

2706A

1) Specifications:

Casing diameter	17.20mm
Height	5.70mm
Vibrations per hour	28,800
Automatic winding (with hand winding mechanism)	
Calendar (day and date; bilingual change-over mechanism for day indication, instant day and date setting device)	

2) Features:

This is a lady's wrist watch with a variety of functions. Up to now, it was considered difficult to provide a lady's wrist watch with various functions due to its small size. However, calibre 2706 has proved this concept to be erroneous.

Stabilized movement:

A lever system is adopted for the automatic winding mechanism. Precision is sufficiently stabilized by a high beat (8 beat); further, auxiliary hand winding mechanism is provided.

Easy-to-use day and date correction:

Day-date correction is simply operated by turning a crown to the right or left after pulling out the crown to the second click. And at the same time, either one of the two languages provided can be chosen to indicate the day of the week.

Easy-to-see calendar:

Letters indicating the day and date are large enough to ensure quick, easy reading.

3) Disassembly and assembly:

Disassemble the watch in the order of Figs. ①—⑦⑩

Assemble by reversing the above order: Figs. ⑦⑩—①

4) Lubrication:

Colored symbols in the illustrated figures indicate the types of oil, the quantity to be applied, and the lubricating points.

Types of oil:

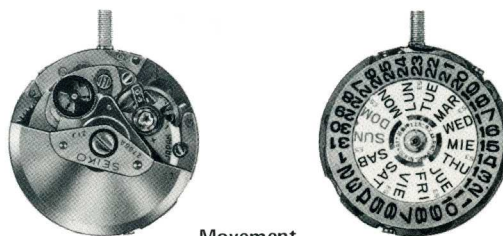
- ▶ Moebius Synt-A-Lube
- ▶ Seiko watch oil S-4
- ▶ Seiko watch oil S-3

Oil quantity:

- ▶ Extremely small quantity
- ▶ Normal quantity
- ▶ Sufficient quantity

As lubricating points other than portions marked with the above symbols are separately indicated, lubricate correctly.

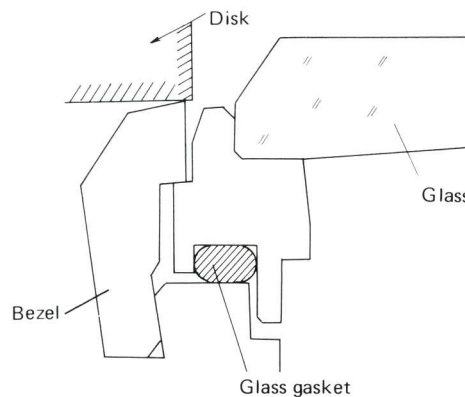
- ✗ Oil must not be applied.



Movement

An example of casing construction

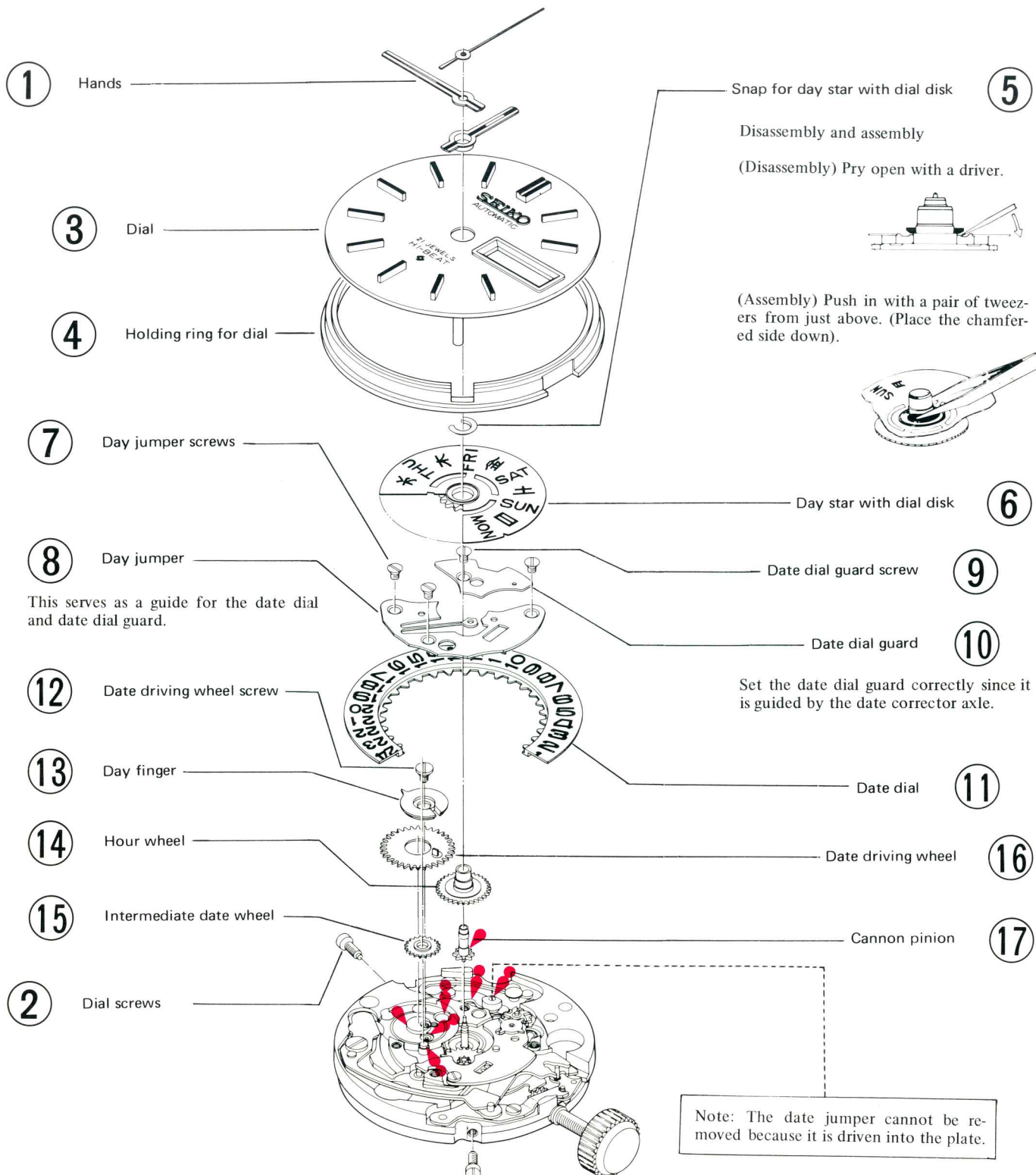
There is a model whose construction has the following glass portion.



