EMMYWATCH

VINTAGE RESTORATIONS

Seiko 7126A Movement Parts (1)

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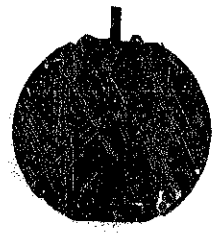
SEIKO

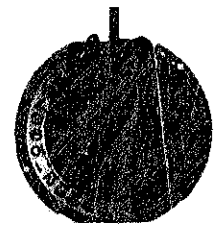
QUARTZ

Cal. 7126A

PARTS LIST

Cal. 7126A





131 115

165 001

167 001

168 003

168 004

168 007

231 029

241 060

261 019

270 037

271 056

282 023

354 078

376 001

383 049

384 022

388 022

391 018

436 004

464 001

☆470 170

495 003

556 013

560 004

701 007

☆801 103

802 022

803 006

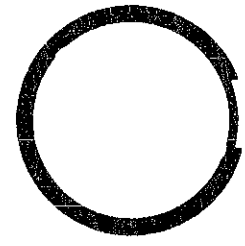
808 035

808 036

810 012

817 015

868 012



☆884 128

963 007

4001 173

4002 010

4146 007

4219 012

4239 018

4242 075

4259 009

4270 024

011 542

☆Maxell SR1130SW

012 152

012 153

012 154

012 713

012 789

013 975

017 135

017 136

017 137

017 138

017 260

017 261

017 262

017 263

017 264

017 265

017 266

017 268

017 379

2/1

☆⇨Please see remarks on the next reverse page.

Cal. 7126A

Characteristics

Casing diameter : 26.0 × 23.7mm
Maximum height : 3.8 mm without battery
Jewels : 2 j
Frequency of quartz crystal oscillator : 32,768 Hz (Hz=Hertz . . . . . Cycles per second)
Driving system : Step motor (2 poles)
Regulation system : Trimmer condenser
Train wheel setting
Calendar (Day and date)
Time differential adjusting device : Pull the crown out to the first click and the hour hand move one hour every click.
Instant setting device for day and date calendar.
Battery life indicator : Second hand moves in two-second interval.

PART NO.	PART NAME
131 115	Third wheel bridge
165 001	Hour corrector lever
167 001	Time corrector setting wheel
168 003	Intermediate wheel for time correction (C)
168 004	Intermediate wheel for hour correction (D)
168 007	Intermediate wheel for time correction (G)
231 029	Third wheel & pinion
241 060	Fourth wheel & pinion
261 019	Minute wheel
270 037	Center minute wheel with cannon pinion
271 056	Hour wheel
282 023	Clutch wheel
354 078	Winding stem
376 001	Hour wheel guard
383 049	Setting lever
384 022	Yoke (Clutch lever)
388 022	Setting lever spring
391 018	Train wheel setting lever
436 004	Lower end-piece for third wheel
464 001	Rocking bar holder
☆470 170	Day star with dial disk
495 003	Spacer for third wheel bridge
556 013	Date finger
560 004	Friction spring for fourth wheel & pinion
701 007	Fifth wheel & pinion
☆801 103 ☆801 104	Date dial
802 022	Date driving wheel
803 006	Rocking bar
808 035	Date dial guard (A)
808 036	Date dial guard (B)
810 012	Date jumper
817 015	Intermediate date wheel
868 012	Day finger
☆884 128	Holding ring for dial
963 007	Snap for day star with dial disk
4001 173	Circuit block
4002 010	Coil block
4146 007	Step rotor
4219 013	Insulator for battery connection
4239 018	Rotor stator
4242 075	Plus terminal of battery connection
4259 009	Anti-magnetic shield plate
4270 024	Battery connection
011 542	Upper hole jewel for step rotor
011 542	Lower hole jewel for step rotor
012 152	Third wheel bridge screw
012 152	Circuit block screw
012 152	Coil block screw
012 153	Day finger screw
012 154	Screw for rocking bar holder
012 154	Lower end piece screw for third wheel
012 713	Hour wheel guard screw
012 789	Setting lever spring screw
013 975	Eccentric dial pin
017 135	Tube for coil block (A)
017 136	Tube for coil block (B)
017 137	Tube for circuit block
017 138	Tube for yoke
017 260	Tube for third wheel bridge (B)
017 261	Tube for setting lever spring
017 262	Tube for hour wheel guard (A)
017 263	Tube for hour wheel guard (B)
017 264	Tube for hour wheel guard (C)
017 265	Tube for third wheel bridge (A)
017 266	Tube for third wheel bridge (C)
017 268	Tube for rocking bar holder
017 379	Tube for date jumper screw
☆Maxell SR1130SW ☆SEIKO SR1130SW ☆SEIKO SB-AU	Silver oxide battery

☆⇨Please see remarks on the reverse page.
Part numbers in light letters are not shown in photos.

