
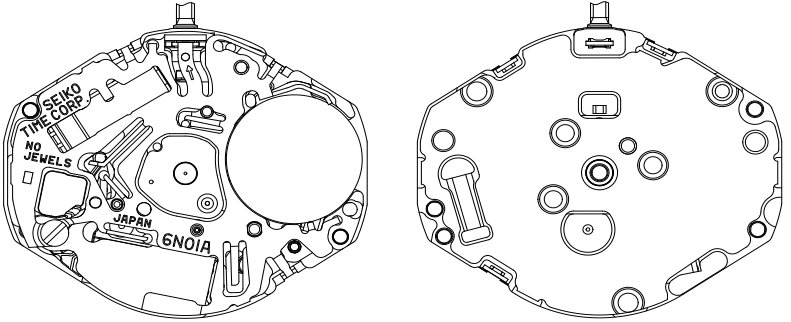


PARTS LIST / TECHNICAL GUIDE

Cal.6N01A

Cal. No.		6N01A
Item		
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>• 3 Hands (Hour, Minute, Second)</p> </div> <div style="text-align: center;">  </div> </div> <div style="margin-top: 10px;"> <p>Movement Size</p> <ul style="list-style-type: none"> • Outside diameter: 15.3 mm : between 3 o'clock and 9 o'clock sides 18.2 mm : between 6 o'clock and 12 o'clock sides • Casing diameter 17.8 mm : between 6 o'clock and 12 o'clock sides • Height: 2.29 mm (including the battery) </div>		
Driving system		Step motor (Load compensated driving pulse system type)
Additional function		<ul style="list-style-type: none"> • Electronic circuit reset switch • Train wheel setting device • Battery life indicator
Crown operation	Normal position	Free
	1st click position	Time setting
Loss/Gain (Monthly rate)		Less than 15 seconds at normal temperature range
Frequency of crystal oscillator		32,768 Hz
Operational temperature range		-10°C ~ +60°C
Regulation system		Nil
Gate time for rate measurement		Use 10-second gate
Current consumption		<ul style="list-style-type: none"> • Movement: Less than 0.85 μA • Circuit block: Less than 0.20 μA
Coil resistance		2.15 - 2.35K Ω
Power supply	Battery No.	SR621SW (Silver oxide battery)
	Battery voltage	1.55V
	Battery life	Approximately 3 years
Jewels		0 jewel

