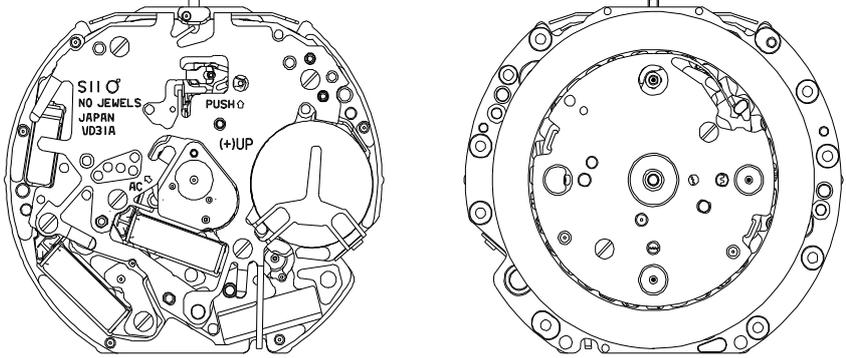


**TECHNICAL GUIDE**  
**&**  
**PARTS CATALOGUE**  
**Cal.VD31&VD32**  
**ANALOGUE QUARTZ**

**SII Products**

**[SPECIFICATION]**

Item		Cal. No.	VD31&VD32		
Movement			 <p><b>*Cal VD32 ... Cal.VD31 without calendar</b></p>		
Movement size	Outside diameter	φ 29.50 mm × 26.00 mm (3H-9H)			
	Casing diameter	φ 28.80 mm			
	Total height	Cal.VD31...4.57 mm Cal.VD32...3.97 mm			
Time indication		3 Hands ( Hour , Minute , Second ) Dual time of 24 hour , 24 hour hands , Calendar (Cal.VD31 only)			
Driving System		Two pole stepping motor Step motor 2 pieces			
Additional mechanism		Electronic circuit reset switch Second setting device Date setting (Cal.VD31 only) Time difference correction [ Time ] Indicated by Hour , Minute , Second and 24 hour hands Dual time of 24 hour hand [ Dual time of 24 hour ] ±1hour / push			
Antimagnetic		≥ 1600A/m			
Accuracy		Less than ± 20seconds : Monthly rate at normal temperature range			
Battery		SR920SW (Silver oxide battery) Battery life is approximately 2 years			
Measuring gate by quartz tester		Use 10-second gate *Set the winding stem with crown at the normal position			
Jewels		0 Jewel			
Crown position	Cal.	VD31	VD32		
	Normal position	Free	Free		
	First click	Left rotation	Free	Time setting with stop-second device	
		Right rotation	Date setting		
Second click	Time setting with stop-second device		-		
Buttons	Button A	-1hour/push Time difference correction			
	Button B	+1hour/push Time difference correction			

