5606A

1) Specifications

Casing diameter	25.60 mm
Height	4.25 mm
Vibrations per hour	21,600

Automatic winding (with auxiliary hand winding device)
Calendar (day & date, bilingual change-over mechanism for day indication, instant day & date setting device)
Second-setting device

2) Features

Sufficiently maintaining energy of the balance wheel assures excellent accuracy. 5606A maintains high-grade characteristics in all phases.

3) Disassembly and Assembly

Disassemble the watch according to the procedures shown in figures(1)to(71).
Assemble the watch according to the procedures shown in figures(71)to(1).

4) Lubrication

Colored symbols printed in the figures show types of oil and lubrication points.

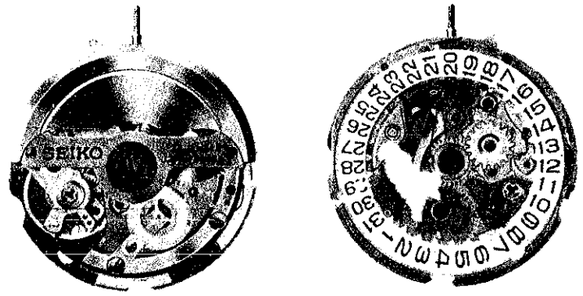
- ● Moebius Synt-A-Lube
- ● Seiko watch oil S-4

Points where oil other than the above is used are separately indicated, and should be lubricated correctly according to instructions.

NOTE) Portions with no indications do not require lubrication.

