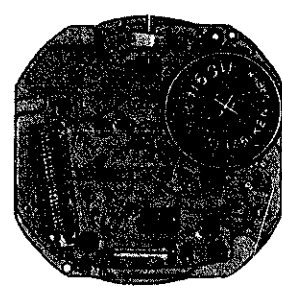


TECHNICAL GUIDE

SEIKO
LASSALE

QUARTZ

CAL. 7750A
CAL. 7751A
CAL. 7752A
CAL. 7759A



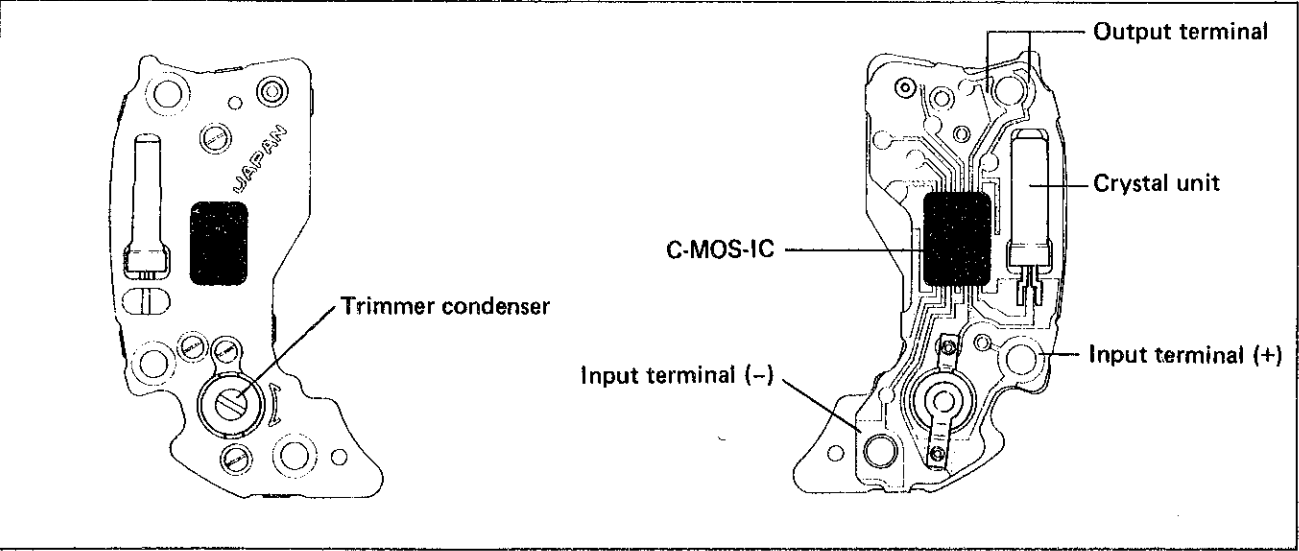
CONTENTS

I. SPECIFICATIONS	1
II. STRUCTURE OF THE CIRCUIT BLOCK	1
III. DISASSEMBLING, REASSEMBLING AND LUBRICATING	2
IV. CHECKING AND ADJUSTMENT	6
• Check output signal	6
• Check battery voltage	6
• Check battery conductivity	6
• Check circuit block conductivity	6
• Check coil block	6
• Check gear train mechanism	6
• Check setting and calendar mechanism	7
• Check reset and train wheel setting conditions	7
• Check accuracy	9
• Check current consumption	9
• Check battery life indicator	10
• Check water resistance	10
• Check appearance and functioning	10