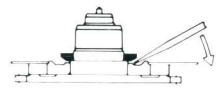
Precautions when assembling

- (1) Insert a gasket into the gasket groove and set the bezel; then push the bezel in.
- (2) Use a disk which does not contact the glass ring when pushing in the bezel by the disk.
- (3) Set the pry opening port on the bezel to its original position.
- (4) It is unnecessary to apply silicone grease to the glass gasket.

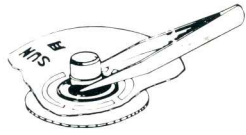
2706A Calendar Mechanism



Disassembly and assembly
(Disassembly) Pry open with a driver.



(Assembly) Push in with a pair of tweezers from just above. (Place the chamfered side down).

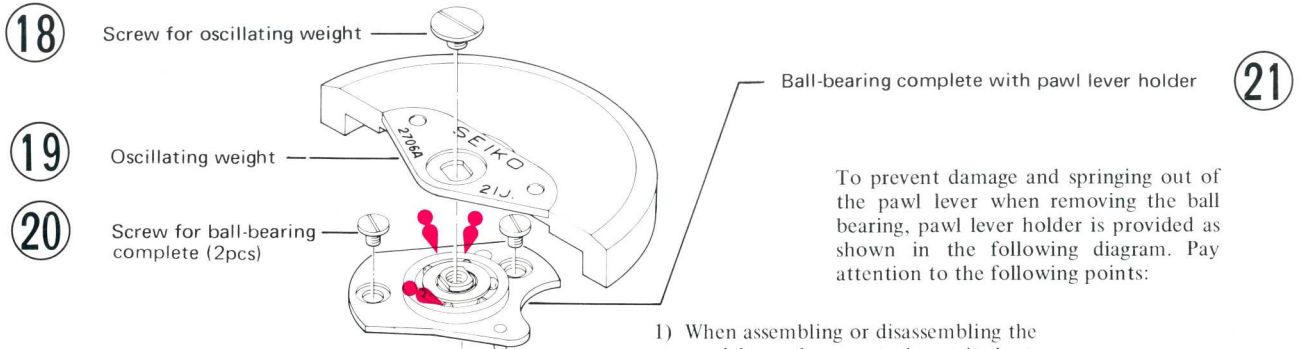


Set the date dial guard correctly since it is guided by the date corrector axle.

Note: The day and date setting device and bilingual change-over mechanism for day indication will not operate from 8:30 P.M. to 3:30 A.M. since this period is used for day and date driving time.

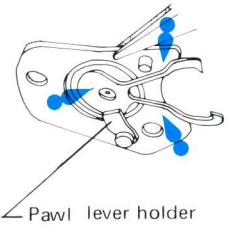
Note: The date jumper cannot be removed because it is driven into the plate.

2706A Automatic Winding, Escapement and Governor Mechanism



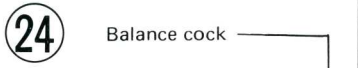
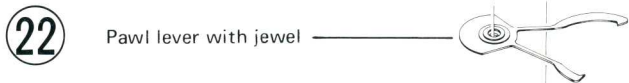
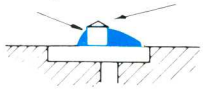
To prevent damage and springing out of the pawl lever when removing the ball bearing, pawl lever holder is provided as shown in the following diagram. Pay attention to the following points:

- 1) When assembling or disassembling the pawl lever, be sure to insert it slantwise to prevent it from knocking pawl lever holder.
- 2) Since the pawl lever holder is driven into the ball bearing complete, it cannot be rotated. When it is forcibly rotated or wrenched, it will become deformed and cannot be assembled in the groove of the barrel and train wheel bridge.

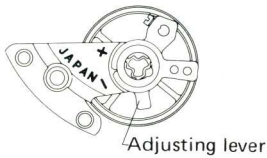


Pawl lever holder

Never lubricate the top of the eccentric pin.



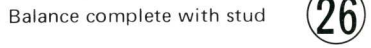
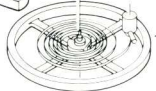
When adjusting out-of-beat, turn the adjusting lever by holding it with a pair of tweezers to revolve the stud holder, as shown in the following diagram. Exercise care not to revolve the stud head portion because it is easily damaged.



Adjusting lever



Diashock



Shape of the pallet cock is shown in the diagram. When it is necessary to adjust the side shake of banking pin, bend the portion marked.