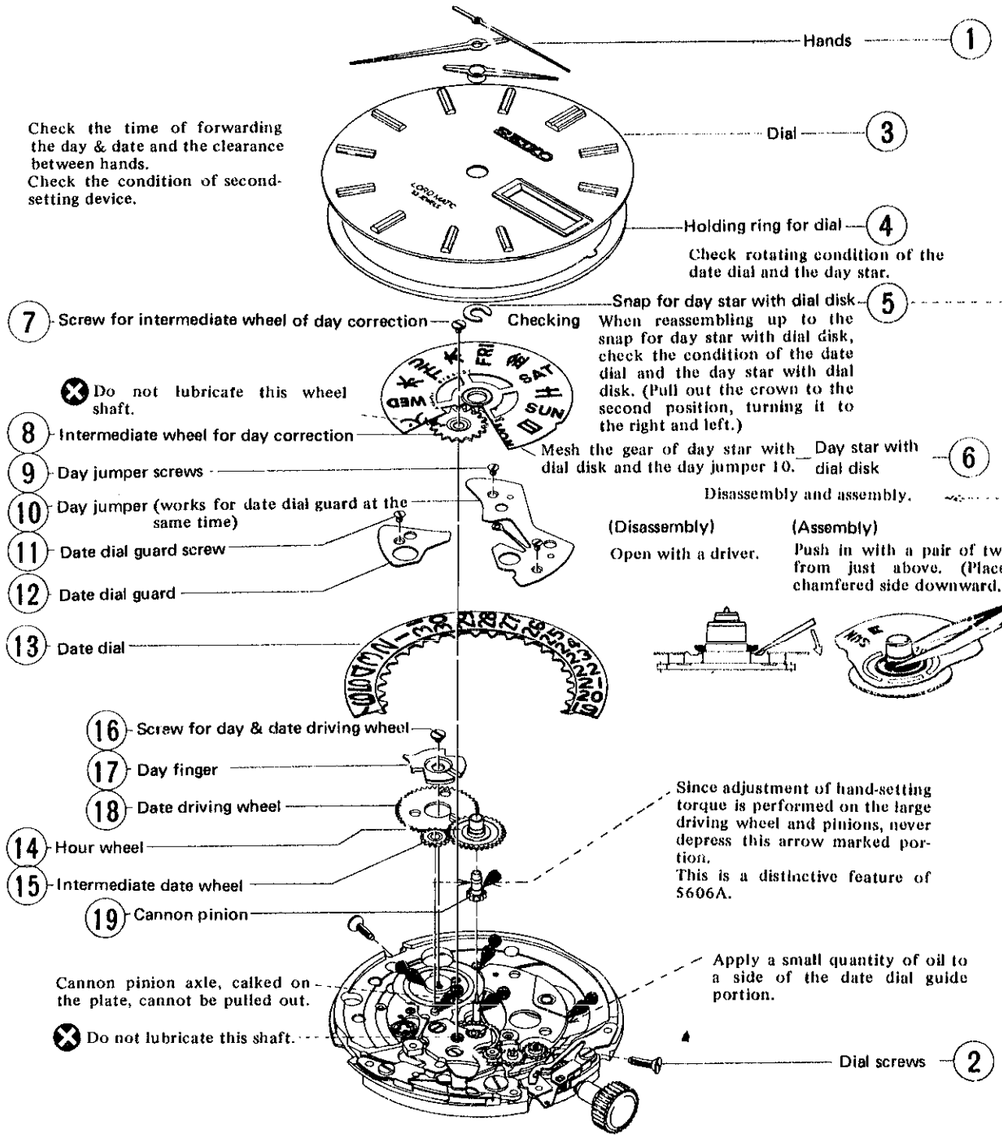
Oil quantity

- ● Extremely small quantity
- ●● Normal quantity
- ●●● Sufficient quantity
- ⊗ Oil must not be applied



Enlarged movement

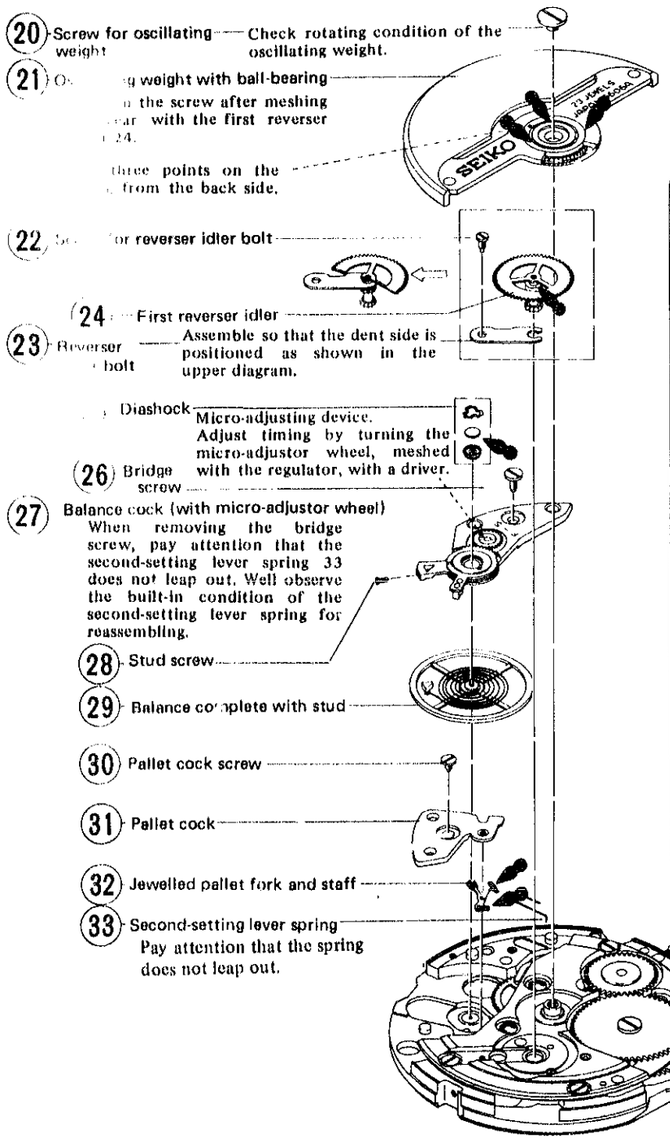
5606A Calendar mechanism



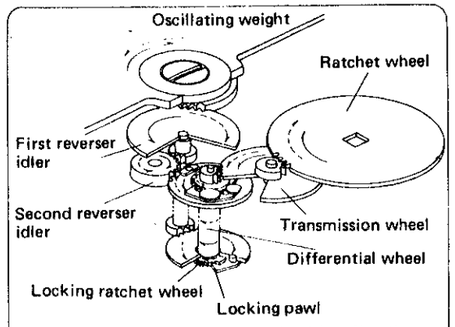
Selecting the language of the day of week:

When setting the day of week, two languages appear alternately in the calendar window. Therefore set one of your choice through Seikc's novel bilingual change-over system, and later on the designated one will appear in the calendar window automatically. (However, when shifting to the next day, the other language appears temporarily.)