I. SPECIFICATIONS

Cal. No.		7750A	7751A	7752A	7759A
Item					
Time indication		2 hands	3 hands		2 hands
Additional mechanism		—		Date	
		—		Instant date setting device	
		Train wheel setting device			
		Electronic circuit reset switch			
Battery life indicator		—	Battery life indicator		—
Loss/gain		Monthly rate: Less than 15 seconds			
Movement size	Outside diameter	φ24.4mm (22.0mm between 6 o'clock and 12 o'clock sides 20.0mm between 3 o'clock and 9 o'clock sides)		φ24.6mm (22.0mm between 6 o'clock and 12 o'clock sides 21.0mm between 3 o'clock and 9 o'clock sides)	
	Casing diameter	φ24.0mm			
	Height	1.5mm		1.9mm	
Regulation system		Trimmer condenser			
Measuring gate by Quartz Tester		Any gate is available.			
Battery		SEIKO (SEIZAIKEN) TR916SW Battery life is approximately 3 years. Voltage: 1.55V			
Jewels		6 jewels			

II. STRUCTURE OF THE CIRCUIT BLOCK

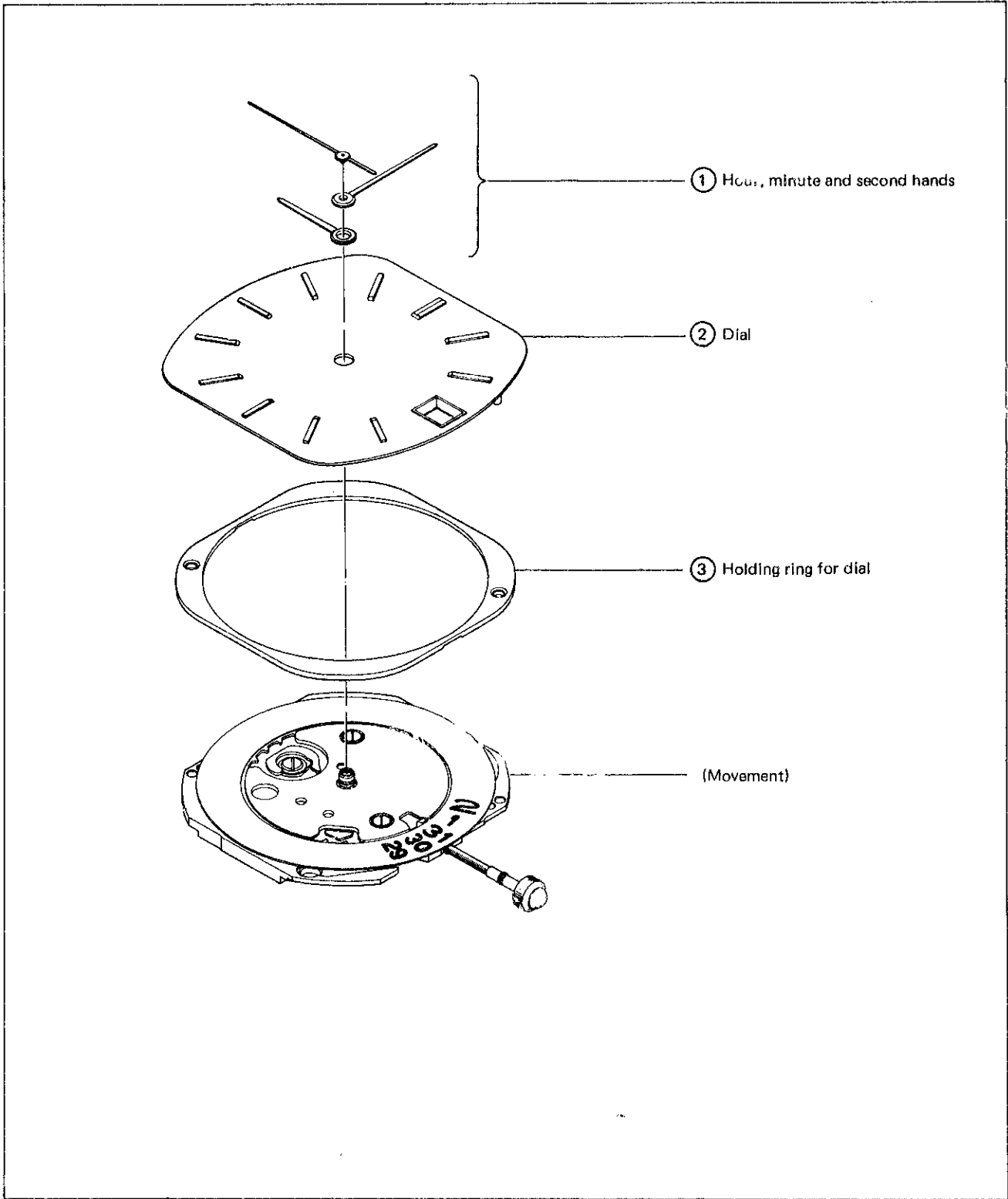


III. DISASSEMBLING, REASSEMBLING AND LUBRICATING

Disassembling procedures Figs.: ① → ④③ Lubricating
Reassembling procedures Figs.: ④③ → ① Types of oil
Oil quantity
Normal quantity:
● Moebius A
○ SEIKO watch oil S-6

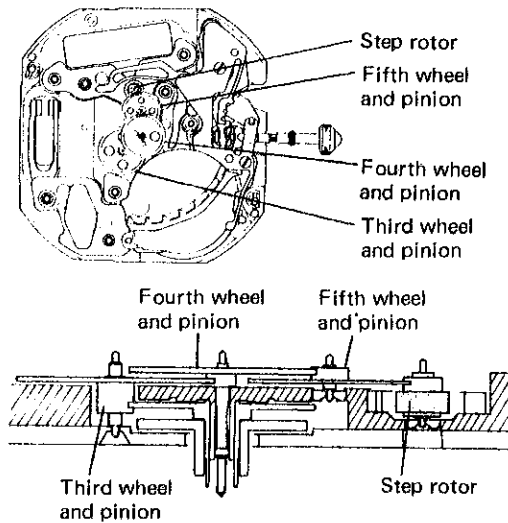
✎ Use the movement holder S-678.

① Hour, minute and second hands ~ ③ Holding ring for dial



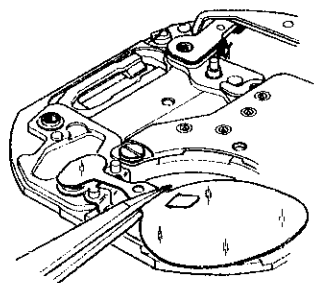
④ Battery ~ ①⑦ Step rotor

• Gear train assembly (plain and cross-section)