Jewelled pallet fork & staff

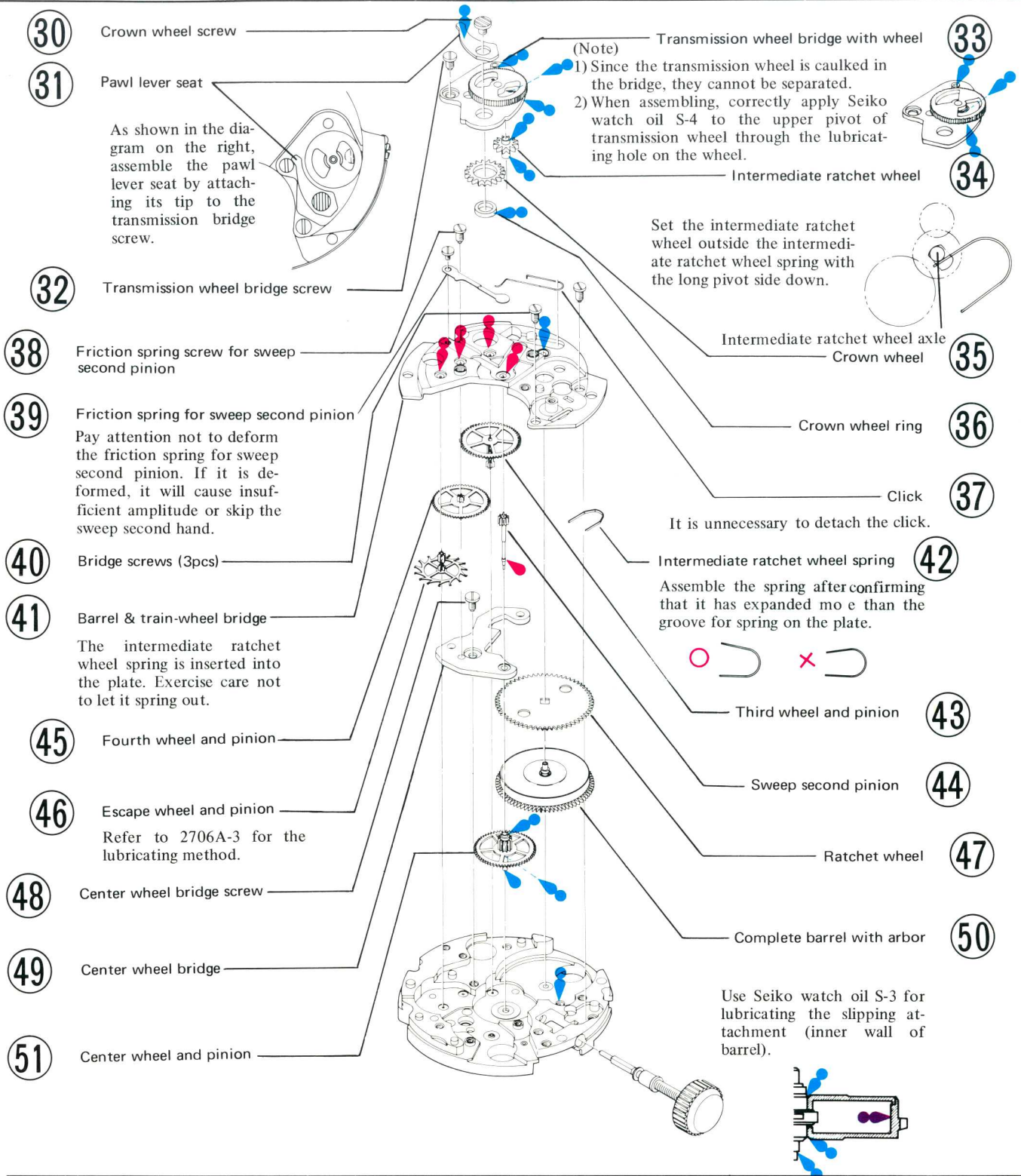
The surface of escape wheel and pinion is coated by special process; therefore, the lubrication method is different from the usual one. Take care of the following two points:
 1. Apply a sufficient quantity of oil to the pallet jewels. No trouble will result if oil flows onto the escape wheel and pinion after assembling.
 2. Never lubricate the impulse surface of the escape wheel.



Exercise care not to damage the pin while adjusting.



