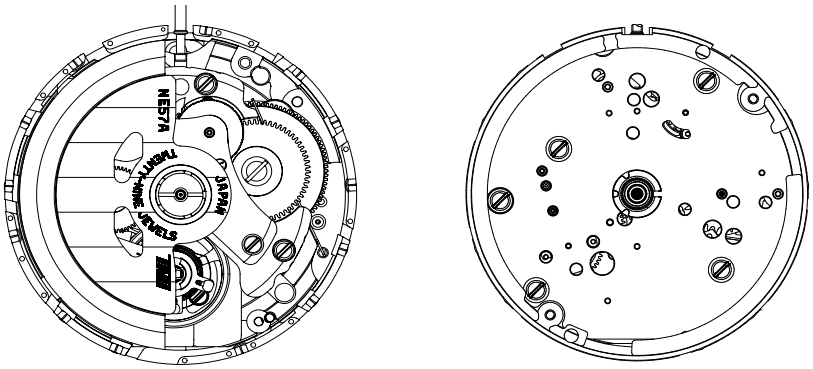
TIME MODULE

TECHNICAL GUIDE
&
PARTS CATALOGUE

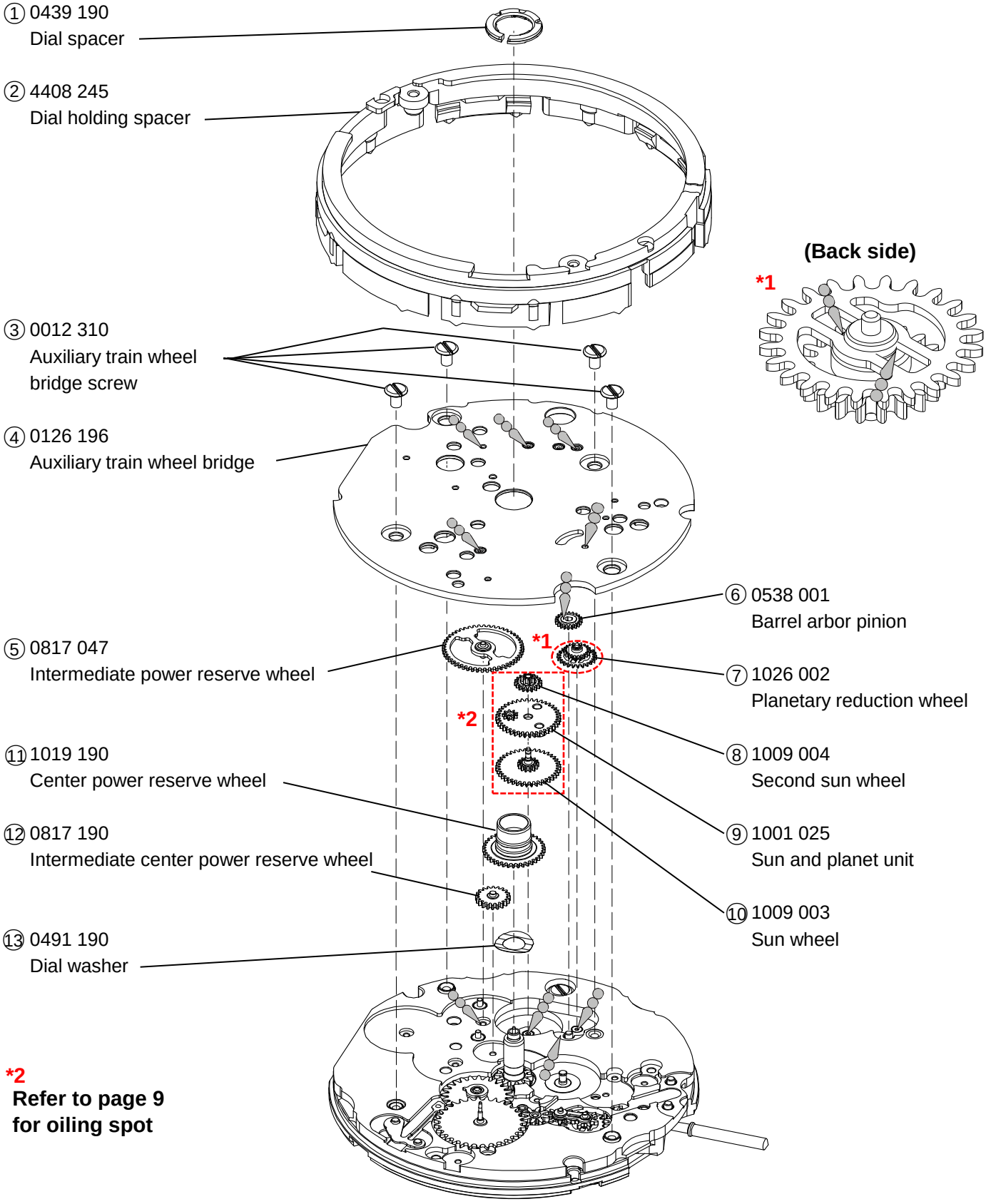
Cal.NE57A

AUTOMATIC MECHANICAL

SPECIFICATION

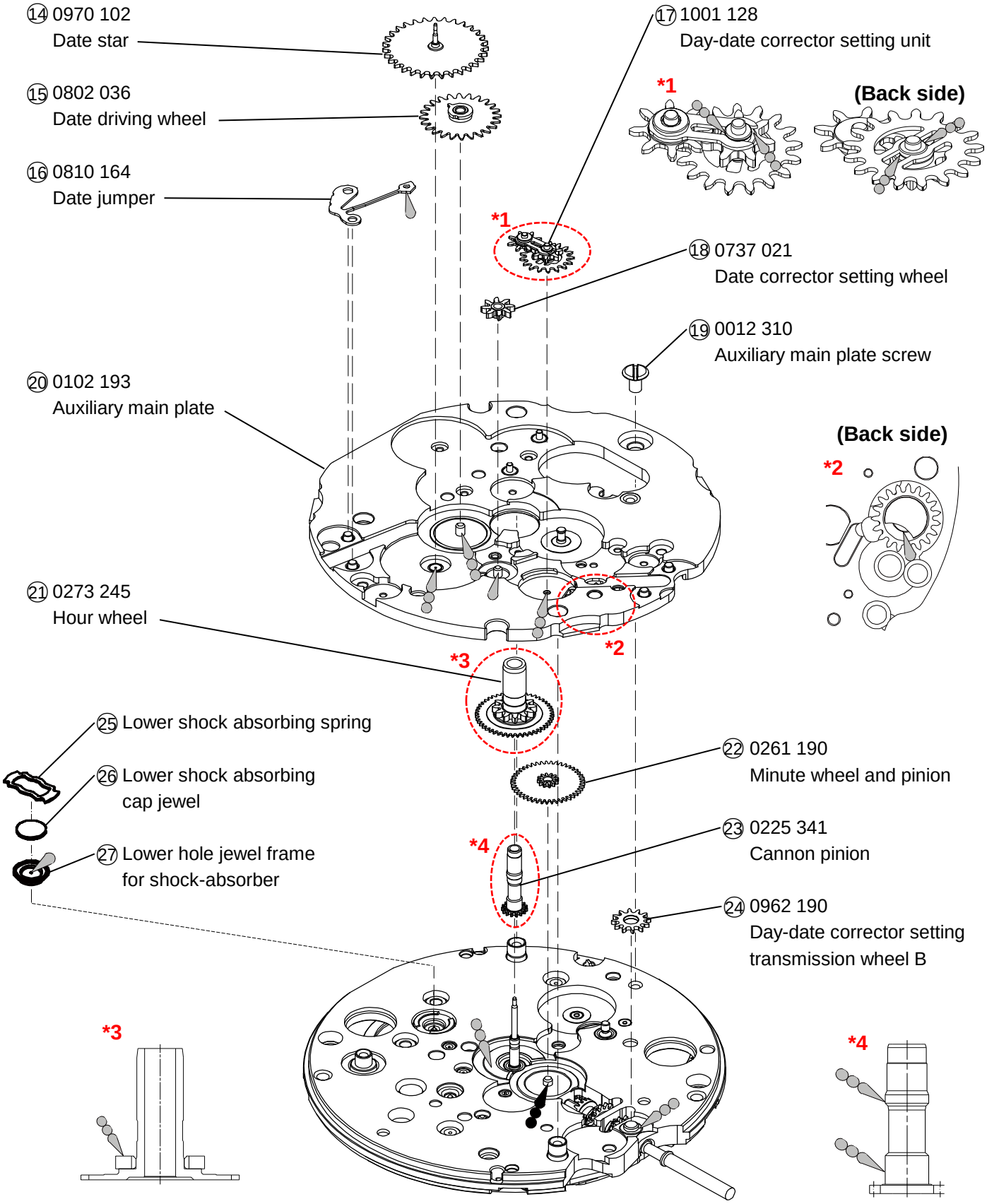
Item \ Cal. No.		NE57A	
Movement			
Movement size	Outside diameter	Φ27.4 mm	
	Casing diameter	Φ29.36 mm (with dial holding spacer)	
	Total height	6.63 mm	
Time indication		3 Hands (Hour, Minute, Second) Day calendar hands Power reserve hand (Center position)	
Basic function		Manual winding Automatic winding with ball bearing Stop-second device Quick date correction	
Frequency		21,600 vibrations per hour	
Accuracy	Static accuracy	- 20 ~ + 40 seconds per day * Measurement should be done within 10 ~ 60 minutes after fully wound up. * All measurements are made without the calendar in function.	
	Measurement position	Direction of 3 positions (1) Dial up (2) 9 o'clock up (3) 6 o'clock up	
	Lift angle	53 deg	
	Measurement time	20 seconds * Equipment to be used : Witschi WATCH EXPERT	
	Posture difference	Difference is under 60 seconds within maximum value and minimum value. * Measurement should be done within 10 ~ 60 minutes after fully wound up. * Direction of 4 positions. (1) 12 o'clock up (2) 9 o'clock up (3) 6 o'clock up (4) 3 o'clock up	
