TIME MODULE

Revised on : 17. 03. 2014

TECHNICAL GUIDE

&

PARTS CATALOGUE

Cal.VK61/64

ANALOGUE QUARTZ

SII Products

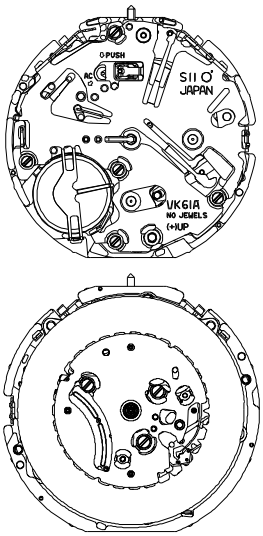
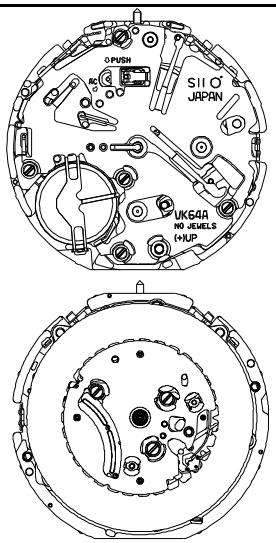
PARTS CATALOGUE / TECHNICAL GUIDE

Cal. VK61/64

TIME MODULE

[SPECIFICATION]