Cal. 7126A

Remarks :

Day star with dial disk

☆470 170 ····· Used when both the crown and the calendar frame are located at **3** o'clock position. If any other type of day star with dial disk is required, specify the number printed on the disk.

Date dial

☆801 103(Black figures on white background)
☆801 104(White figures on black background) } ····· Used when both the crown and the calendar frame are located at **3** o'clock position.

If any other type of date dial is required, specify ① Cal. No. ② Jewels ③ The crown position ④ The calendar frame position and ⑤ Dial No.

Holding ring for dial

☆884 128 ····· The type of holding ring for dial is determined based on design of cases and dials. If the shape of holding ring for dial is different from the photograph, check the case number and refer to **"SEIKO Quartz Casing Parts List"** to choose a corresponding holding ring for dial.

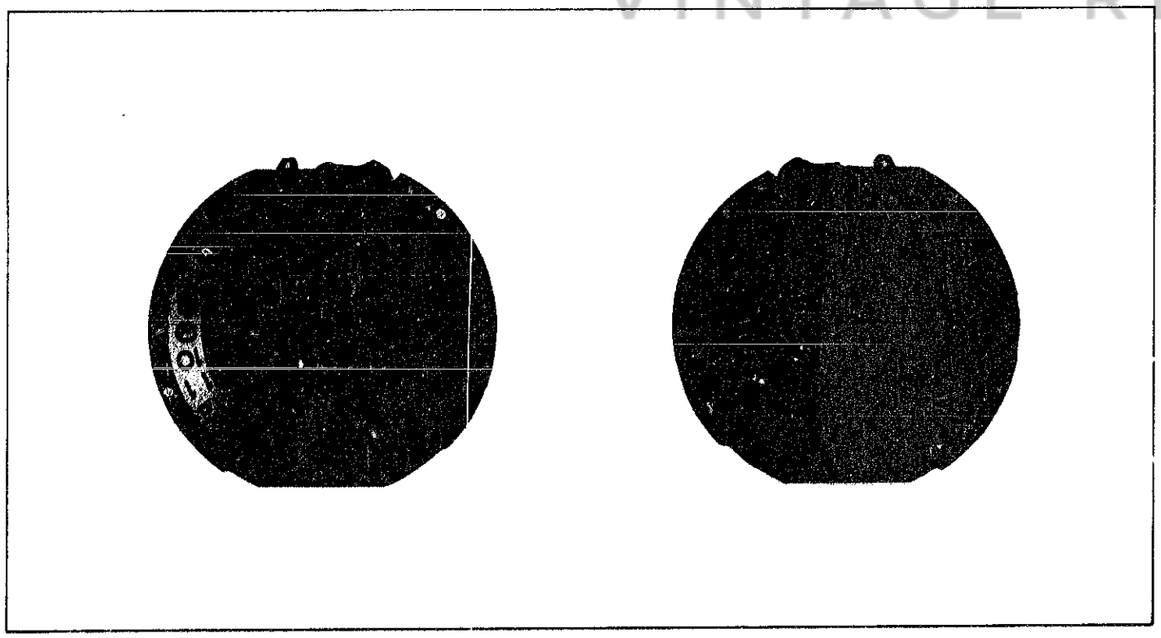
Battery

☆Maxell SR1130SW
☆SEIKO SR1130SW
☆SEIKO SB-AU } ····· The substitutive battery might be added to the applied battery in the future. In that case, please refer to separate **"BATTERY LIST FOR SEIKO QUARTZ WATCHES"**.
Note that SEIKO battery is marked with **"SEIZAIKEN"** on its (+) side.