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PARTS LIST

Cal. 6N01

Disassembling procedures Figs. ① → ②②

Reassembling procedures Figs. ②② → ①

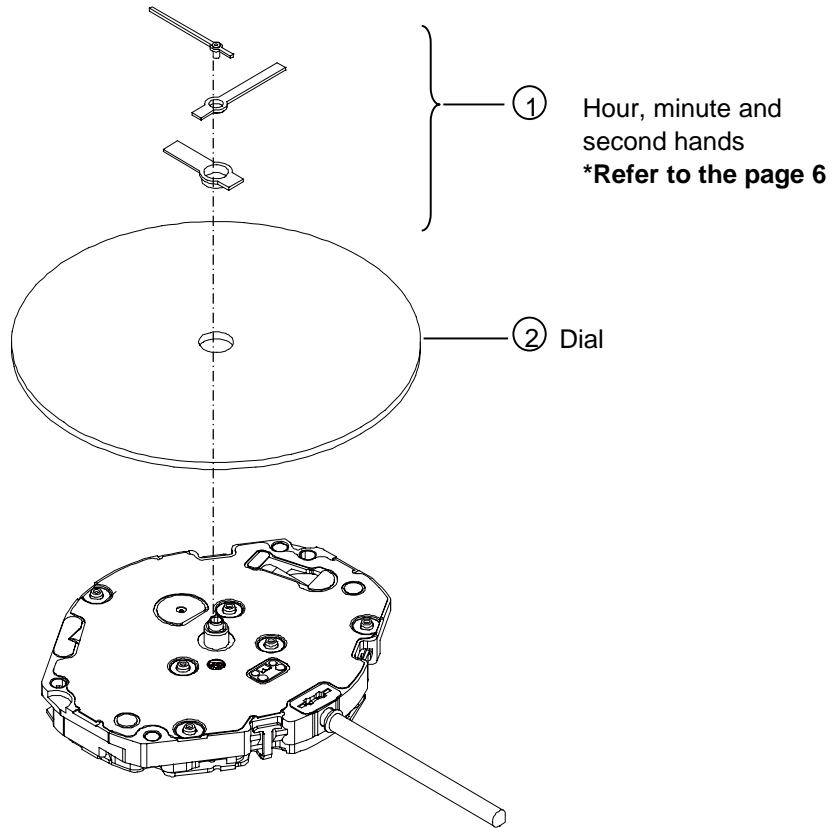
Lubricating : Types of oil

● AO-3

■ AO-2

Oil quantity

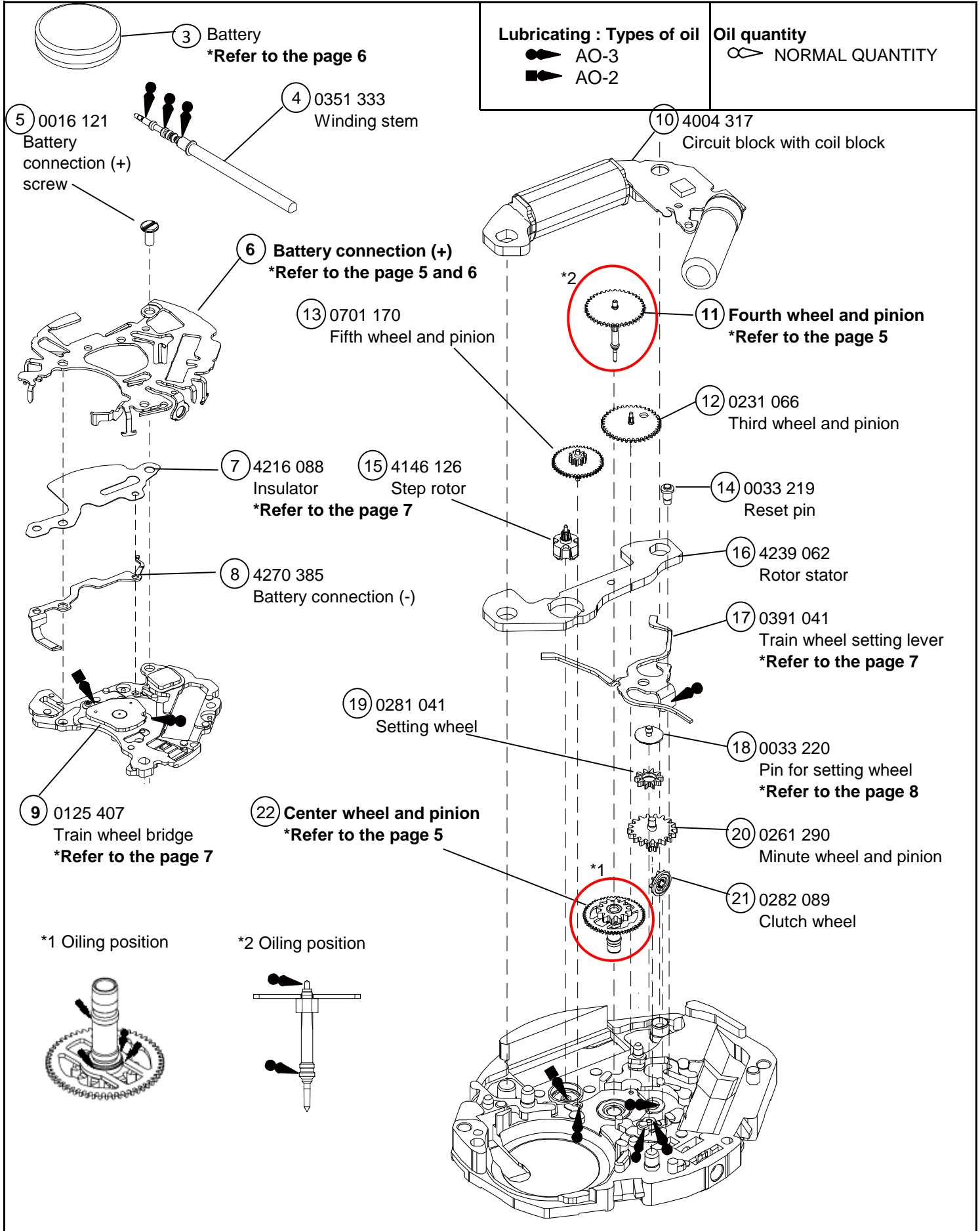
∞ NORMAL QUANTITY



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PARTS LIST

Cal.6N01



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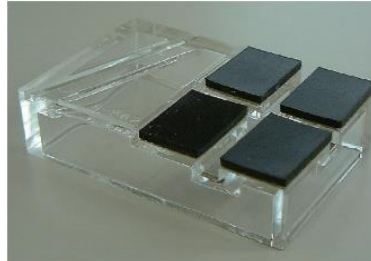
PARTS LIST

Cal. 6N01

● Tools and consumables required for disassembling/reassembling

• Movement Holder

UNIVERSAL MOVEMENT HOLDER (S-682)



• Watch oils

SEIKO watch oil AO-2 and AO-3

AO-2



AO-3