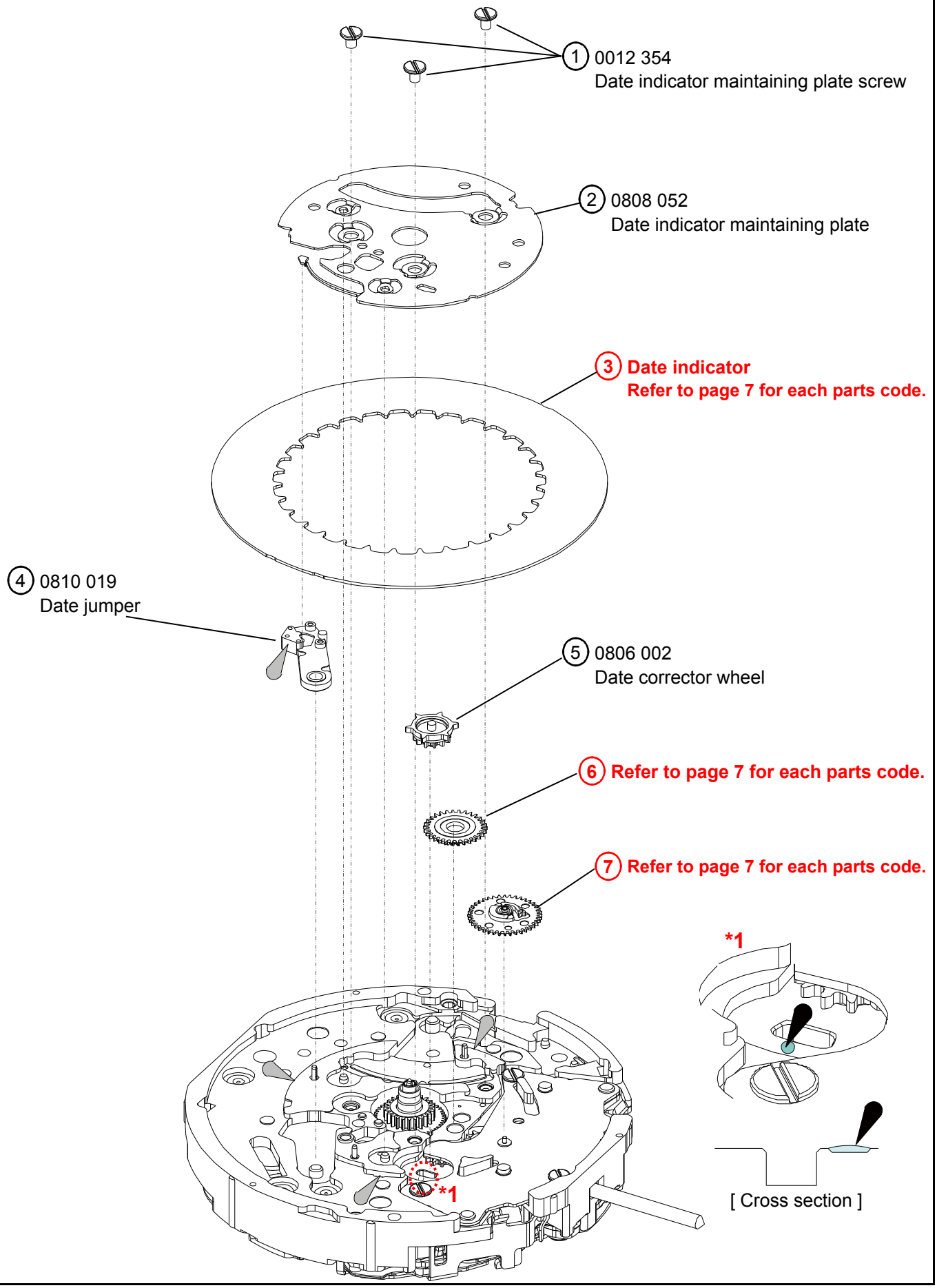
Version-02

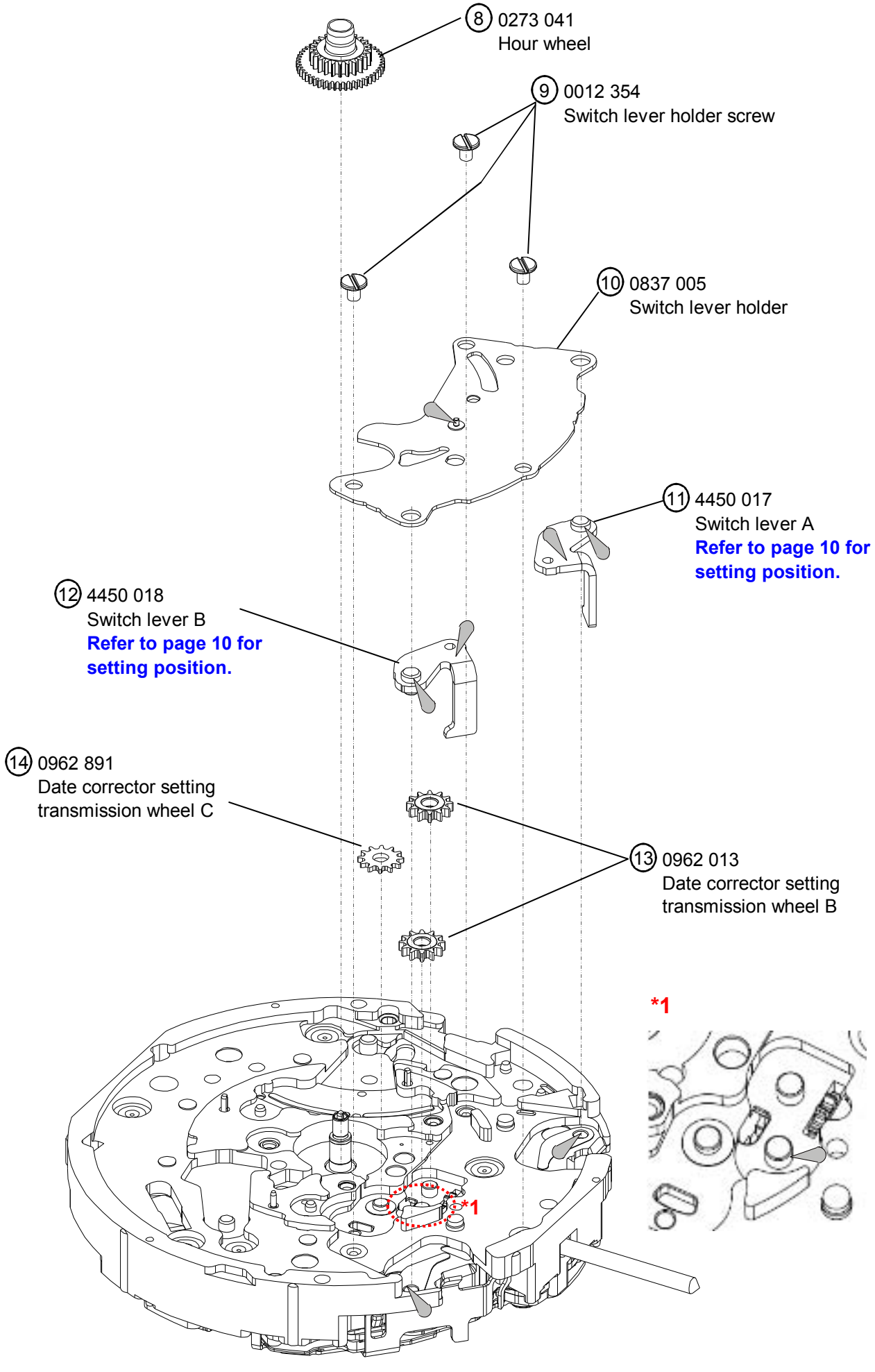
Item \ Cal. No.		VK61	VK64
Movement			
Movement size	Outside diameter	φ30.80 mm × 29.10 mm (3H - 9H)	
	Casing diameter	φ29.00 mm	
	Total height	5.10 mm	
Time indication	2 Hands (hour , minute)	O	O
	Date Calendar	O	O
	Small second hand (6H)	O	-
	Center chronograph (1/5 second)	O 60 second per round	O 60 second per round
	60 minutes counter (12H)	O	-
	60 minutes counter (9H)	-	O
	24 hour indicator (3H)	-	O
Driving System		Two pole stepping motor Step motor 2 pieces	