TECHNICAL GUIDE

SEIKO
QUARTZ

CAL. 7126A

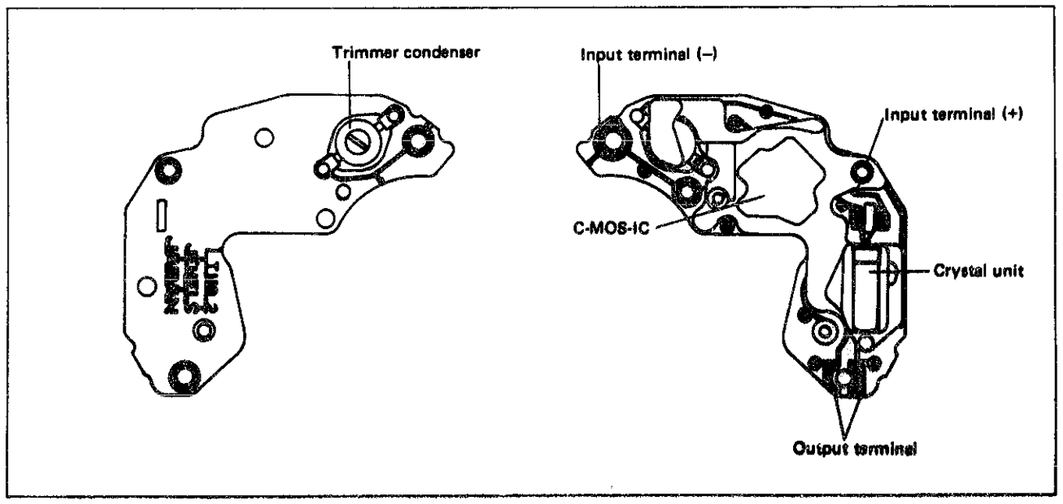


CONTENTS

I. SPECIFICATIONS

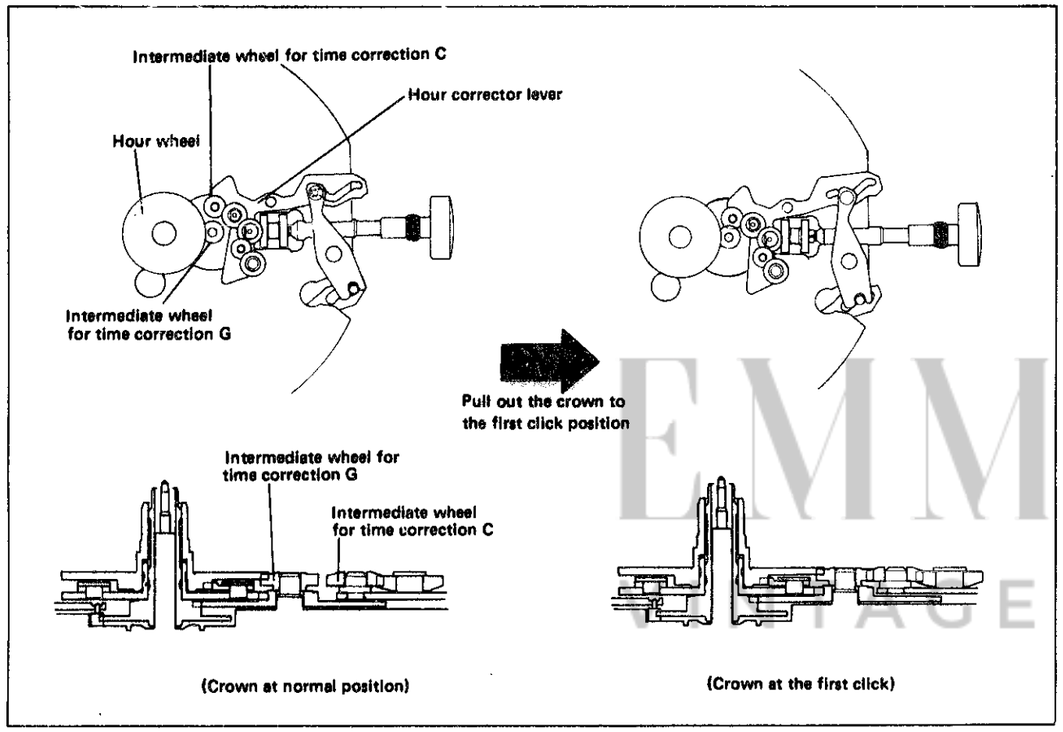
Item \ Cal. No.	7126A
Time indication	3 hands
Additional mechanism	Day and date Time differential adjusting device Train wheel setting device Electronic circuit reset switch Battery life indicator
Loss/gain	Loss/gain at normal temperature range Monthly rate: less than 15 seconds (Annual rate: less than 3 minutes)
Casing diameter	ϕ26.0 mm
Height	3.8 mm without battery
Regulation system	Trimmer condenser
Measuring gate by Quartz Tester	Any gate is available.
Battery	Maxell SR1130SW or SEIKO (SEIZAIKEN) SR1130SW or SB-AU Battery life is approximately 5 years. Voltage 1.55V
Jewels	2 jewels