	Isochronisms (24h-0h)	- 20 ~ + 40 seconds per day * Direction position : Dial up * Difference of static accuracy of 24 h and 0 h	
Duration time		More than 41 hours (Mainspring after fully wound up) * Posture to confirmation : Dial up	
Winding the mainspring		<< Movement >> ・Fully wound up by turning the crown minimum 55 times. ・Fully wound up by turning the ratchet wheel screw 8 times. << Complete Watch >> A winding machine is needed to wind up the mainspring. *Full wind up conditions (Reference information) (1) Rotary speed : 30 rpm (2) Operating time : 60 minutes	
Jewels		29 jewels	
Crown position		Counterclockwise	Clockwise
	Normal position	Free	Manual winding
	First click	Date setting	Free
	Second click	Time setting	Time setting

Disassembling procedures Figs. ① → ⑬ Reassembling procedures Figs. ⑬ → ①	**Type of oil** Moebius 9010 S-6 S-4	**Oil quantity mark** NORMAL QUANTITY SUFFICIENT QUANTITY

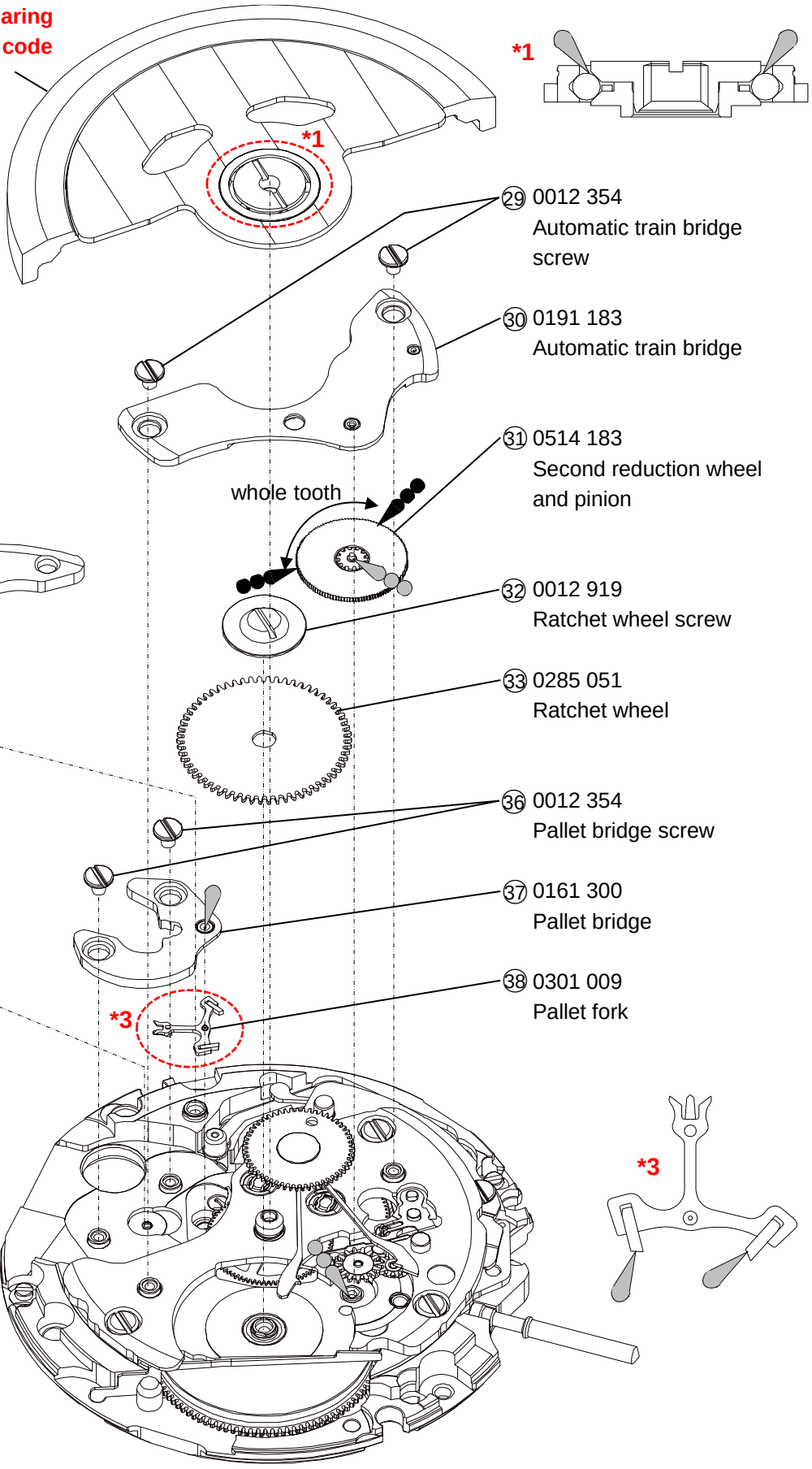


***2**
Refer to page 9 for oiling spot

Disassembling procedures Figs.	Type of oil	Oil quantity mark
① → 63	Moebius 9010	NORMAL QUANTITY
Reassembling procedures Figs.	S-6	SUFFICIENT QUANTITY
63 → ①	S-4	



