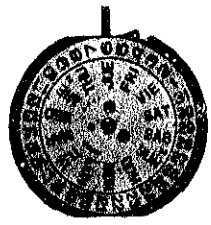
SEIKO

QUARTZ

Cal. 7123A

PARTS LIST

Cal. 7123A



131 079

231 029

☆241 051

261 006

☆270 023

☆271 044

282 017

354 055

383 046

384 017

389 010

☆397 026

☆470 150

495 003

556 012

560 004

701 007

719 003

☆801 077

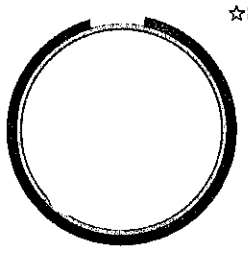
802 019

808 025

810 011

817 014

868 011



☆884 104

963 007

4001 112

4002 010

4146 007

4219 012

4239 018

4242 075

4270 024

011 542

Maxell SR1130SW

012 152

012 153

012 154

012 713

013 975

017 133

017 134

017 135

017 136

017 137

017 138

017 139

017 141

017 142

2/1

☆⇨Please see remarks on the reverse page.

Cal. 7123A

Characteristics:

Casing diameter: ϕ 26.00 mm
Maximum height: 3.30 mm without battery
Jeweles: 2 j
Frequency of quartz crystal oscillator: 32,768 Hz (Hz=Hertz . . . . . Cycle per second)
Driving system: Step motor system (2 poles)
Regulation system: Trimmer condenser
Second setting device
Calendar (Day & Date)
Instant setting device for day & date calendar
Bilingual change-over system for day of the week
Battery life indicator: Second hand moves in two-second interval.

PART NO.	PART NAME
131 079	Third wheel bridge
231 029	Third wheel & pinion
☆**241 051**	Fourth wheel & pinion (4.91 mm)
☆241 052	Fourth wheel & pinion (5.11 mm)
261 006	Minute wheel
☆**270 023**	Center minute wheel with cannon pinion (2.74 mm)
☆270 024	Center minute wheel with cannon pinion (2.94 mm)
☆**271 044**	Hour wheel (1.77 mm, gold)
☆271 045	Hour wheel (1.92 mm, silver)
282 017	Clutch wheel
354 055	Winding stem
383 046	Setting lever
384 017	Yoke (Clutch lever)
389 010	Setting lever axle spring
☆**397 026**	Lever for unlocking stem
☆**470 150**	Day star with dial disk
495 003	Spacer for third wheel bridge
556 012	Date finger
560 004	Friction spring for fourth wheel & pinion
701 007	Fifth wheel & pinion
719 003	Day corrector
☆**801 077** ☆801 097	Date dial
802 019	Date driving wheel
808 025	Date dial guard (with day corrector)
810 011	Date jumper
817 014	Intermediate date wheel
868 011	Day finger
☆**884 104**	Holding ring for dial
963 007	Snap for day star with dial disk
4001 112	Circuit block
4002 010	Coil block
4146 007	Step rotor
4219 012	Insulator for battery connection
4239 018	Rotor stator
4242 075	Plus terminal of battery connection
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
012 152	Setting lever axle spring screw
012 153	Day finger screw
012 154	Date jumper screw

PART NO.	PART NAME
012 713	Date dial guard (with day corrector) screw
013 975	Eccentric dial pin
017 133	Tube for third wheel bridge screw A
017 134	Tube for third wheel bridge screw B
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 (Tube for clutch lever)
017 139	Tube for setting lever axle spring screw
017 139	Tube for date dial guard screw C
017 141	Guide tube for day corrector A
017 142	Guide tube for day corrector B
☆Maxell SR1130SW ☆SEIKO SB-AU	Silver oxide battery

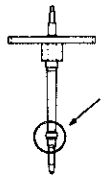
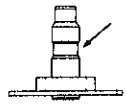
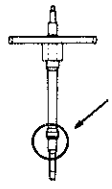
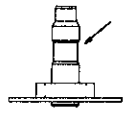
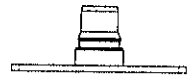
☆ ⇨Please see remarks on the reverse page.
Part numbers in light letters are not shown in photos.

Cal. 7123A

Remarks:

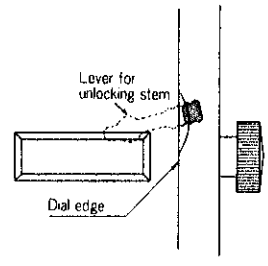
Fourth wheel & pinion, Center minute wheel with cannon pinion, Hour wheel
There are two different types as specified below.

Combination:

Type	Fourth wheel & pinion	Center minute wheel with cannon pinion	Hour wheel
a			Gold 
	☆241 051	☆270 023	☆271 044
b			Silver 
	☆241 052	☆270 024	☆271 045

Lever for unlocking stem

The size of a lever for unlocking stem is determined based on the design of cases. When adjusting the length of the lever for unlocking stem by cutting its tail, be sure that the tail partly comes out of the brim of the dial as shown in the illustration. If the tail is hidden from view by the dial, it will be difficult to disassemble the winding stem.



Day star with dial disk

☆470 150(English⟷Spanish, black figures on white background)·····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

☆801 077(Black figures on white background)
☆801 097(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 ④The calendar frame position and ⑤ Dail. No.