II. STRUCTURE OF THE CIRCUIT BLOCK

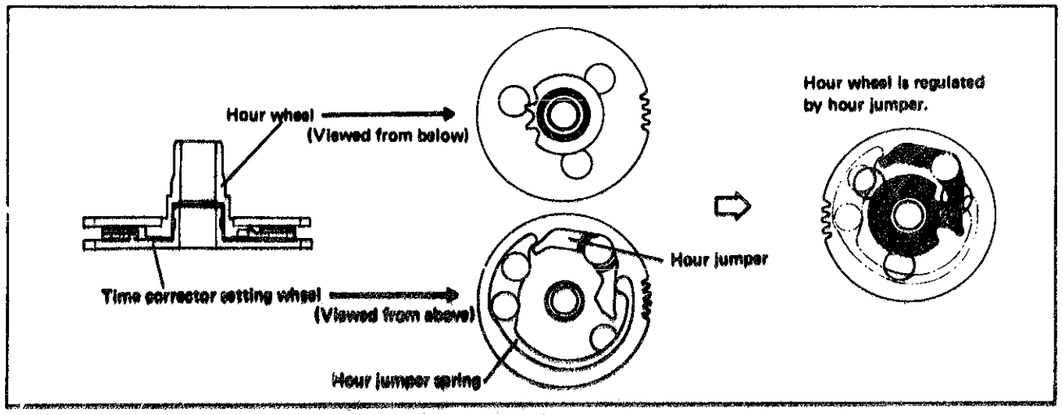


III. TIME DIFFERENTIAL ADJUSTING DEVICE

Cal. 7126A is provided with the time differential adjusting device which can advance or delay the time by an hour by turning the crown without stop moving.
In this device, as shown in the illustration below, the hour corrector lever moves when the crown is pulled out to the first click and the intermediate wheel for time correction C gears with the intermediate wheel for time correction G. Since the intermediate wheel for time correction G engages with the hour wheel, the hour hand can be advanced or delayed by an hour by turning the crown one click clockwise or counterclockwise.



- **The relation between hour wheel and time corrector setting wheel**
  Hour wheel and time corrector setting wheel normally move together. When adjusting time difference, time corrector setting wheel revolves by one cog (one hour) by intermediate wheel for time correction and after revolving, hour wheel is regulated by hour jumper.