NOTE) 1. When the hands are positioned in the range between 8 P.M.–1 A.M., avoid the date and day correction to protect the gears from damage.
2. Bilingual day of week is provided for all models except those having the day calendar window at 6 o'clock position.

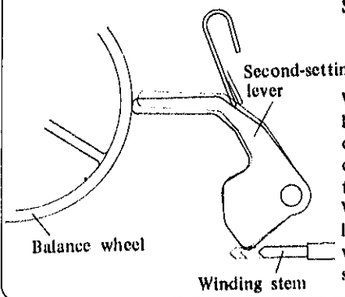


Action of automatic winding mechanism



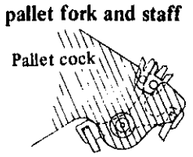
The oscillating weight rotates in either direction. But the ratchet wheel revolves in a constant direction by action of the differential wheel, and the mainspring is always wound. The gear and the pinion of the differential wheel are separated, and only when the locking pawl attached to the gear meshes with the locking ratchet wheel attached to the pinion does the differential wheel rotate with the pinion as one body. The upper gear rotates with the pinion only when revolution is in the direction shown by the dotted arrow mark, and the lower gear rotates with the pinion only—as one body—when revolution is in the direction shown by the solid arrow mark. The transmission wheel is positioned between the barrel and train-wheel bridge and the transmission wheel bridge.