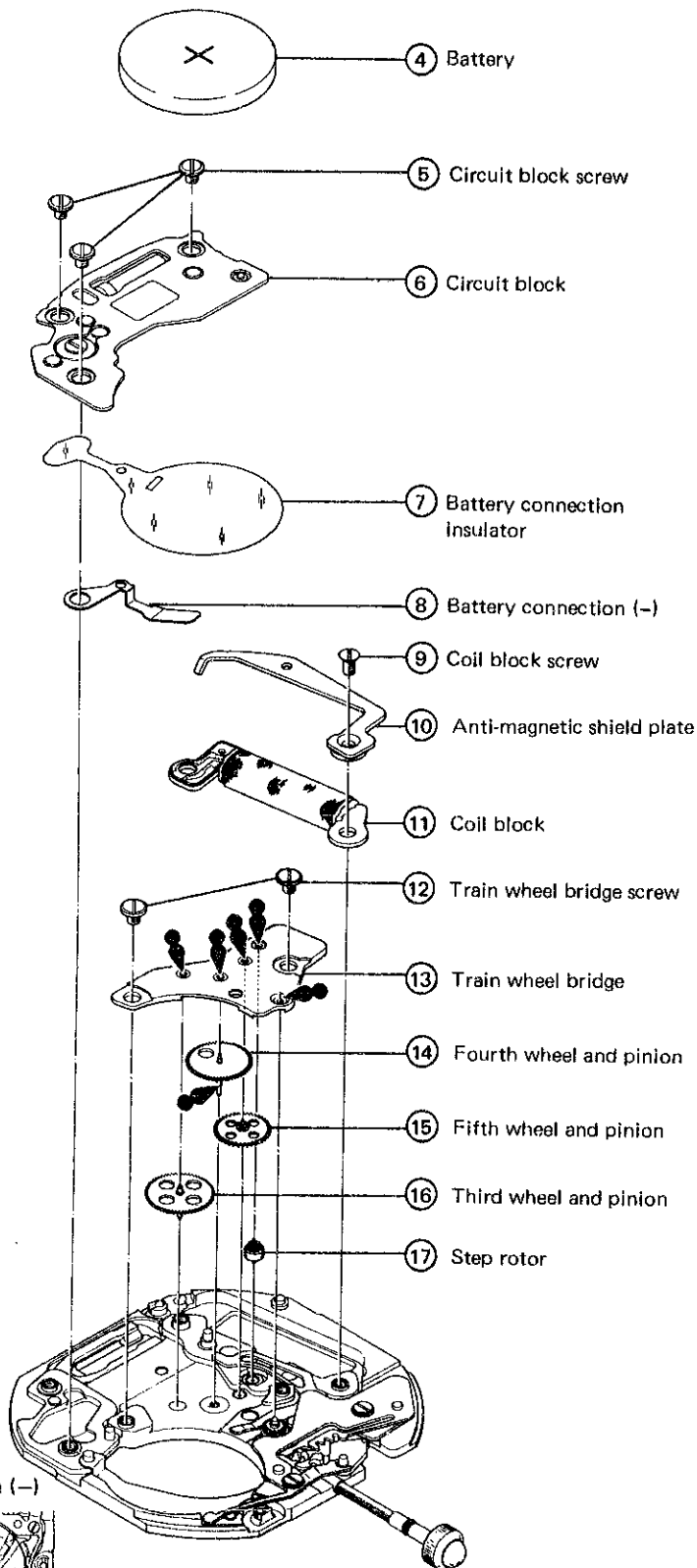
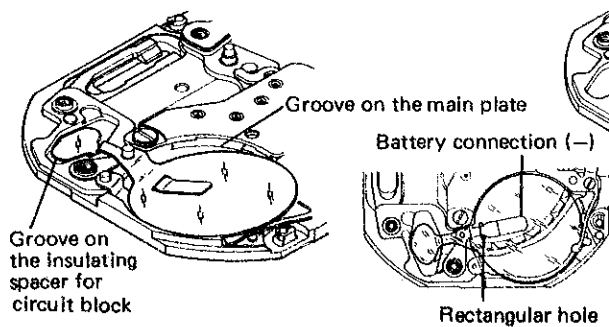


• How to reassemble the battery connection insulator A

- ① The battery connection insulator has a rectangular hole for the battery connection (-).
- ② Place the battery connection insulator over the battery connection (-). Be sure that the tip portion of the battery connection (-) protrudes from the rectangular hole of the battery connection insulator.

