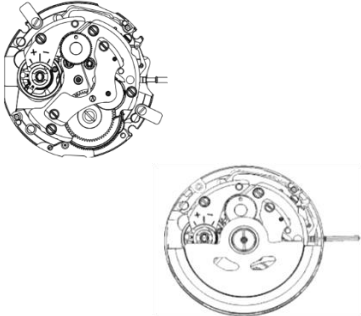







PARTS LIST / TECHNICAL GUIDE

Cal.6R5 Series

[SPECIFICATION]

Cal.6R5 Series

BRAND		SEIKO					
Cal. No.		6R51A	6R54A	6R55A	6R5JA	6R5HA	
							
							
Movement size	Outside	φ 27.4 mm					
	Casing	φ 27.0 mm					
	Height	5.32 mm					
Cal. No.		6R51A	6R54A	6R55A	6R5JA	6R5HA	
Time indication	3 Hands (hour, minute, second)	○	○	○	○	○	
	Date calendar	-	○	○	-	-	
	24 hour hand	-	○Centre position	-	○6H position	○6H position	
Basic function	Manual winding	○	○	○	○	○	
	Automatic winding with ball bearing	○	○	○	○	○	
	Stop-second device	○	○	○	○	○	
	Quick date correction	-	○	○	-	-	
	Open heart	-	-	-	○	-	
	Second time zone setting	-	○	-	-	-	
Crown position	Normal position	Counterclockwise	Free	Free	Free	Free	Free
		Clockwise	Manual winding	Manual winding	Manual winding	Manual winding	Manual winding
	First click	Counterclockwise	Time setting Stop-second	Date setting	Date setting	Time setting Stop-second	Time setting Stop-second
		Clockwise		Time difference setting	-		
	Second click	Counterclockwise	-	Time setting Stop-second	Time setting Stop-second	-	-
		Clockwise					
Frequency		21,600 vibrations per hour					
Loss/Gain	Daily rate	'Between -15 seconds and +25 seconds par day (worn on the wrist at temperature-range between 5°C and 35°C) ' * Measurement should be done within 10 ~ 60 minutes after fully wound up. ' * All measurements are made without the calendar in function.					
	Standard rate for measurement	Instantaneous rate at T0 (Fully wound condition)		Isochronous fault			
		Testing positions	Dial upward: T0 (CH)	6 o'clock at the top	9 o'clock at the top	Dial upward	
		Measurement (daily rate in seconds:s/d)	±10 s/d	±15 s/d	±15 s/d	±15 s/d	
Regulation system		ETACHRON system					
Lift angle of the escapement		53°					
Vibrations per hour		21,600 (6 beats per second)					
Power reserve		From fully wound to stoppage: Approximately 72 hours					
Number of Jewels		24 Jewels					

SEIKO WATCH CORPORATION

6R5 Series Outline Specifications (Difference from 6R3 Series)

Cal.6R5 Series

Components

The following parts are different between the 6R5 series and 6R35A. Other parts are common.

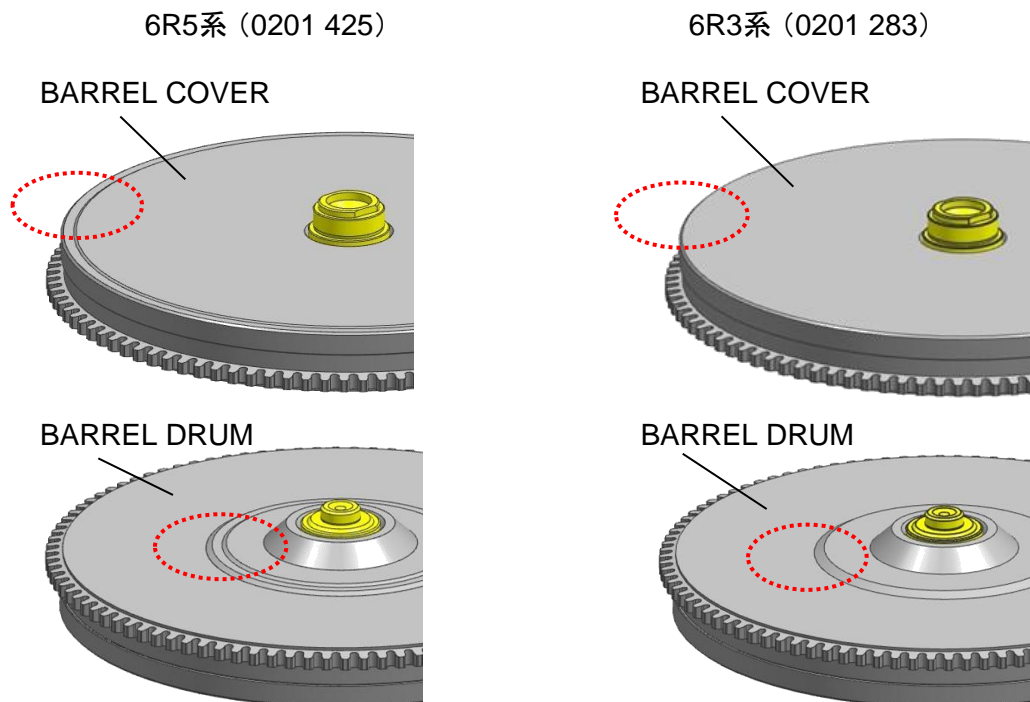
No.	Parts name	6R5 Series	6R3 Series
(43)	BARREL COMPLETE (WITH MAINSPRING)	0201 425	0201 283

※Except for the barrel wheel, all other components are the same, except for the rotational weight and the parts that vary depending on the height of the hands.

BARREL COMPLETE Identification

The shape of the barrel and barrel lid differs between 6R5*A and 6R35A.

Identification is made in the following part.



PARTS LIST

Cal.6R5 Series

Type of oil



AO-3 (Moebius A)



AO-G09a (S-6)

Oil Quantity mark

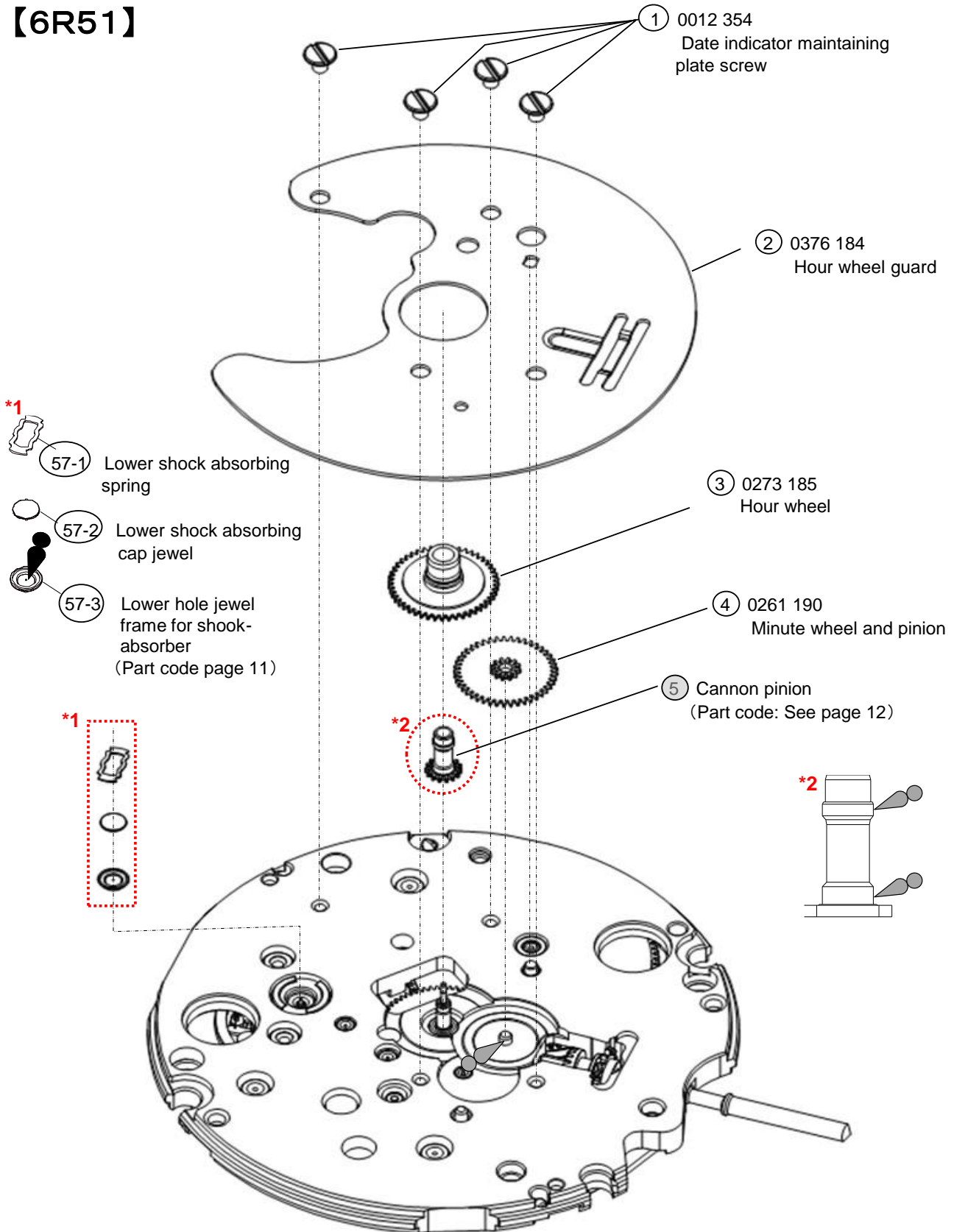


NORMAL QUANTITY



SUFFICIENT QUANTITY

【6R51】



○ For parts marked , refer to the notes in the parts catalog.