Second-setting

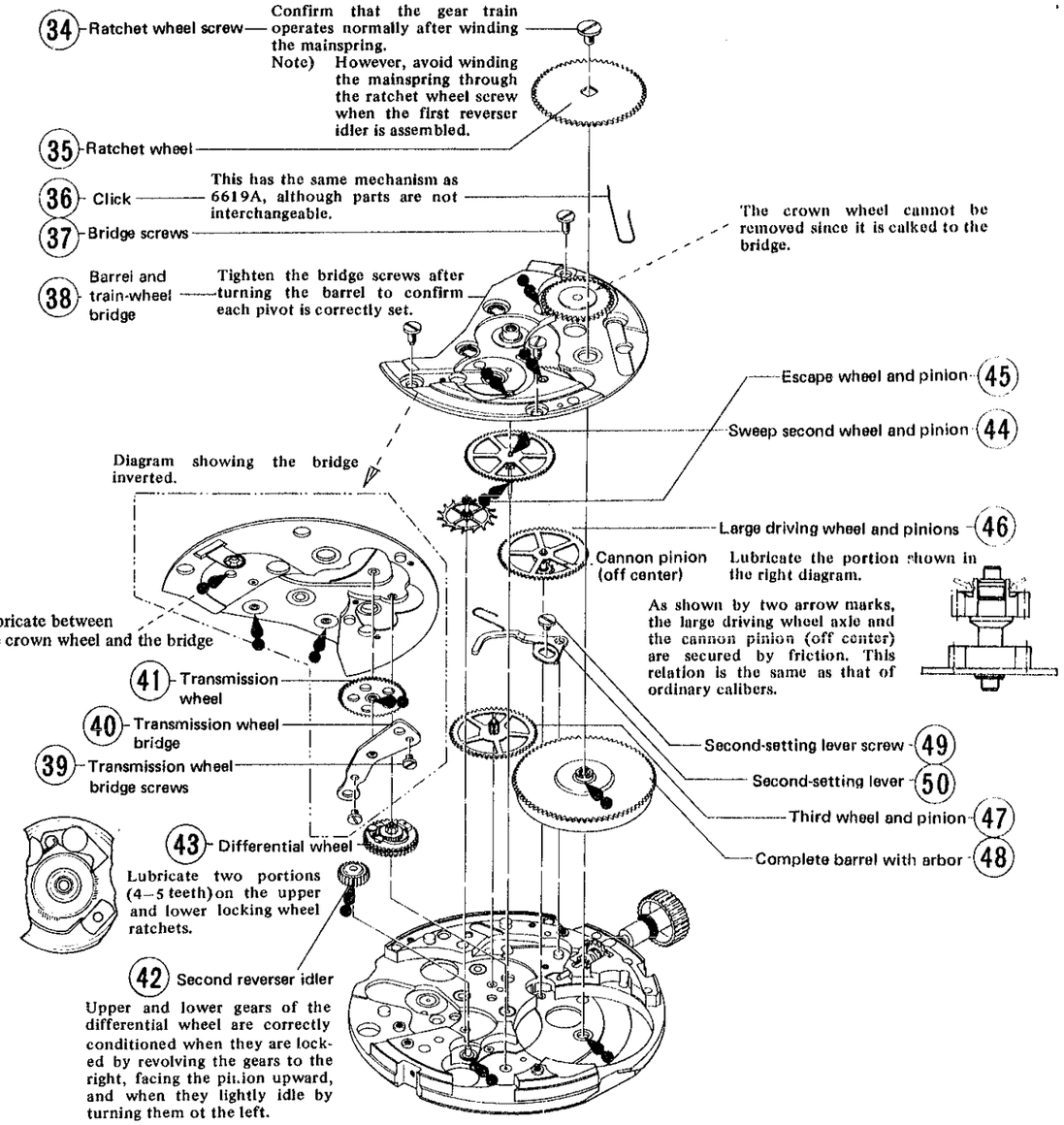


When forming a hand-setting condition by pulling out the crown to the third position, the tail of the second-setting lever departs from the tip of the winding stem and the head portion holds the balance wheel, bringing the watch to a stop. When the crown is pushed in, the second-setting lever is separated from the balance wheel and the watch starts to move. Consequently, the watch is set correctly to the second.

Jewelled pallet fork and staff

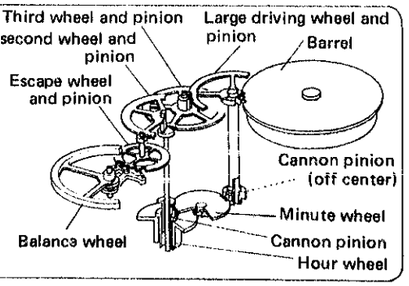


A pin which stands on the fork-shaped portion strikes a notched portion of the pallet cock, regulating the action; consequently, no banking pin is used.