Additional mechanism		Date display with quick correction Electronic circuit reset switch Time setting with stop-second	
Accuracy		Less than ± 20 seconds : Monthly rate at normal temperature range	
Battery		SR936SW (Silver oxide battery) Battery life is approximately 3 years (60 minutes chronograph operation per day)	
Measuring gate by quartz tester		Use 10-second gate *Set the winding stem with crown at the normal position	
Antimagnetic		≧ 1600 A/m	
Jewels		0 Jewel	

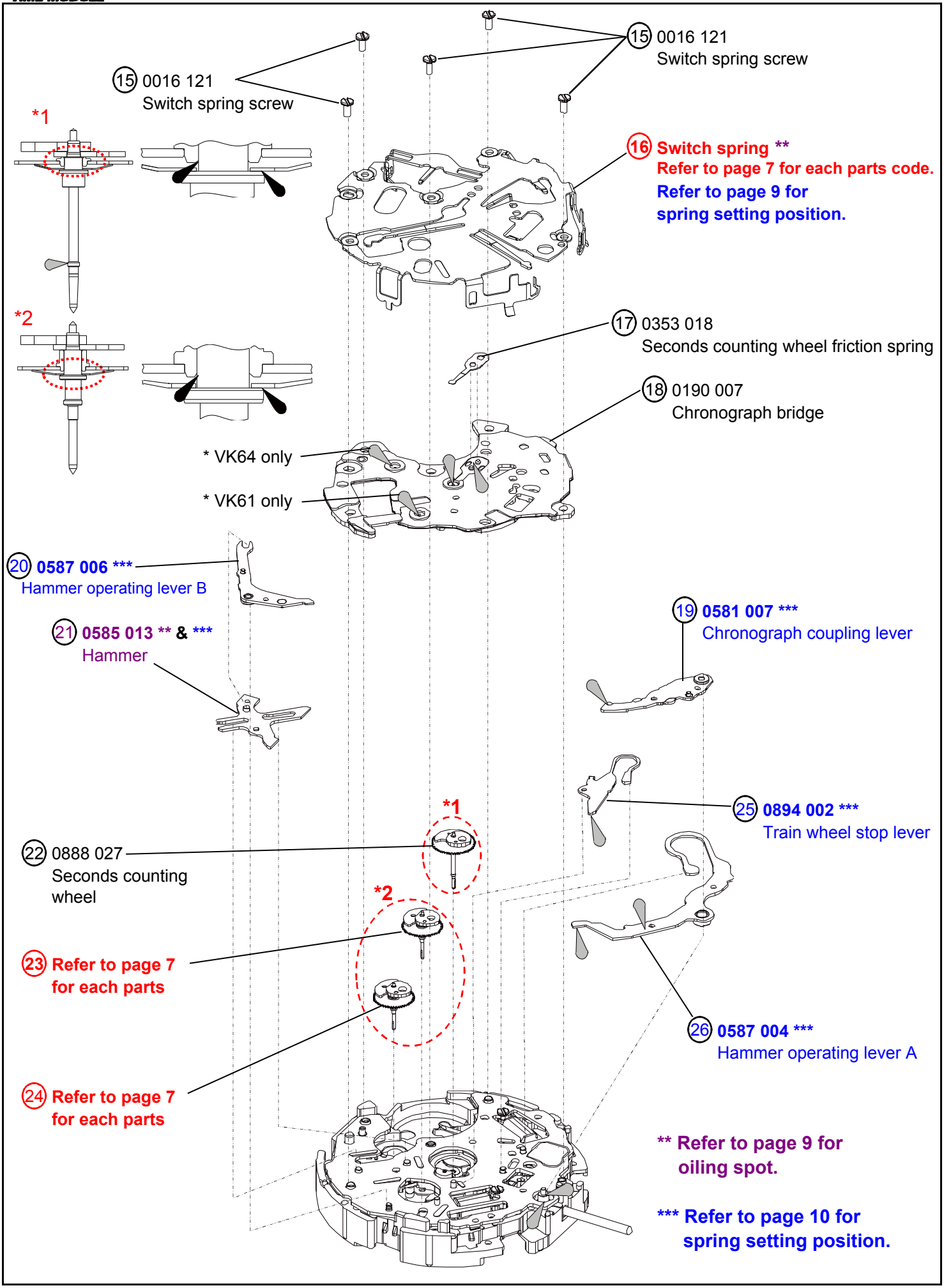
Disassembling procedures Figs. (1) → (61)
Reassembling procedures Figs. (61) → (1)