Disassembling procedures Figs. ① ⇒ ④②

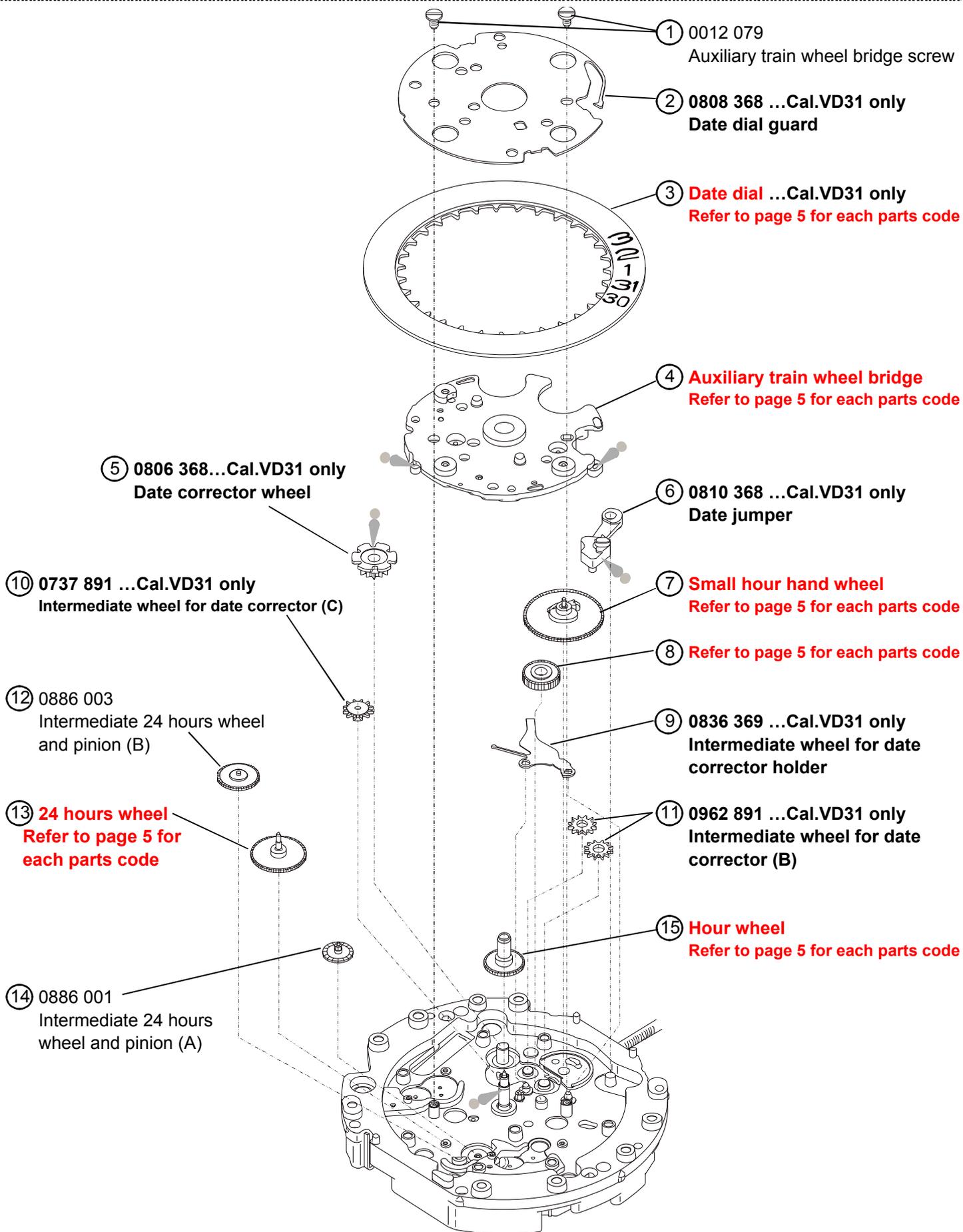
Reassembling procedures Figs. ④② ⇒ ①

Type of oil

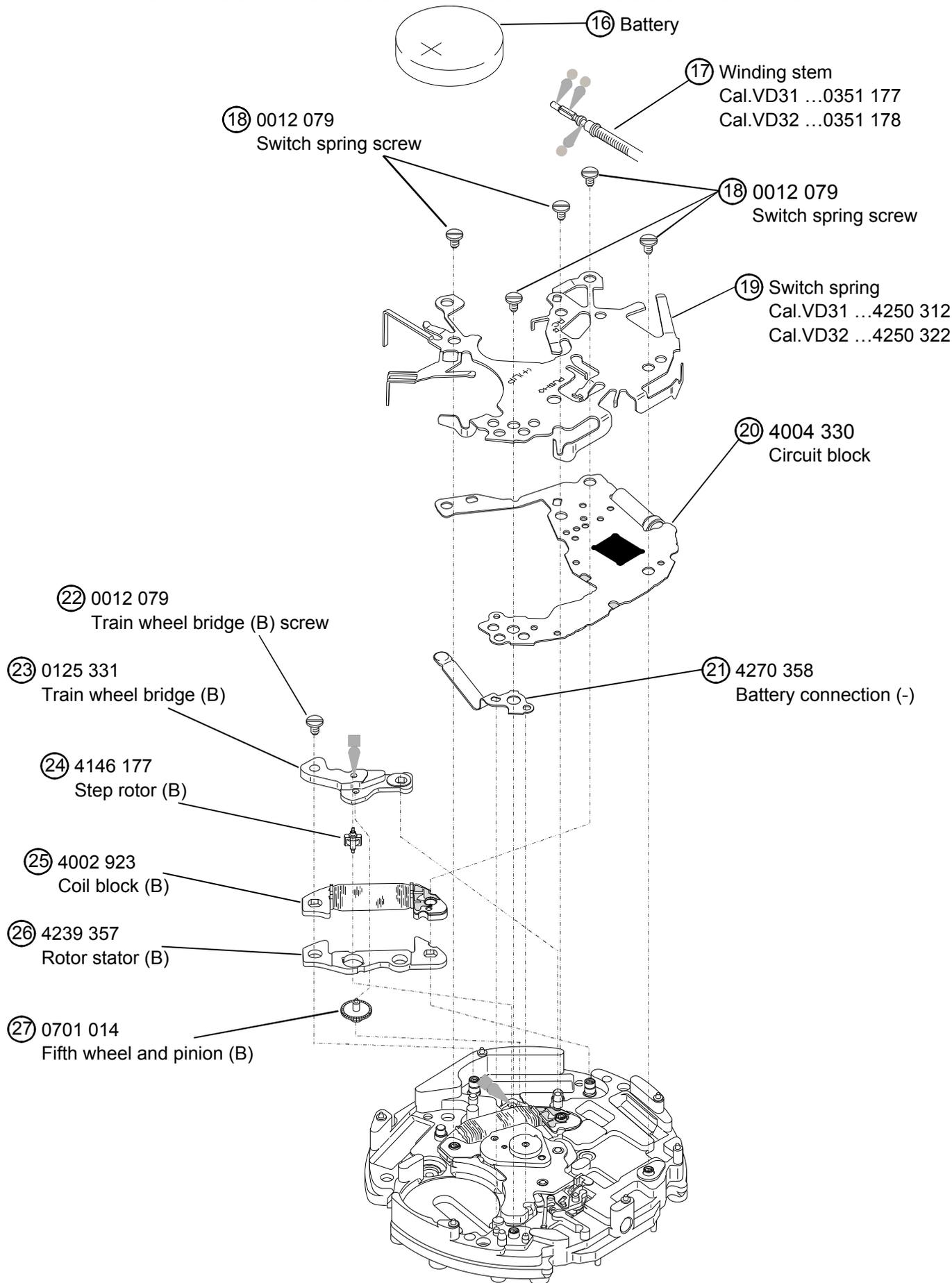