Holding ring for dial

The type of holding ring for dial is determined based on the 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

The applied battery for this calibre might be added the substitutive in the future. In that case, please refer to separate **"BATTERIES FOR SEIKO QUARTZ WATCHES."**

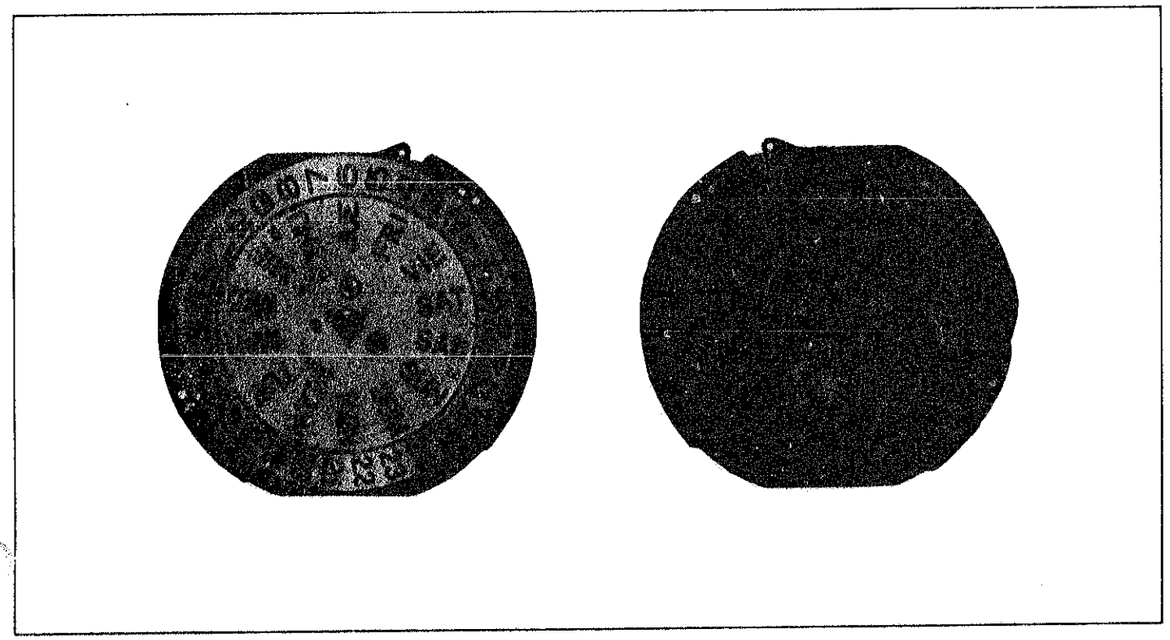
78. 11 Printed in Japan

TECHNICAL GUIDE

SEIKO

QUARTZ

CAL. 7123A

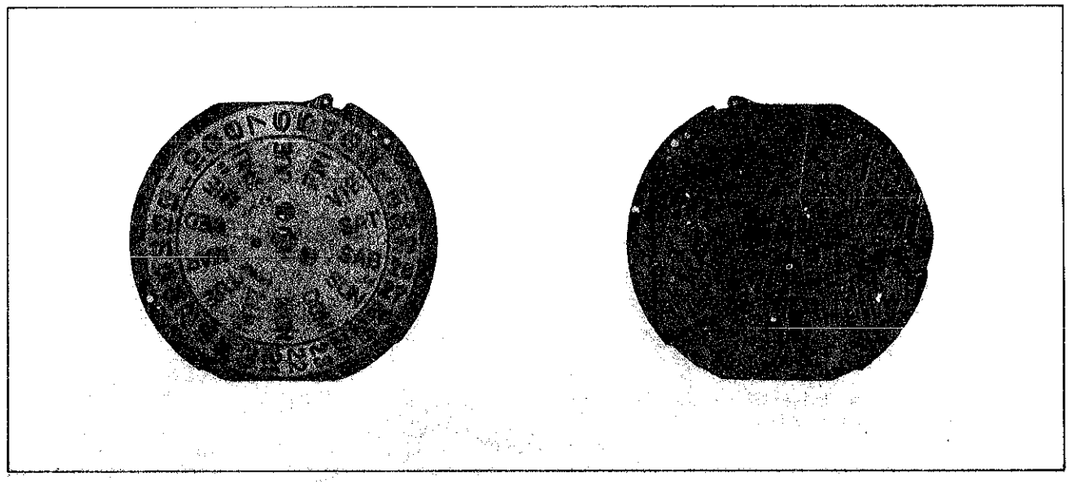


CONTENTS

I. SPECIFICATIONS

Item \ Cal. No.	7123A
Time indication	3-hand time indication (hour, minute & second) Calendar (day & date) Bilingual changeover system for the day of the week Instant day and date setting device
Additional mechanism	Second setting device (Stops at every second) Battery life indicator Electronic circuit reset switch
Crystal oscillator	32,768 Hz (Hz = Hertz . . . . . Cycle per second)
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 (23.7 mm between 3 o'clock and 9 o'clock sides)
Height	3.3 mm without battery
Operational temperature range	$-10^{\circ}C \sim +60^{\circ}C$ ($14^{\circ}F \sim 140^{\circ}F$)
Driving system	Step motor system (2 poles)
Regulation system	Trimmer condenser
Battery power	Silver oxide battery SEIKO SB-AU, Maxell SR1130SW Battery life is approximately 5 years. Voltage: 1.55V
Jewel	2 jewels