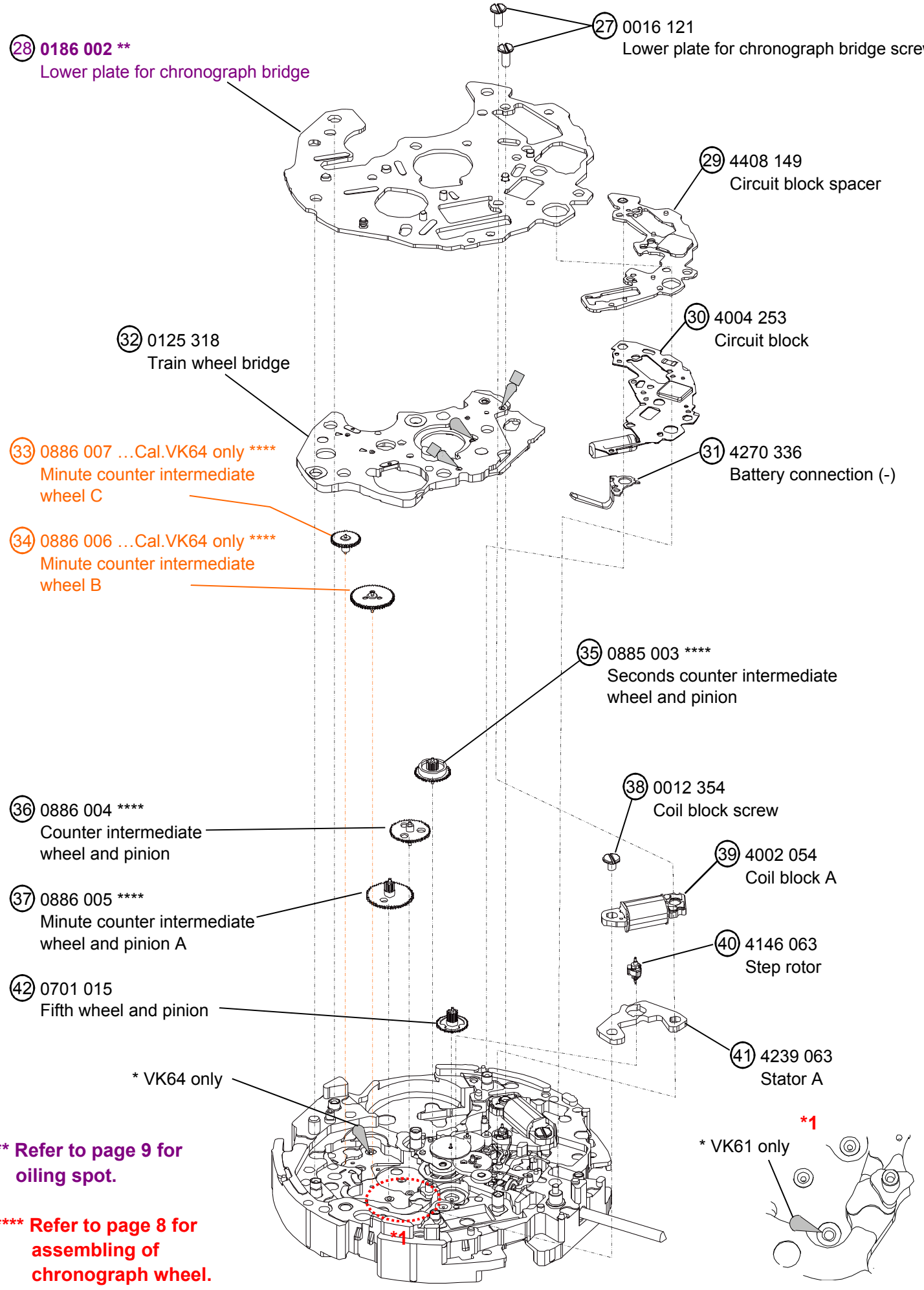
Type of oil
Moebius A
Moebius F

Oil quantity mark
NORMAL QUANTITY
SUFFICIENT QUANTITY



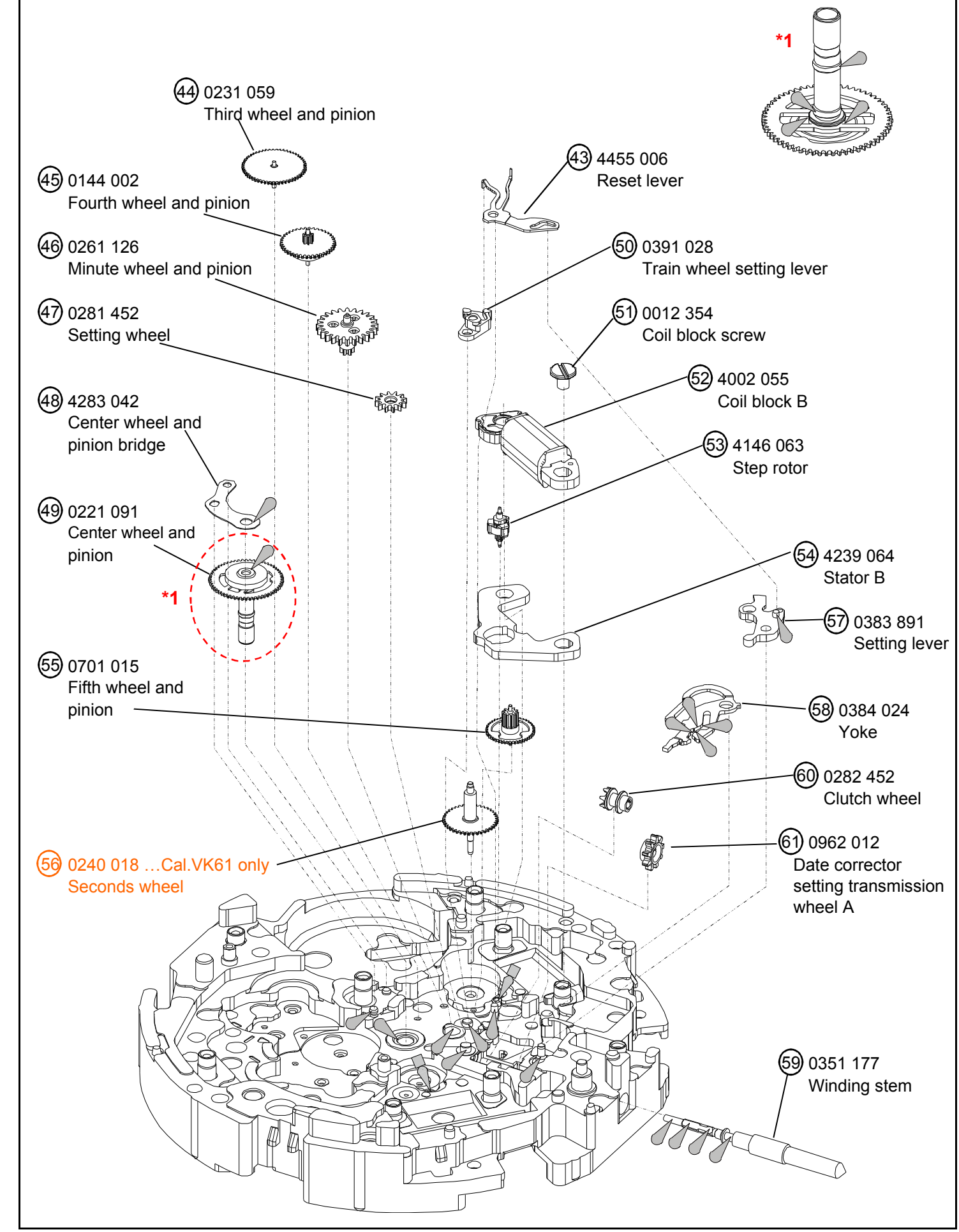

8 0273 041
Hour wheel
9 0012 354
Switch lever holder screw
10 0837 005
Switch lever holder
11 4450 017
Switch lever A
Refer to page 10 for setting position.
12 4450 018
Switch lever B
Refer to page 10 for setting position.
14 0962 891
Date corrector setting transmission wheel C
13 0962 013
Date corrector setting transmission wheel B
*1
*1


15 0016 121
Switch spring screw
15 0016 121
Switch spring screw
*1
16 Switch spring **
Refer to page 7 for each parts code.
Refer to page 9 for
spring setting position.
*2
17 0353 018
Seconds counting wheel friction spring
18 0190 007
Chronograph bridge
* VK64 only
* VK61 only
20 0587 006 ***
Hammer operating lever B
19 0581 007 ***
Chronograph coupling lever
21 0585 013 ** & ***
Hammer
25 0894 002 ***
Train wheel stop lever
*1
22 0888 027
Seconds counting
wheel
*2
23 Refer to page 7
for each parts
26 0587 004 ***
Hammer operating lever A
24 Refer to page 7
for each parts
** Refer to page 9 for
oiling spot.
*** Refer to page 10 for
spring setting position.

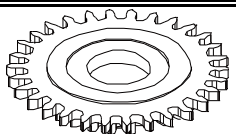
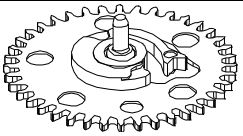
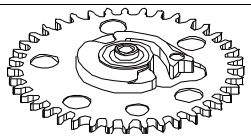
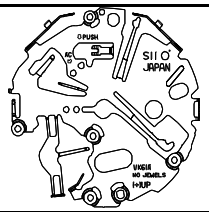
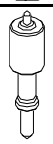
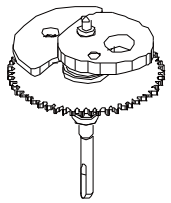
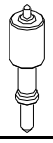


** Refer to page 9 for oiling spot.

**** Refer to page 8 for assembling of chronograph wheel.

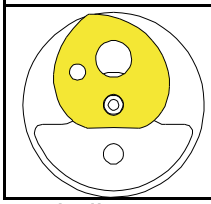
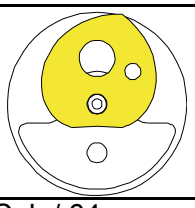
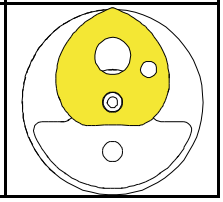

*1
44 0231 059
Third wheel and pinion
43 4455 006
Reset lever
45 0144 002
Fourth wheel and pinion
50 0391 028
Train wheel setting lever
46 0261 126
Minute wheel and pinion
51 0012 354
Coil block screw
47 0281 452
Setting wheel
52 4002 055
Coil block B
48 4283 042
Center wheel and pinion bridge
53 4146 063
Step rotor
49 0221 091
Center wheel and pinion
*1
54 4239 064
Stator B
57 0383 891
Setting lever
55 0701 015
Fifth wheel and pinion
58 0384 024
Yoke
60 0282 452
Clutch wheel
56 0240 018 …Cal.VK61 only
Seconds wheel
61 0962 012
Date corrector setting transmission wheel A
59 0351 177
Winding stem

Remarks: **Different parts for each CAL.**

No	Cal. VK61	Cal. VK64	Parts code	Parts name	Parts form
⑥	-	O	0817 048	Intermediate small hour hand wheel and pinion	
	O	-		Intermediate date wheel and pinion	
⑦	-	O	0157 012	Small hour hand wheel	
	O	-	0802 039	Date indicator driving wheel	
⑯	O	-	4250 058	Switch spring (Differs by Cal. marking)	
	-	O	4250 059		
㉓	-	O	0685 003	Positioning arbor	
	O	-	**0902 011 or 0902 017**	Minute counting wheel	
㉔	-	O	**0740 002 or 0902 017**	Minute counting wheel	
	O	-	0685 003	Positioning arbor	

[NOTE]

How to distinguish "Parts code: 0902-011,0740-002 and 0902-017 "

Parts code		
0740 002	**0902 011**	**0902 017**
		

Confirm shape difference to distinguish each parts.

③ Date indicator …Cal. / 64 common parts

Cal.	Parts code	Crown position	Date position	Color of figure	Color of background
VK61	0878 328	3H	3H (4.5H)	Black	White
	0878 329	3H	3H (4.5H)	White	Black
VK64	0148 070	3H	6H	Black	White
	0148 071	3H	6H	White	Black

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

1.Detailed assembling of chronograph wheel

[NOTE]

There is a mark on parts. Parts are set in order of the mark as shown in the table below.