-  Moebius 9010
-  Moebius 9030

Oil quantity mark

-  NORMAL QUANTITY
-  SUFFICIENT QUANTITY

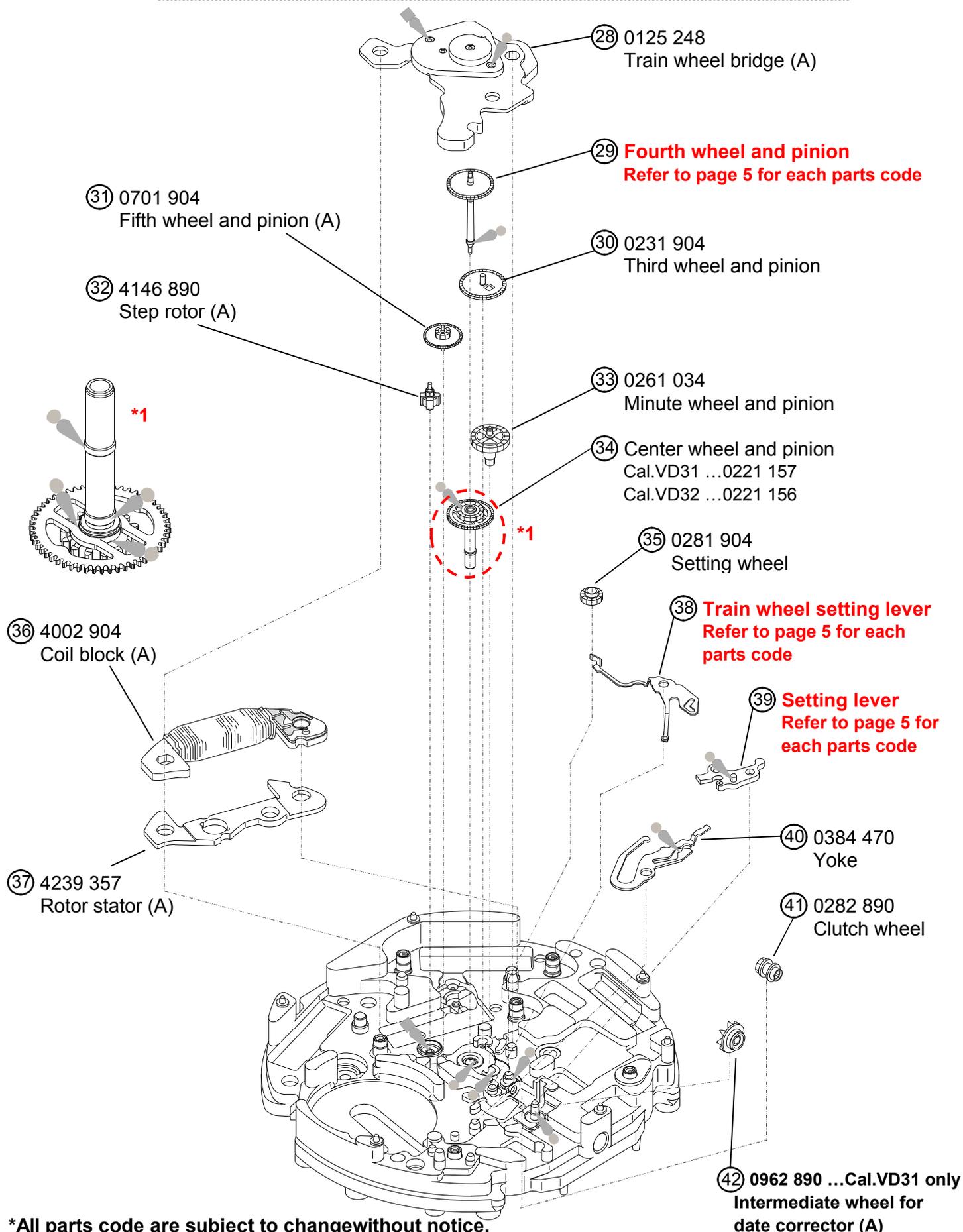


Type of oil	Oil quantity mark
 Moebius 9010	 NORMAL QUANTITY
 Moebius 9030	 SUFFICIENT QUANTITY



\*All parts code are subject to changewithout notice.

