EMMYWATCH

VINTAGE RESTORATIONS

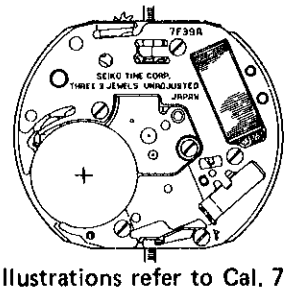
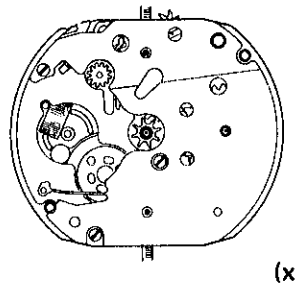
Seiko 7F38A,7F39A,7F68A,7F69A Movement Parts (1)

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

PARTS CATALOGUE/TECHNICAL GUIDE

Cal. 7F38A, 7F39A
Cal. 7F68A, 7F69A

[SPECIFICATIONS]

Item \ Cal. No.		7F38A, 7F68A	7F39A, 7F69A
Movement		  The illustrations refer to Cal. 7F39A. (x 1.5)	
Movement size	Outside diameter	ϕ24.0 mm 20.0 mm between 3 o'clock and 9 o'clock sides	
	Casing diameter	ϕ23.3 mm 20.0 mm between 3 o'clock and 9 o'clock sides	
	Height	2.9 mm (not including battery portion)	
Time indication		2 hands	3 hands
Driving system		Step motor (Load compensated driving pulse type)	
Additional mechanism		24-hour hand (additional hour hand)	
		Dual time function	
		Moon phase hand	
		Day hand	
		Date hand	
		Instant lunar calendar setting device	
		Instant calendar (day and date) setting device	
		Train wheel setting device	
		Electronic circuit reset switch	
		—	Battery life indicator
Loss/gain		Monthly rate at normal temperature range: less than 15 seconds	
Regulation system		Nil	
Measuring gate by quartz tester		Use 10-second gate.	
Battery life		SEIKO SR916SW, Maxell SR916SW Battery life is approximately 3 years. Voltage: 1.55V	
Jewels		3 jewels	

Disassembling procedures Figs.: (1) → (57)

Reassembling procedures Figs.: (57) → (1)

Lubricating: **Types of oil**

- ●● Moebius A
- ∞ SEIKO Watch Oil S-6
- ∞ Silicone oil 500,000 c.s.