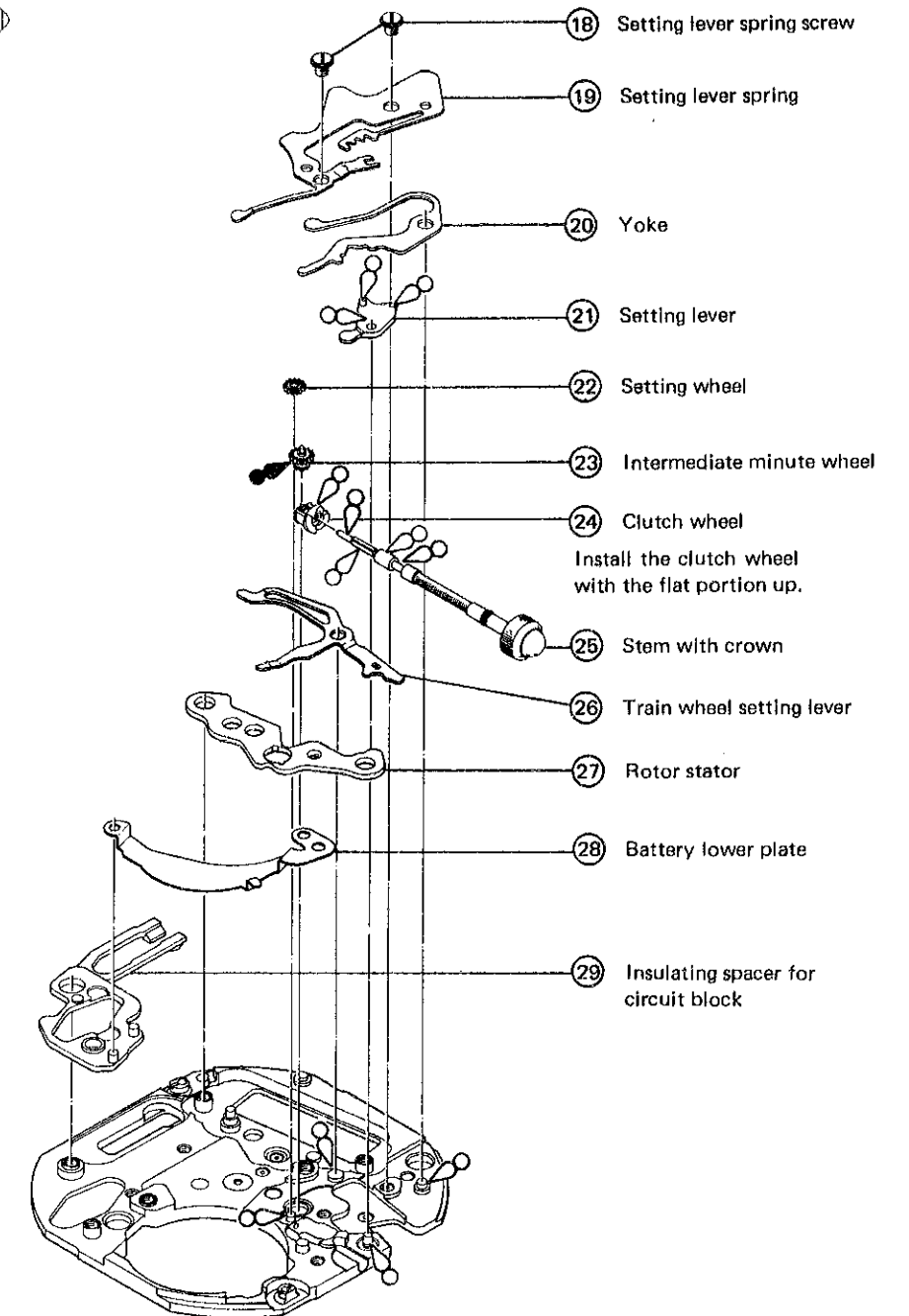
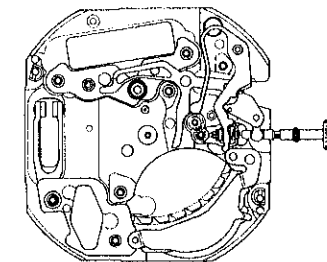


- ③ With the tail portion of the battery connection insulator in the groove on the insulating spacer for circuit block, reassemble the circuit block. After this, set the battery connection insulator into the groove on the main plate.