PARTS LIST

Cal.6R5 Series

Type of oil



AO-3 (Moebius A)



AO-G09a (S-6)

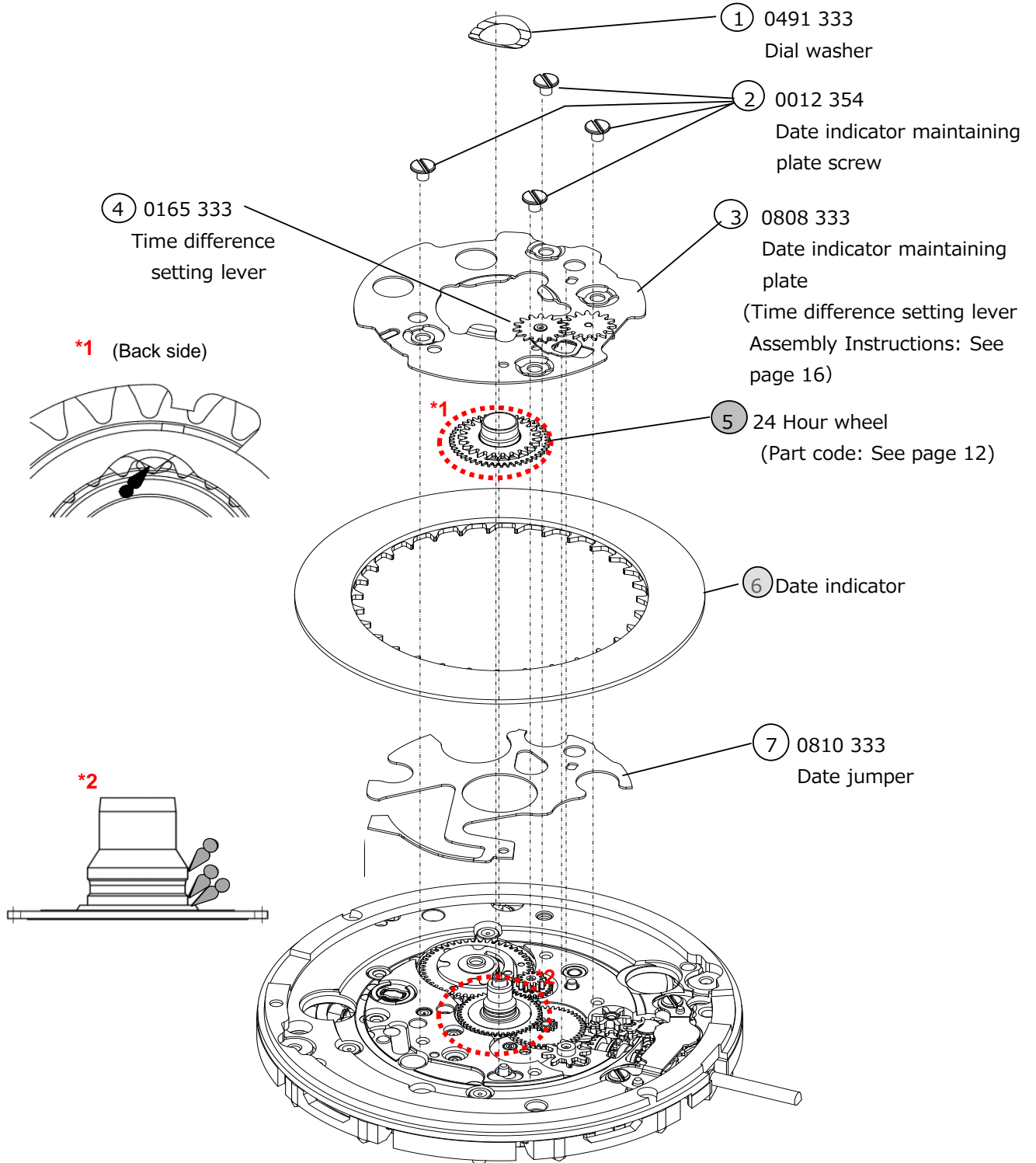
Oil quantity mark



NORMAL QUANTITY

SUFFICIENT QUANTITY

【6R54A】



● For parts marked , refer to the notes in the parts catalog.

PARTS LIST

Cal.6R5 Series

Type of oil



AO-3 (Moebius A)



AO-G09a (S-6)

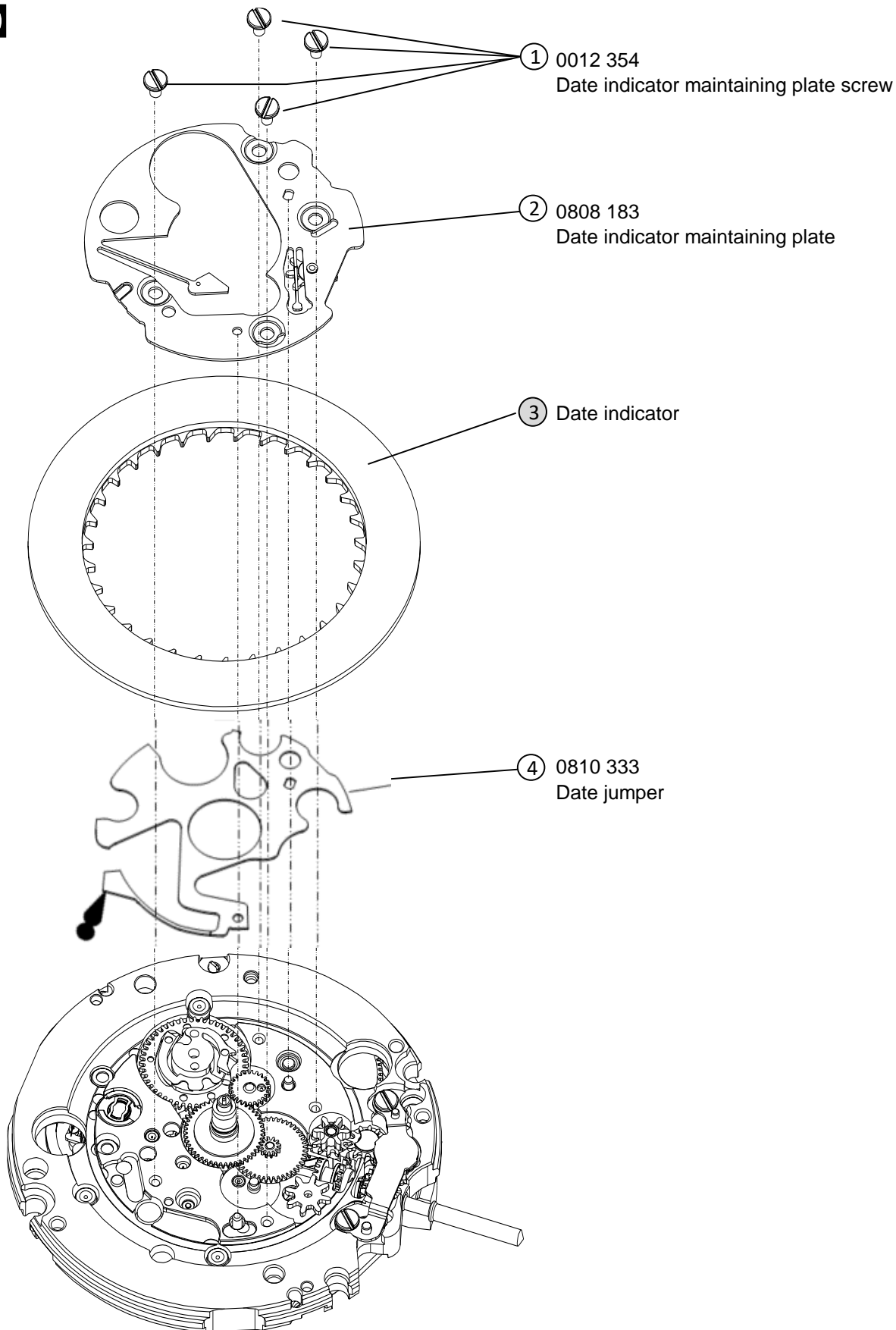
Oil quantity mark



NORMAL QUANTITY

SUFFICIENT QUANTITY


【6R55A】




PARTS LIST

Cal.6R5 Series

Type of oil

 AO-3 (Moebius A)

 AO-G09a (S-6)

Oil quantity mark

 NORMAL QUANTITY
 SUFFICIENT QUANTITY

【6R54A/55A】

14 Hour wheel

*Refer to the page 12 for the each parts code

15 0261 190

Minute wheel and pinion

16 Intermediate date driving wheel and pinion

*Refer to the page 12

6R54

17 Date indicator driving wheel

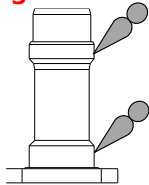
*Refer to the page 12 for the each parts code

6R54

18 Cannon pinion

*Refer to the page 12 for the each parts code

*3



*1



*1



57-1 Lower shock absorbing springs

57-2 Lower shock absorbing jewel

57-3 Lower hole jewel frame for shock-absorber

(Part code: See page 11)

8 0962 025

Day-date corrector setting transmission

9 0012 485

Guard for day-date corrector setting transmission wheel screw

10 0836 183

Guard for day-date corrector setting transmission wheel

11 0962 185

Day-date corrector setting transmission wheel C

12 0962 023

Day-date corrector setting transmission wheel B

13 Day-date corrector wheel
(Part code: See page 12)

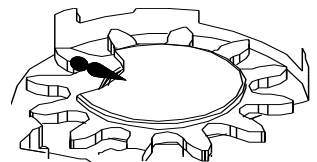
6R54




19 4408 171

Dial holding spacer

*2



 For parts marked , refer to the notes in the parts catalog.