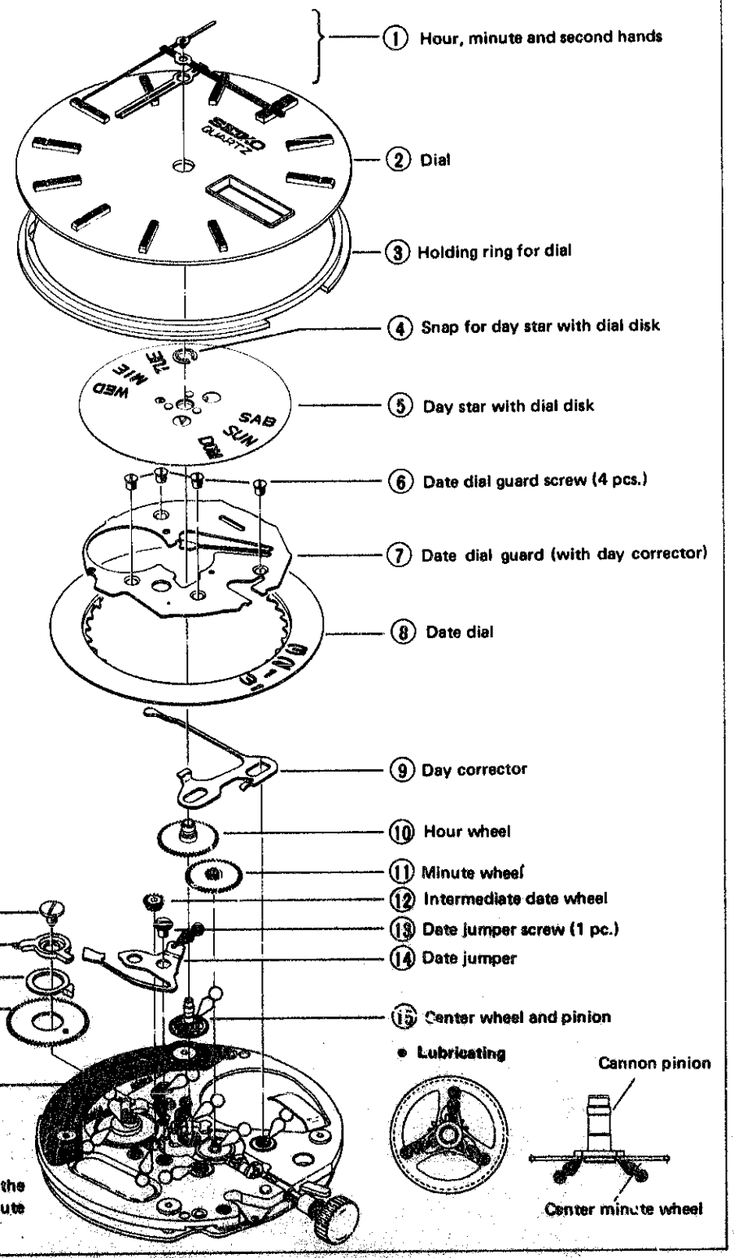
SEIKO Quartz Cal. 7123A is thin and multifunctional quartz crystal oscillator watches for men with high accuracy and reliability and allow their diversified development of various models.



II. DISASSEMBLING, REASSEMBLING, LUBRICATING AND CLEANING

- **Disassembling and reassembling**
  Disassembling procedures Figs. ①→⑩
  Reassembling procedures Figs. ⑩→①
- **Lubricating**
  Types of oil
  Moebius A
  SEIKO Watch Oil S-6
  Oil quantity
  Liberal
  Normal
  Extremely small
- Use the movement holder S-651 for Cal. 4316,48 series and 58 series.

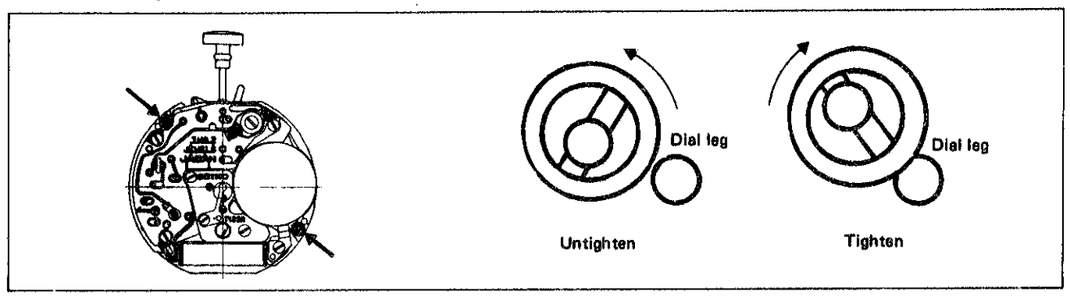
1. Calendar mechanism



Remarks for disassembling and reassembling

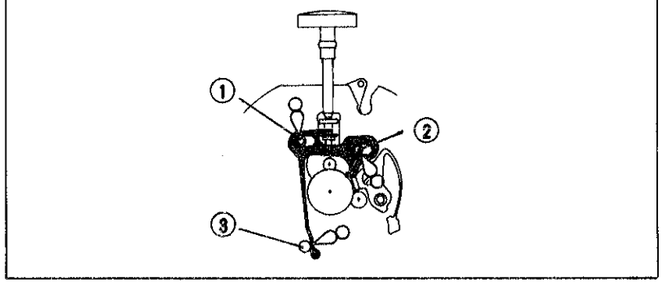
① **How to disassemble and reassemble the hands**
When disassembling or reassembling, always pull the crown out to the second click position. The second hand must be placed just in line with a second mark. (Either odd or even second mark will do.)