● How to find the correct parts, if not determined by 4 digit caliber number

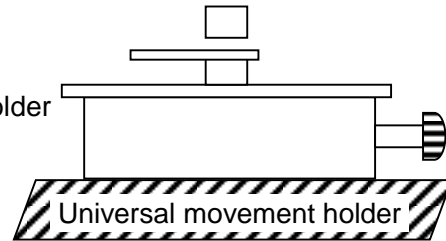
Please refer to the following table in order to find the correct part number.

Parts name	Standard type	Long type	Special type
⑥ Battery connection(+)	4268 092	4268 093	4268 094
⑪ Fourth wheel and pinion	0241 467	0241 468	0144 162
⑫ Center wheel and pinion	0221 146	0221 147	0221 148

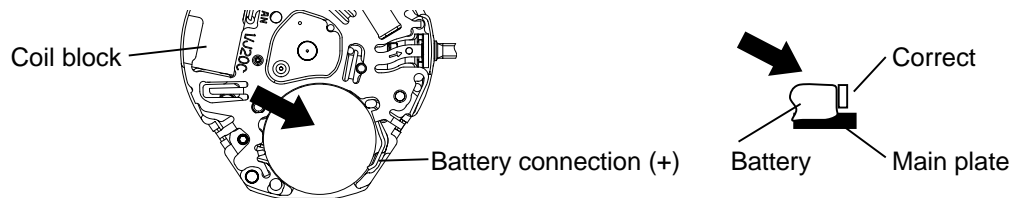
* All parts code are subject to change without notice.

REMARKS ON DISASSEMBLING AND REASSEMBLING THE MOVEMENT

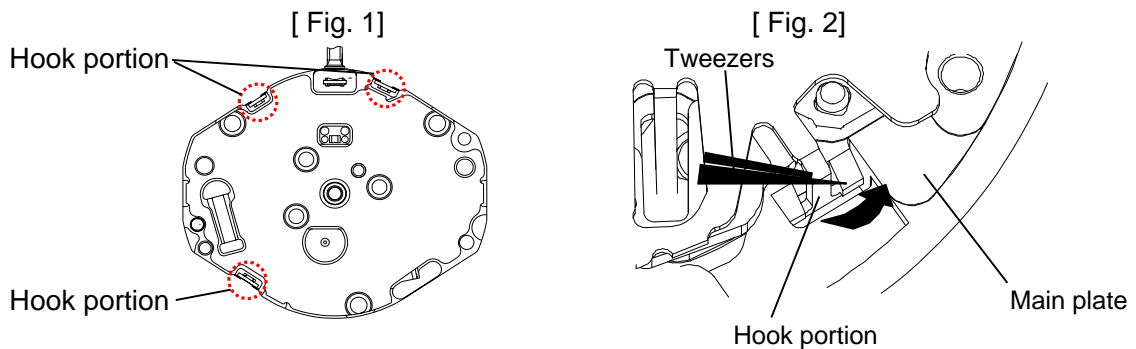
- ① Hands
How to install
Place the movement directly on an universal movement holder to install the hands.