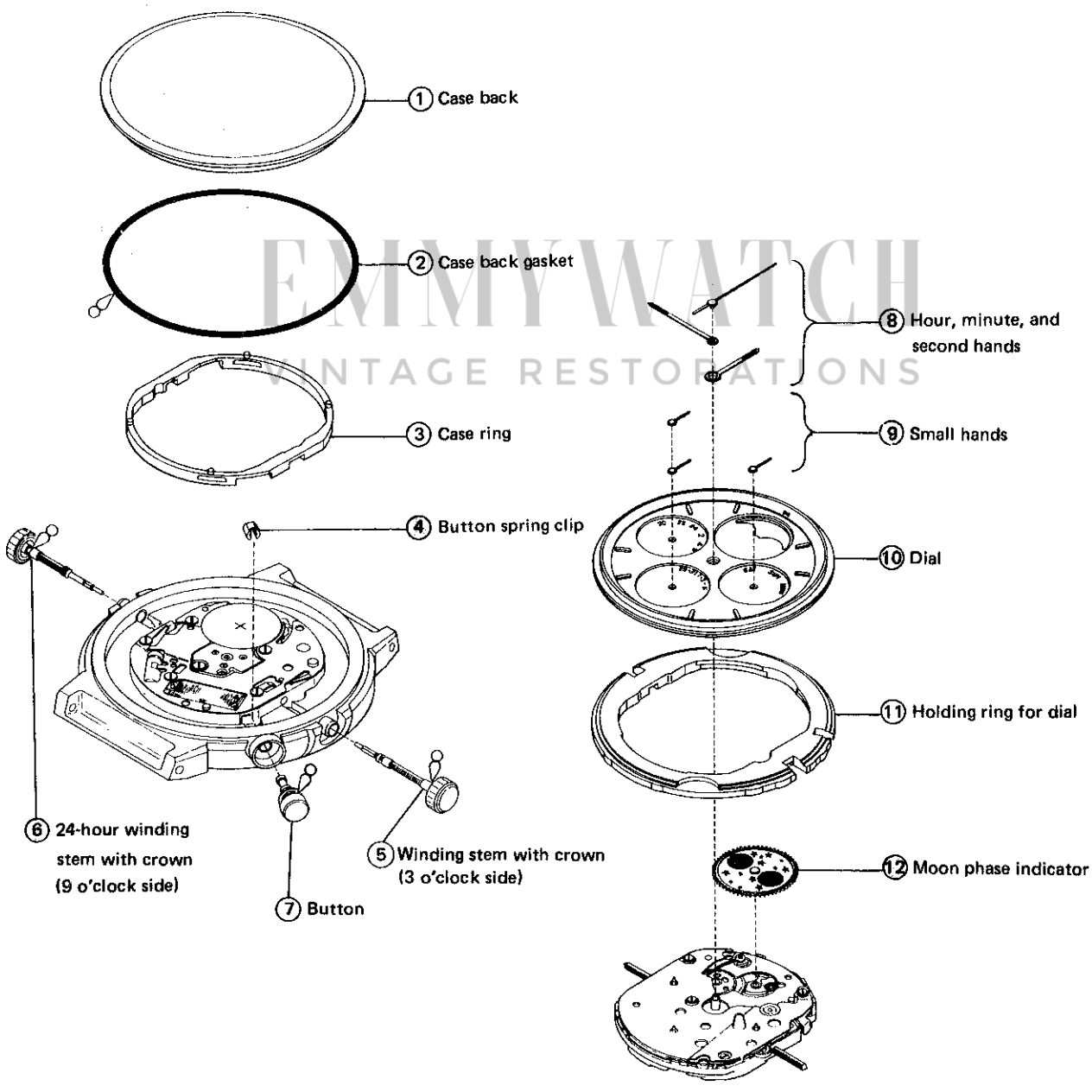
Oil quantity

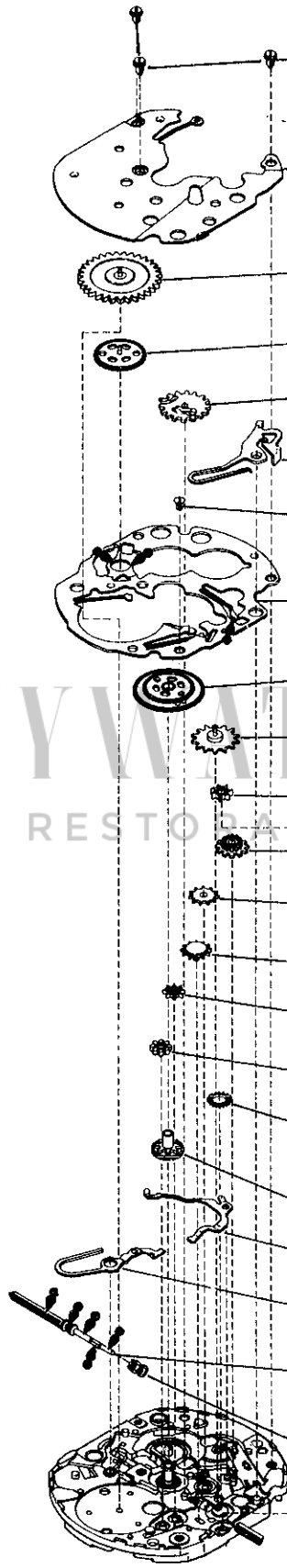
- ∞ Normal quantity

Note: ∞
SEIKO Watch Oil S-6 is used to lubricate the center wheel and pinion.

○ ⇨ Please see the remarks on the following pages.

Ex.: Cal. 7F39A





(13) 012 490
Moon phase jumper screw (3 pcs.)