Type of oil	Oil quantity mark
Moebius 9010	NORMAL QUANTITY
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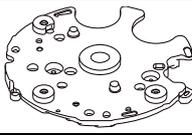
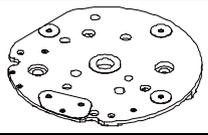
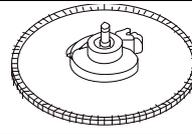
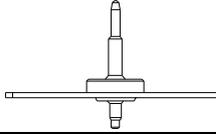
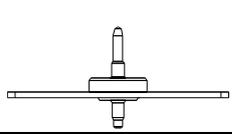
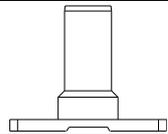
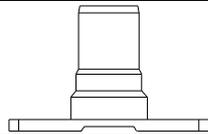
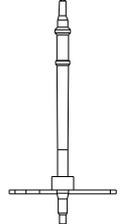
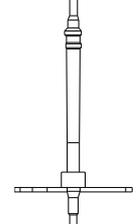
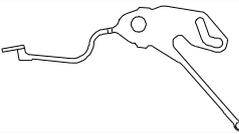
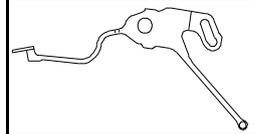
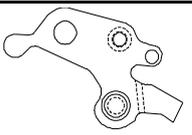
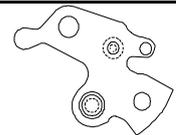


\*All parts code are subject to changewithout notice.

Remarks:

③ Date dial ...Cal.VD31 only

Part code	Position of crown	Position of date frame	Color of figure	Color of background
0878 165	3H	6H	Black	White
0878 258	3H	6H	White	Black

Page	No	Parts name	Parts code VD31	Parts form	Parts code VD32	Parts form
P-2	4	Auxiliary train wheel bridge	0126 368		0126 357	
	7	Small hour hand wheel	0157 006		0157 130	
	8	Intermediate date driving wheel ...Cal.VD31 Intermediate small hour hand wheel ...Cal.VD32	0817 368		0817 357	
	13	24 hour wheel	0902 016		0902 015	
	15	Hour wheel	0271 407		0271 406	
P-4	29	Fourth wheel and pinion	0241 178		0241 177	
	38	Train wheel setting lever	0391 368		0391 357	
	39	Setting lever	0383 368		0383 470	

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

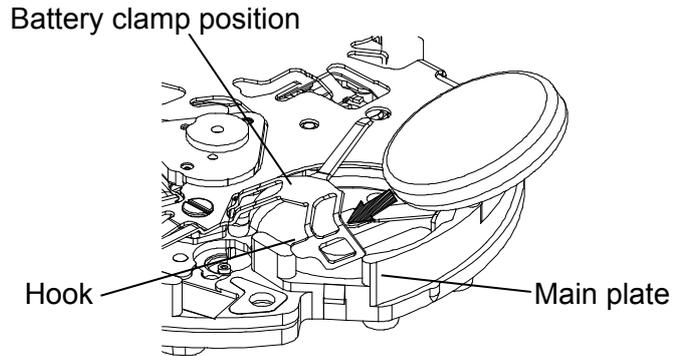
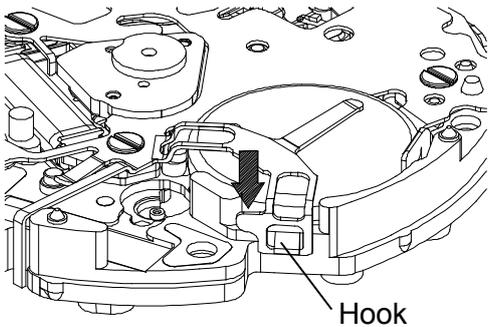
•The explanation here is only for the particular point of Cal.VD31&VD32