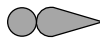
PARTS LIST

Cal.6R5 Series

Type of oil

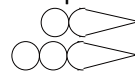


AO-3 (Moebius A)



AO-G09a (S-6)

Oil quantity mark

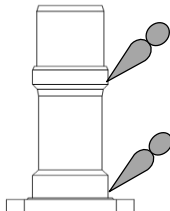


NORMAL QUANTITY

SUFFICIENT QUANTITY

【6R5HA/5JA】

*2



*1



57-1 Lower shock absorbing springs



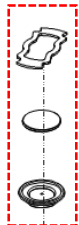
57-2 Lower shock absorbing jewel



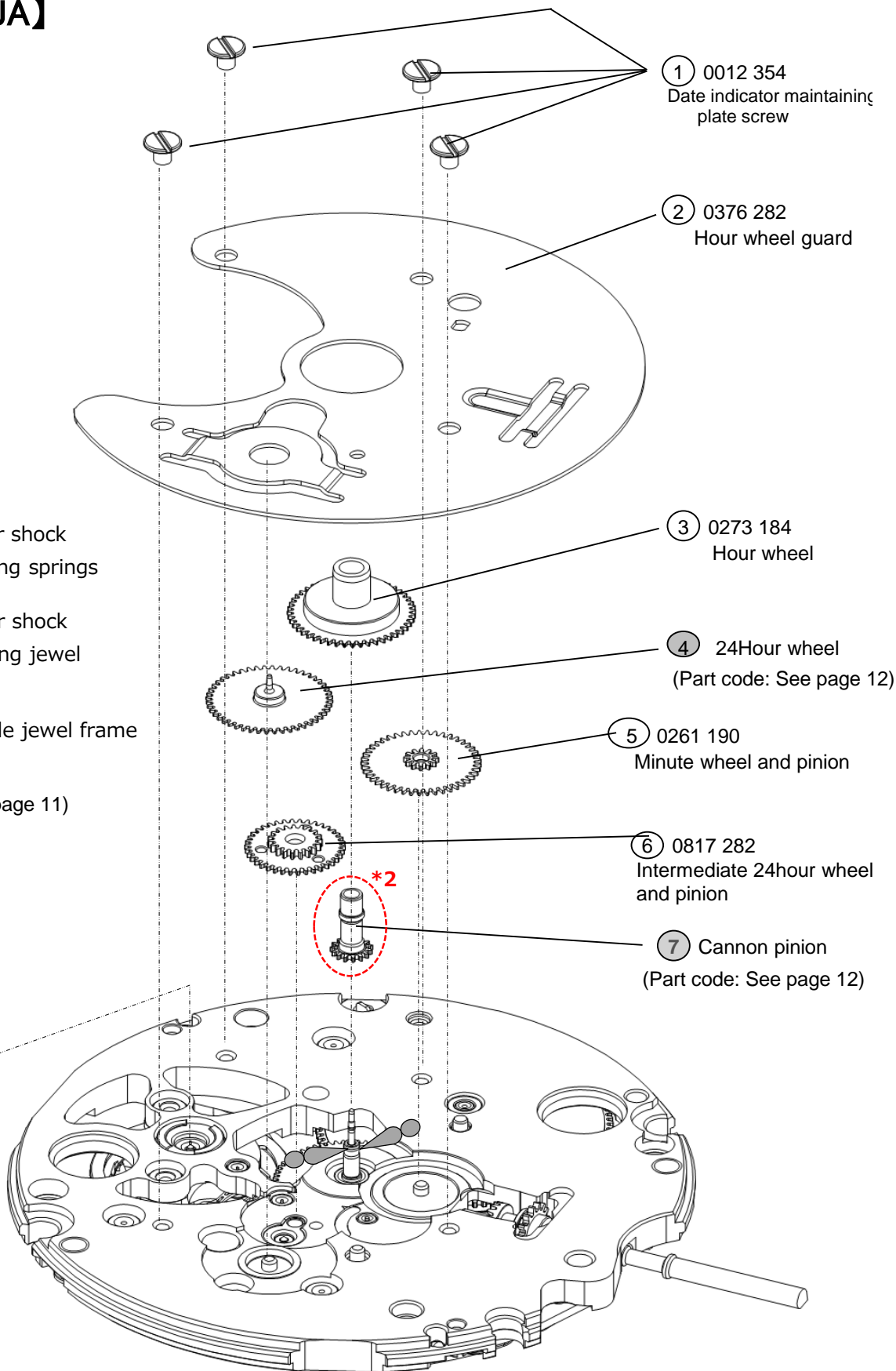
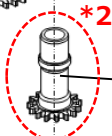
57-3 Lower hole jewel frame

(Part code: See page 11)

*1



*2



① 0012 354
Date indicator maintaining plate screw

② 0376 282
Hour wheel guard

③ 0273 184
Hour wheel

④ 24Hour wheel
(Part code: See page 12)

⑤ 0261 190
Minute wheel and pinion

⑥ 0817 282
Intermediate 24hour wheel and pinion

⑦ Cannon pinion
(Part code: See page 12)

● For parts marked , refer to the notes in the parts catalog.

PARTS LIST

Cal.6R5 Series

Type of oil



AO-3 (Moebius A)



AO-G09a (S-6)

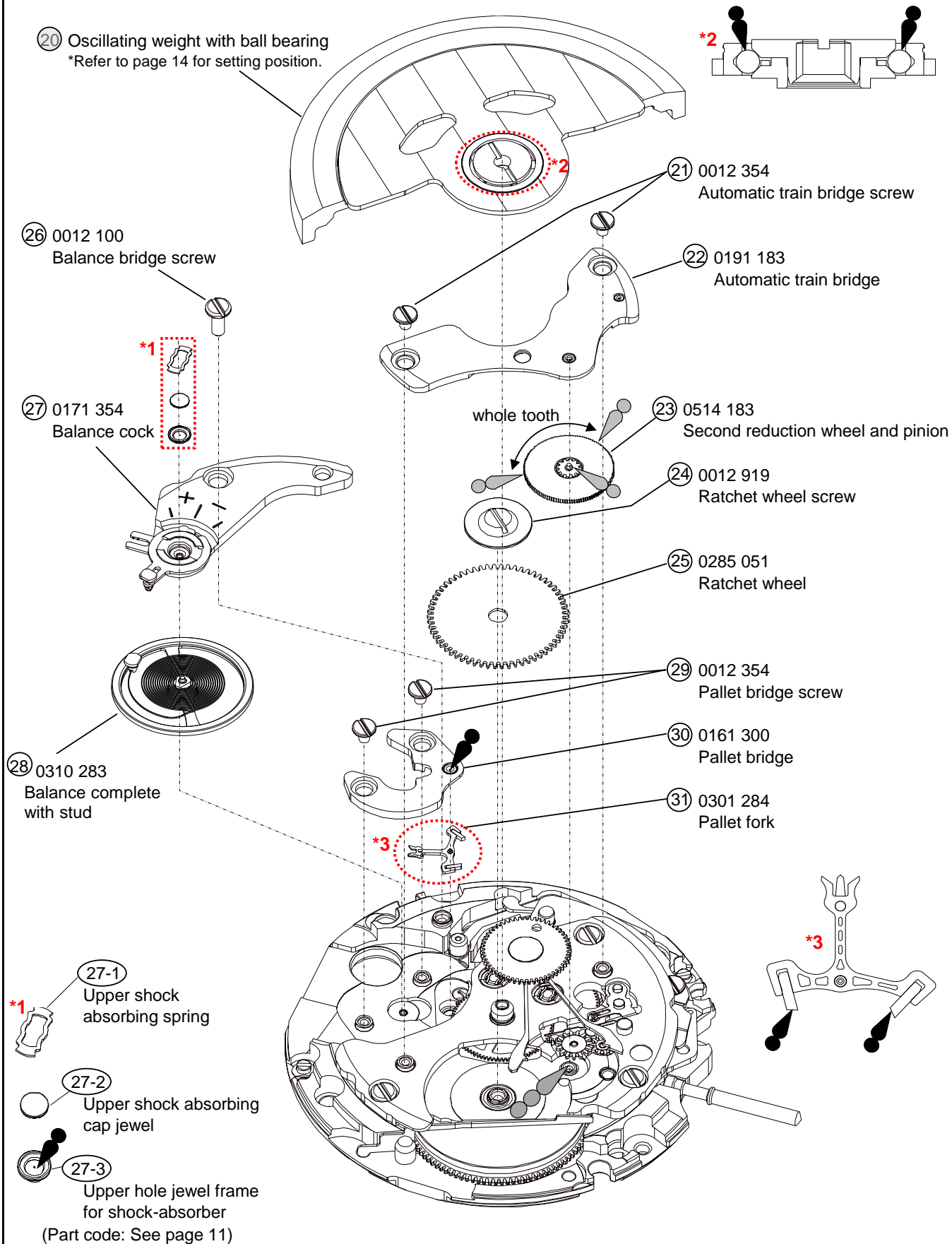
Oil quantity mark



NORMAL QUANTITY



SUFFICIENT QUANTITY



● For parts marked , refer to the notes in the parts catalog.