(14) 951 570
Moon phase jumper

(15) 970 570
Date star

(16) 157 570
24-hour hand wheel

(17) 802 570
Date driving wheel

(18) 595 570
Moon phase corrector

(19) 012 766
Screw for calendar mechanism plate

(20) 839 570
Calendar mechanism plate

(21) 594 570
Driving wheel for hour wheel, 24h

(22) 1002 575
Day wheel

(23) 989 570
Intermediate wheel for day correction

(24) 1002 570
Moon phase indicator driving wheel

(25) 817 572
Intermediate moon phase wheel

(26) 737 570
Calendar corrector setting wheel

(27) 817 570
Intermediate date wheel

(28) 804 570
Date corrector setting wheel

(29) 962 570
Intermediate wheel for calendar correction

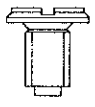
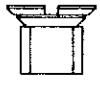
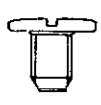
(30) Hour wheel

(31) 391 570
Train wheel setting lever, 24h

(32) 384 571
Yoke, 24h

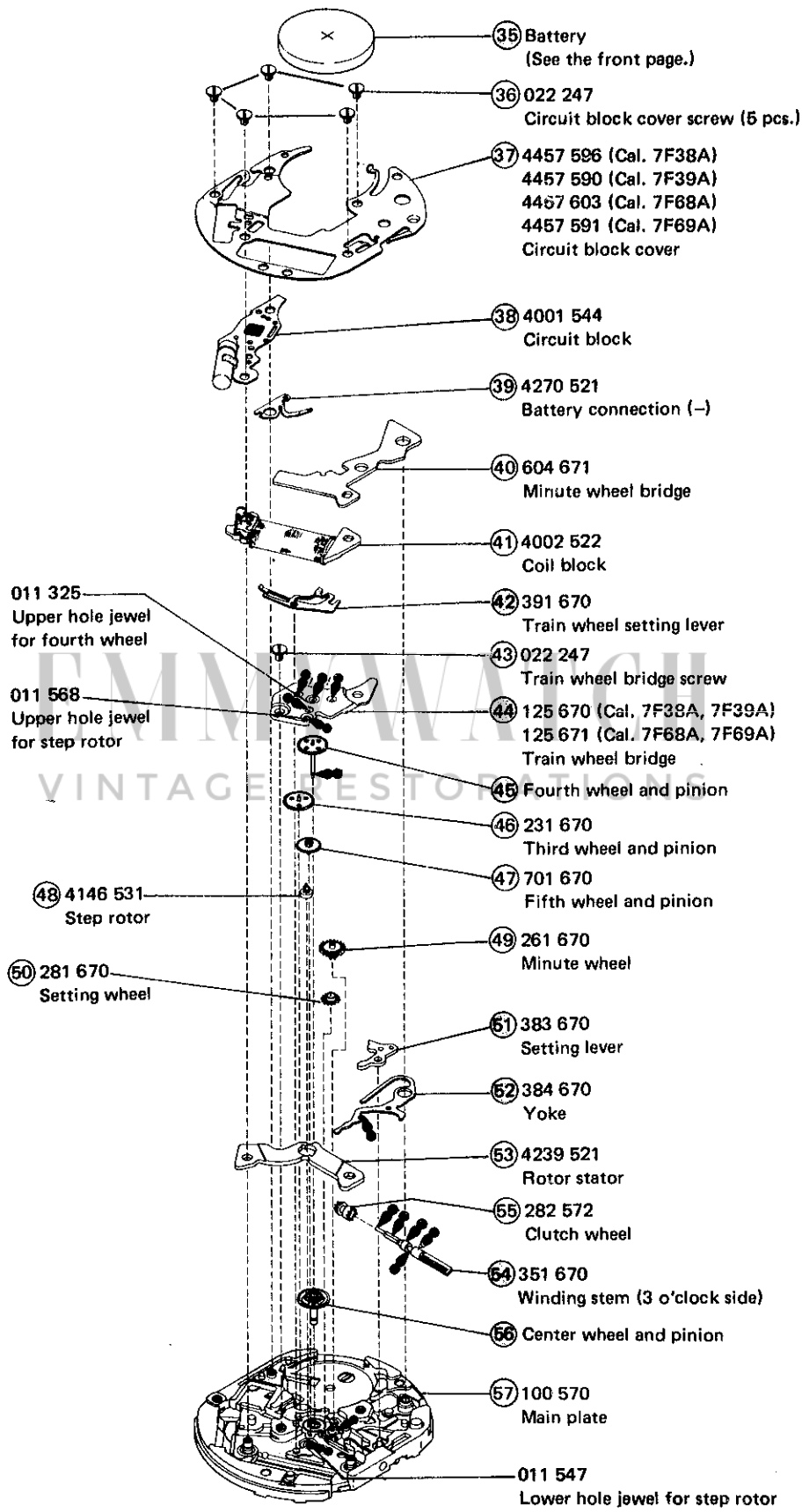
(33) 361 575
Winding stem, 24h
(9 o'clock side)