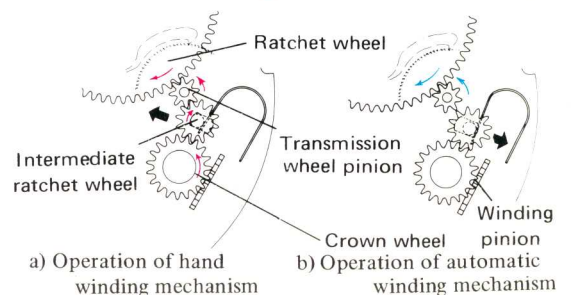
2706A Train Wheel



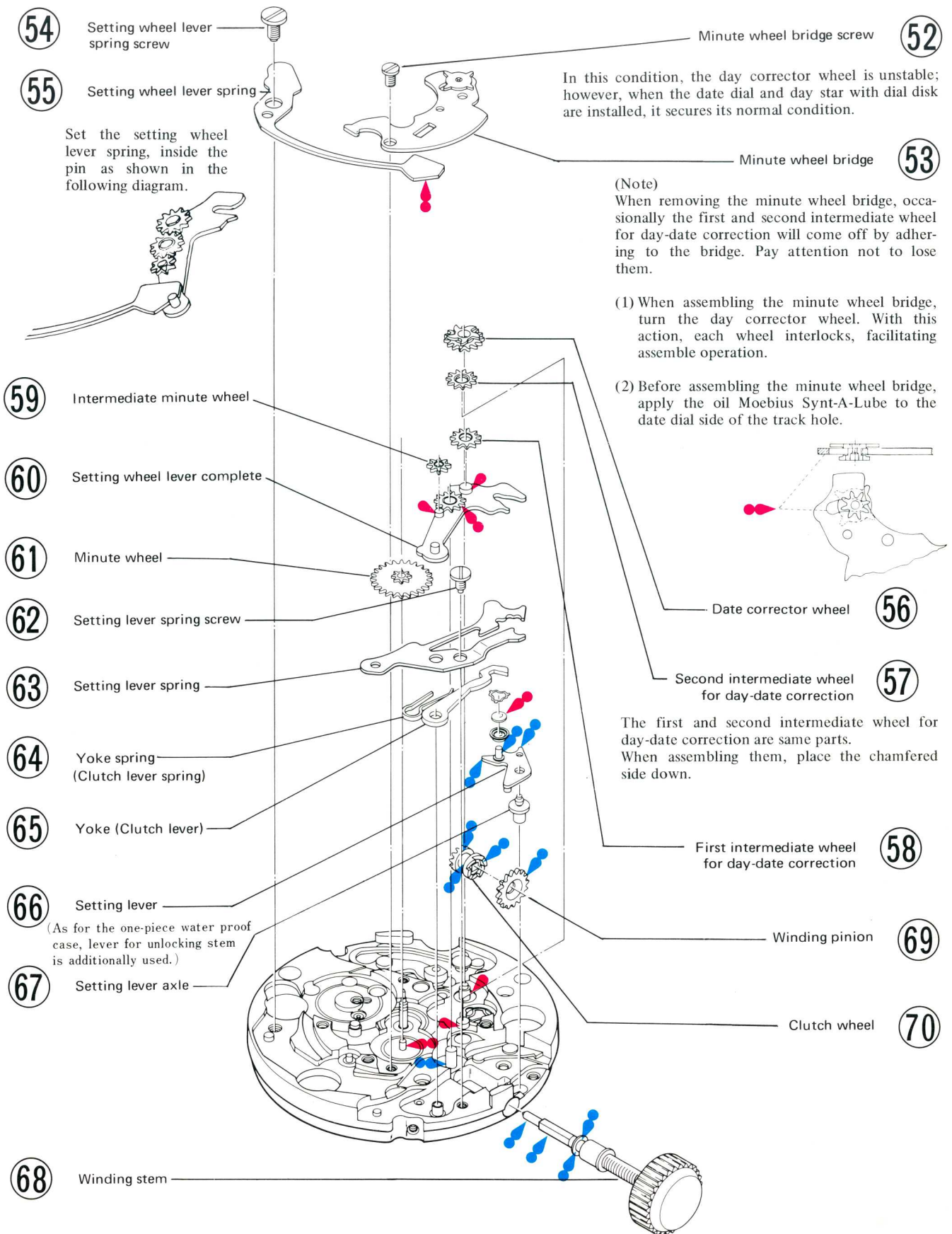
Hand winding mechanism

When turning the crown in its ordinary position, the mainspring is wound by interlocking the intermediate ratchet wheel and the transmission wheel pinion.

When the automatic winding mechanism is operating, the intermediate ratchet wheel detaches from the transmission wheel pinion; thus, the hand winding train wheel does not obstruct winding capability of the automatic winding mechanism.



2706A Setting Mechanism



2706A Setting Mechanism

Crown ordinary position (mainspring winding)

The mainspring can be wound by turning the crown at the position where the winding pinion and clutch wheel interlock.

Fig. 1

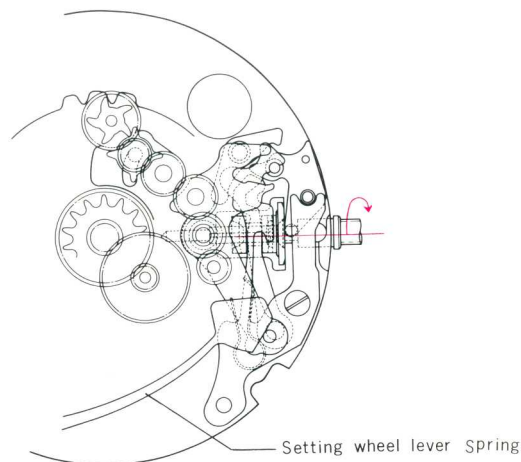


Fig. 1

Position where the crown is pulled out to the second click (setting day and date)

In the condition where the clutch wheel and setting wheel (located under the setting transmission wheel, it rotates together with setting transmission wheel) interlock, when the crown is turned clockwise the day star with dial disk is quickly forwarded. By turning in reverse (counterclockwise), the date dial is quickly forwarded.

Fig. 2

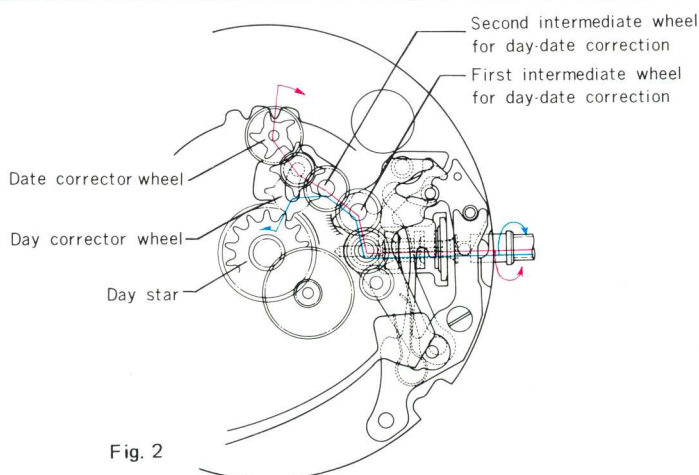


Fig. 2

Position where the crown is pulled out to the third click (setting time)

The intermediate minute wheel interlocks with the minute wheel as a result of the setting wheel lever complete being pushed by the setting lever. When the crown is turned at this position, the hands can be set.