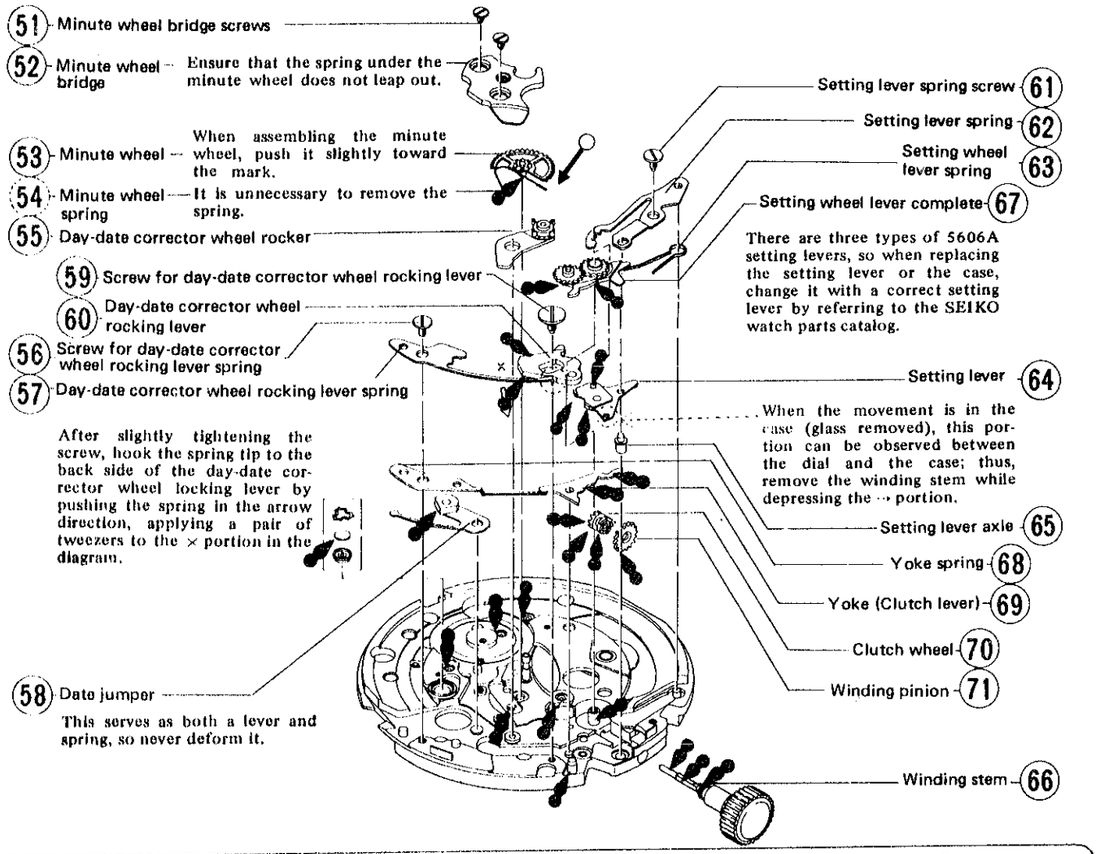


Train wheel (process of power transmission)

The large driving wheel and pinion is located off position from the center and is contacted by the minute wheel with the cannon pinion (off center) fitted to the large driving wheel and pinion.
Ordinarily, the cannon pinion (off center) rotates with the large driving wheel and pinion; however, it runs idly during hand setting operation by using the crown.
A cannon pinion shaft which receives the cannon pinion stands in the center of the plate.



5606A Setting mechanism



Ordinary position of crown (Mainspring winding)

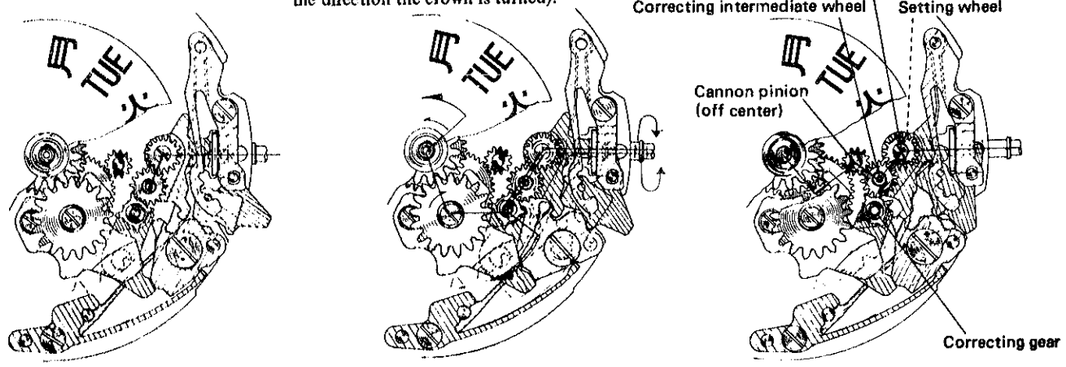
The winding pinion and the clutch wheel are meshed and the mainspring is wound when the crown is turned in this position.

Second position of crown (Setting the day and date)

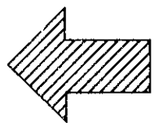
The clutch wheel and the setting wheel (located under the intermediate setting wheel and rotated with the intermediate setting wheel) are meshed. When the crown is turned to the right in this position, the day star with dial disk is shifted. And when turned to the left, the date dial is shifted. (The date correcting gear meshes with the date dial or the intermediate wheel for day correction according to the direction the crown is turned).

Third position of crown (Setting time)

When the setting wheel lever complete is pushed by the setting lever, the correcting intermediate wheel and the cannon pinion are meshed. When the crown is turned in this position, the hands can be set.



5606A CHECKING ON WATCH STOPPING, AND REPAIRING AND ADJUSTING



Regarding repairing and adjusting of Cal. 5606A, we already mentioned them in the SEIKO TECHNICAL GUIDE. However, on these pages, items to be checked on watch stopping, and repairing and adjusting for each item, are compactly arranged to facilitate further comprehension.