(34) 282 573
Clutch wheel, 24h

	012 490 Moon phase jumper screw (3 pcs.)
	012 766 Screw for calendar mechanism plate (1 pc.)
	022 247 Circuit block cover screw (5 pcs.) Train wheel bridge screw (1 pc.)

PARTS CATALOGUE

Cal. 7F38A, 7F39A
7F68A, 7F69A



Remarks:

④ Button spring clip

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

⑫ Moon phase indicator

The type of moon phase indicator differs, depending on the design of case.

634 502 ..... Cal. 7F38A, 7F39A
634 503 ..... Cal. 7F68A, 7F69A (7F39A)

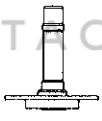
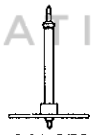
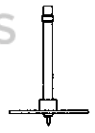
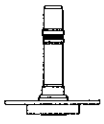
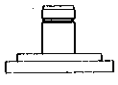
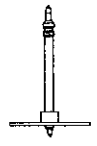
When ordering the moon phase indicator, please specify ① Cal. No., ② Dial No., and ③ the dial color.

㉚ Hour wheel

㊺ Fourth wheel and pinion

㊻ Center wheel and pinion

Combination:

Cal. No.	Part / Type*	Center wheel and pinion	Hour wheel	Fourth wheel and pinion	
				7F39A, 7F69A	7F38A, 7F68A
7F38A 7F39A 7F68A 7F69A	M	 221 670	 271 571	 241 670	 241 573
7F69A	L	 221 571	 271 572	 241 571	

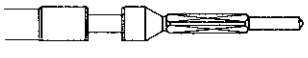
* **Abbreviation** (Movement type) : M ..... Standard type
L ..... Long type

Parts combination varies, depending on the design of case. Refer to "SEIKO Casing Parts Catalogue".

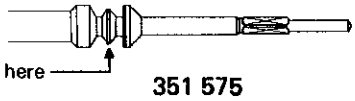
㉝ 24-hour winding stem (9 o'clock side)

㊹ Winding stem (3 o'clock side)

The winding stem for ordinary time and calendar setting and the winding stem for 24-hour time setting slightly differ from each other in shape. Refer to the illustrations below to distinguish them.



351 670
(for ordinary time and calendar setting — on the 3 o'clock side)

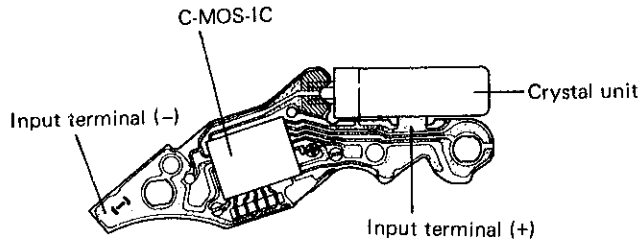


351 575
(for 24-hour time setting — on the 9 o'clock side)

* Their types vary, depending on the design of case. Refer to "SEIKO Casing Parts Catalogue" to choose their corresponding types.

- The explanation here is only for the particular points of Cal. 7F38A, 7F39A, 7F68A, and 7F69A.
- For the repairing, checking and measuring procedures, refer to the "TECHNICAL GUIDE, GENERAL INSTRUCTION".