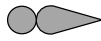
PARTS LIST

Cal.6R5 Series

Type of oil



AO-3 (Moebius A)



AO-G09a (S-6)

Oil quantity mark



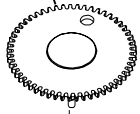
NORMAL QUANTITY



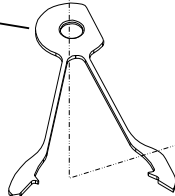
SUFFICIENT QUANTITY

③7 0511 010

First reduction wheel
Lubrication, disassembly and
assembly : see page 15



③6 0831 183
Pawl lever

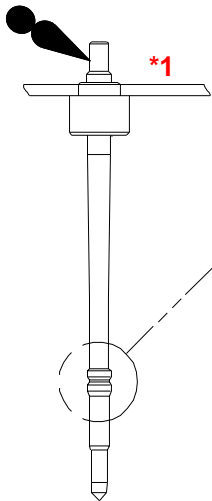
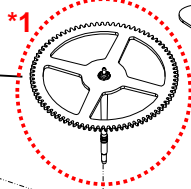


③5 0836 002

Reduction wheel holder



④0 Fourth wheel and pinion
*Refer to the page 12 for the
each parts code



③2 0012 100

Barrel and train wheel bridge screw

③3-1 Cap jeweled spring

③3-2 Cap jewel
(Part code: See page 11)

③4 0363 184
Ratchet sliding wheel spring
*Refer to page 15 for
disassembling / reassembling

③3 0114 183

Barrel and train wheel bridge
Lubrication, disassembly and
assembly : see page 13

③9 0436 166

Lower plate for barrel and
train wheel bridge

③8 0012 354

Lower plate for barrel and
train wheel bridge screw

④1 0231 070

Third wheel and pinion

④2 0381 004

Click

④3 0201 425

Barrel complete

● For parts marked , refer to the notes in the parts catalog.

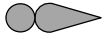
PARTS LIST

Cal.6R5 Series

Type of oil



AO-3 (Moebius A)



AO-G09a (S-6)

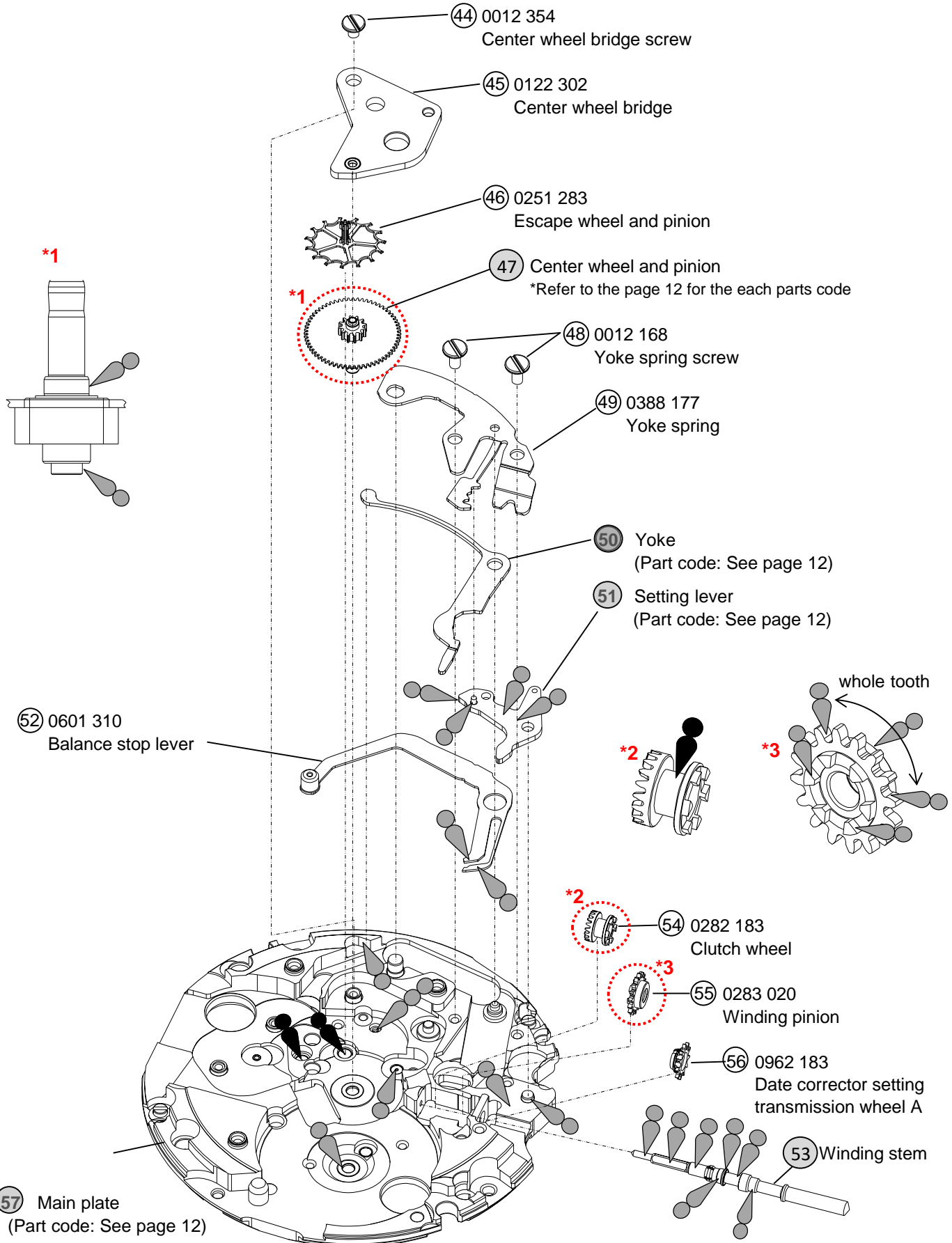
Oil quantity mark



NORMAL QUANTITY



SUFFICIENT QUANTITY

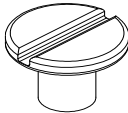

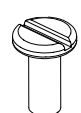
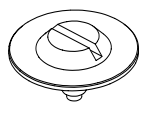
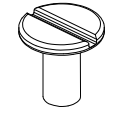


● For parts marked , refer to the notes in the parts catalog.

PARTS LIST

Cal.6R5 Series

● PERSPECTIVE VIEW OF THE SCREW PARTS

Parts No	Page	No.	Parts name	Parts No	Page	No.	Parts No	Parts No	Page	No.	Parts No
0012 354 	4	(2)	Date indicator maintaining plate screw	0012 485 	6	(9)	Guard for day-date corrector setting transmission wheel screw (x2)	0012 100 	8	(26)	Balance bridge screw
	5	(1)	Hour wheel guard screw (x4)						9	(32)	Barrel and train wheel bridge screw (x3)
	7	(1)	Hour wheel guard screw (x4)	0012 919 	8	(24)	Ratchet wheel screw	0012 168 	10	(48)	Yoke spring screw (x2)
	8	(21)	Automatic train wheel bridge screw (x2)								
	8	(29)	Pallet bridge screw (x2)								
	9	(38)	Lower plate for barrel and train wheel bridge								
	10	(44)	Center wheel bridge								

● Other

Place	Page	No.	Parts Name	Parts code
Lower Balance complete with stud	3,6,7	(57-1)	Lower shock absorbing springs	0014 577
		(57-2)	Lower shock absorbing jewel	0011 220
		(57-3)	Lower hole jewel frame for shock-absorber	0014 295
Upper Balance complete with stud	8	(27-1)	Lower shock absorbing springs	0014 577
		(27-2)	Lower shock absorbing jewel	0011 220
		(27-3)	Lower hole jewel frame for shock-absorber	0014 295
Upper third wheel and pinion	9	(33-1)	Upper cap jeweled spring for wheel and pinion	0015 703
		(33-2)	Upper cap jewel for third wheel and pinion	0011 221
Upper escape wheel and pinion	9	(33-1)	Upper cap jewel for escape wheel and pinion	0015 703
		(33-2)	Upper hole jewel for escape wheel and pinion	0011 221

● LOCATION OF THE JEWELS

	Upper		Lower	
	Hole Jewel	Cap Jewel	Hole Jewel	Cap Jewel
Barrel complete			○	
Center wheel & pinion	○		○	
Forth wheel & pinion	○			
Third wheel & pinion	○	○	○	
Escape wheel & pinion	○	○	○	
Pallet fork	○		○	
Balance	○	○	○	○
Crown wheel	○			
First reduction wheel & arbor	○		○	
Second reduction wheel & pinion	○		○	
Pallet fork (entry pallet)			○	
Pallet fork (exit pallet)			○	
Balance (roller jewel)			○	
Total	24 jewels			

Remarks

The correct parts for the following are determined based on the design of the cases. Refer to "SEIKO Watch Parts Catalogue (SEIKO WATCH SERVICE SITE)" to choose corresponding parts.