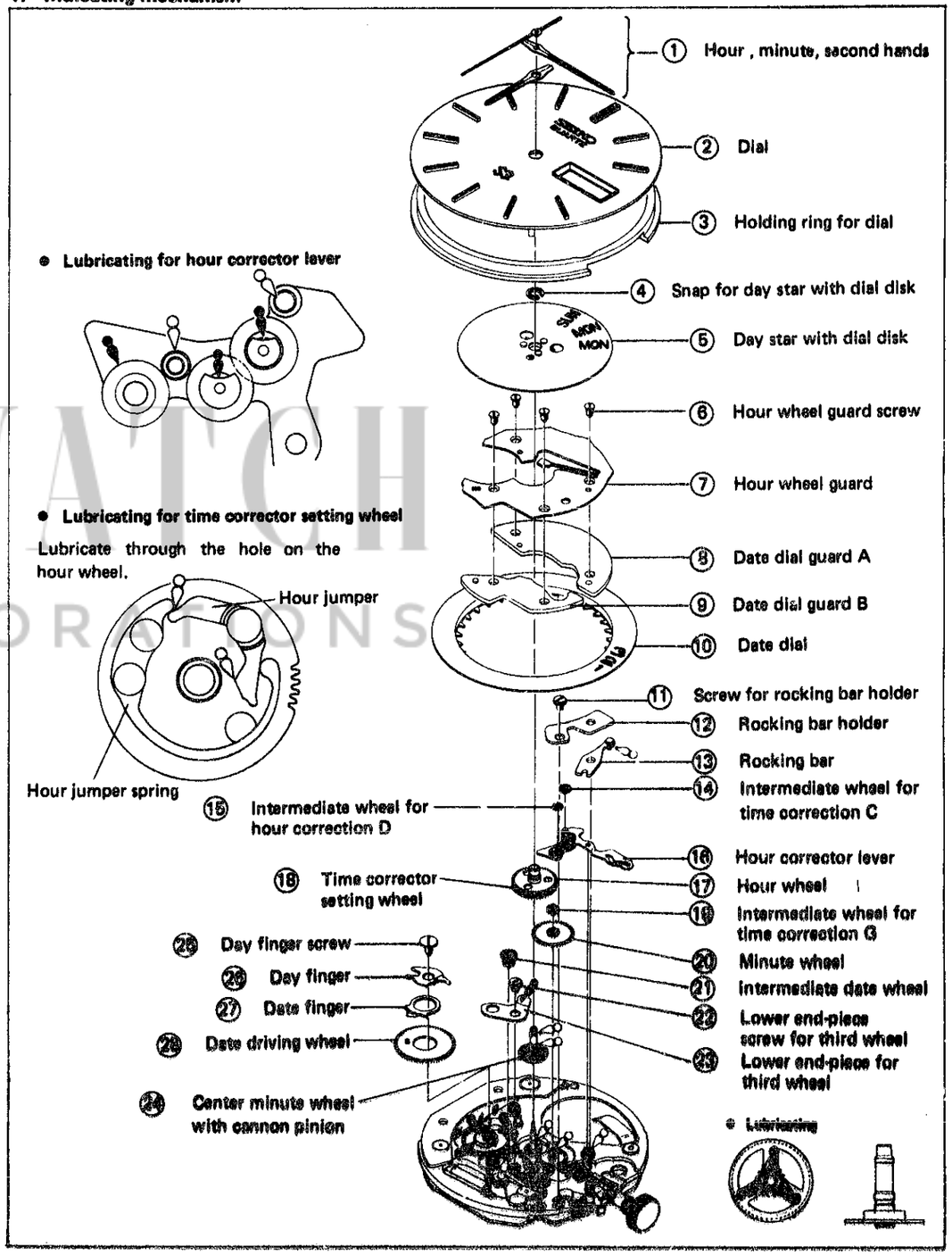
IV. DISASSEMBLING, REASSEMBLING AND LUBRICATING

Disassembling procedures Figs. ① – ⑩
Reassembling procedures Figs. ⑩ – ①

Lubricating: Type of oil
- Moebius A
- SEIKO Watch Oil S-6

Oil quantity
- Liberal
- Normal quantity
- Small quantity

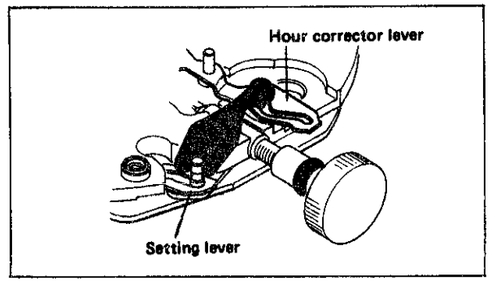
1. Indicating mechanism



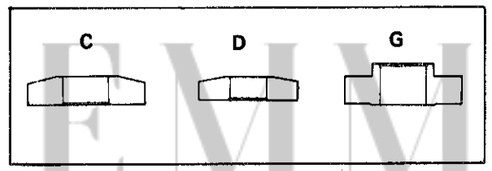
Remarks for disassembling and reassembling

① Hour, minute, second hands
After reassembling the hands, pull out the crown to the first click and check to see if the hour hand moves by an hour when adjusting time difference. At this time, be sure to check if the hands go around without touching the "SEIKO" mark and "SQ" mark.

⑬ Rocking bar
Set the rocking bar as shown in the illustration on the right, the notch to the protrusion of the setting lever and the pin on the tip of rocking bar to the groove of the hour corrector lever respectively.



⑭ ⑮ ⑲ Intermediate wheel for time correction C , G , and intermediate wheel for hour correction D
When reassembling them, set them with their beveled side up on the hour corrector lever.