Disassembling procedures Figs. ① → ⑥③ Reassembling procedures Figs. ⑥③ → ①	**Type of oil** Moebius 9010 S-6 S-4	**Oil quantity mark** NORMAL QUANTITY SUFFICIENT QUANTITY



28 **Oscillating weight with ball bearing**
Refer to page 7 for each parts code
***Refer to the page 11 for assembling position**

34 0012 100
Balance bridge screw

35 0171 354
Balance cock

35-1
0310 186
Balance complete with stud

29 0012 354
Automatic train bridge screw

30 0191 183
Automatic train bridge

31 0514 183
Second reduction wheel and pinion

32 0012 919
Ratchet wheel screw

33 0285 051
Ratchet wheel

36 0012 354
Pallet bridge screw

37 0161 300
Pallet bridge

38 0301 009
Pallet fork

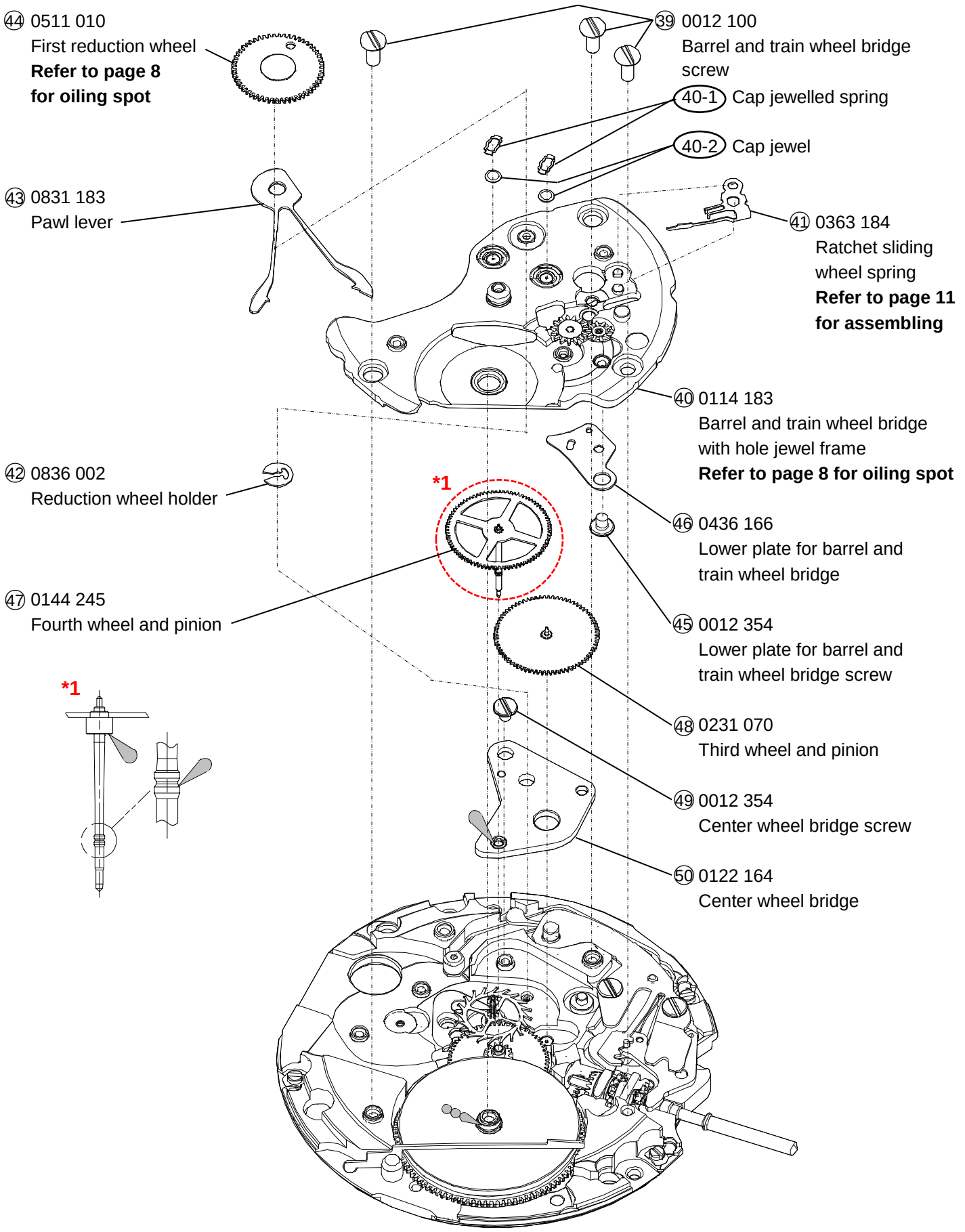
***2**

35-2
Upper shock absorbing spring

35-3
Upper shock absorbing cap jewel

35-4
Upper hole jewel frame for shock-absorber

Disassembling procedures Figs. ① → ⑥③ Reassembling procedures Figs. ⑥③ → ①	**Type of oil** Moebius 9010 S-6 S-4	**Oil quantity mark** NORMAL QUANTITY SUFFICIENT QUANTITY



④④ 0511 010
First reduction wheel
Refer to page 8 for oiling spot

③⑨ 0012 100
Barrel and train wheel bridge screw

40-1 Cap jewelled spring

40-2 Cap jewel

④③ 0831 183
Pawl lever

④① 0363 184
Ratchet sliding wheel spring
Refer to page 11 for assembling

④⓪ 0114 183
Barrel and train wheel bridge with hole jewel frame
Refer to page 8 for oiling spot