② **How to disassemble and reassemble the dial**
After turning the eccentric dial pin between 90° and 150°, it is possible to remove and replace the dial.

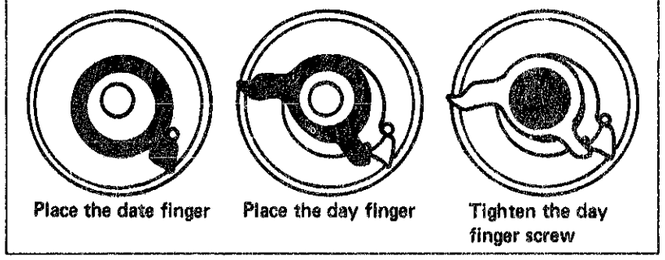


⑩ **Day corrector**

- **Lubricating**
  Lubricate the contacting portions of the sides of the pins on the main plate, ① ② and ③ with the day corrector.
- **Reassembling**
  Set the day corrector in order of the pins on the main plate, ①, ② and ③.

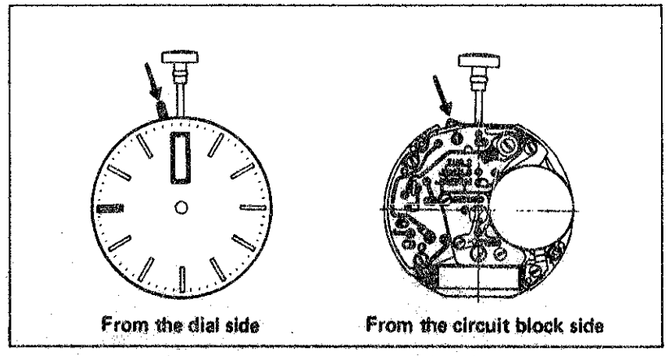


⑯ ~ ⑲ **How to reassemble the date finger and the day finger**

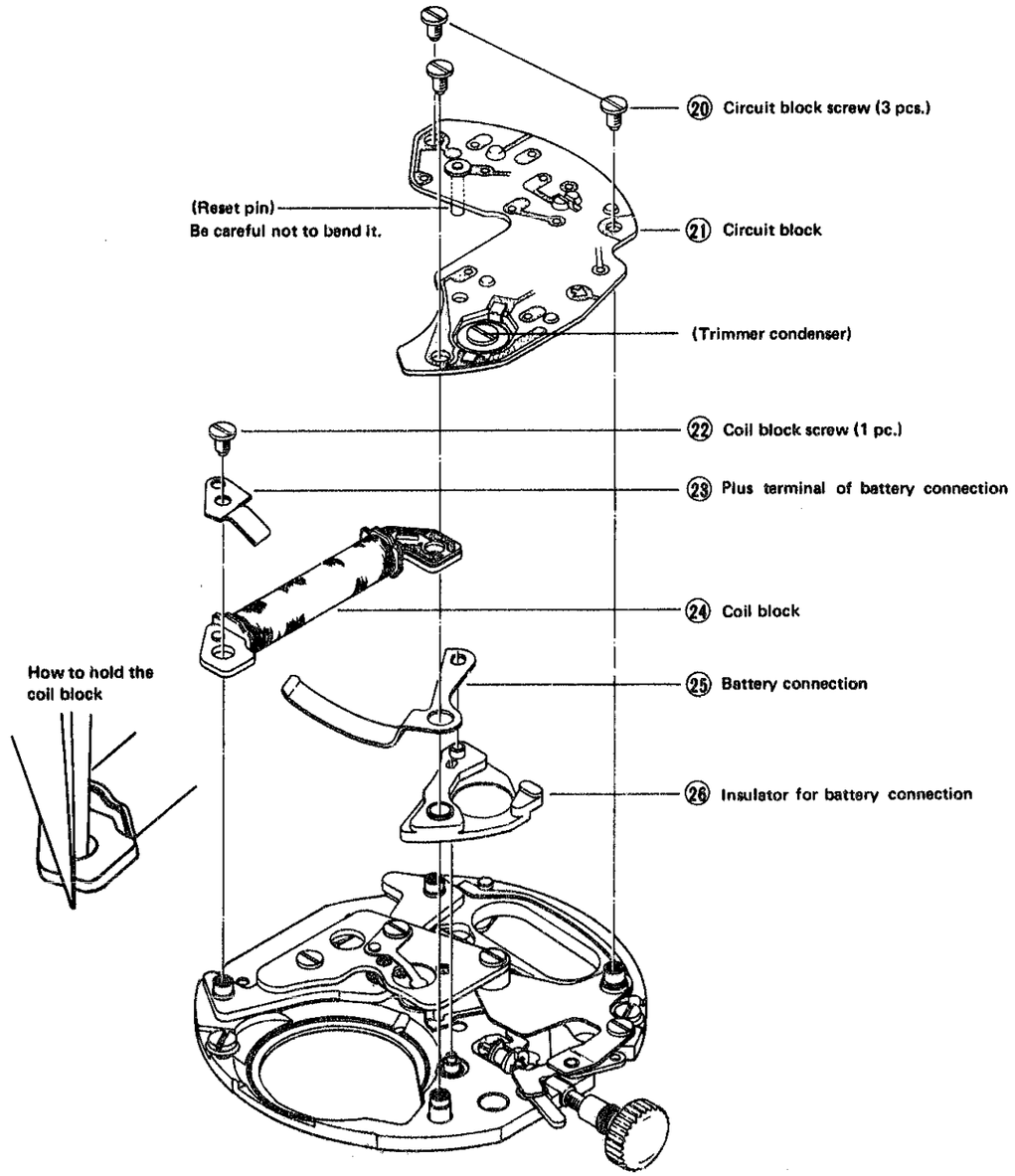


- **How to remove the stem with crown**
  From the dial side
  A part of the lever for unlocking stem is seen at the outer circumference of the dial. Push it down to remove the stem with crown.