1.REMARKS ON INSTALLING THE BATTERY

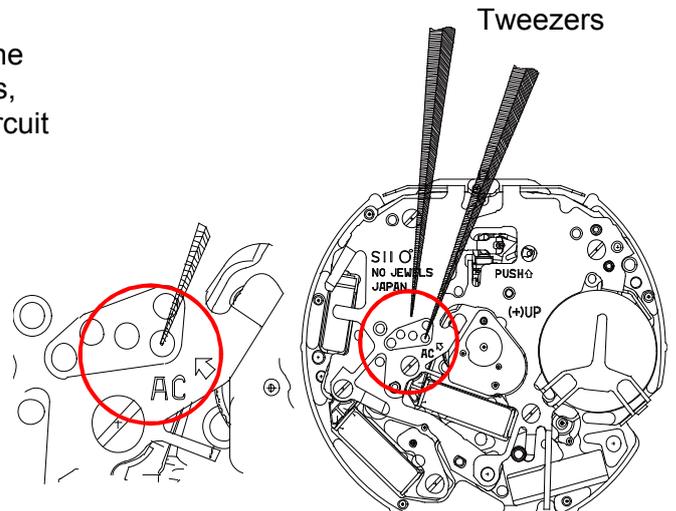
(1) Battery

•How to install the battery

- ① Remove the hook of the switch springs battery clamp portion.
- ② Insert the battery sideways, and have the hook of the switch springs battery clamp portion catch the main plate.



- (2) After the battery is replaced with a new one or after the battery is reinstalled following the repairing procedures, Be sure to touch the short-circuit the AC terminal of circuit block and the switch spring with conductive tweezers to reset the circuit as illustrated at right.



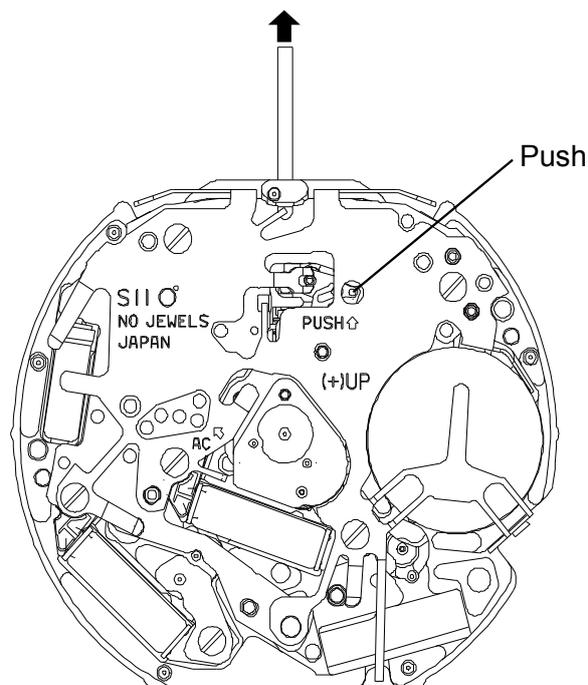
- (3) When the battery replaced with a new one, the time information stored in the built-in IC and the time indicated by the dual time of 24 hour hand do not correspond with each other. Reset the dual time of 24 hour hand to "0" position following the procedure below. If the dual time of 24 hour hand should move improperly, also follow the same procedure.

Note.

Refer to page 8 for each adjustment method.

2.To remove the winding stem

- (1) set the winding stem to normal position.
- (2) While pushing the indented portion of the arrow, pull out the winding stem.



3.How to attach hands

Place the movement directly on a flat metal plate or the like and press in the hands.

\*install the hour , minute and second hands at the "12"o'clock position.

