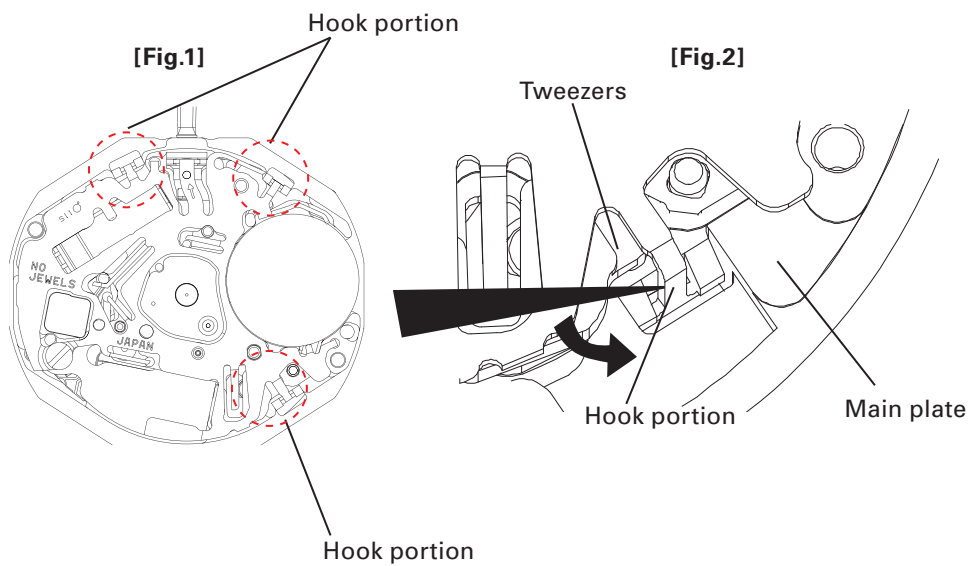
### ● How to remove

Put the tip of the tweezers and push gently as the illustration to remove the hook from the main plate.

### ● How to install

See the hook to the guide of MAIN PLATE.

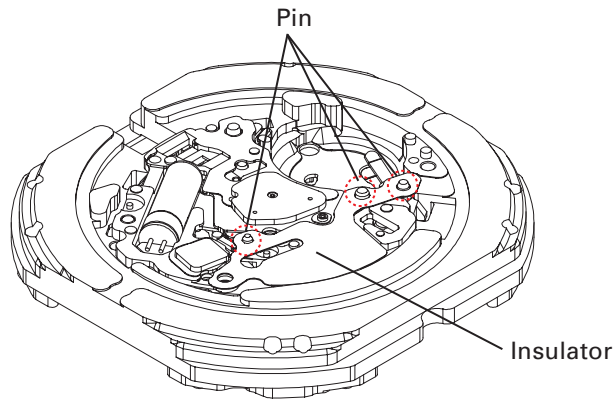
Make sure that three hook portions securely catch the MAIN PLATE.



⑫ INSULATOR

● **How to install**

Set the guide holes (three positions) to the guide pins on the TRAIN WHEEL BRIDGE securely.