④② 0836 002
Reduction wheel holder

④⑥ 0436 166
Lower plate for barrel and train wheel bridge

④⑦ 0144 245
Fourth wheel and pinion

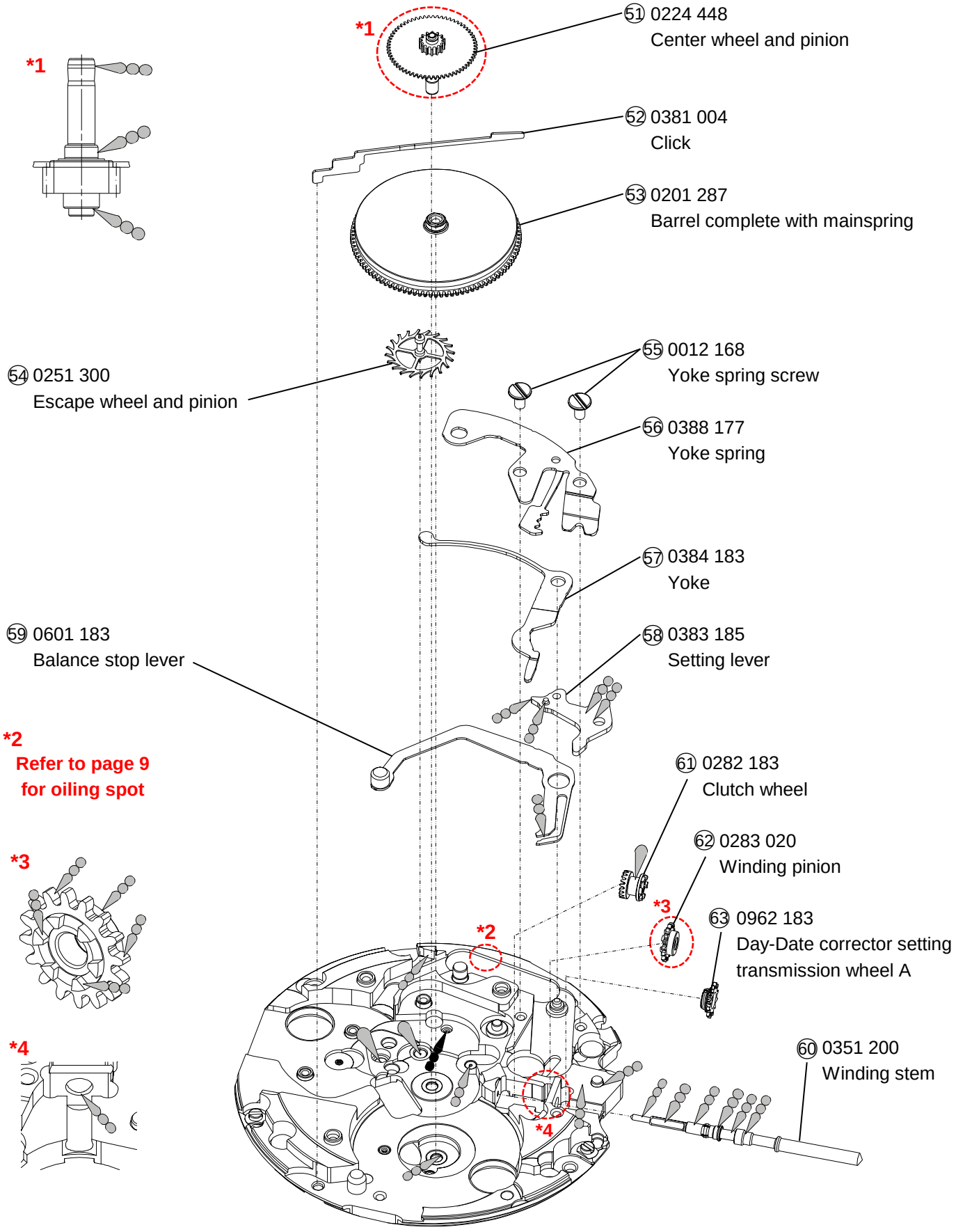
④⑤ 0012 354
Lower plate for barrel and train wheel bridge screw

④⑧ 0231 070
Third wheel and pinion

④⑨ 0012 354
Center wheel bridge screw

⑤⓪ 0122 164
Center wheel bridge

Disassembling procedures Figs. ① → ⑥③ Reassembling procedures Figs. ⑥③ → ①	**Type of oil** Moebius 9010 S-6 S-4	**Oil quantity mark** NORMAL QUANTITY SUFFICIENT QUANTITY

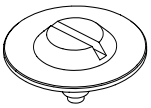
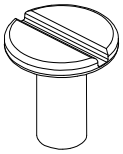
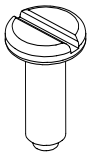
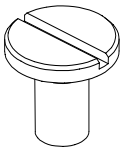


Remarks

㉘ Oscillating weight with ball bearing (Page 4)

Parts code	Marking
1509 324	Japan mark
1509 325	Malaysia mark

● **List of screws**

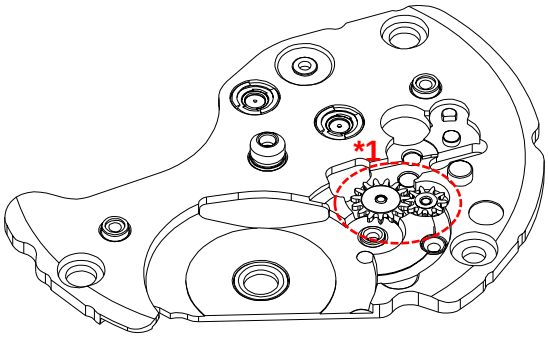
Parts No	Name	Parts No	Name
0012 919 	㉜ Ratchet wheel screw	0012 354 	㊾ Center wheel bridge screw
			㊱ Pallet bridge screw (×2)
0012 168 	㊺ Yoke spring screw (×2)		㊺ Lower plate for barrel and train wheel bridge screw
			㉙ Automatic train bridge screw (×2)
0012 100 	㊴ Barrel and train wheel bridge screw (×3)	0012 310 	⑲ Auxiliary main plate screw
	㉞ Balance bridge screw		③ Auxiliary train wheel bridge screw (×4)

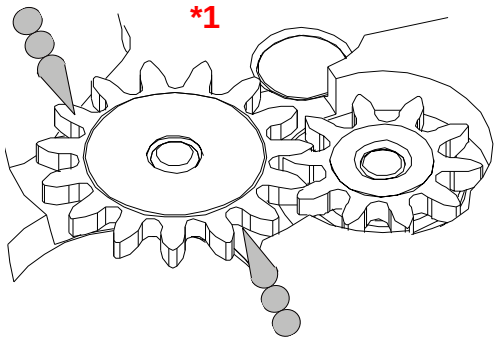
***All parts code are subject to change without notice.**

Type of oil	Oil quantity mark
S-6	NORMAL QUANTITY
S-4	SUFFICIENT QUANTITY
Moebius 9010	

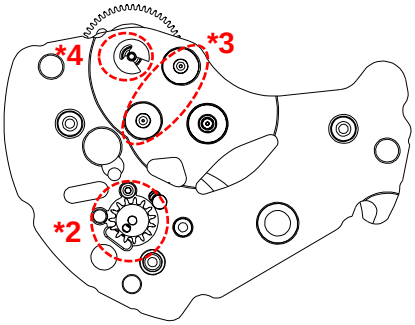
1.Oiling spot

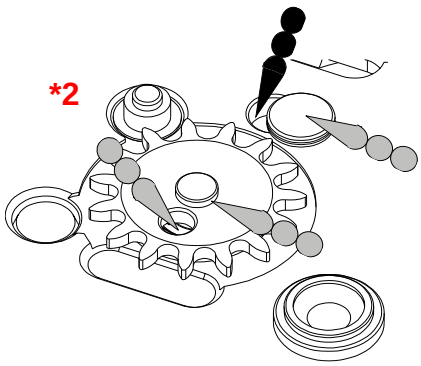
(1) ㊵ Barrel and train wheel bridge with hole jewel frame

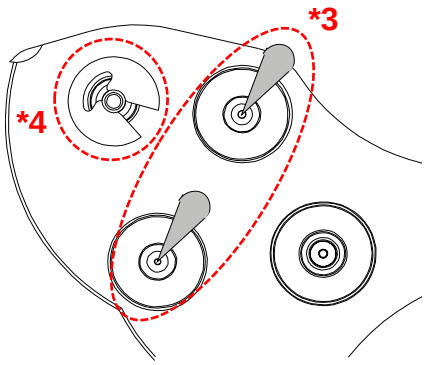




Barrel and train wheel bridge with hole jewel frame (back side)