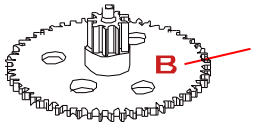
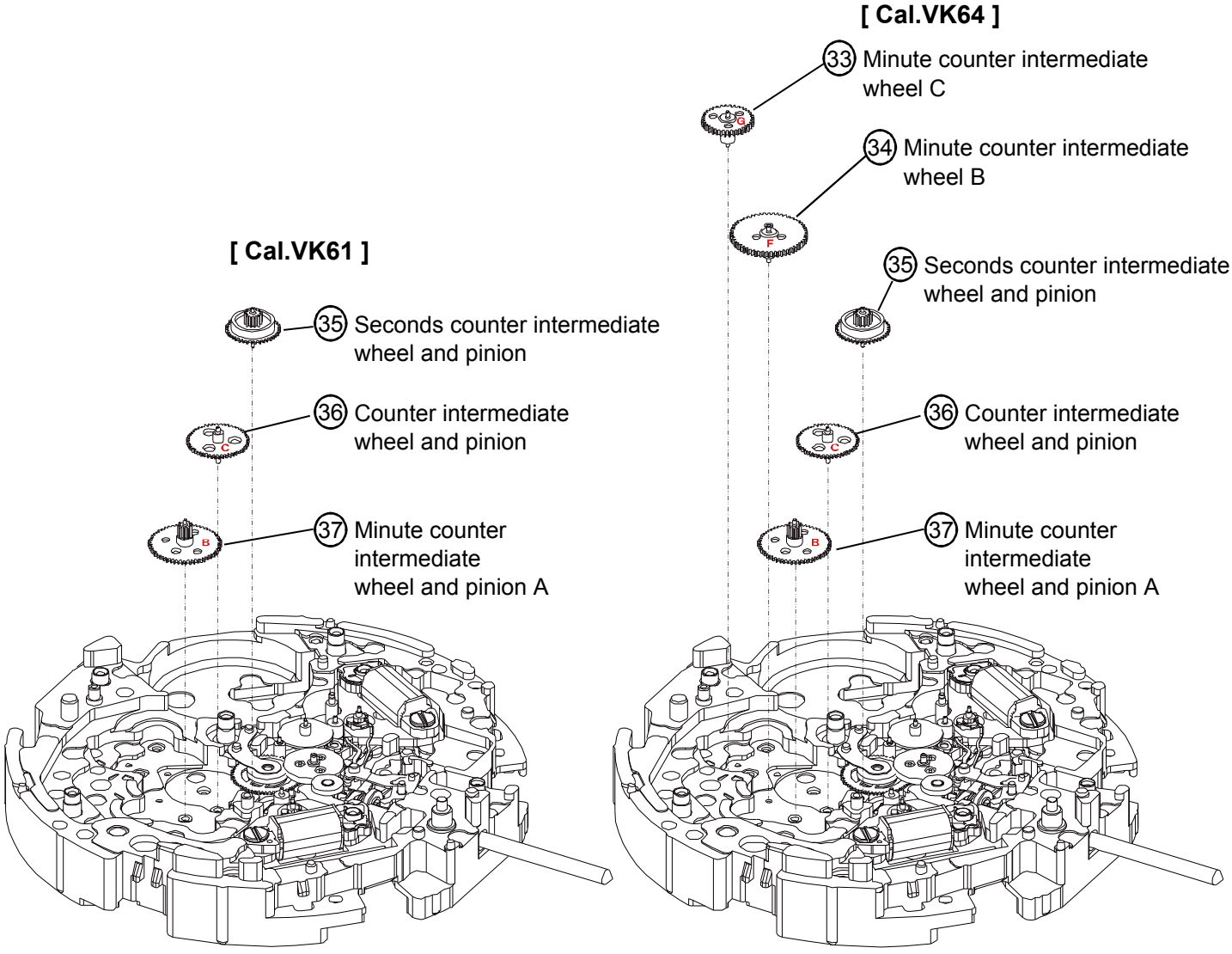


Image example of the mark

[Cal.VK61]	
Mark	Parts name
B	(37) Minute counter intermediate wheel and pinion A
C	(36) Counter intermediate wheel and pinion
Nil	(35) Seconds counter intermediate wheel and pinion

[Cal.VK64]	
Mark	Parts name
B	(37) Minute counter intermediate wheel and pinion A
C	(36) Counter intermediate wheel and pinion
Nil	(35) Seconds counter intermediate wheel and pinion
F	(34) Minute counter intermediate wheel B
G	(33) Minute counter intermediate wheel C

[Cal.VK64]

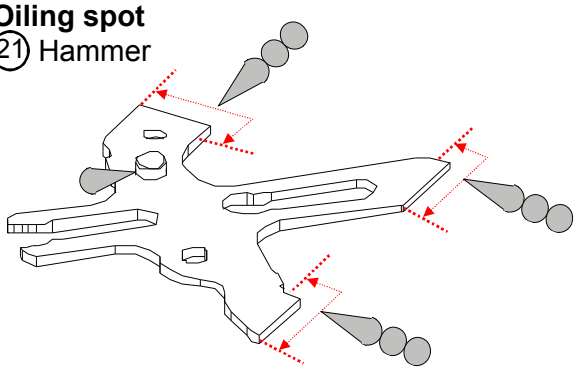


*Mark positions, and sizes, etc. are different.

Type of oil	Oil quantity mark
Moebius A MO-4	NORMAL QUANTITY SUFFICIENT QUANTITY

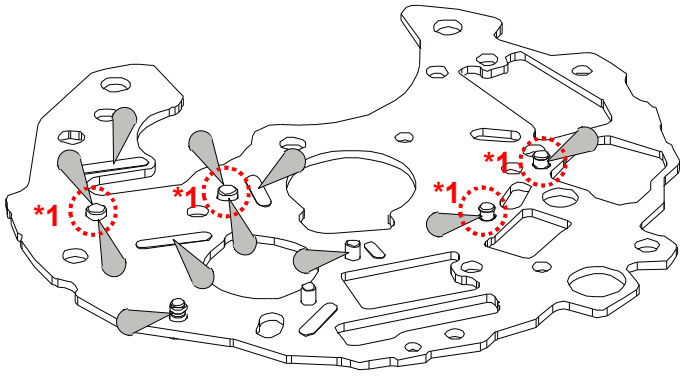
2.Oiling spot

(21) Hammer



There must be oil within the range of the arrow.