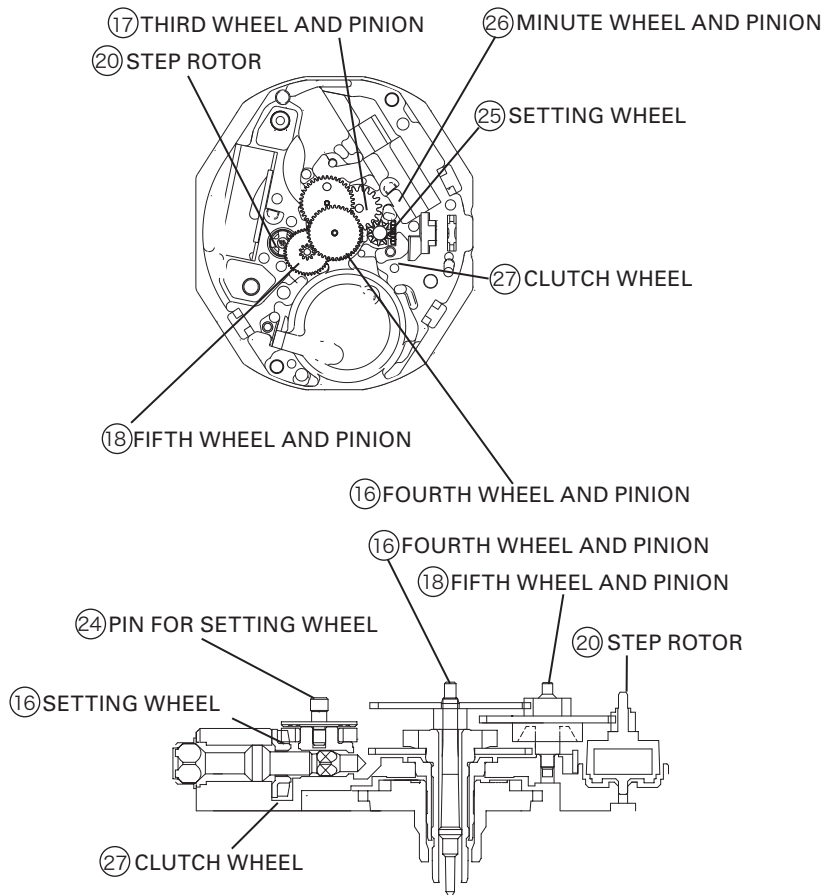
⑩⑥ FOURTH WHEEL AND PINION

⑩⑧ CENTER WHEEL AND PINION

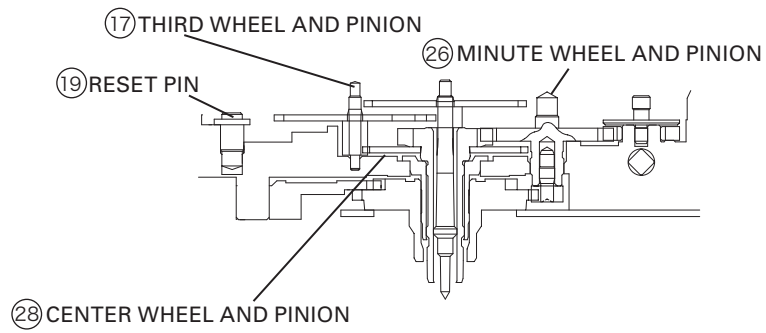
● **Setting position**

See the illustration below:

Notes: Since the fifth wheel and pinion and step rotor are made of plastic, take care not to damage them in disassembling and reassembling.





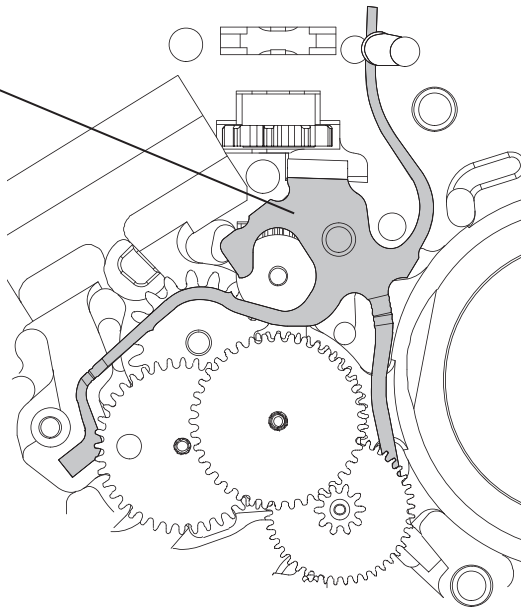


## ②⑨ TRAIN WHEEL SETTING LEVER

### ● How to install

- Install the spring part of the train wheel setting lever to the pin as shown bellow.
- Take care not to deform the spring portion of the train wheel setting lever.