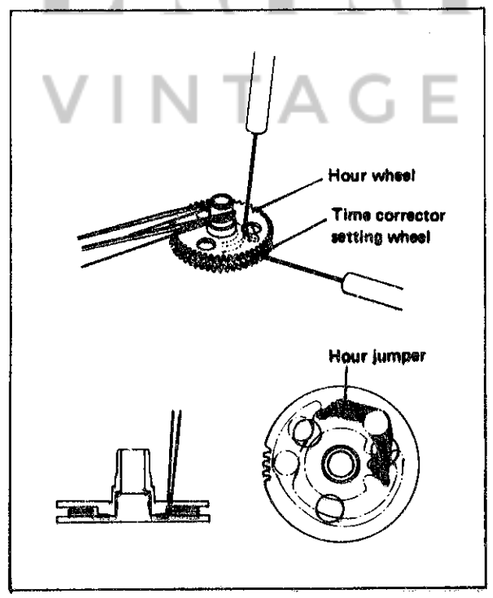
⑰ ⑱ Hour wheel and time corrector setting wheel
When normal disassembling and reassembling, be sure to handle them together.
If disassembling and reassembling are needed, follow the procedures below.

- How to disassemble

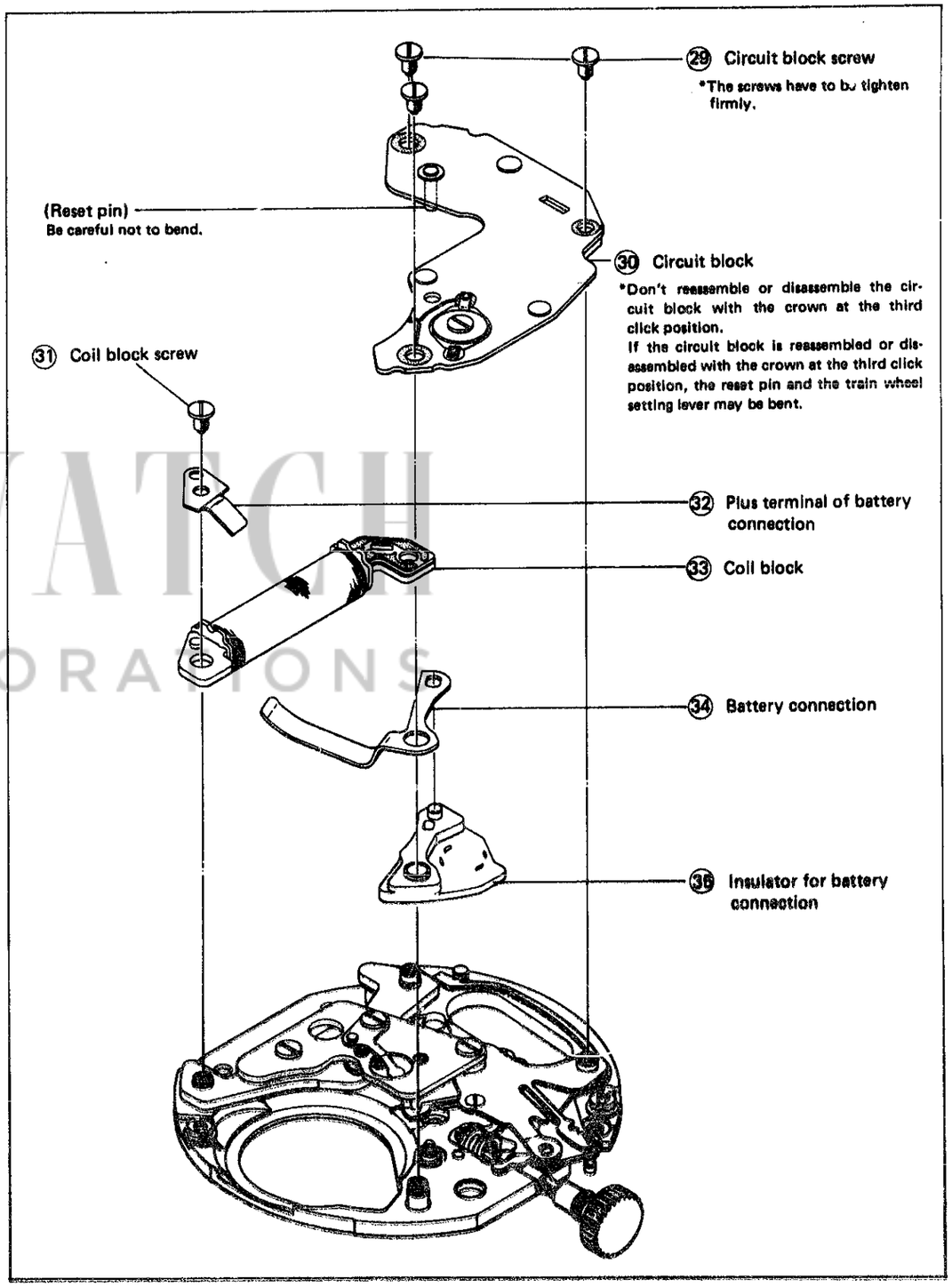
Put the checking stick in the clearance between the hour wheel and the time corrector setting wheel and widen the clearance little by little. After that, put the checking stick in the holes (three places) on the hour wheel and push the time corrector setting wheel to remove it from the hour wheel.