  From the circuit block side
  A part of the setting lever is seen at the outer circumference of the main plate (arrow-marked) in the normal position of the crown. Push it down to remove the stem with crown.



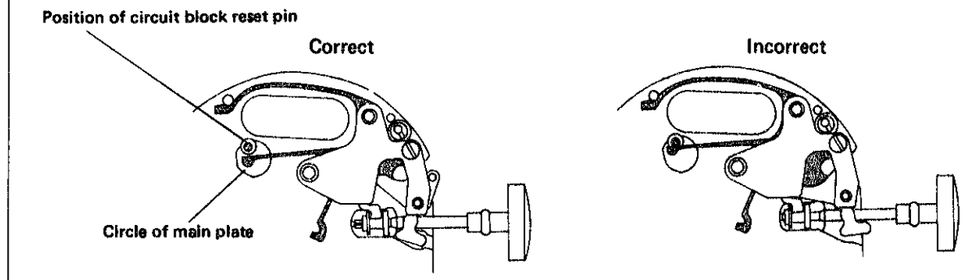
2. Electronic circuit



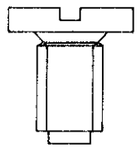
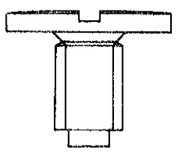
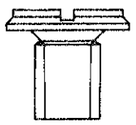
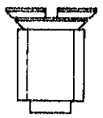
- **Remarks for disassembling and reassembling**

㉑ Circuit block

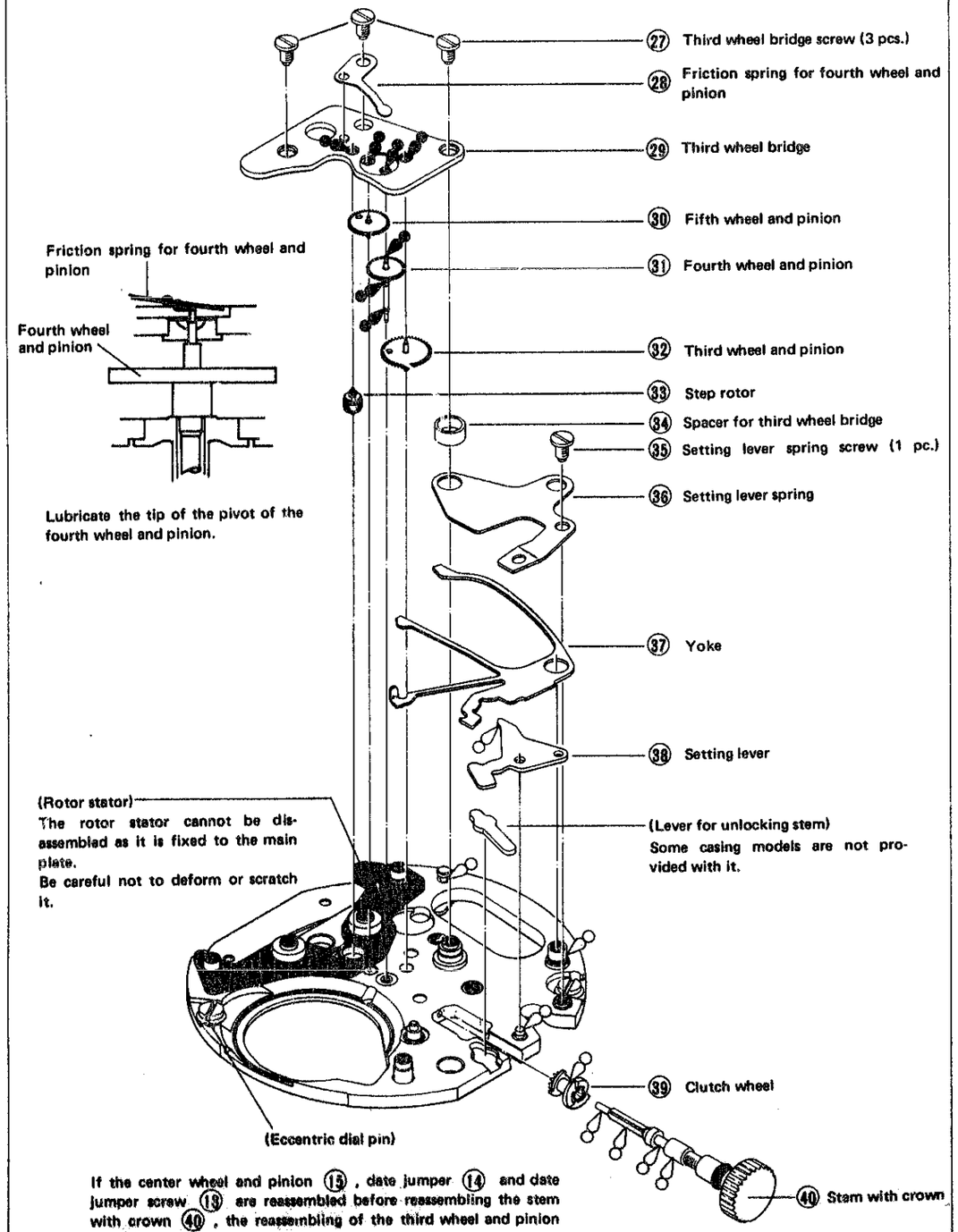
When disassembling or reassembling, pull the crown out to the normal or first click position and reassemble the circuit block after the reset portion of the yoke is detached from the reset pin.