②⑨ Train wheel setting lever

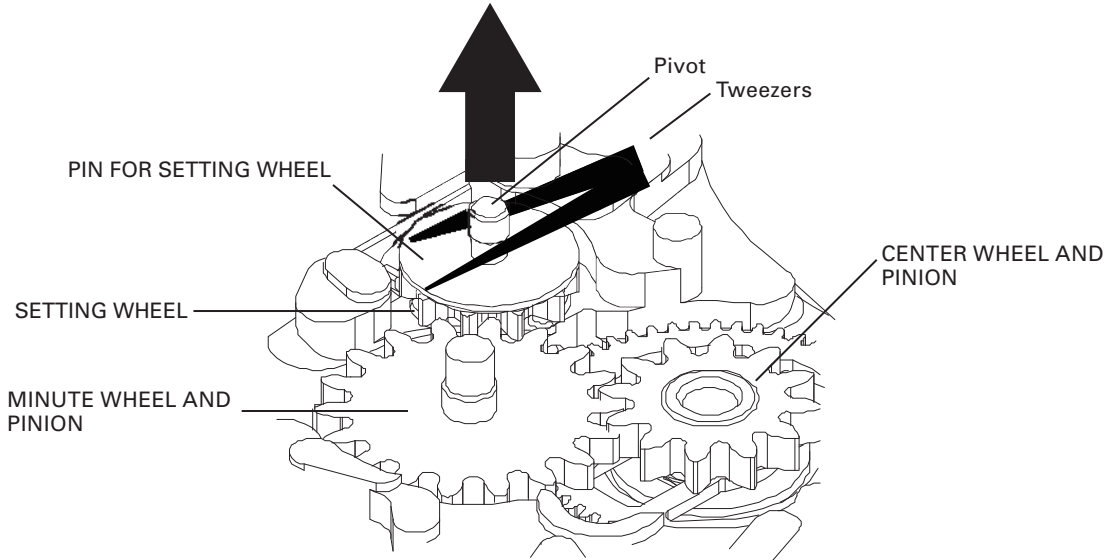


## ②④ PIN FOR SETTING WHEEL

Notes: In disassembling and reassembling, take care not to damage the pivot of the part.

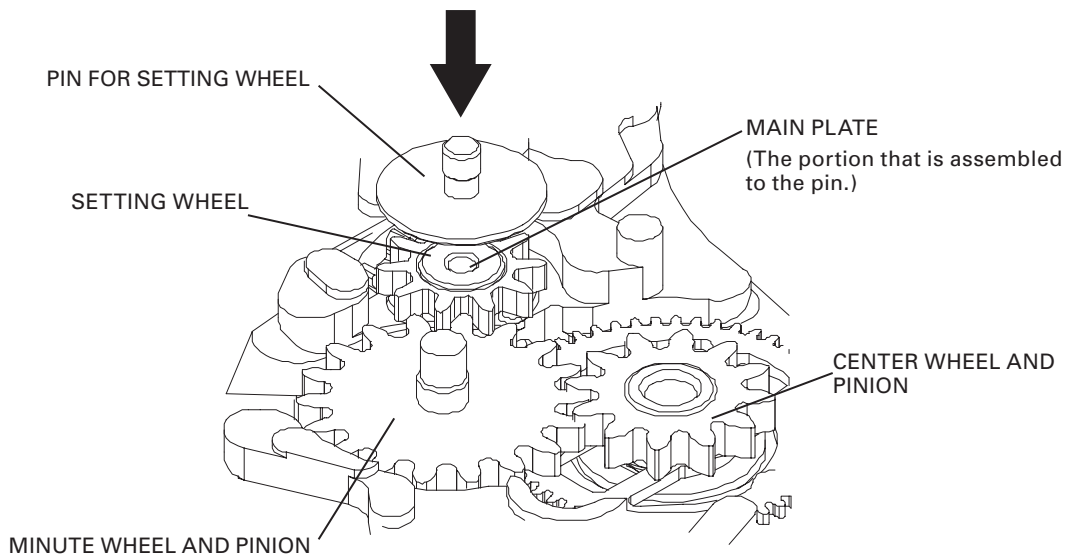
### ● How to remove

Pick the pin up with tweezers as illustrated with care.



### ● How to install

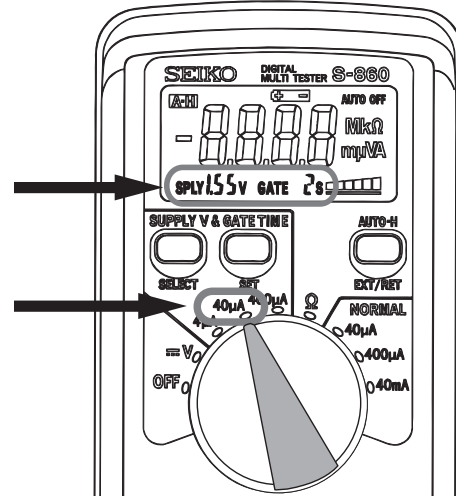
See the pin in SETTING WHEEL with care.



## REMARKS ON INSPECTION AND MEASUREMENT

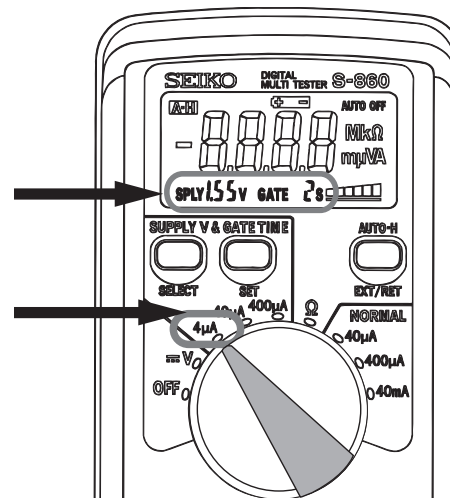
### ● How to measure the current consumption for the whole movement

- To measure the current consumption for the whole movement, connect the (-) probe to the battery connection (-) and (+) probe to the other metal part of the movement, such as battery clamp or circuit block cover.
- When measuring the current consumption using the SEIKO digital multi-tester (S-860), use the range of 40  $\mu$  A of SUPPLY V (= 1.55 V) & GATE TIME (2 S).
- Connect the AC component to the positive terminal for 2 seconds until a short circuit occurs to reset the integrated circuit.
- After the integrated circuit is reset, wait approximately for 10 seconds until a stable measurement is obtained, and then read the measurement.
- Make sure the read value is less than 0.94  $\mu$  A.