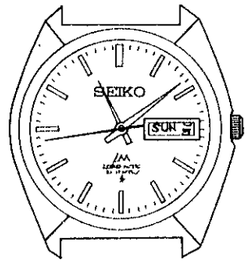
1. **Items to be confirmed before beginning repair work**
   * Checking the number of remaining windings of the mainspring.

2. **When only the second hand is in motion, and the hour and minute hands stop, during calender shifting.**

3. **When the watch (balance) stops completely.**

5606A CHECKING ON WATCH STOPPING, AND REPAIRING AND ADJUSTING

(Example of stopped calendar shifting)



1 Confirm the Following Items Before Beginning Repair Work.

A. Check *the number of remaining windings of the mainspring of the watch, in which calendar shifting stops in a condition as shown in the above diagram.
B. In this case, when the number of remaining windings of the mainspring is.....
Under 1 winding.....Adopt Procedure 2
More than 1 winding.....Adopt Procedure 3

Comfirm the following points for the actually moving watch which is claimed to have stopped during the night.

A. Wind the ratchet wheel 1.5 revolutions after complete release of the mainspring.
B. Set the hands to 10:30 (p. m.), then leave the watch as it is.
C. As shown in the above diagram, if the watch comes to a halt during calendar shifting, confirm the following items, then adopt Procedure 2 or 3.

[When the hour and minute hands stop and only the second hand is moving.....Adopt Procedure 2
When the balance stops.... Adopt Procedure 3]

[When the number of remaining windings of the mainspring is under 1 winding.]

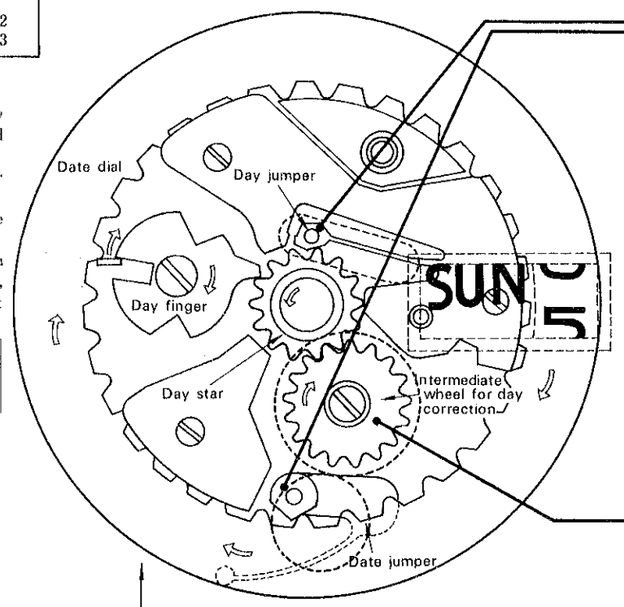
2 When only the Second Hand is in Motion and the Hour Hand and Minute Hand stop During Calendar Shifting.

In this case, inspect the watch accroding to CHECKING PROCEDURES 4, 5, and 8.

[When the number of remaining windings of the mainspring is more than 1 winding.]

3 When the Balance Completely stops

In this case, inspect the watch according to CHECKING PROCEDURES 5 – 8.