I. STRUCTURE OF THE CIRCUIT BLOCK



II. REMARKS ON DISASSEMBLING AND REASSEMBLING

Use the universal movement holder for disassembling and reassembling.

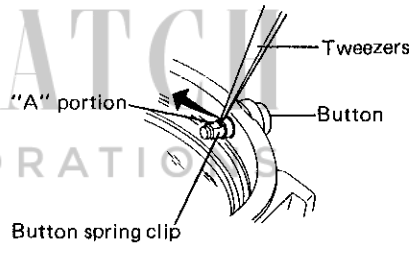
④ Button spring clip

- **How to remove**

1) Turn the button to have the button spring clip's seam (marked "A" in the illustration on the right) face upward.

2) Pry the button spring clip open in the direction of the arrow by inserting the tips of tweezers into the "A" portion as shown in the illustration.

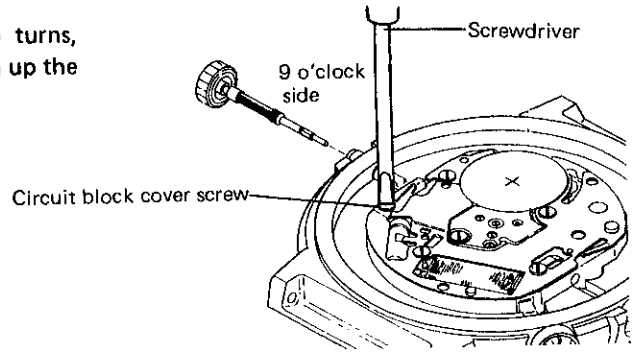
Note: Do not pry the clip open in the opposite direction of the arrow.



⑥ 24-hour winding stem (9 o'clock side)

- **How to remove**

Loosen the circuit block cover screw about two turns, then pull off the 24-hour winding stem, and tighten up the circuit block cover screw again.



⑧ Hands

⑨ Small hands

- **How to install**

1) Install the date hand, aligning it with the dot mark on the dial.
2) Install the day hand, aligning it with the dot mark on the dial.
3) Pull out the 24-hour crown (9 o'clock side) to the first click position and turn it two cycles clockwise. Keep it at the first click position.
4) Pull out the crown for ordinary time and calendar setting (3 o'clock side) to the second click position, and turn it until the date hand has just advanced.
5) Install the 24-hour hand, aligning it with the dot mark on the dial.
6) Install the hour hand on the 12 o'clock position.
7) Install the minute hand and the second hand.

Note:
Before installing the hands, proceed to "Checkup before reassembling casing parts" below for checking with the movement.

⑩ Dial

- **How to remove**

Insert the tip of a screwdriver into each of the notches between the dial and the holding ring for dial at 5 o'clock and 11 o'clock positions, and remove the dial by prying it up alternately at both positions.

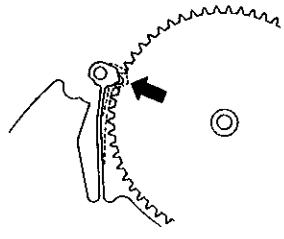
- **How to install**

The dial is a snap-in type. Do not subject it to shocks until all procedure of reassembling is completed. Otherwise, the dial may be lifted up, which will in turn lead to disengagement of the moon phase indicator from the moon phase jumper's spring.

⑭ Moon phase jumper

- **Setting position of the moon phase jumper's spring**

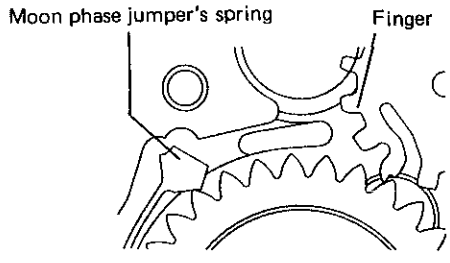
Set the moon phase jumper's spring to mesh with the teeth of the moon phase indicator as shown in the illustration on the right.