Fig. 3

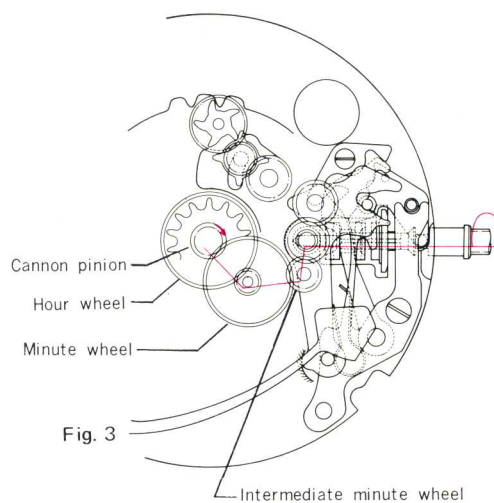
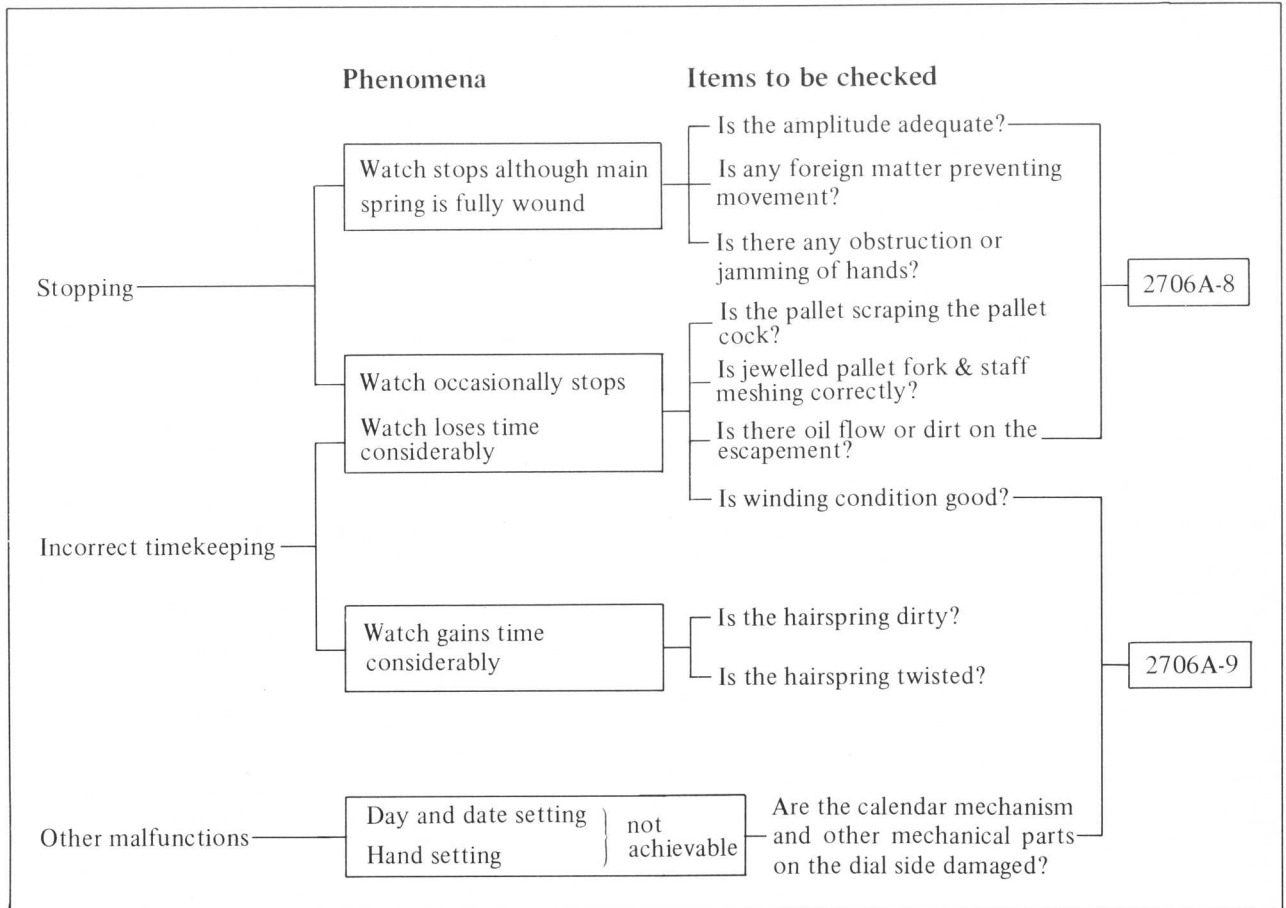