(28) Lower plate for chronograph bridge

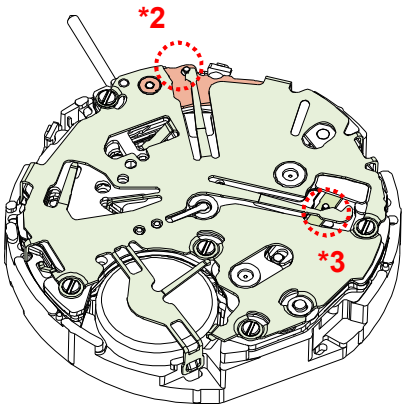


Note

***1: Oiling should be done on the pointed spot of marked place.**

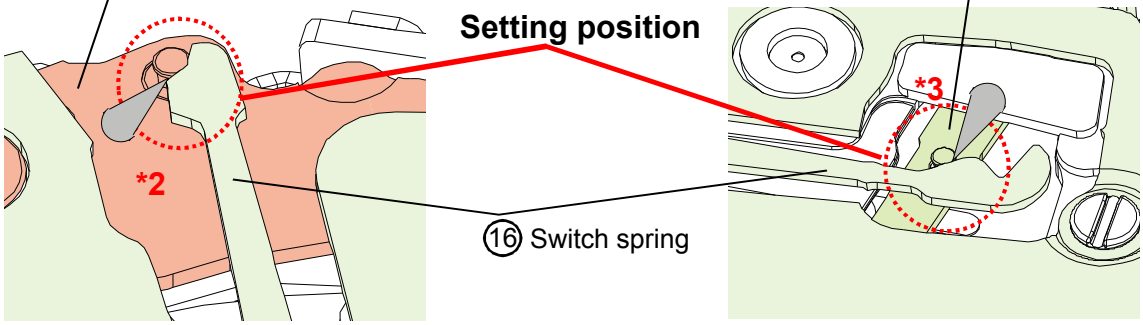
(16) Switch spring

*Oiling spot and spring setting position.