- How to reassemble

After putting the hour wheel on the time corrector setting wheel, put the checking stick in the holes on the hour wheel and putting out the hour jumper to engage it with the hour wheel.



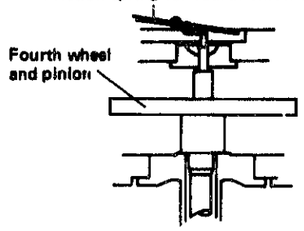
2. Electronic circuit



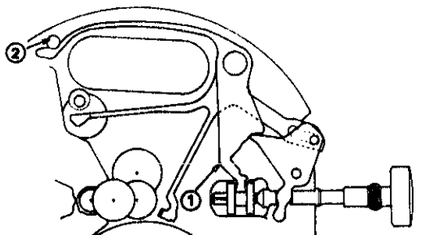
3. Gear train and setting mechanism

- **Lubricate the tip of the fourth wheel and pinion**

Friction spring for fourth wheel and pinion



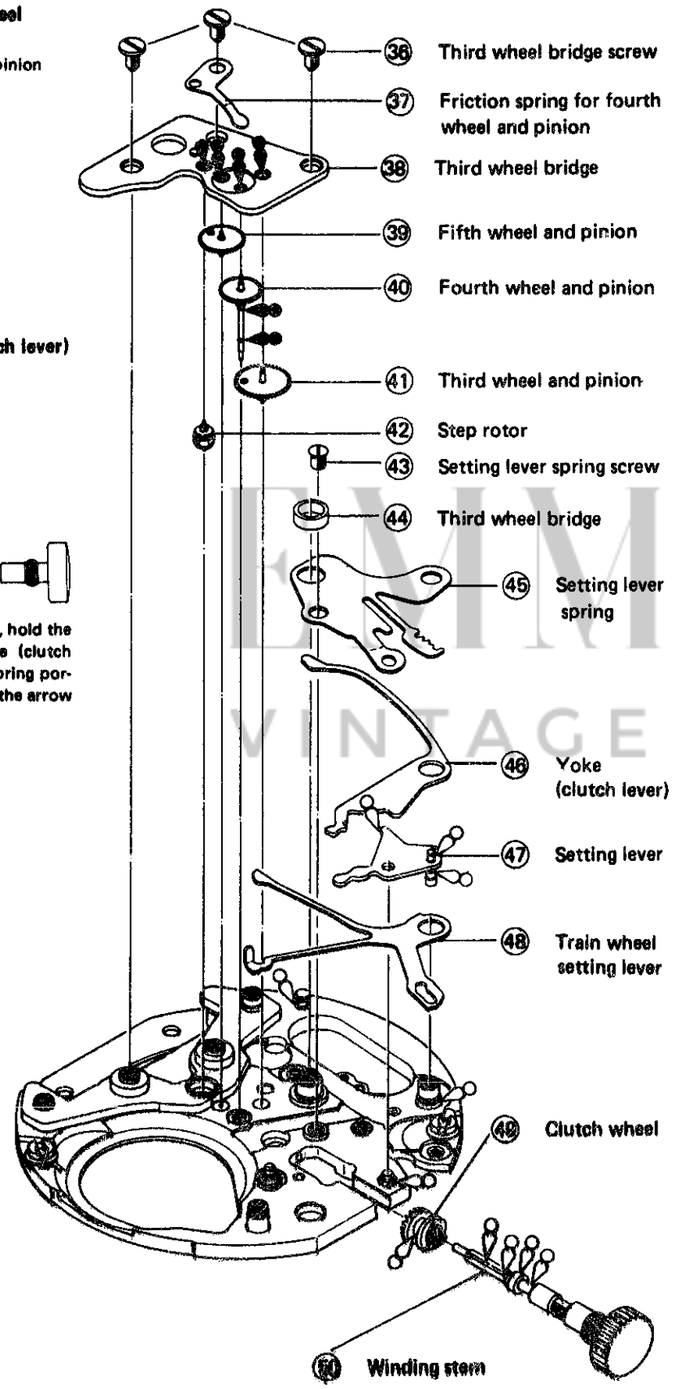
- **How to reassemble the yoke (Clutch lever)**