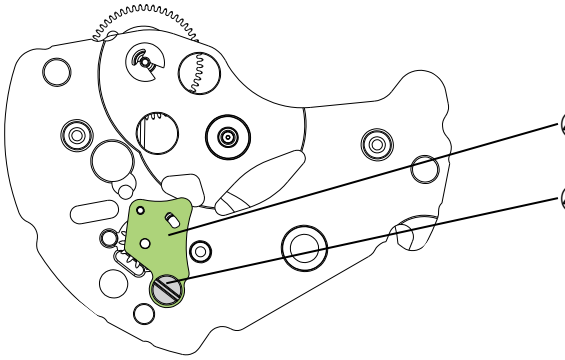






Note

***2** After oiling, set lower plate for barrel and train wheel bridge & screw.

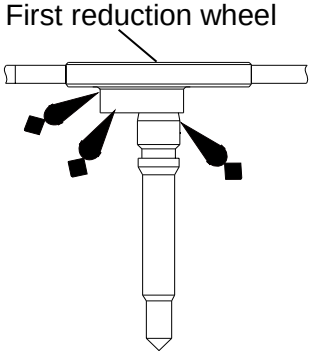


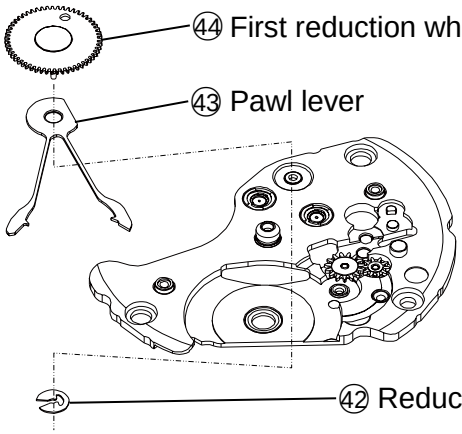
㊻ Lower plate for barrel and train wheel bridge

㊺ Lower plate for barrel and train wheel bridge screw

***4** After oiling, set <u>first reduction wheel</u> & <u>pawl lever</u> & <u>reduction wheel holder.</u>

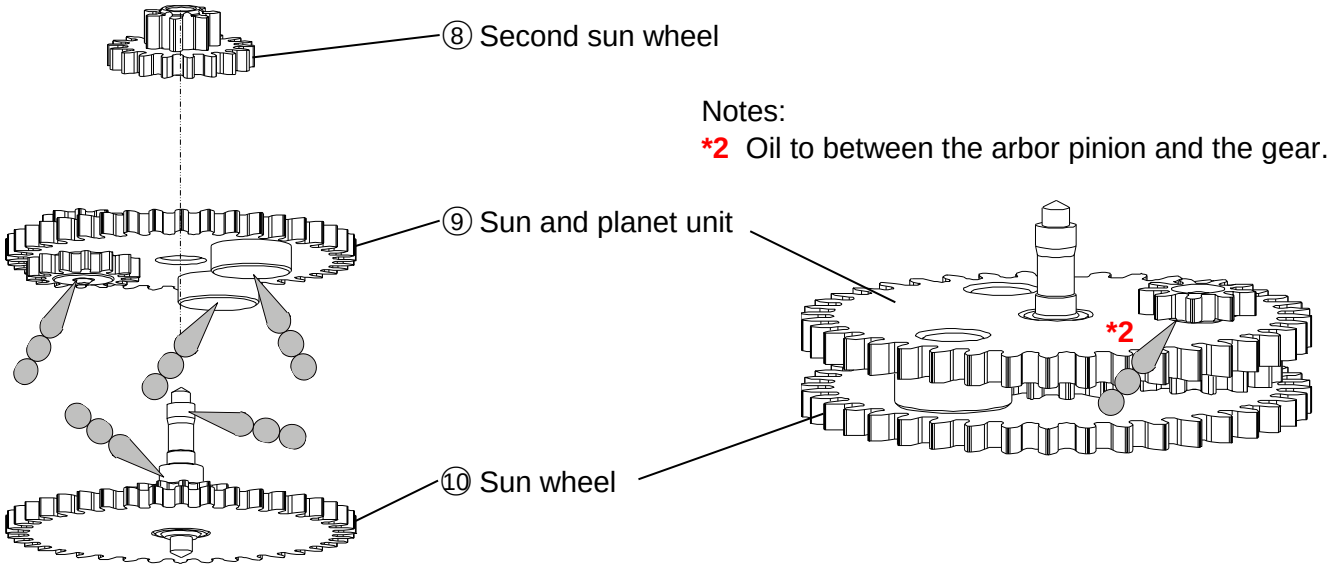
㊹ First reduction wheel





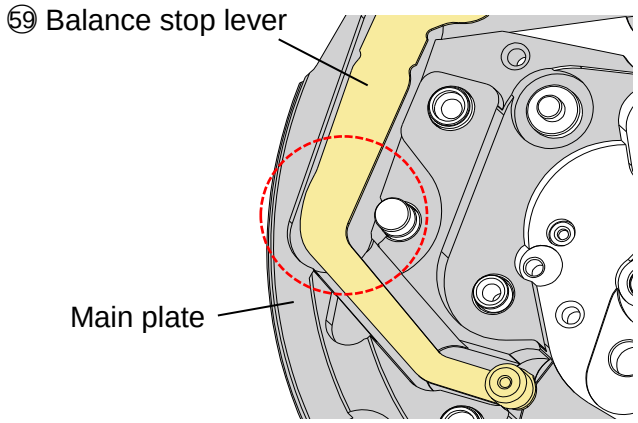
Type of oil	Oil quantity mark
S-6	NORMAL QUANTITY
S-4	SUFFICIENT QUANTITY
Moebius 9010	

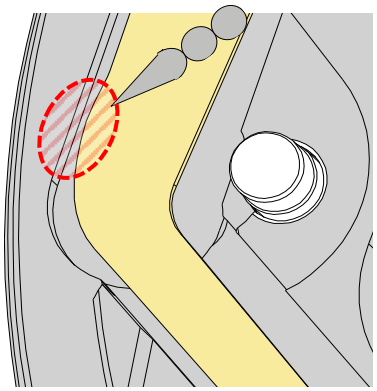
(2) Planet unit



Notes:
*2 Oil to between the arbor pinion and the gear.