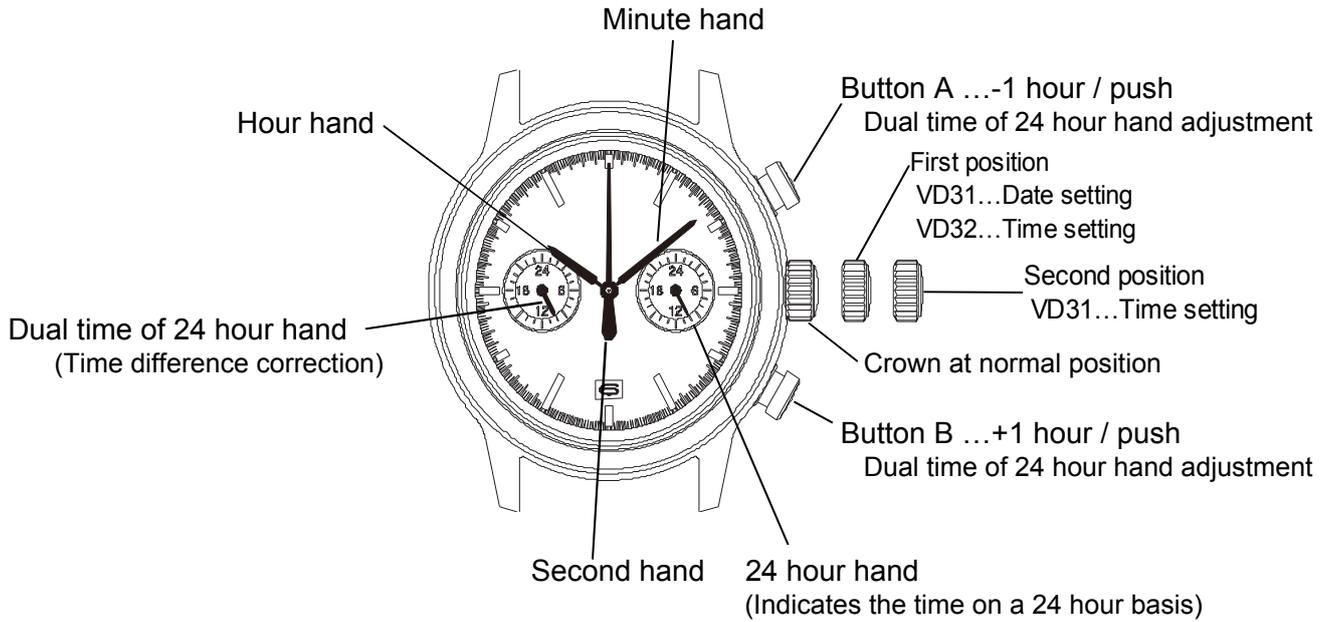
\*Install the 24 hour indicator at the "24" position.

\*Install the dual time of 24 hour hand at the "24" position respectively.

**[ Reference ]** The power of press hands

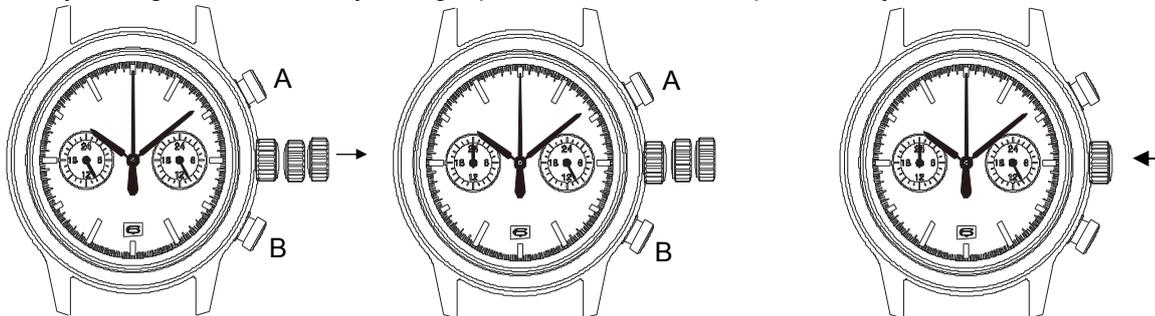
Minute & Hour Hands	< 5kg
Second Hand	< 5kg
24 hour indicator	< 3kg
Dual time of 24 hour hand	< 3kg

**DISPLAY AND CROWN / BUTTON OPERATION**



**ADJUSTING THE DUAL TIME OF 24 HOUR HAND POSITION**

Before setting the time, check if the dual time of 24 hour hand is in the "0"(24 o'clock) position. If the dual time of 24 hour hand is not in the "0" position, reset them following the procedure below. The battery setting and after battery change, please execute the "0" position adjustment.



1.Pull out the crown  
VD31...second click  
VD32...first click

2.Keep the buttons "A"&"B"  
pressed at the same time  
more than 2 seconds,  
and then release the buttons.