- Holding ring for dial
- Date indicator
- Winding stem
- Oscillating weight with ball bearing

PARTS LIST

Cal.6R5 Series

● Different parts depending on Cal.

Parts name	Page	No.	Parts code	6R51	6R54	6R55	6R5J	6R5H
Date indicator maintaining	4	③	0808 333	-	○	-	-	-
	5	②	0808 183	-	-	○	-	-
Day-date corrector wheel	6	⑬	0737 183	-	-	○	-	-
			0737 333	-	○	-	-	-
Intermediate 24hour wheel	6	⑯	0817 300	-	-	○	-	-
			0817 333	-	○	-	-	-
24Hour wheel	7	④	0157 281	-	-	-	-	○
			0157 282	-	-	-	-	○
Date indicator driving wheel	6	⑰	0802 183	-	-	○	-	-
			0802 333	-	○	-	-	-
Hour wheel guard	7	②	0376 282	-	-	-	○	○
	3		0376 184	○	-	-	-	-
Intermediate 24hour wheel and pinion	7	⑥	0817 282	-	-	-	○	-
Yoke	10	⑤⑩	0384 183	-	○	○	-	-
			0384 184	○	-	-	○	○
Setting lever	10	⑤①	0383 185	-	○	○	-	-
			0383 186	○	-	-	○	○
Main plate with lower shock absorbing frame	10	⑤⑦	0104 281	-	-	-	-	○
			0104 282	-	-	-	○	-
			0104 283	○	-	-	-	-
			0104 425	-	○	○	-	-

● Different parts depending on pinion height

Parts name	Page	No.	Parts code	6R51		6R54		6R55		6R5J	6R5H	
				Normal	Special	Normal	Long	Normal	Special	Special	Long	Special
24 Hour wheel	4	⑤	0278 333	-	-	○	-	-	-	-	-	-
			0278 334	-	-	-	○	-	-	-	-	-
Hour wheel	3	⑭	0273 181	-	-	-	-	-	-	-	○	-
			0273 182	-	-	-	-	○	-	-	-	-
	6	③	0273 184	-	-	-	-	-	○	○	-	○
			0273 183	○	-	-	-	-	-	-	-	-
	7	③	0273 185	-	○	-	-	-	-	-	-	-
			0273 333	-	-	○	-	-	-	-	-	-
0273 334	-	-	-	○	-	-	-	-	-	-		
Fourth wheel and pinion	9	④⑩	0144 283	○	-	-	-	○	-	-	-	-
			0144 285	-	-	○	-	-	-	-	-	-
			0144 425	-	○	-	-	-	○	○	-	○
			0144 426	-	-	-	○	-	-	-	-	○
Center wheel and pinion (with cannon pinion)	6	⑱	0224 203	○	-	-	-	○	-	-	-	
	7	⑦	0224 333	-	-	○	-	-	-	-	-	
	10	④⑦	0224 334	-	-	-	○	-	-	-	○	-
			0224 339	-	○	-	-	-	○	○	-	○
24Hour wheel	7	④	0157 282	-	-	-	-	-	-	○	-	

● Different parts for different exterior models

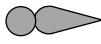
The parts used below vary depending on the exterior model.
Please refer to the "Seiko Watch Service Site Parts Catalog".

Parts name	Page	No.
Date indicator	4	⑥
	5	③
Oscillating weight with ball bearing	8	⑳
Winding stem	10	⑤③
Dial holding spacer	-	-

Type of oil



AO-3 (Moebius A)



AO-G09a (S-6)



AO-G09a (S-4)

Oil quantity mark



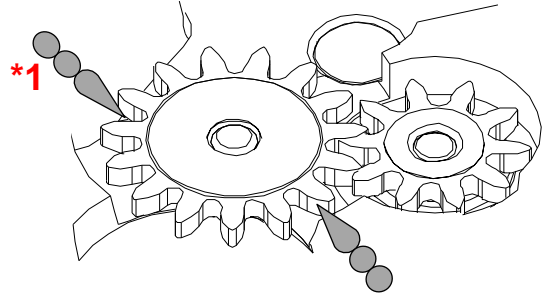
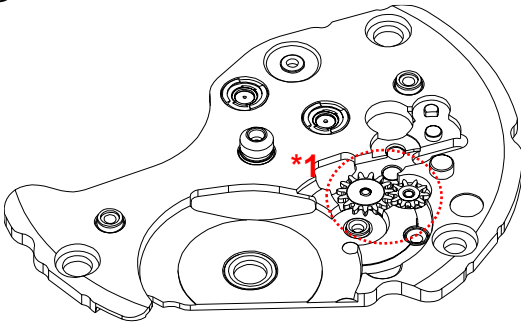
NORMAL QUANTITY



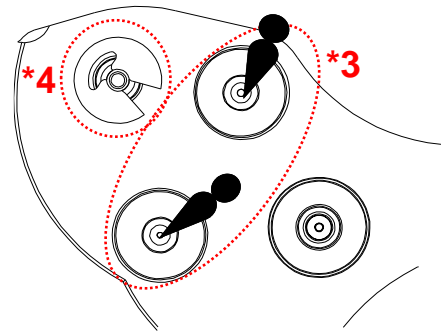
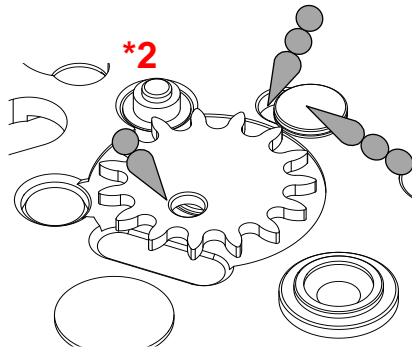
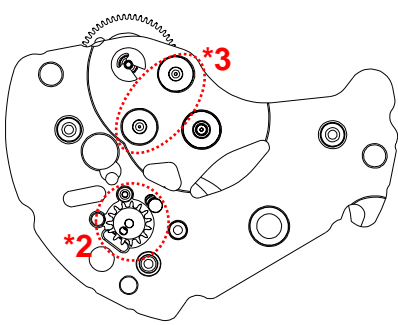
SUFFICIENT QUANTITY

1. Oiling spot

③③ Barrel and train wheel bridge

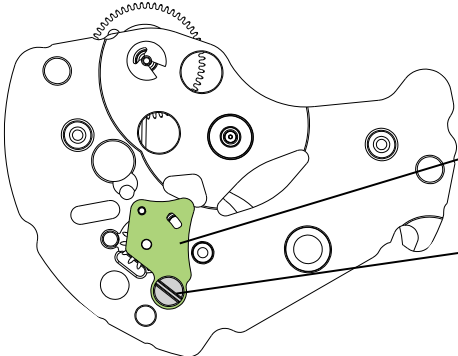


Barrel and train wheel bridge (back side)



Note

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

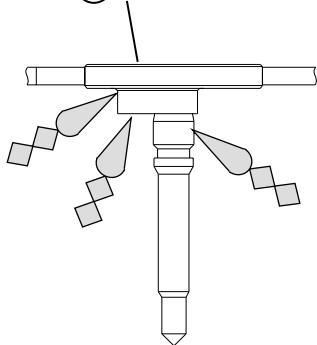


③⑨ Lower plate for barrel and train wheel bridge

③⑧ Lower plate for barrel and train wheel bridge screw

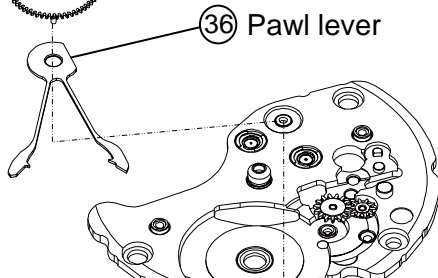
***4** After oiling, set first reduction wheel & pawl lever & reduction wheel holder.