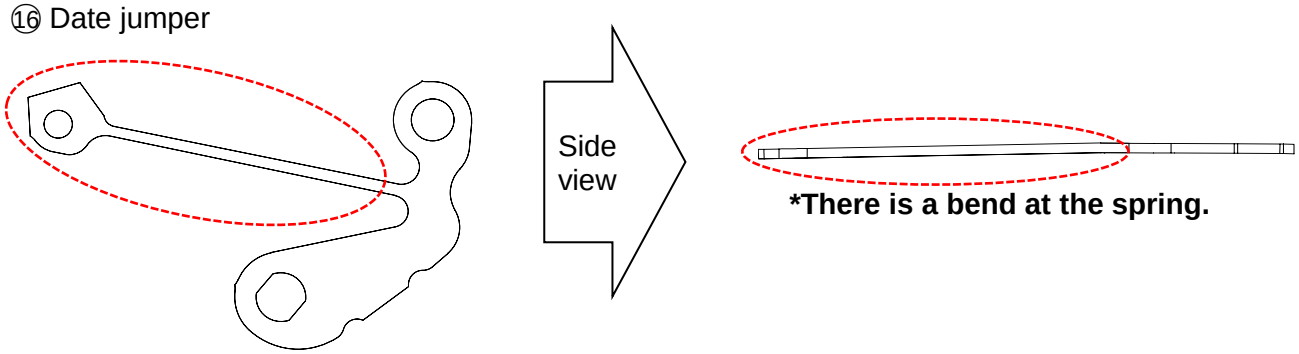
(3) Balance stop lever





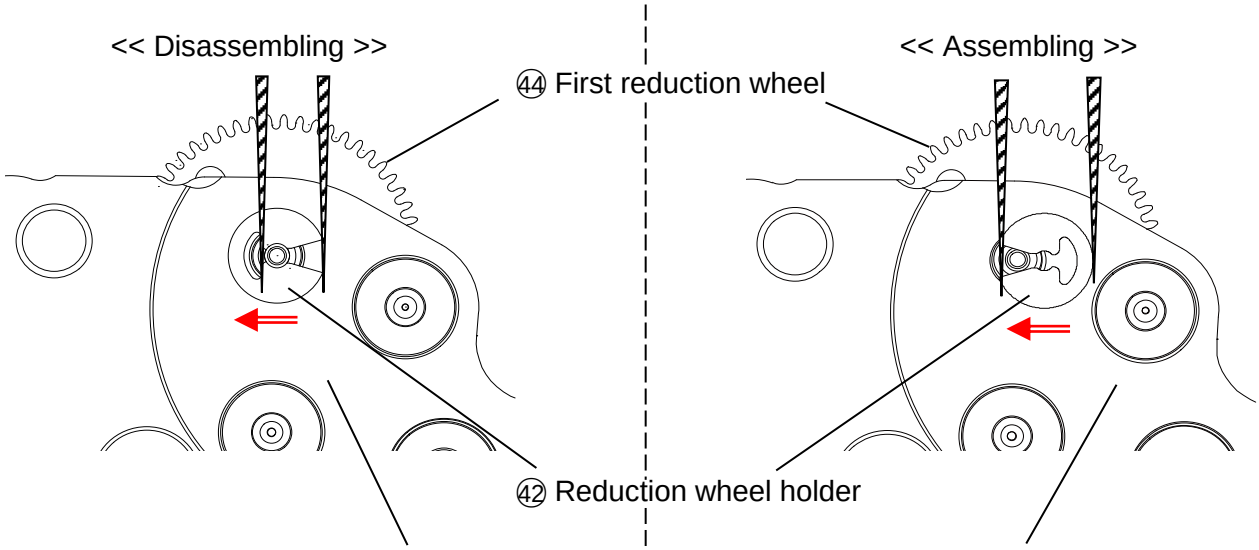
Contact part of main plate and balance stop lever

2.Method of identifying date jumper

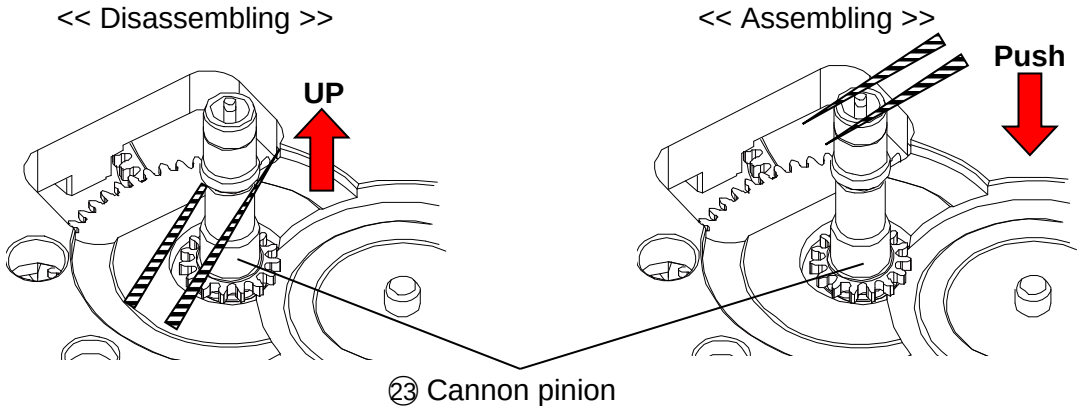


***There is a bend at the spring.**

3.Disassembling / assembling of the First reduction wheel



4.Disassembling / assembling of the cannon pinion

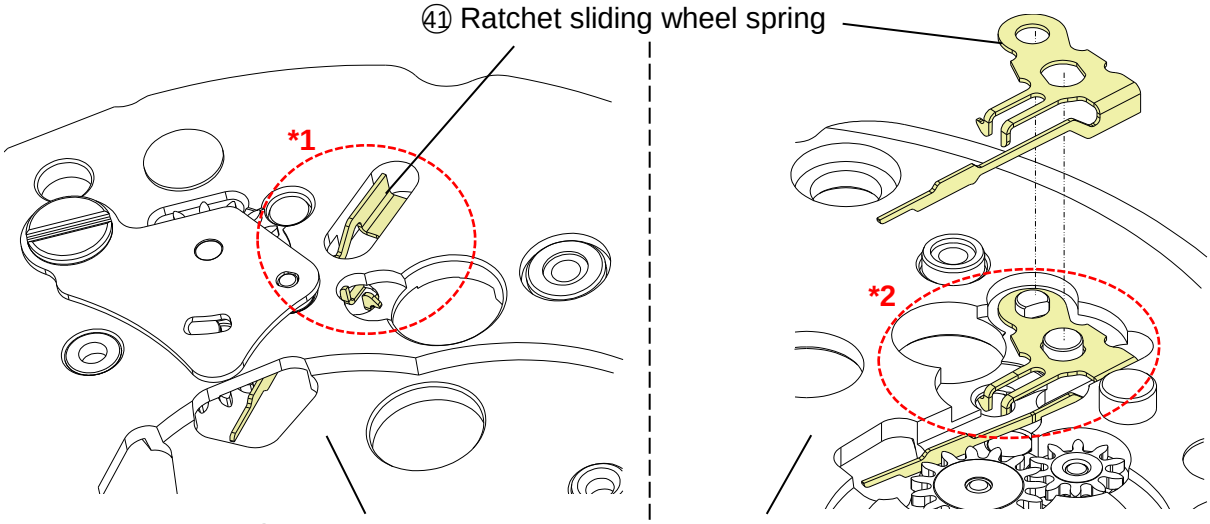


5.Disassembling / assembling of the Ratchet sliding wheel spring

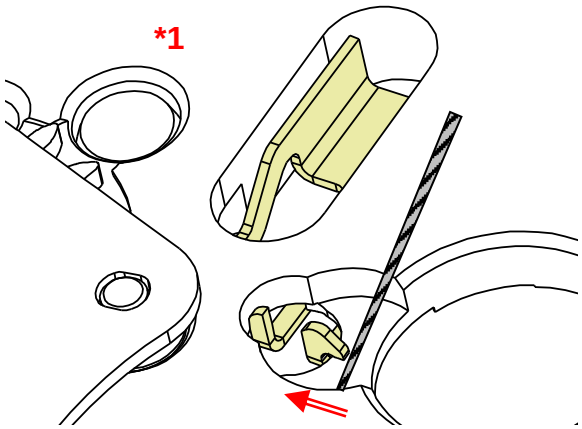
<< Disassembling >>

<< Assembling >>

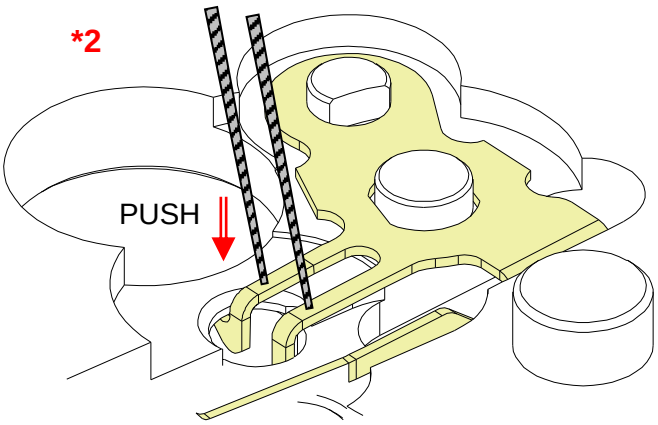
㊶ Ratchet sliding wheel spring



㊵ Barrel and train wheel bridge with hole jewel frame



Remove the hook of the ratchet sliding wheel spring from barrel and train wheel bridge with hole jewel frame.