Checkup before reassembling casing parts:

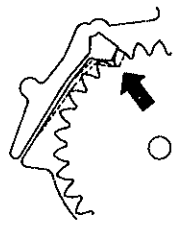
This is an important step of preparation before reassembling the hands.

1) Check that the date driving wheel's date finger and day finger do not mesh with the date star and the small day star with dial disk.
2) When the date star and the small day star with dial disk mesh with the fingers (while in the process of advancing the date and day), pull out the 3 o'clock side crown to the second click position and turn the hands to release their engagement. See the illustration on the right.



Prevent such engagement as above.

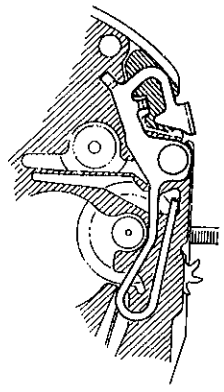
⑮ Date star



- **Setting position**

Set the date jumper's spring on the calendar mechanism plate to mesh with the date star as shown in the illustration on the right.

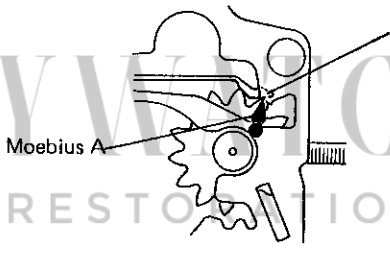
⑱ Moon phase corrector



- **Installing**

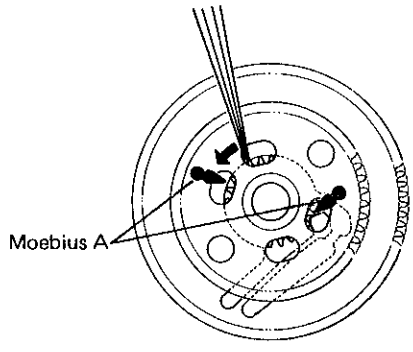
Install the moon phase corrector as shown in the illustration on the right.

⑲ Screw for calendar mechanism plate



- **Setting position and lubricating**

㉑ Driving wheel for hour wheel, 24h

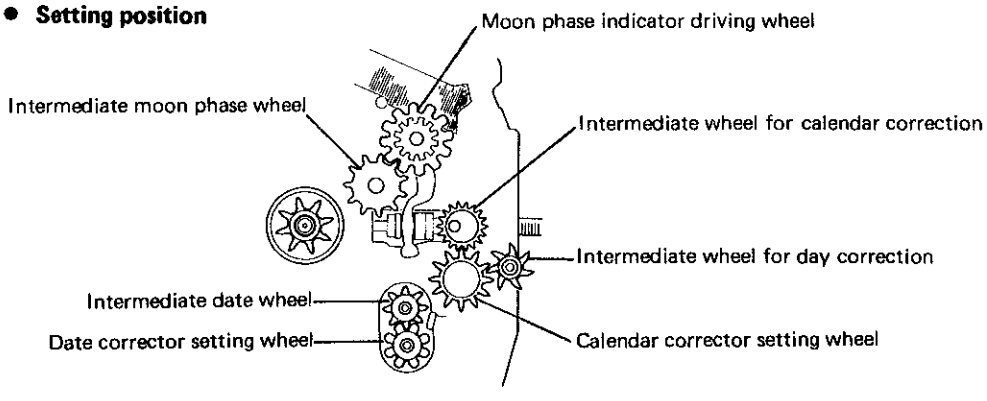


- **Lubricating**

Turn the transmission wheel counterclockwise until the spring's engaging portion can be seen through the hole of the transmission wheel, and lubricate it as shown in the illustration on the right.