- ③ Battery
How to install battery
Insert the battery aslant in the direction shown by the arrow.
Check the battery connection (+) securely touches the side of the battery.



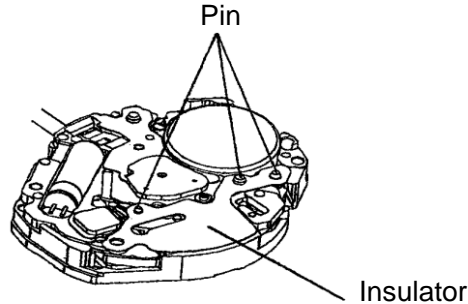
- ⑥ Battery connection (+)
How to install
Set the hook portions (3 places) with tweezers like Fig.2, and make sure that the hooks catch the main plate.
In disassembling and reassembling , take care not to deform the hook portions.



REMARKS ON DISASSEMBLING AND REASSEMBLING THE MOVEMENT

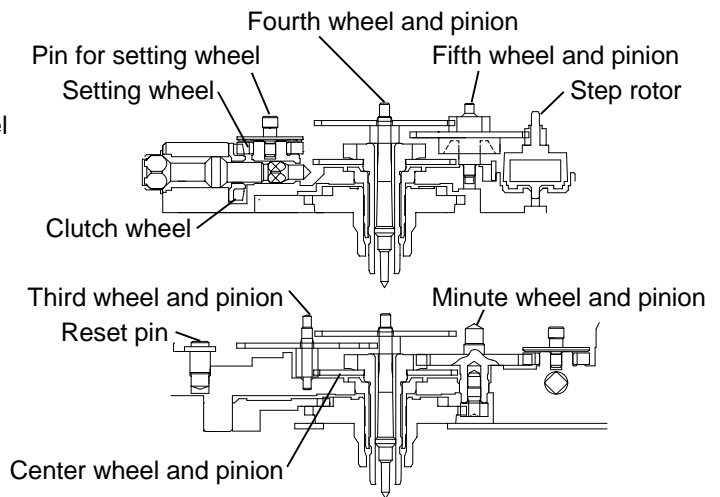
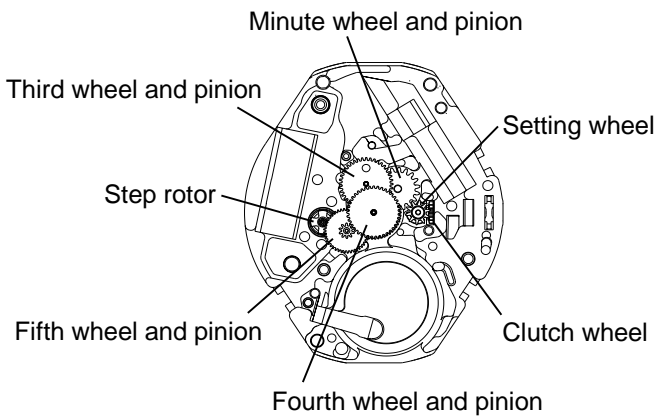
- ⑦ Insulator
Setting position

Notes: In order to insulate the battery connection (+) and the battery connection (-), the insulator should be put at the three pins securely as below.