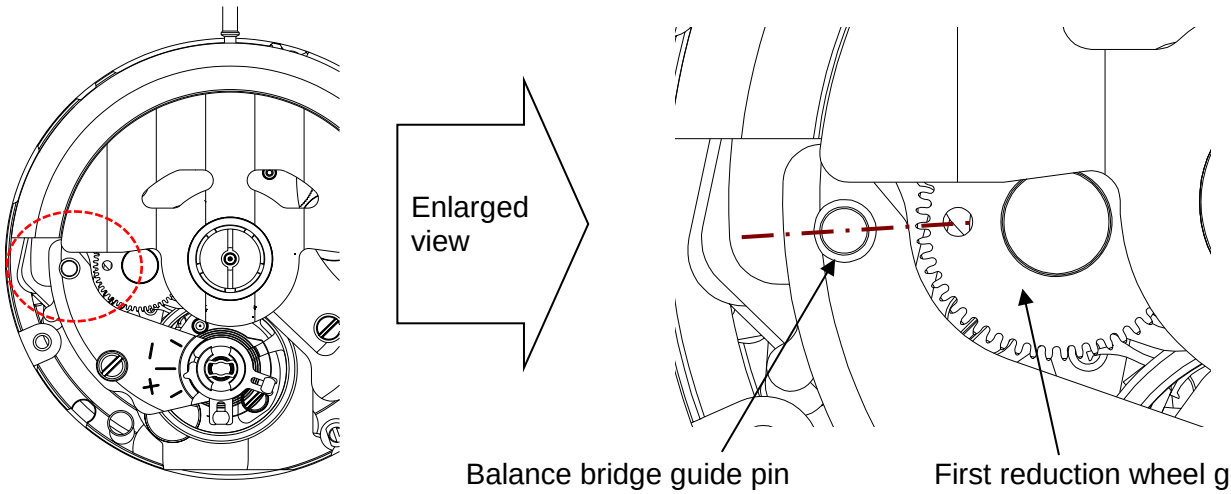


The hooks of ratchet sliding wheel spring are hung up on barrel and train wheel bridge with hole jewel frame.

6.Setting position of oscillating weight

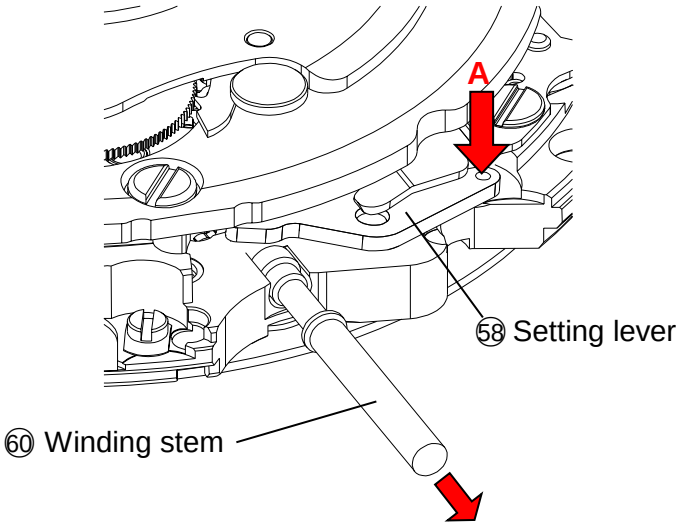
・Before assembling oscillating weight

Match the center of the oscillating weight and winding stem. Set the hole of first reduction wheel gear on the imaginary line toward the balance bridge guide pin.

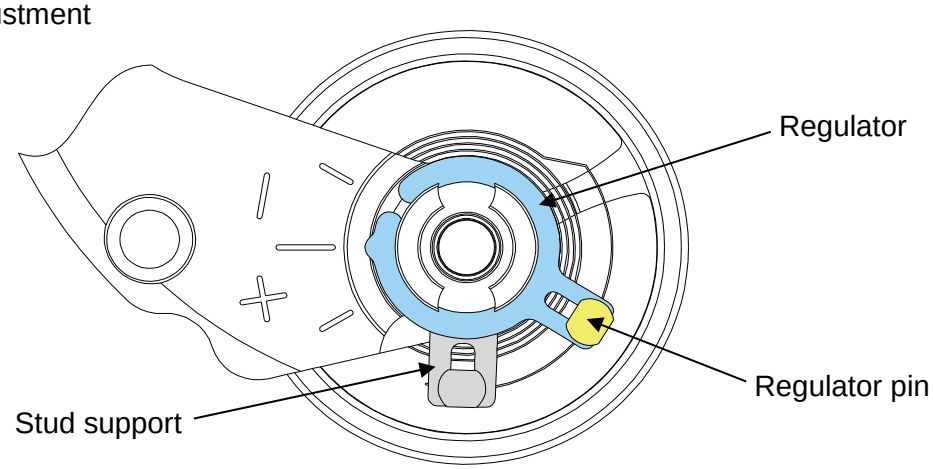


7.To remove the winding stem

1) Set the winding stem to normal position
2) Pull out the winding stem, while pushing "**A**"

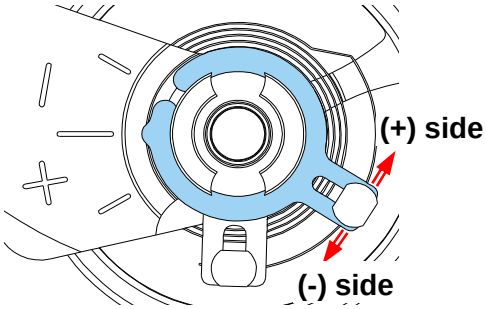


8.Accuracy adjustment

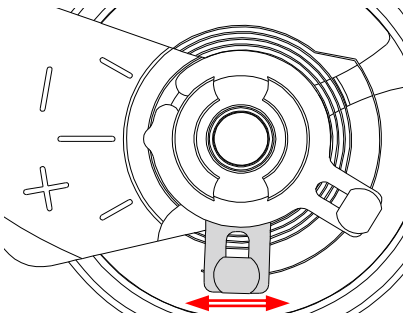


Note:

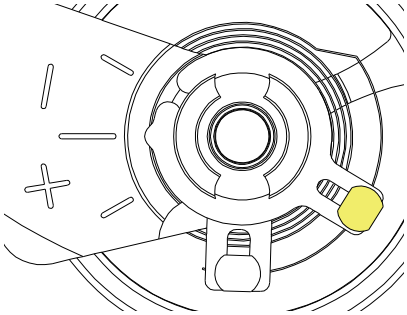
・Regulator (Time adjustment)