3.Press button A or B to reset the  
dual time of 24 hour hand to  
"0"position.

\*By pressing button A the hand  
move counter clockwise.

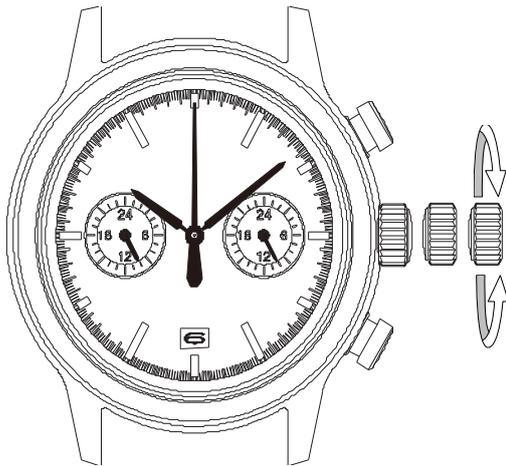
\*By pressing button B the hand  
move clockwise.

\*Press and hold the button,  
possible to fast-forward modification.

4.Push the crown back to  
the normal position.

\*Dual time of 24 hour hand moves.  
Returned to where it was.  
However, confirmation is difficult  
because the amount of movement  
is small.

**TIME SETTING**



1. Pull out the crown when the second hand is at the 12 o'clock position.  
[ Crown position ]  
VD31...second click.  
VD32...first click.
2. Turn the crown to set the hour and minute hands.  
(Check that 24 hour hand is set correctly)
3. Push the crown back normal position in accordance with a time signal.

**Note**

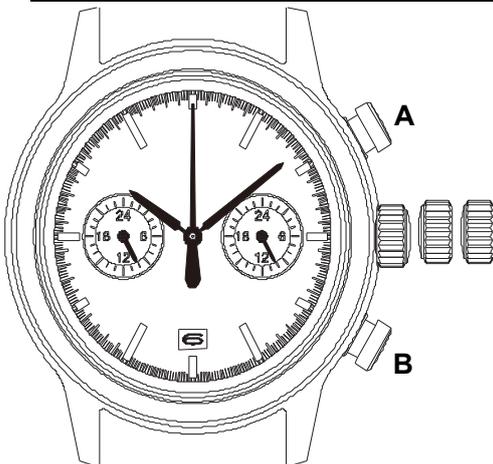
- \*The 24 hour hand moves correspondingly with the hour hand.
- \*The moment of the date changes is midnight. when setting the hour hand, make sure that AM/PM is correctly set by using the 24 hour hand as an AM/PM indicator.

■ Using the time difference correction

When moving to a country or area which is in a different timezone , the current time in the local time can be corrected.

1. Crown at the normal position.
2. To adjust the time by pressing the button A or B.
  - \*By pressing button A the hands move counter clockwise. -1hour / push
  - \*By pressing button B the hands move clockwise. +1hour / push

**TIME SETTING...DUAL TIME OF 24 HOUR HAND**



1. Pull out the crown when the second hand is at the 12 o'clock position.  
[ Crown position ]  
VD31...second click.  
VD32...first click.
2. To adjust the time by pressing the buttons A or B.  
By pressing button A the hands move counter clockwise.  
By pressing button B the hands move clockwise.  
\*Press and hold the button, possible to fast-forward modification.
3. Push the crown back in to the normal position.

**DATE SETTING ... Cal.VD31 only**

\*Before setting the date, be sure to set the time.



- 1.Pull out the crown to the first click.
- 2.Turn the crown to clockwise until the next date appears.
- 3.Push the crown back in to the normal position.

**Note**

\*Do not set the date during any time between 9:00 P.M. and 1:00 A.M.

Otherwise, the date may not change properly. If it is necessary to set the date during that time period, First change the time to any time outside it, set the date and then reset the correct time.