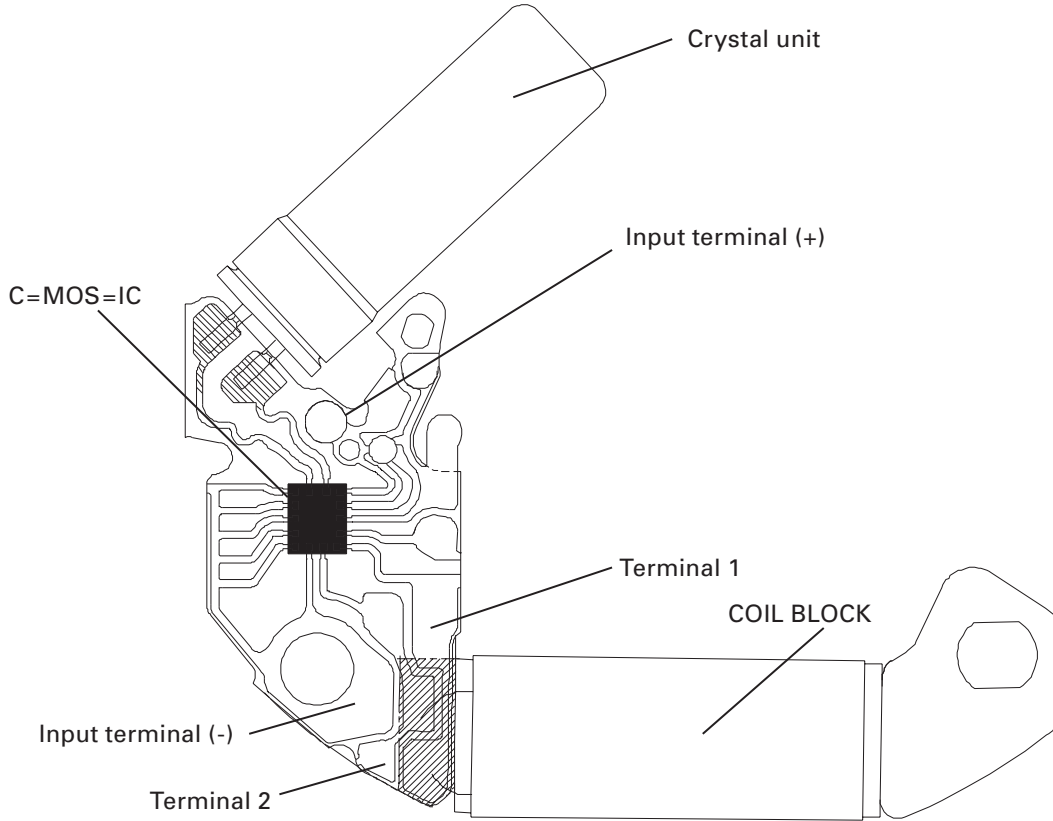
### ● How to measure the current consumption for the CIRCUIT BLOCK alone

- To measure the current consumption for the CIRCUIT BLOCK alone, connect each probe to the appropriate positive (+) or negative (-) input terminal of the CIRCUIT BLOCK (please refer to "Structure of the CIRCUIT BLOCK" below).
- When measuring the current consumption using the SEIKO Multi-Tester S-860, use the range of 4  $\mu$  A of SUPPLY V (= 1.55 V) & GATE TIME (2 S).
- Repeat the same procedures as 2. and 3. of measuring current consumption for the whole movement above.
- When measuring the current consumption for the circuit block alone, be careful not to damage or deform the pattern of the circuit block.
- Make sure the read value is less than 0.2  $\mu$  A.



## [Structure of the CIRCUIT BLOCK]

Notes: Since the CIRCUIT BLOCK and COIL BLOCK are made by one piece, in disassembling and reassembling take care not to cut the coil line.



Coil resistance can be measured by touching on "Terminal 1" and "Terminal 2."

### ● Value checking – coil resistance (COIL BLOCKS)

CIRCUIT BLOCK WITH COIL BLOCK	4004274	2.1 K $\Omega$ ~ 2.3 K $\Omega$
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