- ⑨ Train wheel bridge
Setting position

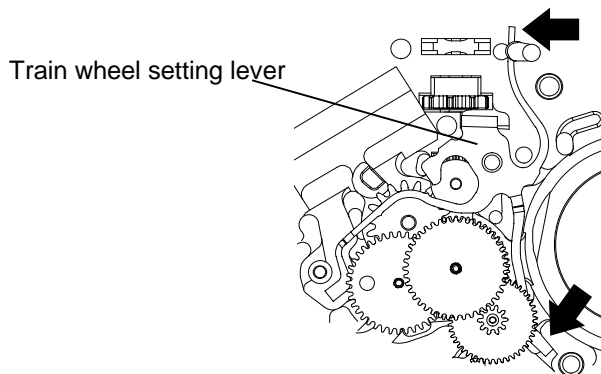
Notes: Since the fifth wheel and pinion and step rotor are made of plastic, take care not to damage them in disassembling and reassembling.



- ⑰ Train wheel setting lever
Setting position

Notes:

- Set the spring part of the train wheel setting lever to the pin as below.
- Take care not to deform the spring part.

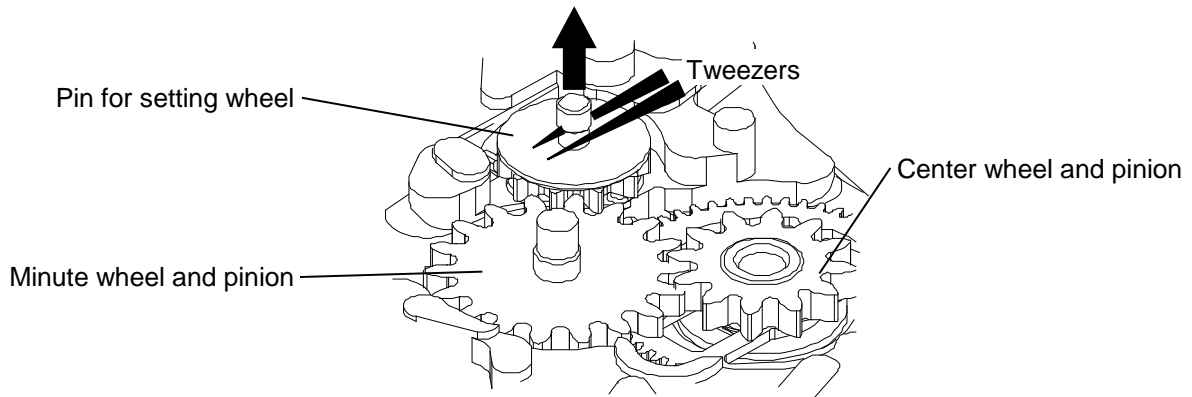


REMARKS ON DISASSEMBLING AND REASSEMBLING THE MOVEMENT

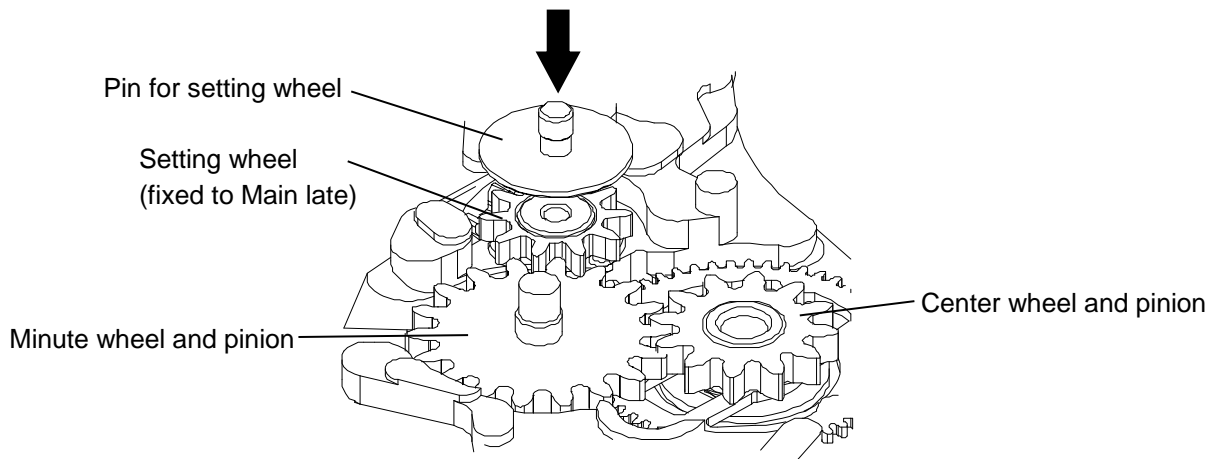
⑱ Pin for setting wheel

Notes:

- In disassembling and reassembling, take care not to damage the pin, since it is made of plastic and easily damaged.
- In disassembling, pick the pin up vertically from the main plate with care.