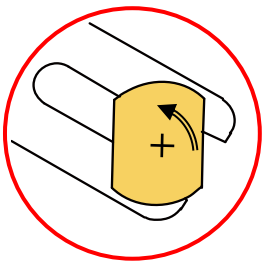
・Stud support (Beat error adjustment)



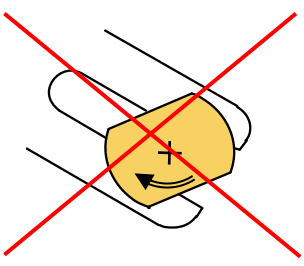
・Regulator pin (Gap adjustment of balance spring and regulator pin)



Anticlockwise rotation



No clockwise rotation



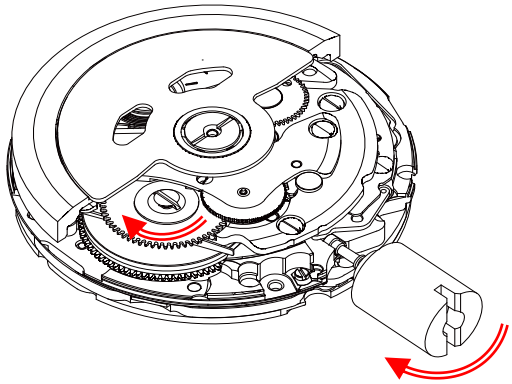
9.To wind up the mainspring

<<Movement>>

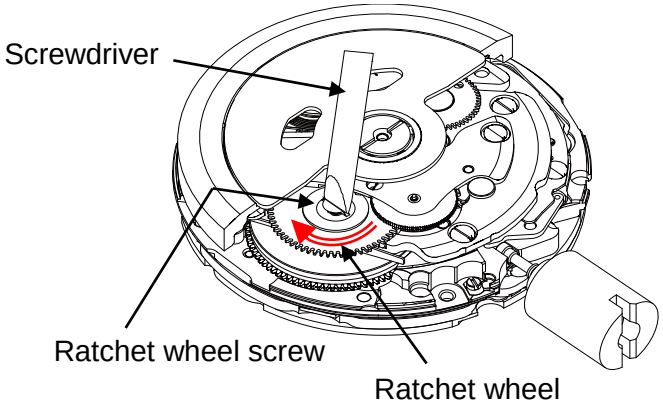
・Manual winding (Fully wound up by turning the crown minimum 55 times)

・Screwdriver winding (Fully wound up by turning the ratchet wheel screw 8 times)

[Manual winding]



[Screwdriver winding]



10.How to install hands

Place the movement directly on a flat metal plate or something similar to install the hands.

We recommend the use of movement holder to install hands.

For hands attachment, please use a special equipment.

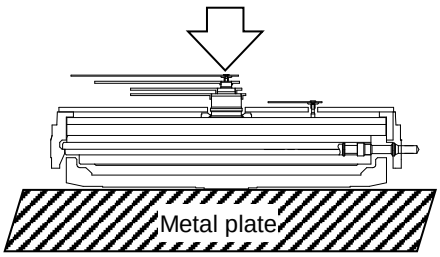
When the movement receives a strong shock, it may be damaged.

<<Note : Power reserve hand setting>>

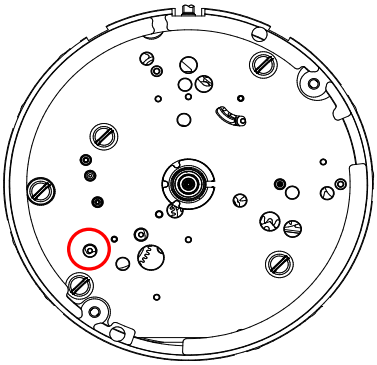
(1) The mainspring should be fully wound up before setting power reserve hand.

(2) Set power reserve hand at the fully wound up position of the dial graduation.

Static weighting

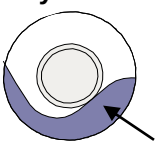


[How to Check]

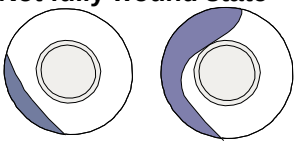


Enlarged view

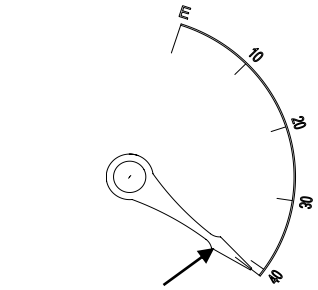
Fully wound state



Not fully wound state



[Hand setting position]



11.Accuracy measurement condition

Static Accuracy : - 20 ~ + 40 seconds per day

Measurement Conditions

1) Measurement should be done within 10 ~ 60 minutes after fully wound up.

2) Lift angle : 53 deg

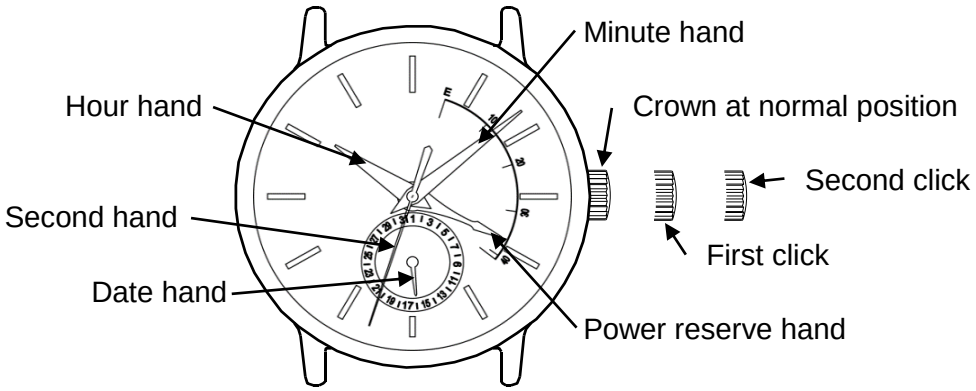
3) Measurement position : (1) Dial up (2) 9 o'clock up (3) 6 o'clock up

4) Minimum measurement Time : 20 seconds

5) Stabilizing Time :

Leave the watch for at least 20 seconds to stabilize after you change its measurement position.

[Operation manual]



1.How to set the time

1) Pull out the crown to the second click position.
2) Turn the crown to set hour and minute hands.
(Check that AM/PM is set correctly)
3) Push the crown back into the normal position.
*When time setting is performed in counterclockwise, date hands reverses.
Please reset by date correction.

2.How to set the Date hands

1) Pull out the crown to the first click position.
2) Turn the crown to left for date setting.
* Do not set the calendar between 9:00 P.M. and 2:00 A.M. If the setting of the calendar is made during this period, the date will not change to the next date.
Please set the calendar after changing the time other than the above period.
3) Push the crown back into the normal position.

3.To wind up the mainspring

a) Manual winding (Rotate the crown clockwise at normal position)
Fully wound up by turning the crown minimum 55 times. It will start to move naturally after shaking slightly.

b) To wind up with winding machine.
Full wind up conditions (Reference information)
・Rotary speed : 30 rpm
・Operating time : 60 minutes