③⑦ First reduction wheel



③⑦ First reduction wheel

③⑥ Pawl lever



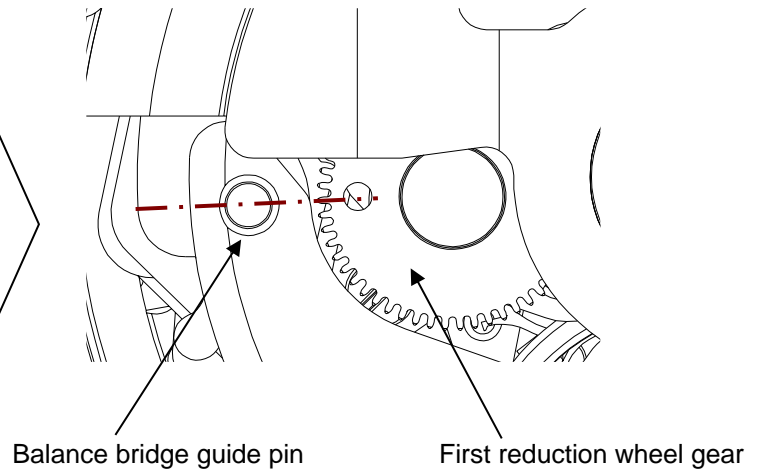
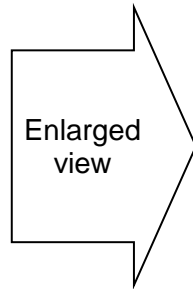
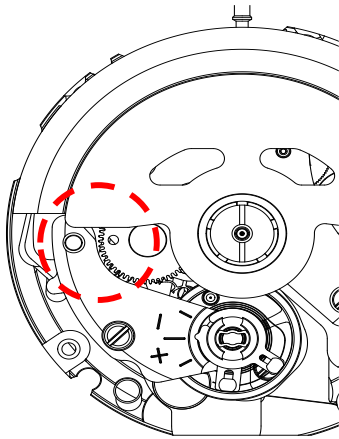
※Use AO-G09a or S-4.

③⑤ Reduction wheel holder

2. Setting position of oscillating weight

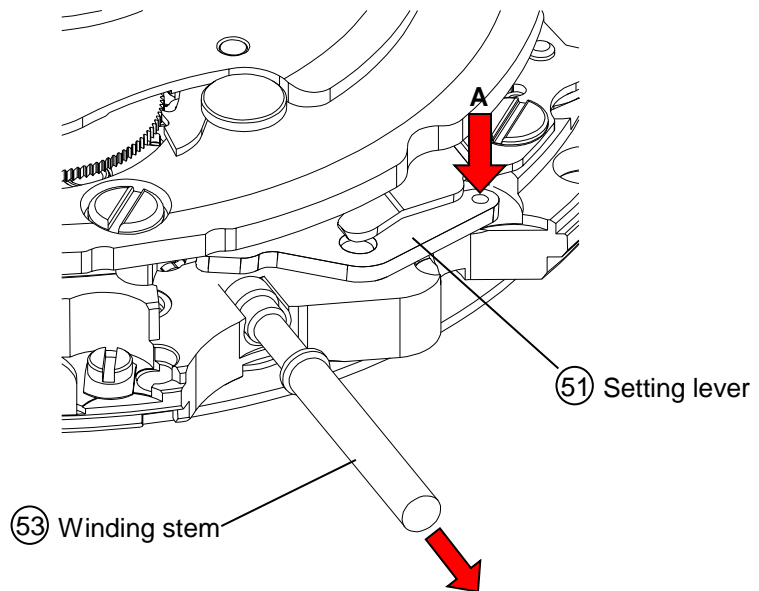
• Before assembling oscillating weight.

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.



3. To remove the winding stem

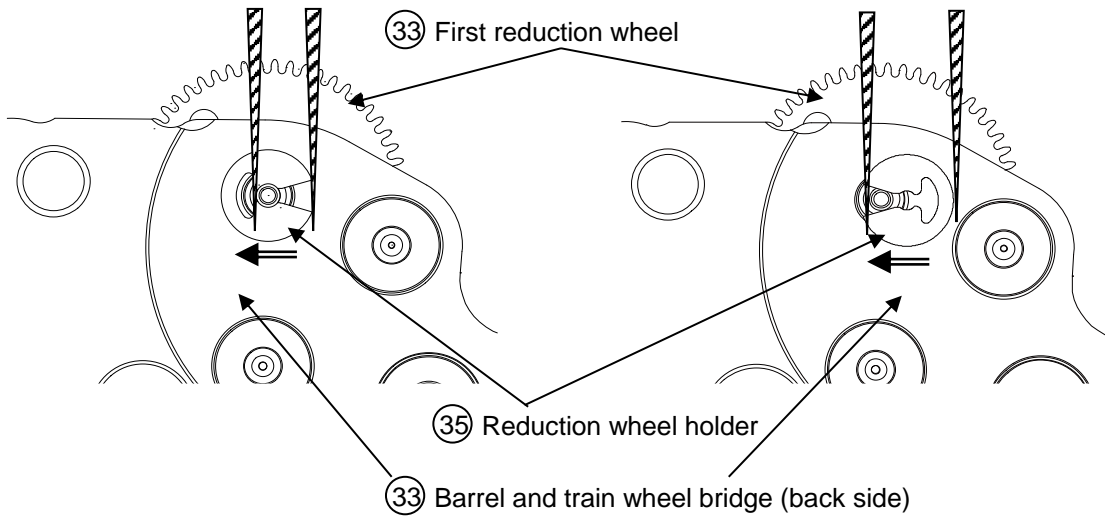
- 1) Set the winding stem to normal position.
- 2) Pull out the winding stem, while pushing "A"