- **List of screws used**

 Circuit block screw Coil block screw Third wheel bridge screw Setting lever spring screw	 Day finger screw	 Date jumper screw	 Date dial guard screw
8 pieces	1 piece	1 piece	4 pieces

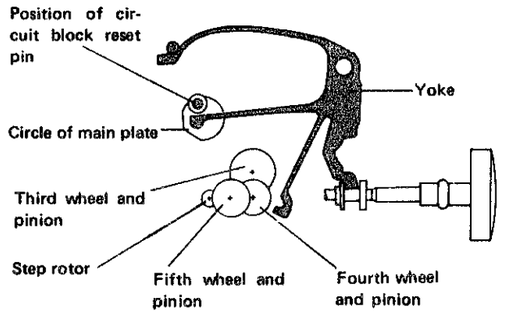
3. Gear train and second setting mechanism



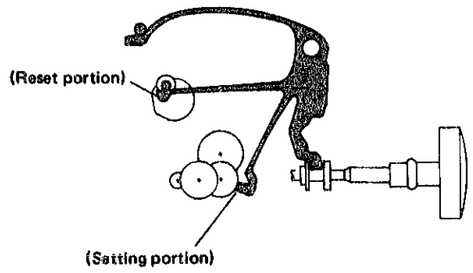
Remarks for disassembling and reassembling

(30) ~ (37) Functions of the gear train and the yoke (at setting and reset portions)

- Crown at the normal and first click position
  There must be clearance between the fourth wheel and setting portion of yoke, reset pin and reset portion of yoke.

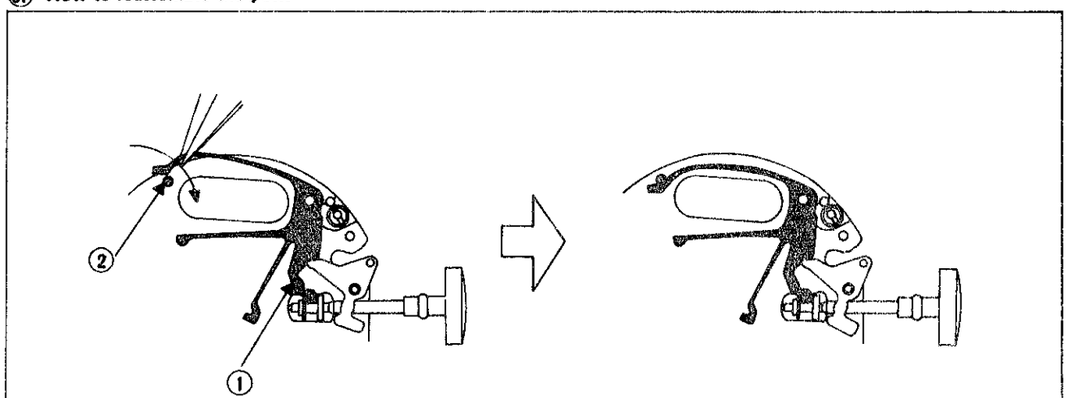


- Crown at the second click position
  There must not be clearance between the fourth wheel and setting portion of yoke, reset pin and reset portion of yoke.