Fig. 3

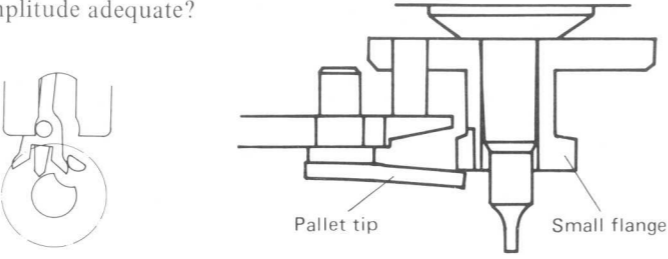
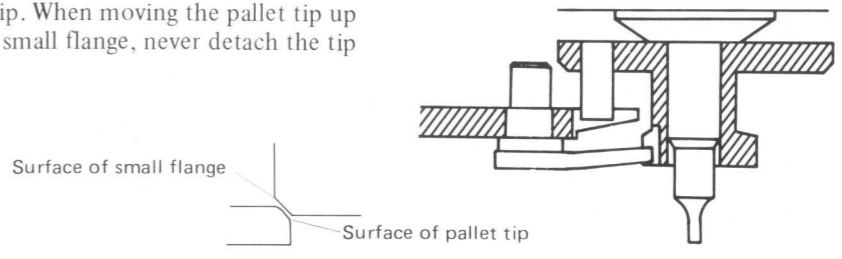
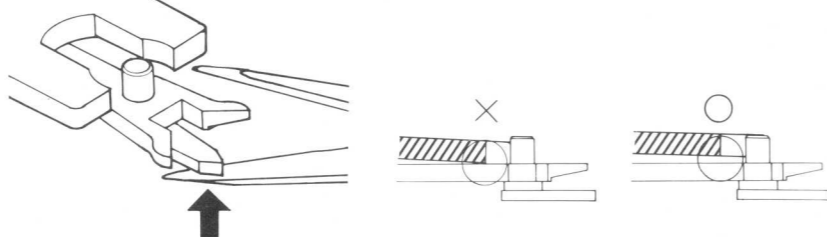

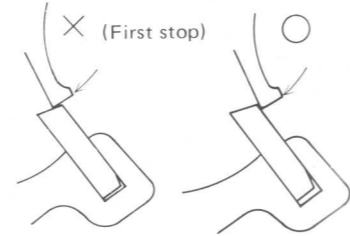
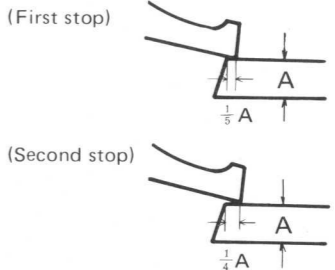
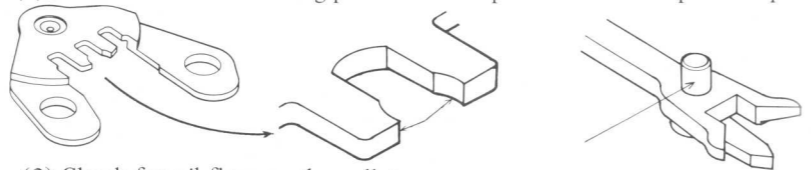

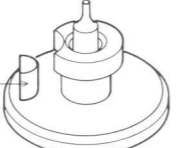
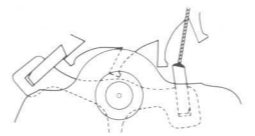
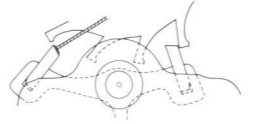
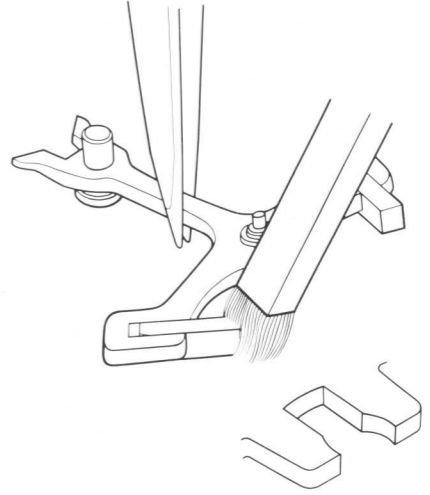
2706A CHECKING AND REPAIRING

When a customer requests that a watch be repaired, the first prerequisite is to inquire on the exact nature of the malfunction.

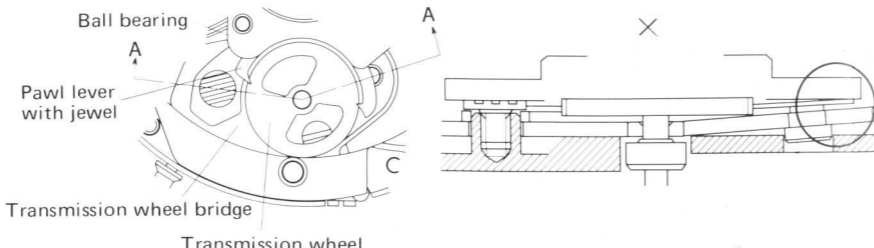

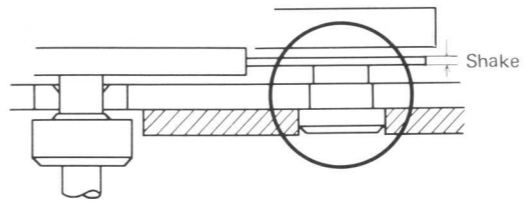
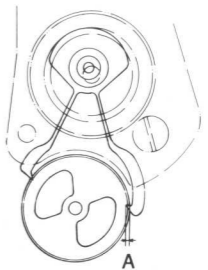
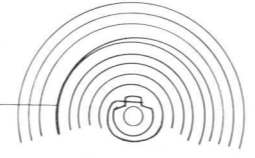
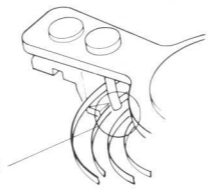
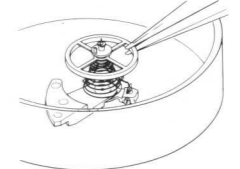
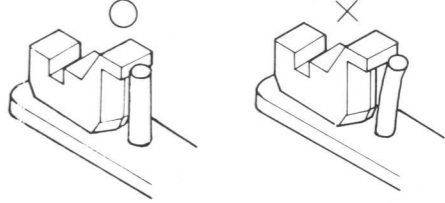
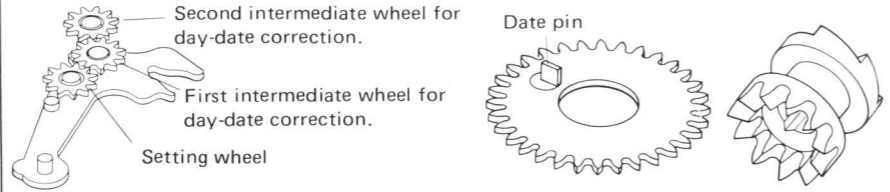
With the information obtained from the customer, check thoroughly (making repairs where necessary) the following points:



2706A CHECKING AND REPAIRING-1

Phenomena	Items to be checked	Repairing Method
<p>1. Watch stops although main-spring is fully wound.</p>	<p>1. Is the amplitude adequate?</p> 	<p>Adjust height of the pallet tip. When moving the pallet tip up and down in examining it and small flange, never detach the tip and small flange.</p> 
	<p>1. When raising the pallet tail, does it rub against the pallet cock?</p> 	<p>Adjust hole jewel position of the pallet cock.</p>  <p>Standardize surface of the pallet cock</p> <p>Always check shakes of the pallet after adjustment.</p>
<p>2. Watch occasionally stops. Watch loses considerably.</p>	<p>2. Any slip on the jewel meshing?</p> <p>(1) With the first stopping does the meshing directly drop on the impact surface?</p> <p>(2) Check each tooth of the escape wheel</p> 	<p>Adjust meshing amount of the jewel. When adjusting one side, always confirm meshing amount of both sides.</p> 
	<p>3. Is there any oil flow or dirt on the escapement?</p> <p>(1) Check for dirt on banking portion of the pallet cock and tip of the pallet</p>  <p>(2) Check for oil flow on the pallet</p>  <p>(3) Check for dirt on roller jewel of the balance</p> 	<p>* Wash the pallet and pallet cock. After washing pallet finger tip, pin portion of pallet tip, and banking portion of pallet cock with a brush, rinse them in benzine. Dry them thoroughly.</p> <p>* After washing and assembling pallet and pallet cock, lubricate the jewel by using an oiling bar or glass oiling injector.</p>  <p>Lubrication of Entry pallet jewel</p>  <p>Lubrication of Exit pallet jewel</p>  <p>* Washing of the balance Wipe the roller jewel well, then rinse it in benzine. Dry it well. (When washing, remove the shock resistant hole jewel with frame).</p>

2706A CHECKING AND REPAIRING-2

Phenomena	Items to be checked	Repairing Method
	<p>4. Is winding condition of the oscillating weight good? The condition is good when the transmission wheel turns round once within 30 revolutions of the oscillating weight. When the winding condition is defective . . .</p> <p>(1) Check on whether the pawl lever with jewel is bent upward or downward. If bent, winding efficiency is lowered as it scratches the transmission wheel bridge.</p> <p>(2) Check on whether the shake of fingers are reduced by a raised transmission wheel bridge.</p>  <p>(3) Check on whether distance between fingers of the pawl lever with jewel is extended and the finger tip is separated from the transmission wheel when winding.</p> 	<p>(1) Correct warp of the pawl lever with jewel</p> <p>(2) Correctly reassemble the transmission wheel bridge</p>  <p>(3) Correct distance between fingers. A = Within double the finger thickness. Adjust with care that distance does not become too narrow.</p> 
3. Watch gains considerably	<p>1. Any dirty portion on the hairspring?</p> <p>Any portion stuck together due to dirt?</p>  <p>2. Is the hairspring twisted? Is the hairspring locked between the regulator key and the stud?</p>  <p>Locked hairspring</p>	<p>Wash the balance.</p> <p>Rinse the balance in fresh benzine and dry it well to prevent the balance coils from touching each other. (When washing, remove shock resistant hole jewel with frame). Refer to next page for details.</p>  <p>After removing the hair spring from twisting, correct bend of the hairspring stud. After correcting, check shape of the hairspring.</p> 
4. Day and date correction Hand setting do not achievable	<p>1. Are the calendar mechanism and other mechanical parts on the dial side damaged? Cracks and loosened setting wheel, first and second intermediate wheel for day-date correction; broken and detached date pin; and broken teeth of clutch wheel.</p>  <p>Setting wheel First intermediate wheel for day-date correction. Second intermediate wheel for day-date correction. Date pin</p>	<p>Replace parts.</p> <p>Day and date change starts from about 8:30 P.M. and finishes about 3:30 A.M. When day and date are corrected within this period, the correcting device will not function; also, it may be damaged, so never correct the day and date during this period. Explain clearly to the customer that he should never do the correcting during this period.</p>

2706A CHECKING AND REPAIRING-3

1. Washing and Lubricating Method for Pallet, Pallet Cock, and Balance

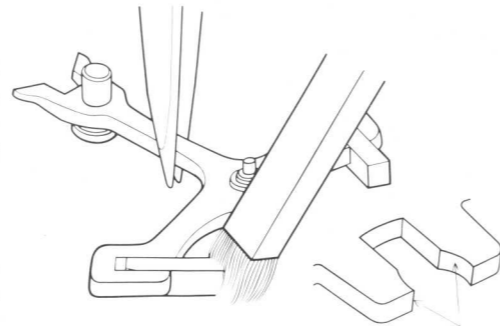
(1) Washing method for pallet and pallet cock

1. Rough washing

Since the pallet has been subjected to a nondiffusion treatment at the factory, ultrasonic washing should be limited to within one minute. When using a brush for washing, only wash the pallet finger tip, pin portion of the pallet tip, and banking portion of the pallet cock.