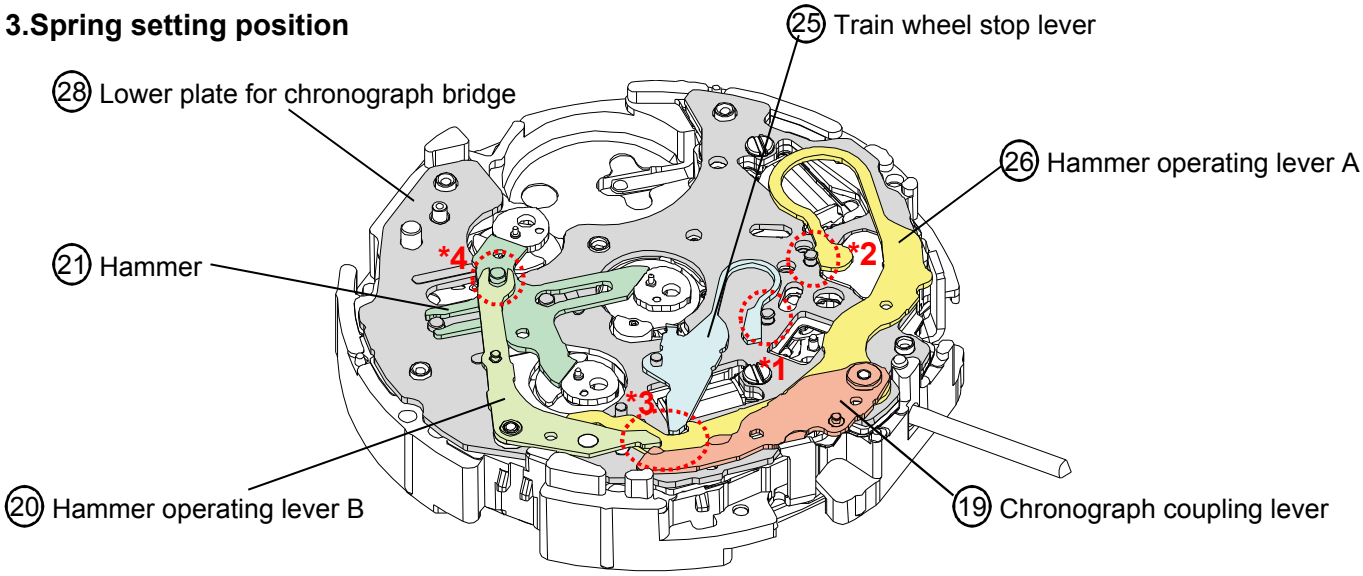
(19) Chronograph coupling lever

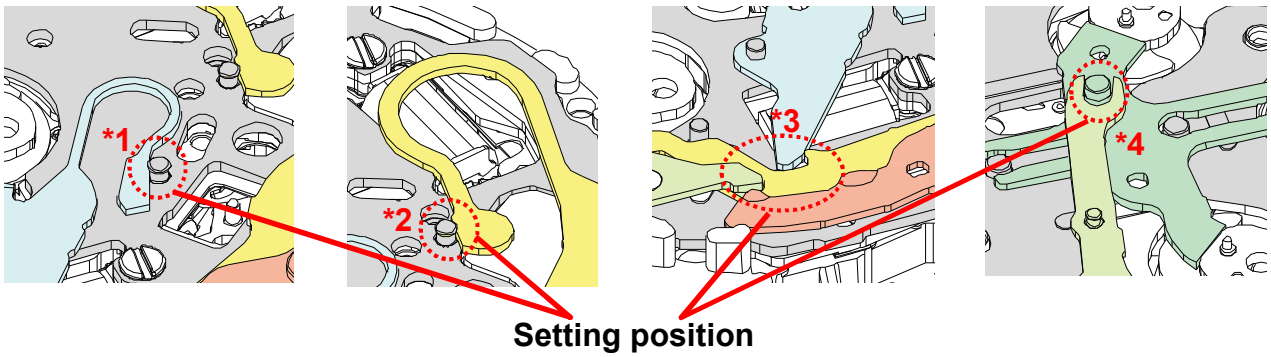
(20) Hammer operating lever B



***Oiling should be done on the contact spot of the spring and the pin.**

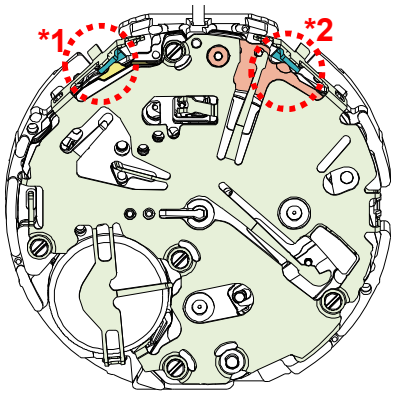
3.Spring setting position



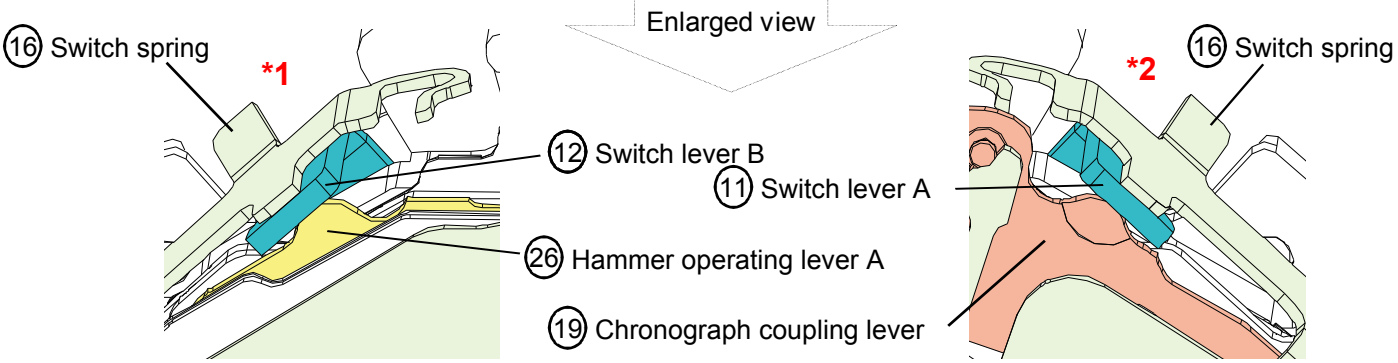


Setting position

4.Switch lever A and B setting position



Enlarged view

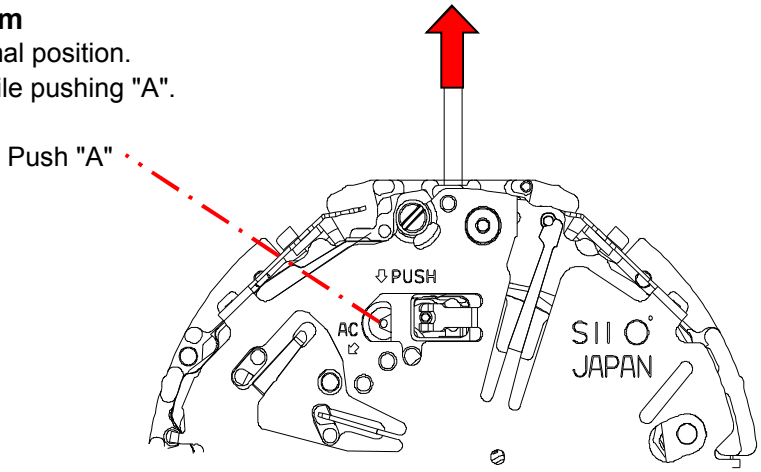


Switch lever B is set between the switch spring and hammer operating lever A .

Switch lever A is set between the switch spring and chronograph coupling lever.

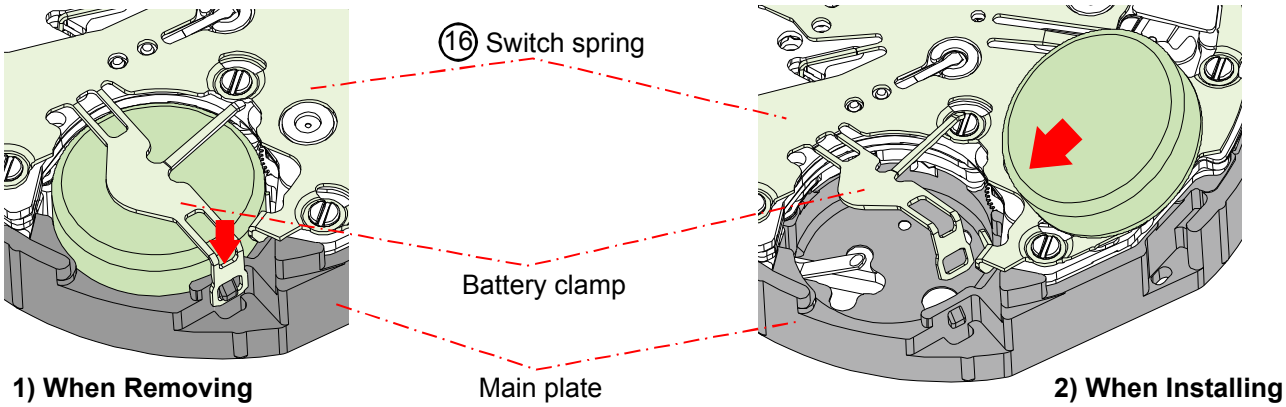
5.To remove the winding stem

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



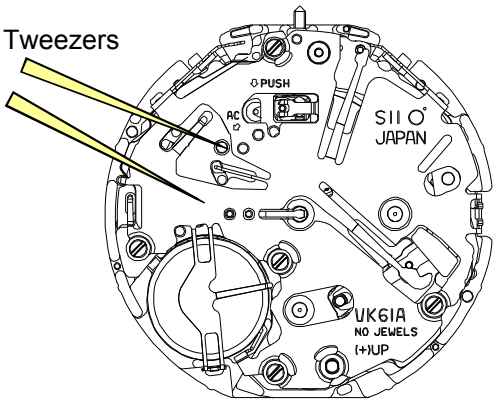
6.To remove or install the battery

1) Remove the hook of the switch spring's battery clamp.
2) Insert the battery sideways, and have the hook of the switch spring's battery clamp catch the main plate.



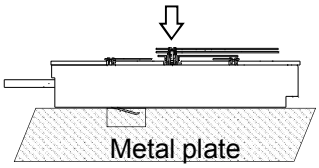
7.Remarks on installing the battery

1) After the battery is replaced with a new one, or after the battery is reinstalled following the repairing procedures, be sure to touch the AC terminal of circuit block and the switch spring with conductive tweezers to reset the circuit as illustrated.



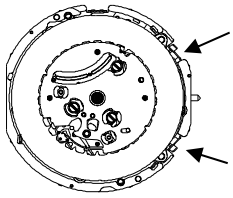
8.How to attach hands

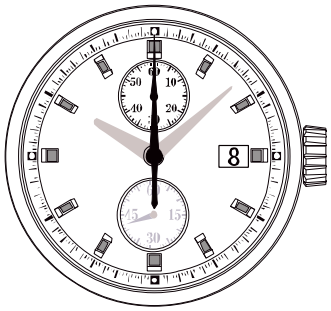
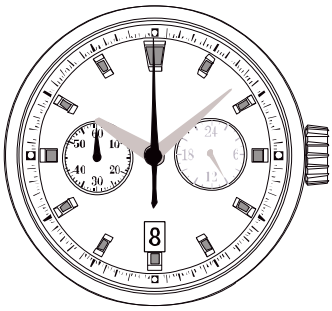
Place the movement directly on a flat metal plate, or something alike to install the hands.



[Note: Second / Minute chronograph hands setting]

(1) Push button A (Chronograph start)
(2) Push button A (Chronograph stop)
(3) Push button B (Chronograph reset)
(4) After (1)-(3), Install the chronograph hands as shown in the table below.