㉒ ~ ㉙ Calendar wheels

- **Setting position**



㉓ Intermediate wheel for day correction

㉗ Intermediate date wheel

㉘ Date corrector setting wheel

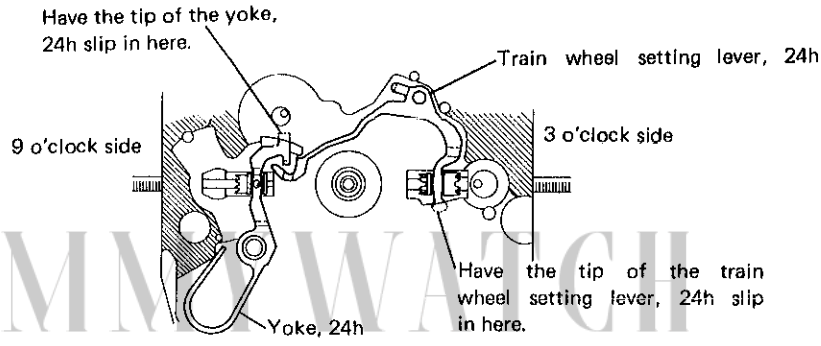
- **Installing**

Install these parts with the stepped side down.

㉛ Train wheel setting lever, 24h

㉜ Yoke, 24h

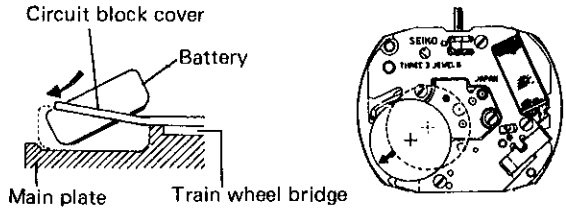
- **Setting position**



㉟ Battery

- **How to install**

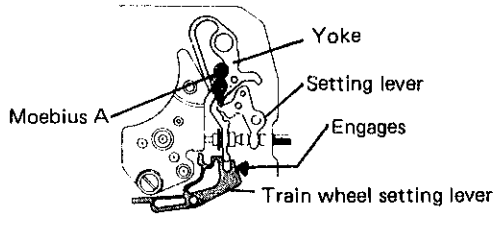
Insert a battery in the direction of the arrow as shown in the illustration on the right.



㊷ Train wheel setting lever

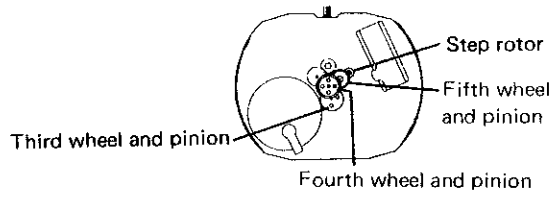
- **Setting position and lubricating**

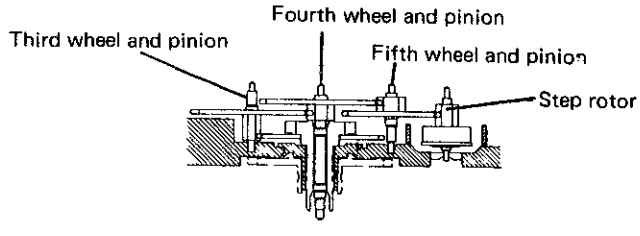
Set the train wheel setting lever in position with the yoke. Lubricate the contacting portion of the yoke and the setting lever.



㊹ Train wheel bridge

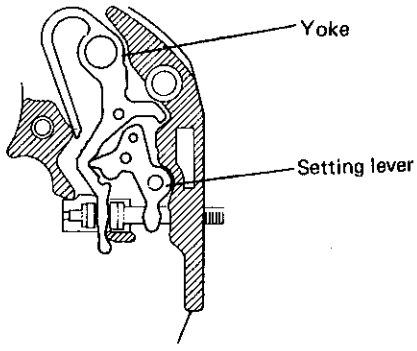
- **Setting position**





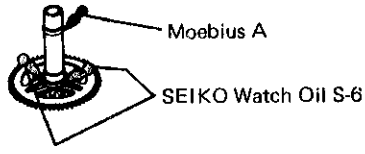
(51) (52) Setting mechanism

- **Setting position**



(56) Center wheel and pinion

- **Lubricating**



III. VALUE CHECKING

- Coil block resistance

  2.7KΩ ~ 3.2KΩ

- Current consumption

  For the whole of the movement : less than 0.9μA
  For the circuit block alone : less than 0.4μA

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.