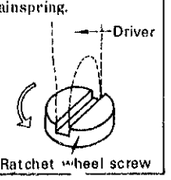


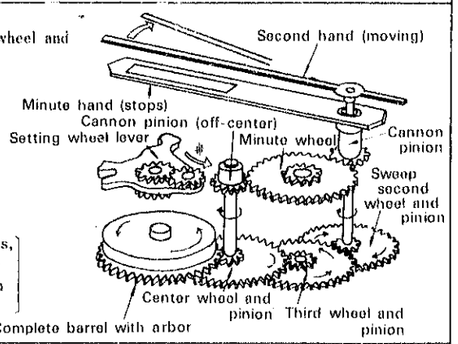
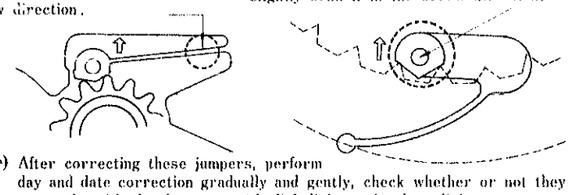
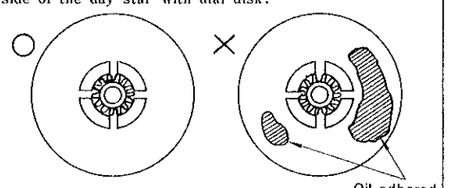
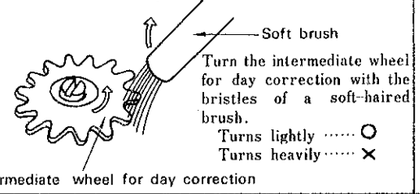
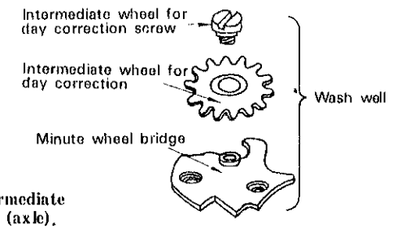
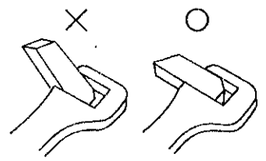
This diagram indicates a stopping condition of calendar shifting.
(A diagram in which the dial and the day star with dial disk are removed).

*Checking the number of remaining windings of the mainspring

1. Pull out the crown to the first or second click.
2. Remove the automatic winding section (oscillating weight section).
3. Firmly hold the ratchet wheel screw with a driver and release the click by using a pair of tweezers.
4. In this condition, gradually turn the ratchet wheel screw counterclockwise until the main spring force is exhausted (releasing the main spring).
5. This revolving number of the ratchet wheel screw corresponds with the number of remaining windings of the mainspring.

(Note)
It is convenient to count the number of remaining windings of the mainspring by confirming the direction of the groove of the ratchet wheel screw.



Checking procedure	Checking details	Repairing and checking methods
4	(The cause was due to loosened caulking of the cannon pinion (off-center) attached to the large driving wheel and pinion). (Refer to the diagram on the right)	Replace the large driving wheel and pinions with a new one. (Note) Never caulk the cannon pinion. [* When setting the hands, the setting wheel lever meshes with the cannon pinion (off-center).] 
5	(The cause is due to too strong spring characteristic of the day jumper and date jumper, therefore correct them as shown in the diagram on the right.)	Hold this portion with a pair of tweezers, and slightly bend it in the arrow direction. Insert the tips of tweezers in this hole and slightly bend it in the arrow direction.  (Note) After correcting these jumpers, perform day and date correction gradually and gently, check whether or not they gear correctly with the day star with dial disk or the date dial.
6	Check whether or not oil is adhered to the back side of the day star with dial disk. 	When oil is adhered (×)..... 1. Wipe off oil adhered to the back side of the day star with dial disk. (Or wash it quickly with benzine.) Never use trichloroethylene, Fuji clean, S-clean, etc. 2. Wipe off oil adhered to the surface of the plate, date dial guard, etc. (Note) Apply a small quantity of oil to the lower portion of the barrel arbor, and the lower pivot of the center wheel.
7	Check on revolving condition of the intermediate wheel for day correction.  Turn the intermediate wheel for day correction with the bristles of a soft-haired brush. Turns lightly ..... ○ Turns heavily ..... ×	When the intermediate wheel for day correction does not revolve smoothly (×)..... Wash the parts which are in the diagram on the right. (Use ultrasonic cleaner as far as possible.) (Note) Never lubricate the intermediate wheel for day correction (axle). 
8	**Always check the escapement portion even when no malfunction is found in Procedures 4 through 7.** 1. Are adjusting and lubricating conditions of the escapement portion proper ? 2. Are shake, clearance and wobble in wheels, day star and etc. proper ? 3. Is there any invasion of chips, dust, shag, and so on into the movement ?	1. If there is any malfunction, repair and adjust the escapement. 2. Normalize conditions of the pallet jewels and their oil maintaining condition. 

General Checking Procedures After Repairing

Fully wind up the mainspring (the mainspring is fully wound by turning the ratchet wheel more than seven times from its entirely released condition). Set the hands to 3 o'clock (p. m.) and leave the watch as it is. The watch is in excellent condition if it does not stop at the second calendar shifting (33 hours after starting).