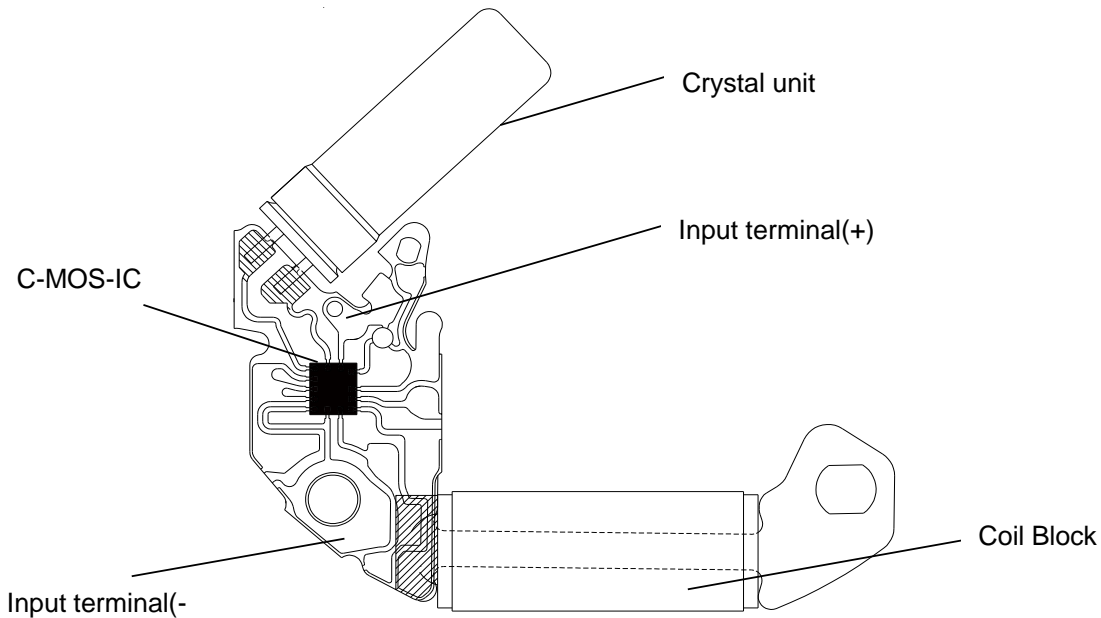
- In reassembling, push the pin toward the main plate vertically with care.



[STRUCTURE OF THE CIRCUIT BLOCK]

Notes:

Since the circuit block and coil block are an integrated structure, take care not to cut the coil wire while disassembling and reassembling



● **Value checking -coil resistance (coil block)**

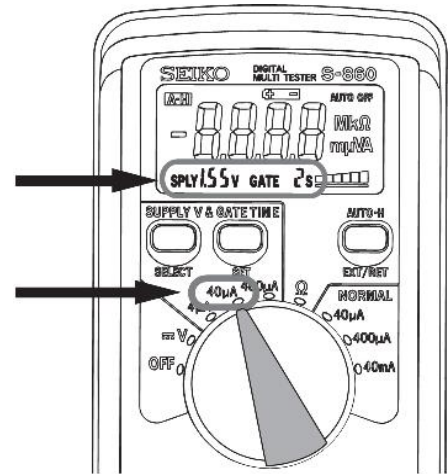
Check the resistance of each coil block if they are within the range in the following table.