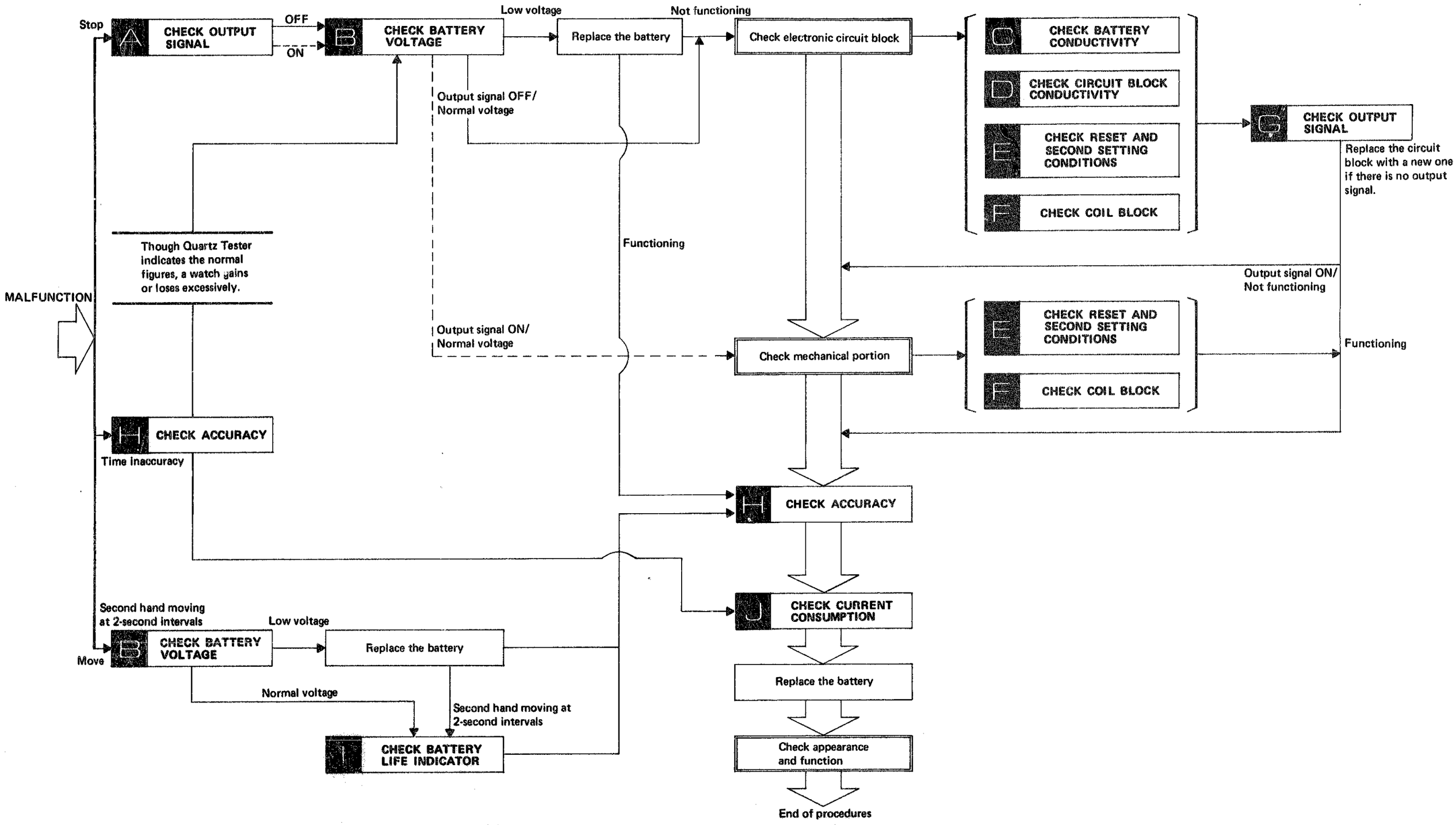
- Make sure that the second setting and reset are secured by the pulling out operation of the crown.

(37) How to reassemble the yoke

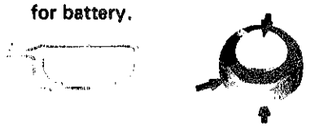
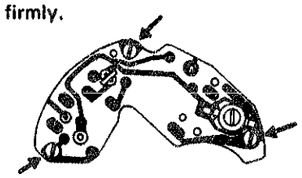
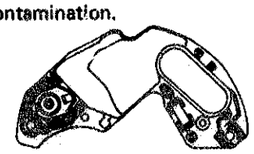


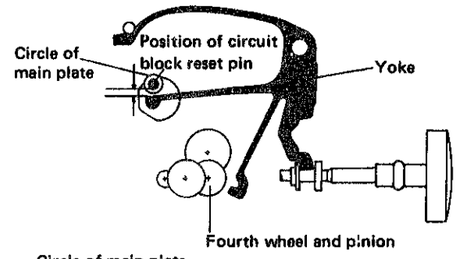
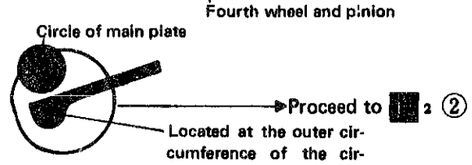
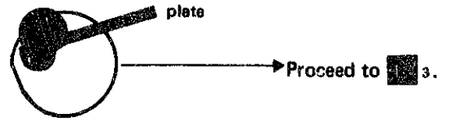
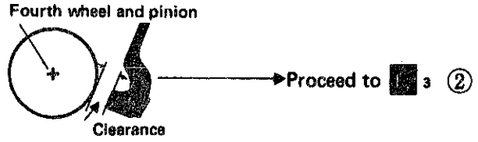
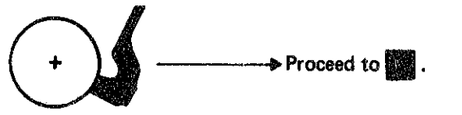
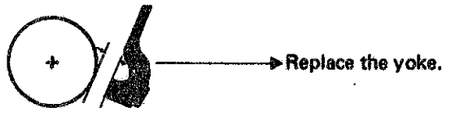
- With the crown at the normal or first click position, push the (1) portion of the yoke with a finger and set the yoke inside the pin (2) while holding the spring portion with tweezers.
- Make sure that the crown can be operated correctly.