Cal.	VK61	VK64
		
Second chronograph	"12" o'clock (center)	"12" o'clock (center)
Minute chronograph	"60" minute (12H)	"60" minute (9H)

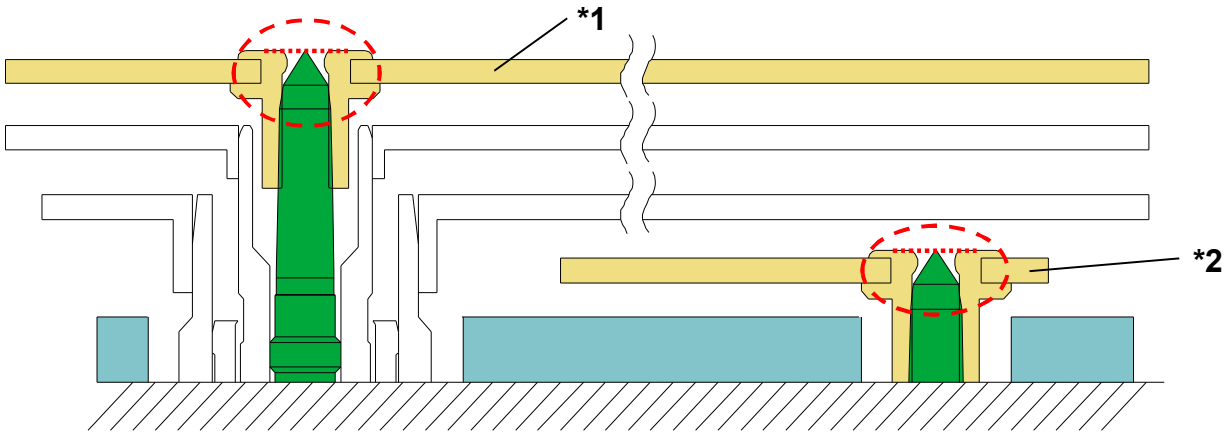
***Do not reuse the chronograph hands once detached. Please change and use new hands.**

[Note: To install 24 hour hand for VK64]

Before installing 24 hour hand, pull out the crown to the second click position and rotate it clockwise, until changed to the next date then install the 24 hour hand.

9.How to check correct hands attachment

The hand's top surface should be set parallel with the axis tip , as shown below.

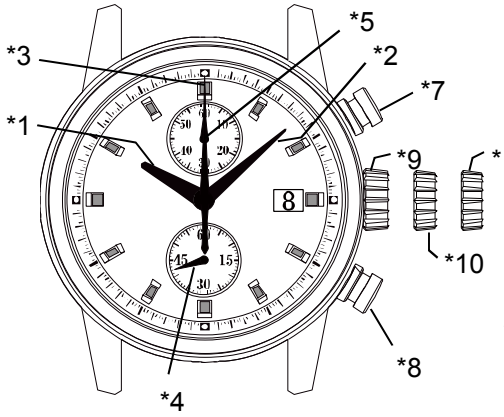


Application hands

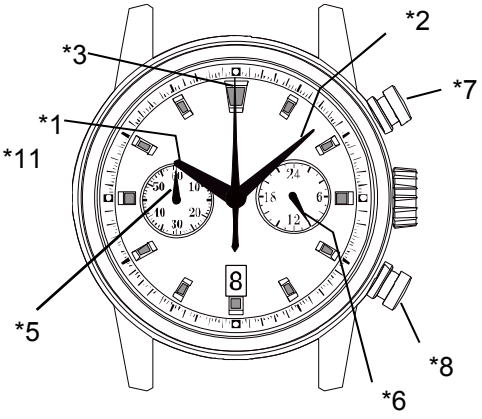
*1: Second chronograph hand
*2: Minute chronograph hand and Small second hand and 24 hour hand

DISPLAY AND CROWN / BUTTON OPERATION

<< VK61 >>



<< VK64 >>



Note

*1:	Hour hand	*6:	24 hour hand	*10:	Crown at first position (Date setting)
*2:	Minute hand	*7:	Button A (START / STOP)		
*3:	Chronograph second hand	*8:	Button B (RESET)	*11:	Crown at second position (Time setting)
*4:	Small second hand	*9:	Crown at normal position		
*5:	Chronograph minute hand (60 minute)				

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.

[Note]

If the crown is pulled to the second position while the chronograph is started, the chronograph hands will continue to move. This is not a malfunction.

2.How to set the date

1) Pull out the crown to the first click position.
2) Turn the crown clockwise for date setting.
*Do not set the date between 9:00 P.M. and 3:00 A.M. as this will cause a malfunction.
3) Push the crown back into the normal position.

3.How to reset (after battery change)

It is possible to reset by the following two methods.

Method 1
1) Set the crown to the normal position.
2) Touch the AC terminal of circuit block and the switch spring with conductive tweezers to reset the circuit.
3) The small second hand will move at two-second interval for 10 seconds.(VK61 only)

Method 2
1) Pull out the crown to the second click position.
2) Press the button B for two seconds and release the button.
3) Push the crown back to the normal position.
4) The small second hand will move at two-second interval for 10 seconds.(VK61 only)

* If the crown is operated within this 10 seconds, the two-second interval movement will not activate.(VK61 only)

[Note]

It is not necessary to set the chronograph hands after the battery is exchanged.
If the chronograph hands position are incorrect, following below procedure all the chronograph hands will be reset to "0" position.

Button A (START) ⇨ Button A (STOP) ⇨ Button B (RESET)

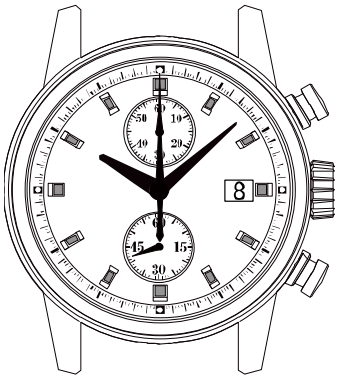
HOW TO USE THE CHRONOGRAPH

[Standard measurement]

Press the buttons in the following order : A → A → B

START → STOP (Finish) → RESET

(20 minutes 10 seconds)



・Press button A to start the chronograph.
The chronograph second hand will start moving.

・Press button A again to stop the chronograph.
The chronograph hands stop to indicate the elapsed time.

・Press button B to reset the chronograph.
All the chronograph hands will be reset to "0" position.

Note

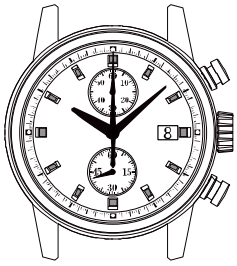
The chronograph can measure up to 60 minutes.
The chronograph stops after a measurement for 60 minutes.
*Restart by pushing button A.

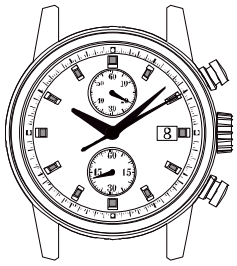
During the chronograph operation, button B (reset) can be pushed. There is no problem with the function.

[Accumulated elapsed time measurement]

Press the buttons in the following order : A → A / A ⋯ → A → B

START → STOP / RESTART → STOP → RESET





(8 minutes 40 seconds) (20 minutes 10 seconds)

*Restart and stop of the chronograph can be repeated as many times as necessary by pressing button A