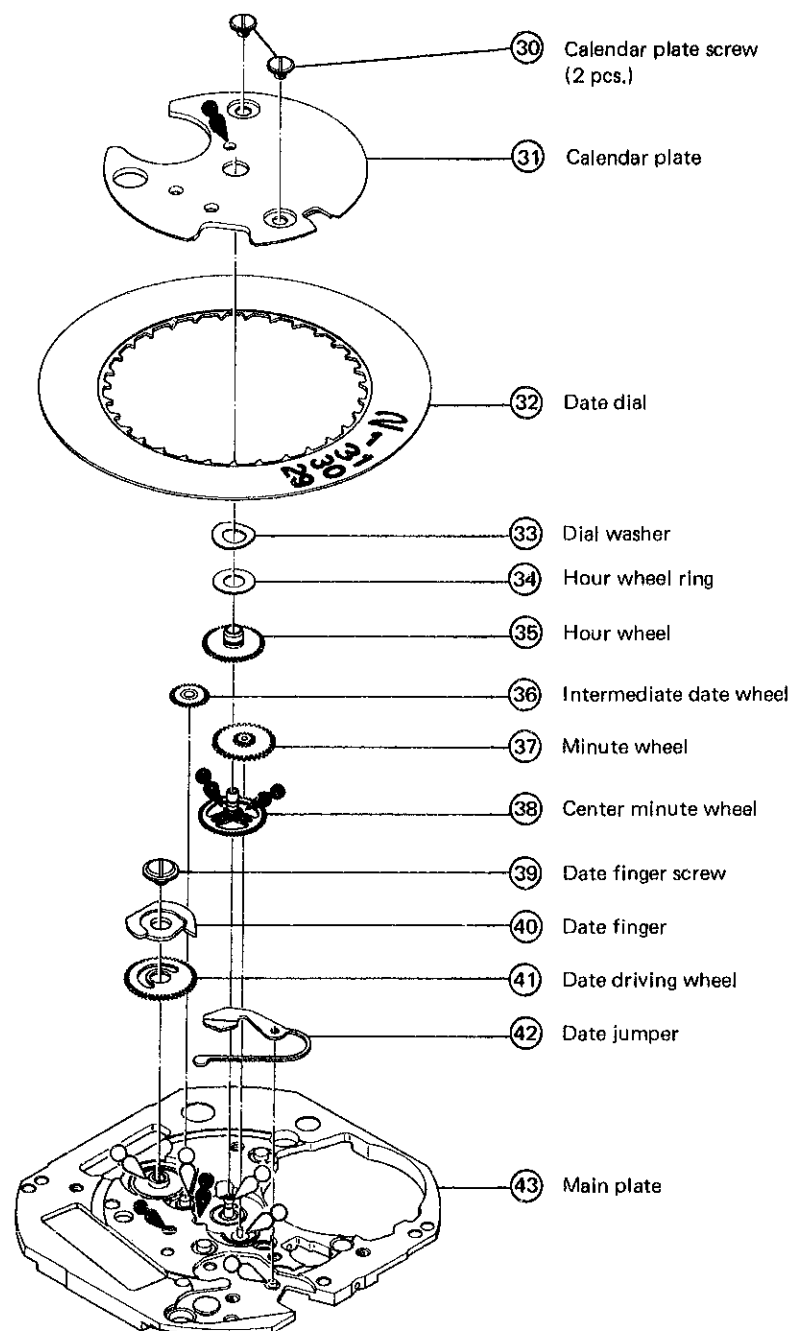
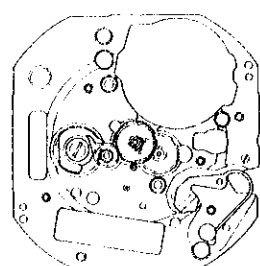
⑱ Setting lever spring screw ~ ⑳ Insulating sheet for circuit block

• Assembling ⑲ ~ ㉑



③① Calendar plate screw ~ ④③ Main plate

• Assembling from ④③ ~ ③⑤



IV. CHECKING AND ADJUSTMENT

- The explanations here are only for the particular points of these calibres.
- Refer to the "TECHNICAL GUIDE, GENERAL INSTRUCTION" for SEIKO Analogue Quartz for details.