With the crown at the normal position, hold the arrow marked portion ① of yoke (clutch lever) by your fingers and hold the spring portion by the tweezers, and set it inside the arrow marked pin ② .

- **List of screws used**

Parts No. 012 152	Circuit block screw (3 pcs.) Coil block screw (1 pc.) Third wheel bridge screw (3 pcs.)	7 pcs.
Parts No. 012 153	Day finger screw	1 pc.
Parts No. 012 154	Lower end-piece screw for third wheel (1 pc.) Screw for rocking bar holder (1 pc.)	2 pcs.
Parts No. 012 700	Setting lever spring screw	1 pc.
Parts No. 012 712	Hour wheel guard screw	4 pcs.



V. CHECKING AND ADJUSTMENT

- Refer to the "SEIKO QUARTZ TECHNICAL GUIDE, GENERAL INSTRUCTION" for analogue watches for details.

Procedures

CHECK OUTPUT SIGNAL

Result:
One-second blinking : Normal
No one-second blinking : Defective

CHECK BATTERY VOLTAGE

Result:
More than 1.5V : Normal
Less than 1.5V : Defective

CHECK BATTERY CONDUCTIVITY

CHECK CIRCUIT BLOCK CONDUCTIVITY

CHECK COIL BLOCK

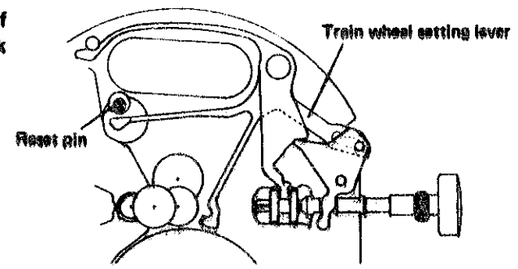
Result:
2.0KΩ ~ 4.0KΩ: Normal
Less than 2.0KΩ (Short circuit) — Defective
More than 4.0KΩ (Broken wire) — Defective
Replace the coil block with a new one.

CHECK RESET AND TRAIN WHEEL SETTING CONDITIONS

1. Check to see if the second hand stops immediately when the crown is pulled out to the third click and if it starts promptly after one second when the crown is pushed back to the normal position.

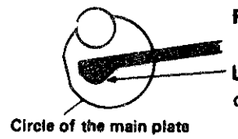
Result:
Stops completely and starts moving after one second: Normal
Does not stop or move irregularly: Defective

2. Check for the clearance between the reset portion of the train wheel setting lever and the reset pin. (Check after the circuit block is removed.)



Procedures

① With the crown at the nomal, first, and the second click position



Result:

Located at the outer circumference of the circle of the main plate: Normal

Located at the center of the circle of the main plate: Defective

* Replace the train wheel setting lever.

② With the crown at the third click position

Located at the center of the circle of the main plate: Normal

Located at the outer circumference of the circle of the main plate: Defective

* Replace the train wheel setting lever.

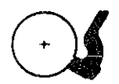
3. Check to see if there is a clearance between the reset portion of train wheel setting lever and the fourth wheel and pinion.

① With the crown at the normal position, the first click and the second click position.

Clearance: Normal

No clearance: Defective
Replace the train wheel setting lever.

② With the crown at the third click position

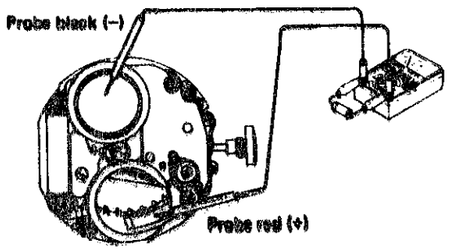


No clearance: Normal

Clearance: Defective
Replace the train wheel setting lever.

CHECK ACCURACY

CHECK CURRENT CONSUMPTION



Result:
Less than 2.0μA : Normal
More than 2.0μA : Defective
Check the electronic circuit.

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