4. Disassembling / assembling of the First reduction wheel

<< Disassembling >>

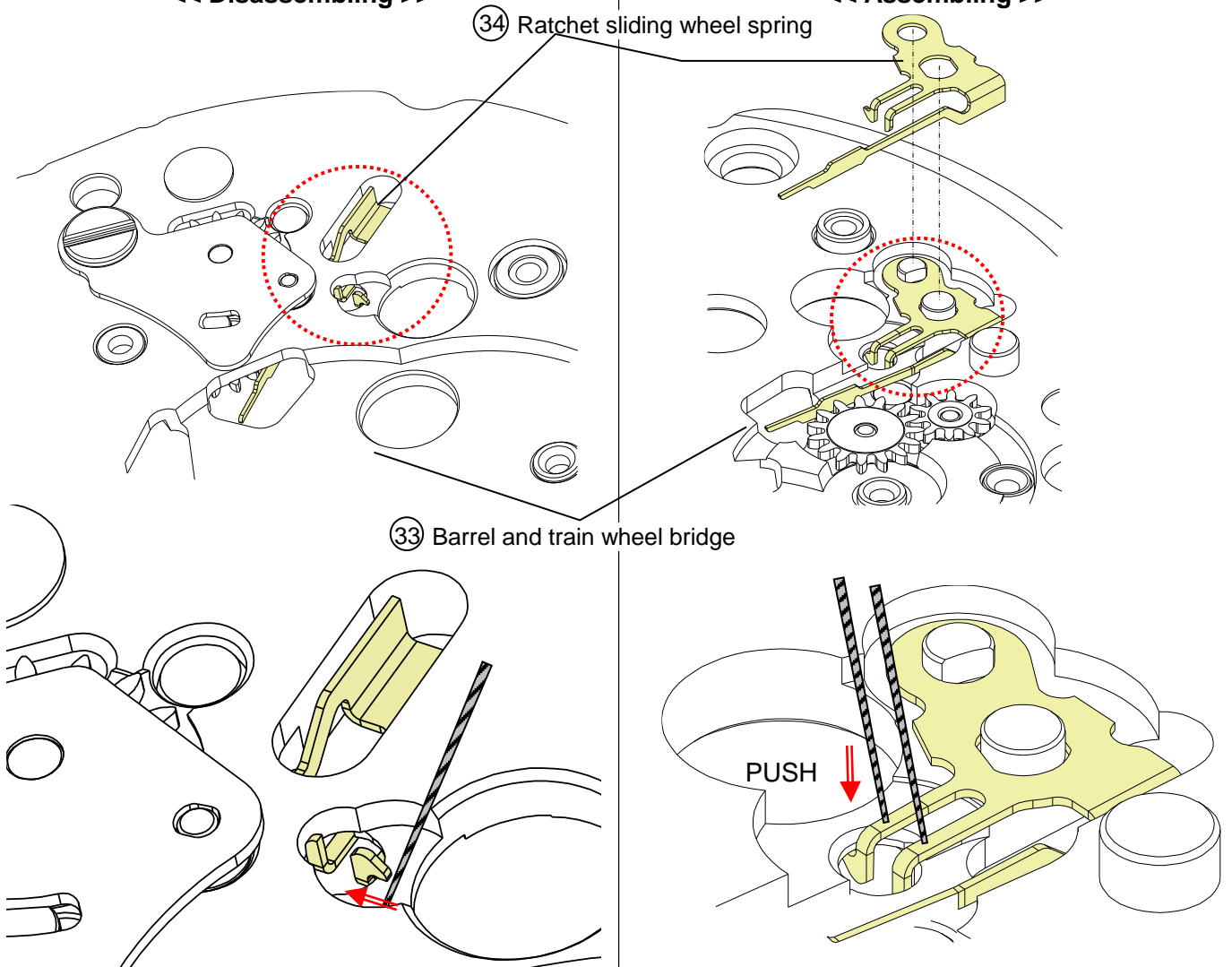
<< Assembling >>



5. Disassembling / assembling of the Ratchet sliding wheel spring.

<< Disassembling >>

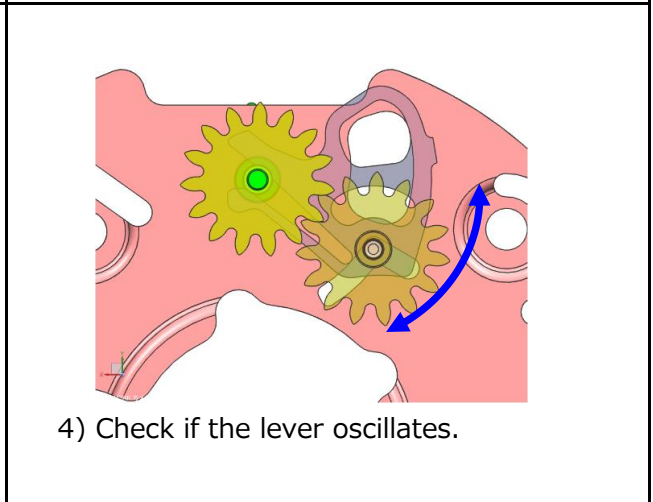
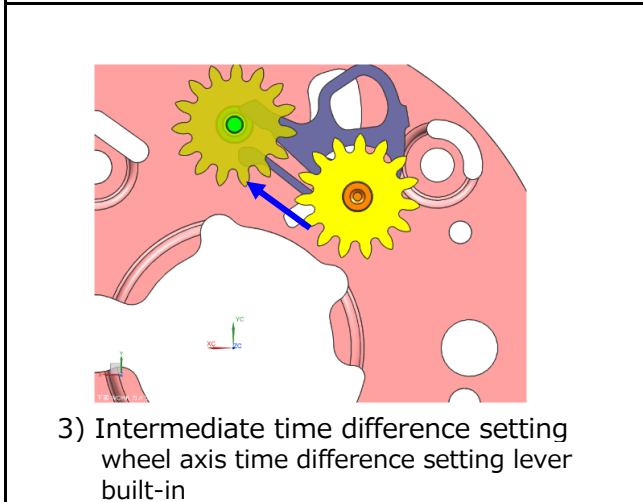
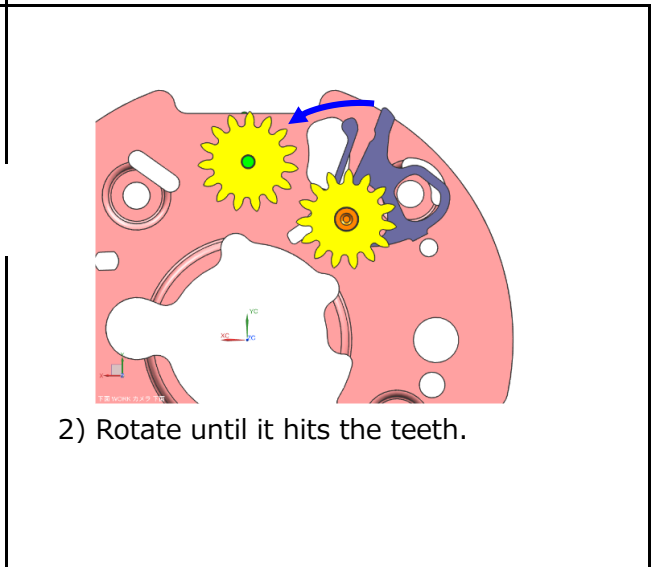
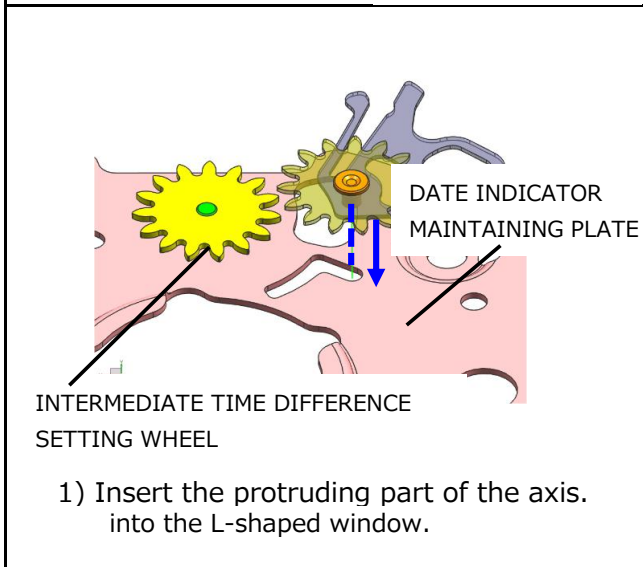
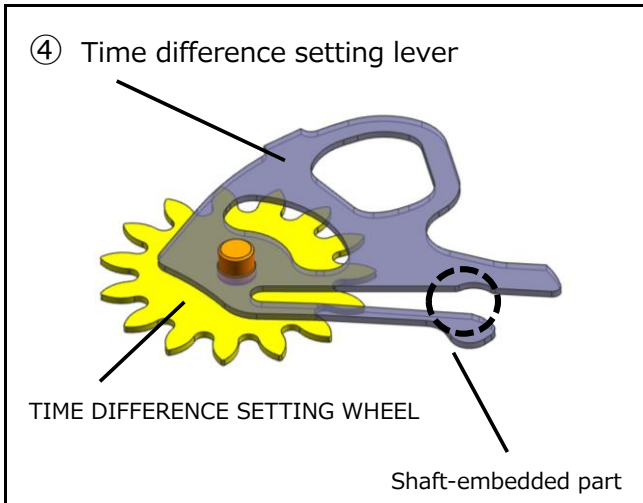
<< Assembling >>



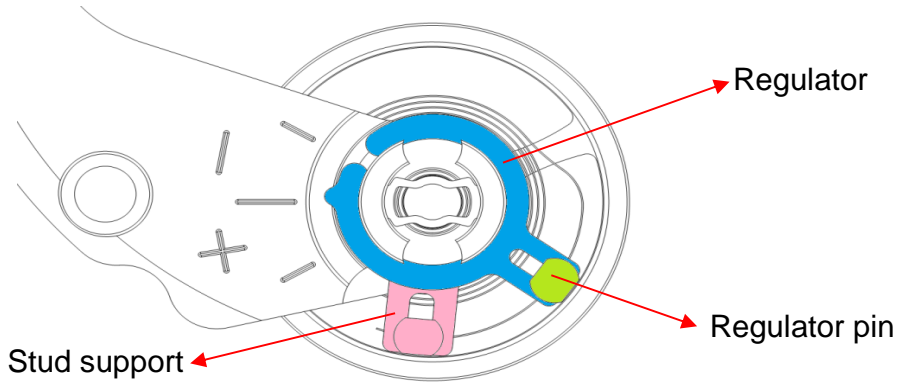
Remove the hook of the ratchet sliding wheel spring from barrel and train wheel bridge.

Set the part to the Barrel and train wheel bridge and push the hook from the top with tweezers so that it will be engaged securely.

6. Time correction lever Assembly procedure (6R54 only)



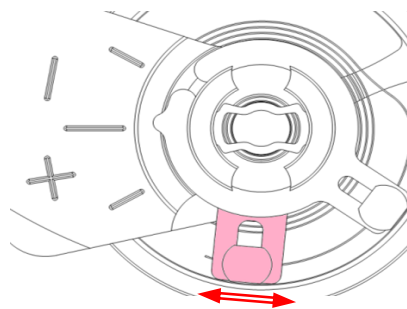
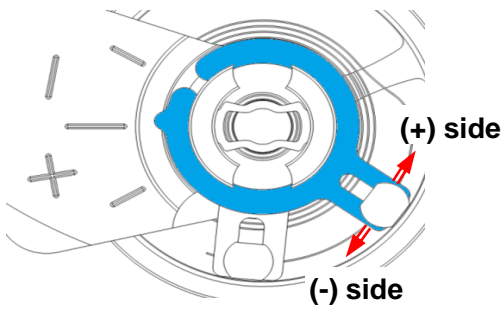
7.Accuracy adjustment



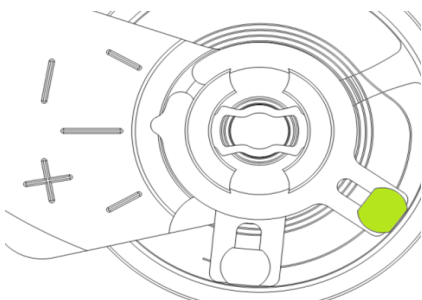
Note:

•Regulator ... Time adjustment

•Stud support ... Beat error adjustment

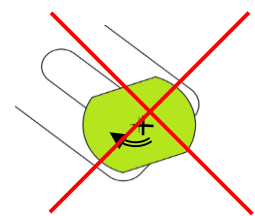
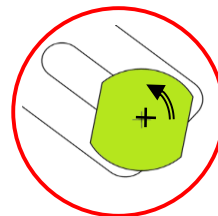