Procedure

Note: When checking, be sure not to press the date dial with figures.

CHECK OUTPUT SIGNAL

Use the electromagnetic microphone.

Result:

Indicator blinks : Normal
Indicator does not blink: Defective

CHECK BATTERY VOLTAGE

Set up the volt-ohm-meter.
Range to be used: DC3V

Result:

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

Replace the battery with a new one.

CHECK BATTERY CONDUCTIVITY

Check to see if the battery current flowing to the circuit is normal.

CHECK CIRCUIT BLOCK CONDUCTIVITY

Check for any short and defective conductivity of the conductive portions of the circuit block.

CHECK COIL BLOCK

Set up the volt-ohm-meter, and be sure to make a zero-ohm adjustment.
Check for a broken wire, short, etc.
Range to be used: OHMS x 100

Result:

Normal : 3.0kΩ ~ 3.8kΩ
Defective — Less than 3.0kΩ (Short)
More than 3.8kΩ (Broken wire)
Replace the coil block with a new one.

CHECK GEAR TRAIN MECHANISM

- Be sure there is play in the step rotor and in the wheels.
Check for alignment, lubrication, dust and lint.

Procedure

CHECK SETTING AND CALENDAR MECHANISM

- Check for oil overflow, clearance, dust, lint, etc.

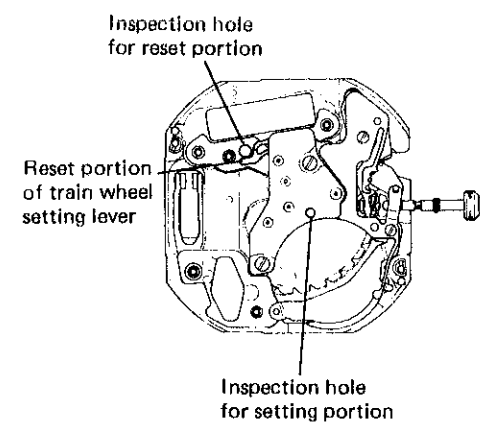
CHECK RESET AND TRAIN WHEEL SETTING CONDITIONS

Note: Check the condition of the watches which have been assembled up to the train wheel bridge screw.

(1) Reset condition

Check for the clearance between the reset portion of the train wheel setting lever and reset pin.

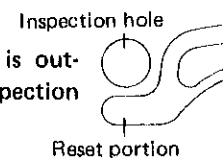
(a) For the watch with calendar:



(i) Crown at the normal and the first click position

Result:

Normal : Reset portion is outside of the inspection hole.



Defective: Reset portion is inside of the inspection hole.



(ii) Crown at the second click position

Result:

Normal : Reset portion is inside of the inspection hole.



Defective: Reset portion is outside of the inspection hole.



(b) For the watch without calendar

(i) Crown at the normal position

Result:

Normal : Reset portion is outside of the inspection hole.



Defective: Reset portion is inside of the inspection hole.



(ii) Crown at the first click position

Result:

Normal : Reset portion is inside of the inspection hole.



Defective: Reset portion is outside of the inspection hole.



Procedure

(2) Setting condition

Check for the clearance between the setting portion of the train wheel setting lever and the fourth wheel and pinion.

(a) For the watch with calendar:

(i) Crown at the normal and the first click position

Result:

Normal : Setting portion is off the fourth wheel.



Defective: Setting portion is setting the fourth wheel.



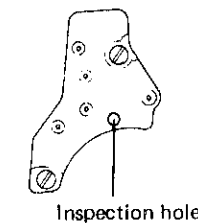
(ii) Crown at the second click position

Result:

Normal : Setting portion is setting the fourth wheel.



Defective: Setting portion is off the fourth wheel.



(b) For the watch without calendar:

(i) Crown at the normal position

Result:

Normal : Setting portion is off the fourth wheel.