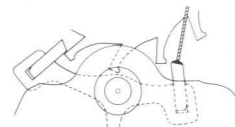
2. Rinsing and drying

Rinse the pallet and the pallet cock in fresh benzine, and dry them well by using a dryer or other means. Drying temperature should be less than 40°C.

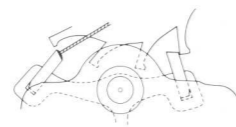


(2) Lubricating jewel

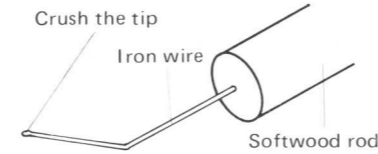
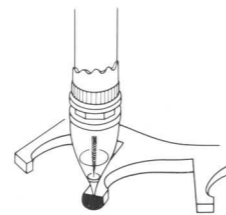
When lubricating the pallet jewel, do so after assembling the pallet and the pallet cock. Using a glass oiling injector or oiling bar, sufficiently lubricate the entry pallet jewel and the exit pallet jewel after allowing the tooth tip of the escape wheel to escape. No problem exists when oil is diffused on the escape wheel.



Lubricating the entry pallet jewel



Lubricating the exit pallet jewel



It is convenient to make this tool yourself.

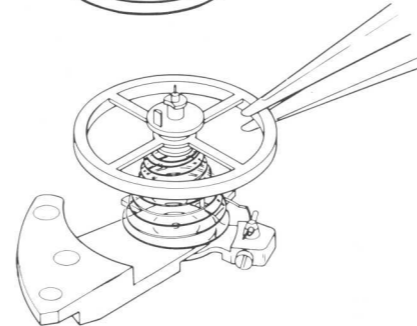
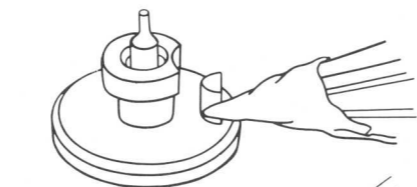
Note: Since the oil quantity cannot be controlled never lubricate the escape wheel directly. (due to special treatment of surface)

(3) Washing the balance

1. Rough washing

(The balance can be washed with the balance cock attached; however, remove the shock resistant hole jewel with frame.)

Perform ultrasonic washing for one minute. When wiping the balance, wipe and wash the roller jewel thoroughly.



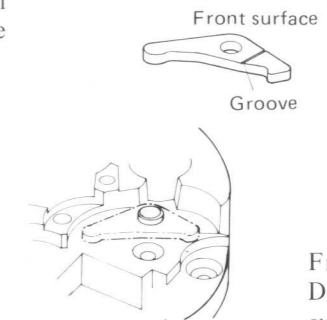
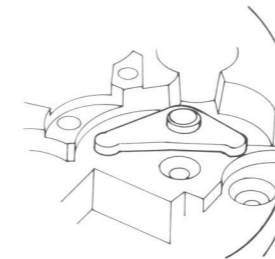
2. Rinsing and drying

Rinse the balance in fresh benzine and slightly raise the balance with a pair of tweezers to prevent contact with the hairspring; then dry well, using a dryer or other means.

2. Regarding Modification of Parts

(1) Intermediate setting lever

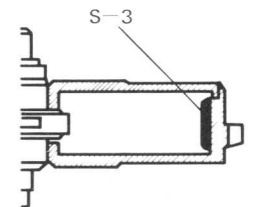
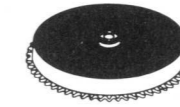
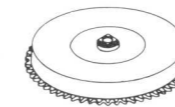
The Intermediate setting lever, conventionally driven in the plate informer models, has been changed to the assembling type.



Front surface is grooved. Do not mistake the front surface when assembling.

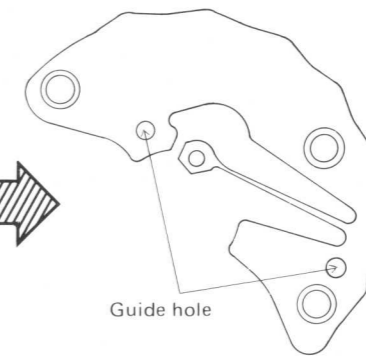
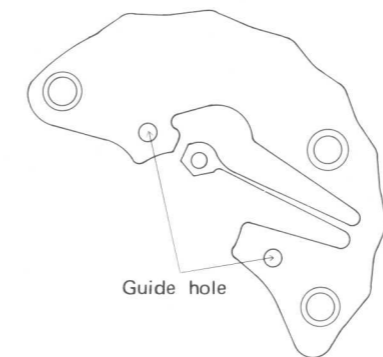
(2) Color of barrel cover

To clearly indicate use of SEIKO Watch Oil S-3, the barrel cover has been colored black.



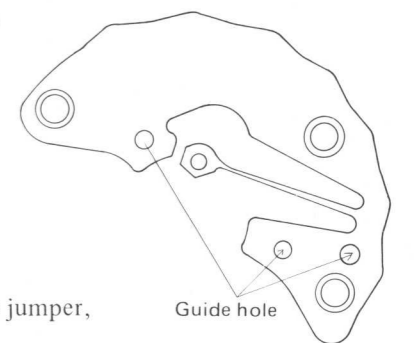
This implies the same meaning as the black ring mark on other watch types.

(3) Day jumper



Shape and position of the guide hole have been changed.

Spare parts



The spare parts can be used for either main plate. When replacing the day jumper, use the spare parts.