•Regulator pin ... Gap adjustment of balance spring and regulator pin

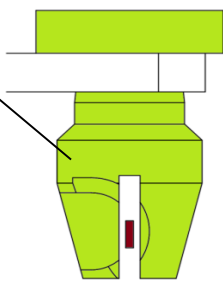


Anticlockwise rotation

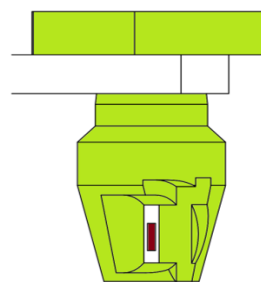
No clockwise rotation



Regulator

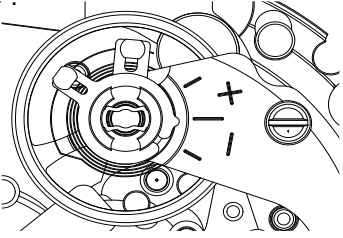
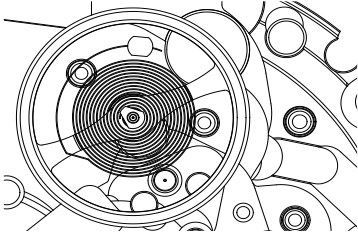
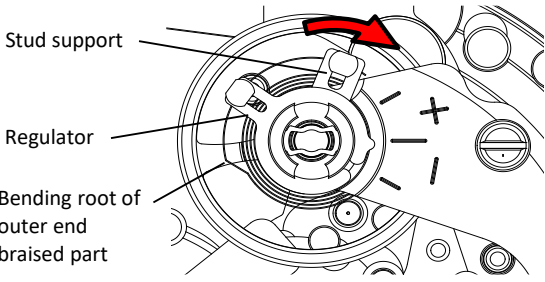
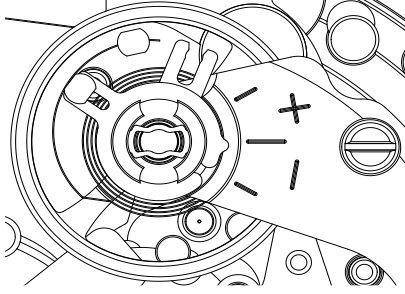
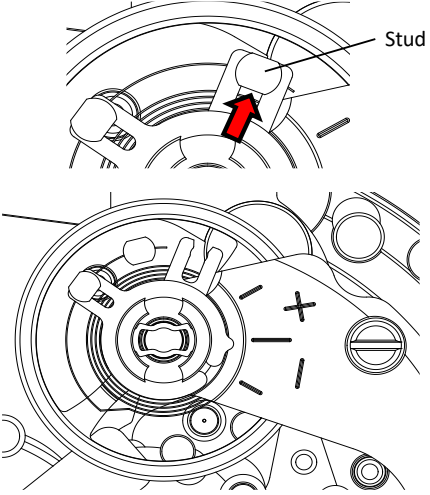
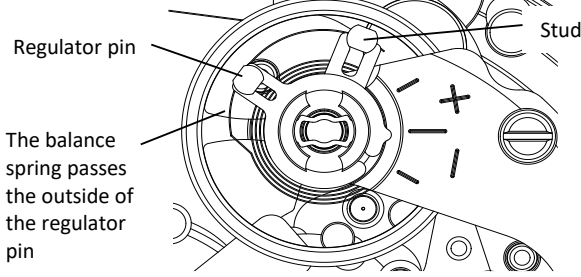
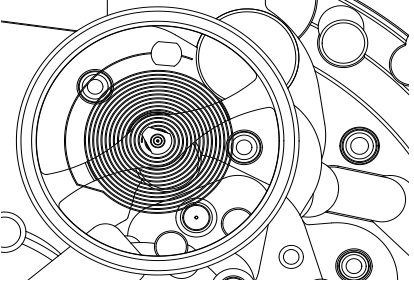
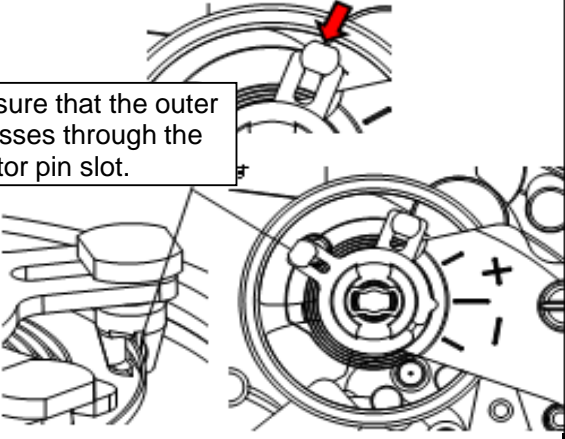


Large gap between balance spring and regulator pin



Small gap between balance spring and regulator pin

8. How to remove and install the Balance complete with stud

How to remove	How to install
<p>1. Initial phase Set "Balance with balance spring with balance bridge" to "Main plate".</p> 	<p>1. Initial phase Set a new balance complete with stud to the main plate.</p> 
<p>Operation of "Stud support" Move the stud support toward the arrow marked direction until it touches the balance cock. * At this time, make sure that the "Regulator" is not located at the bending root of the outer end reforming part of the "balance spring"</p> 	<p>2. Set the Balance cock and tighten the balance cock screw.</p> 
<p>3. Using sturdy tweezers, push the stud outward from the direction of the arrow shown in the illustration until it is removed from the stud support.</p> 	<p>3. Temporarily set the stud to the stud support. Make sure that the balance spring passes outside the regulator pin. * Be careful not to damage the balance spring.</p> 
<p>4. Unscrew the Balance cock screw and remove the Balance cock. * Be careful not to deform the "balance spring".</p> 	<p>4. Using sturdy tweezers, set the stud to the stud support and press it down. Make sure that the outer coil passes through the regulator pin slot. * Be careful not to damage the balance spring.</p> <div data-bbox="826 1742 1145 1843" style="border: 1px solid black; padding: 2px;"> <p>Make sure that the outer coil passes through the regulator pin slot.</p> </div> 

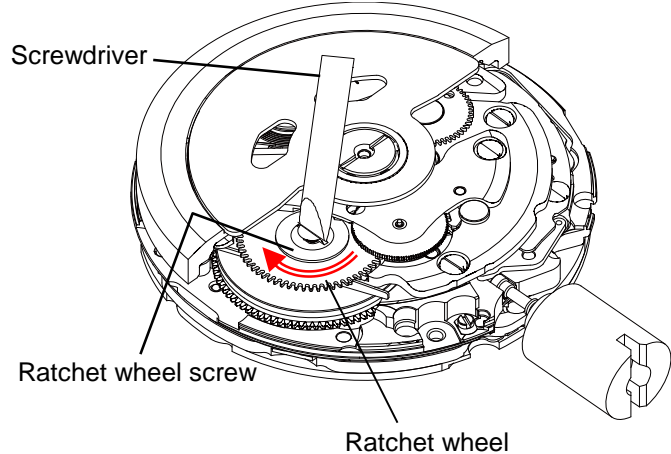
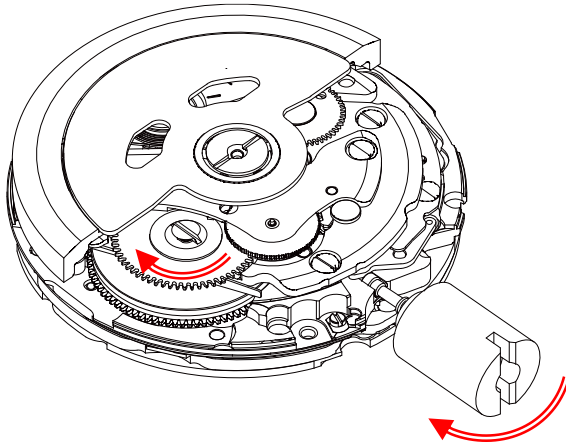
9.To wind up the mainspring

<<Movement>>

The mainspring would be fully wound up by turning the ratchet wheel screw **11 times** clockwise. (Manual winding or Screwdriver)
 Manual winding ... Rotate crown clockwise at normal position by minimum **65 times**. (Equal to ratchet wheel screw 11 times)
 Screwdriver winding ... Turn the ratchet wheel screw **11 times** clockwise.

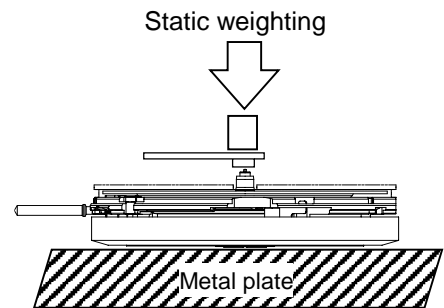
[Manual winding]

[Screwdriver winding]



10.How to attach hands

Place the movement directly on a flat metal plate or something similar to attach the hands.
 We recommend the use of movement holder to attach hands.
 For hands attachment, please use a special equipment.
 When the movement receives a strong shock, it may be damaged.



11.Accuracy measurement condition

Static Accuracy : -15~+25 seconds per day

Measurement Conditions

- 1) Measurement should be done within 10~60 minutes after fully wound up.
- 2) Lift angle of the escapement : 53 degrees
- 3) Measurement position : (1) Dial up (2) 9 o'clock up (3) 6 o'clock up
- 4) Minimum measurement Time : 60 seconds
- 5) Stabilizing Time :

Leave the watch for at least 60 seconds to stabilize after you change its measurement position.