COIL BLOCK	4004 317	2.15 - 2.35KΩ
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REMARKS ON INSPECTION AND MEASUREMENT

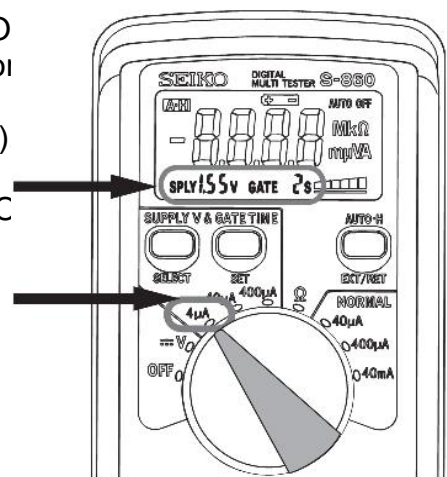
● How to measure the current consumption for the whole movement

- 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 μ 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 0.75 μ 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 μ 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 0.13 μ A.



TECHNICAL GUIDE

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●Water resistance test

Check the water resistance according to the designated specification of the watch

Marking on the case back	Test method	Applied pressure
WATER RESISTANT(WATER RESIST)	Air leak test	3 BAR
WATER RESIST 5BAR	Water pressure test	5 BAR
WATER RESIST 10BAR		10 BAR
WATER RESIST 15BAR		15 BAR
WATER RESIST 20BAR		20 BAR
SCUBA DIVERIS (AIR DIVERIS) 150 m	Condensation test	$18.75 \text{ BAR} = 150(\text{m}) \times 0.125$
SCUBA DIVERIS (AIR DIVERIS)200 m	Water pressure test	$25 \text{ BAR} = 200(\text{m}) \times 0.125$
He-GAS DIVERIS 300 m		$37.5 \text{ BAR} = 300(\text{m}) \times 0.125$
He-GAS DIVERIS 600 m		$75 \text{ BAR} = 600(\text{m}) \times 0.125$
He-GAS DIVERIS1000m		Condensation test

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TROUBLESHOOTING

	Symptom	Possible causes	Solutions
Movement	The watch stops operating.	The battery has been depleted.	Measure the battery voltage. Replace the battery with a new one.
		The hour wheel and the pinion of the minute wheel are not properly engaged. (Or the teeth of the hour wheel and/or minute wheel have been broken.)	Check the relevant parts, and replace the damaged parts with new ones.
		The hooking portions of the circuit block cover are not properly engaged, resulting in poor conductivity.	Securely attach the hooks of the circuit block cover to the main plate.
		The coil is broken.	Measure the coil block resistance. Replace the coil with a new one.
	The current consumption for the whole movement exceeds the standard value.	One or more wheels have been contaminated with dirt, dust or other particles.	Remove dirt or dust and clean the contaminated wheels. Be careful so as not to damage the teeth of the plastic parts while cleaning.
		An excessive amount of oil in the movement has caused adhesive forces among the parts. (wringing)	
		Dirt, dust or foreign particles are adhered to the movement. The driving pulse is generated in order to compensate the excessive load applied to the wheels. (The oil has deteriorated, leaked or run out.)	Remove dirt, dust or foreign particles and clean the movement. If the current consumption for the circuit block alone is within the standard value range, overhaul and clean the movement parts, and then make the measurement again.
The current consumption for the circuit block alone exceeds the standard value.	The light from outside the movement is affecting the measurement.	Shut out the light, and make the measurement again.	
	There is a defect in the IC (integrated circuit).	Replace the circuit block with a new one.	
Exterior Parts	The crown falls off.	The winding stem is not securely installed. (The setting lever and yoke are disengaged.)	Check the main plate, winding stem, setting lever and yoke. Replace the defective parts with new ones.
	The current consumption exceeds the standard value.	An excessive load is being applied due to friction among the hour, minute and STOP-WATCH hands.	Adjust or remount the relevant hands.
	Small amount of water/blur inside of the glass persists.	Water resistance is deteriorated. The watch has been subjected to water pressure that exceeds the guaranteed degree.	Investigate the causes to take necessary measures, while cleaning inside of the watch.

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