Defective: Setting portion is setting the fourth wheel.



(ii) Crown at the first click position

Result:

Normal : Setting portion is setting the fourth wheel.



Defective: Setting portion is off the fourth wheel.



(3) Check to see if the second hand stops promptly when the crown is pulled out to the second click and if it starts promptly after one second when the crown is pushed in back to the normal position.

For the watch with 2 hands:

Reset condition can also be confirmed by the procedure CHECK OUTPUT SIGNAL.

Crown at the normal position : Blinks every second

Crown at the first click position : Does not blink every second

Procedure

CHECK ACCURACY

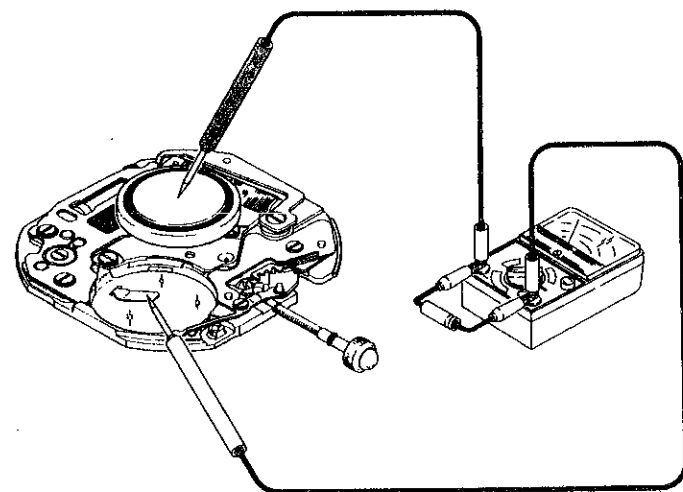
Use the electromagnetic microphone.

CHECK CURRENT CONSUMPTION

Use the volt-ohm-meter
Range to be used: DC12 μ A

- Check the current consumption for the whole movement.
Place the battery on the train wheel bridge and check current consumption.

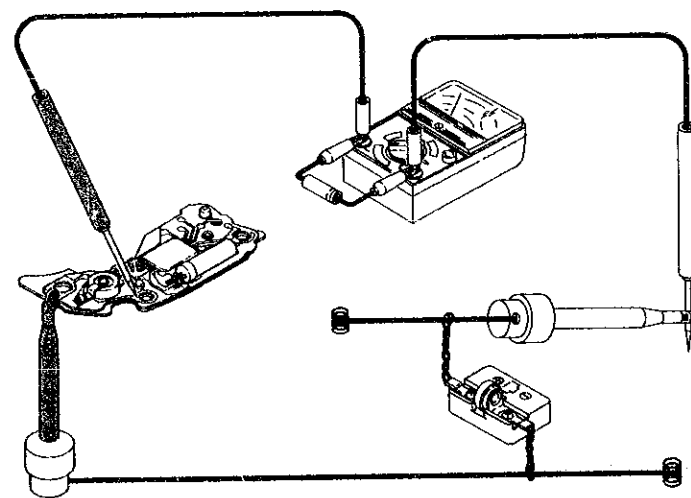
Probe red : Battery connection (-)
Probe black : Battery (-) surface



Result:

Normal : Less than 1.1 μ A
Defective : More than 1.1 μ A

* How to find defects when the current consumption is more than 1.1 μ A.
Check the current consumption for the circuit block alone.



Result:

Normal (Circuit block) : Less than 0.5 μ A
Check the gear train.
Defective (Circuit block) : More than 0.5 μ A
Check the circuit block.

Procedure

CHECK BATTERY LIFE INDICATOR

Check to see if the battery life indicator functions correctly (only for the watch with the second hand).

Check voltage: 1.30 V ~ 1.48 V

CHECK WATER RESISTANCE

CHECK APPEARANCE AND FUNCTIONING

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