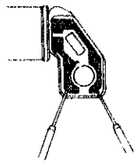
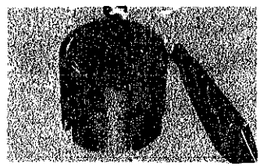
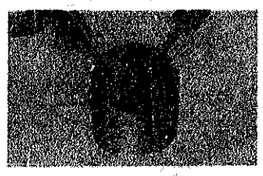
1. Guide table for checking and adjustment



2. Procedures for checking and adjustment

	Procedures	Results	Adjustment and repair
A CHECK OUTPUT SIGNAL	Check output signal.	One-second blinking	Proceed to B.
		No one-second blinking	Proceed to 12.
B CHECK BATTERY VOLTAGE	Check battery voltage.	More than 1.5V	In procedure A if one-second blinking is found, proceed to **Check mechanical portion**. In procedure A if one-second blinking is not found, proceed to **Check electronic circuit block**.
		Less than 1.5V	Proceed to **Replace the battery**. If a watch operates after battery replacement, proceed to A. If a watch does not operate after battery replacement, proceed to **Check electronic circuit block**.
C CHECK BATTERY CONDUCTIVITY	1. Make sure that the coil block screw is tightened firmly.	No loosened screw	Proceed to C2.
		Loosened screw	Retighten the screws.
	2. Check for any contamination on the connecting portion of battery, the battery connection, the plus terminal of battery connection and holding spring for battery. 	Uncontaminated	Proceed to D.
		Contaminated	Wipe off carefully.
D CHECK CIRCUIT BLOCK CONDUCTIVITY	1. Check to see if the circuit block screws (3 pcs.) are tightened firmly. 	No loosened screws	Proceed to D2.
		Loosened screws	Retighten the screws.
	2. Check the circuit block for any break in the welded portion, short circuit, pattern break and contamination. 	No break in the welded portion, short circuit, pattern break or contamination	Proceed to E.
		Break in the welded portion, short circuit or pattern break	Replace the circuit block.
		Contaminated	Wipe off carefully.

	Procedures	Results	Adjustment and repair
E CHECK RESET AND SECOND SETTING CONDITIONS	1. Check to see if the second hand stops immediately after the crown is pulled out to the second click position and if it starts promptly after one second when the crown is pushed in to the normal position.	Stops completely and starts after one second	Proceed to F.
		Does not stop or moves irregularly	Proceed to F2.
	2. Check for the clearance between the reset portion of the yoke and the reset pin (with the circuit block removed). 		
	① With the crown at the normal and first click position 	Circle of main plate	Proceed to F2 ②
		Located at the outer circumference of the circle of the main plate	Replace the yoke.
		Located at the center of the circle of the main plate	Proceed to F3.
	② With the crown at the second click position 		Replace the yoke.
	3. Check for the clearance between the second setting portion of the yoke and the fourth wheel and pinion (with the circuit block removed). 		Proceed to F3 ②
	① With the crown at the normal and first click position 	No clearance	Replace the yoke.
	② With the crown at the second click position 		Proceed to F.
			Replace the yoke.

	Procedures	Results	Adjustment and repair
7 CHECK COIL BLOCK	Check coil block. 	2.0kΩ ~ 4.0kΩ	→ Electronic circuit block is being checked. Proceed to 9. → Mechanical portion is being checked. Proceed to 11.
		Less than 2.0kΩ Short circuit More than 4.0kΩ Broken coil wire	→ Replace the coil block.
8 CHECK OUTPUT SIGNAL	Check for output signal.	One-second blinking → Functioning	→ Proceed to 10.
		Not functioning	→ Proceed to Check mechanical portion.
		No one-second blinking	→ Replace the circuit block.
9 CHECK ACCURACY	Check accuracy.	Normal	→ Replace the battery.
		Defective	→ Adjust time accuracy.
10 CHECK BATTERY LIFE INDICATOR	Set up the Micro Test. Clip red (+) . . . Crown or stem with crown Probe black (–) . . . Battery connection 1. Set the voltage at 1.25V. Check to see if the second hand moves at 2-second intervals. 	The second hand moves at 2-second intervals	→ Proceed to 12.
		The second hand moves at 1-second intervals	→ Replace the circuit block.
	2. Set up the Micro Test. Set the voltage at 1.5V. Check to see if the second hand moves at 1-second intervals.	The second hand moves at 1-second intervals	→ Proceed to 11.
		The second hand moves at 2-second intervals	→ Replace the circuit block.
11 CHECK CURRENT CONSUMPTION	Place the battery on the third wheel bridge with its (–) surface faced up. Probe red (+) . . . Battery connection Probe black (–) . . . Battery surface (–) 	Less than 2.0μA	→ Normal
		More than 2.0μA	→ Proceed to Check electronic circuit.
		Note: If the pointer of the volt-ohm-meter scales out and the current consumption cannot be measured, reset its range, e.g. at DC 30mA. Next, when the pointer is stabilized with the probes of the volt-ohm-meter applied as shown in the left illustration, return the range to DC 12μA (or DC 0.03mA) and read the value indicated.	

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