PARTS LIST /TECHNICAL GUIDE

Automatic Cal. 6R24A

[SPECIFICATIONS]

Item \ Cal. No.		6R24A				
		  				
• 3 hands (hour, minute and second hands) • Date/Day indication • Power reserve indicator		Movement size • Diameter Outside: Ø 27.4 mm Casing: Ø 27.0 mm • Height: 6.15 mm				
Driving system		Automatic winding with manual winding mechanism				
Time indication		• 3 hands (Hour, Minute and Small Second hands) • Calendar (day / date retrograde hands)				
Additional function		• Power reserve indicator (9 o'clock position) • Retrograde day indication function (3 o'clock position) • Retrograde date indication function (6 o'clock position) • Second hand stop function • Day / date correction function				
Crown operation	Normal position	Manual winding (clockwise only)				
	1st click position	Date setting (counterclockwise) / Day setting (clockwise)				
	2nd click position	Time setting (Hour and minute) Second hand stop				
Vibration per hour		28,800 (8 beats per second)				
Loss/Gain	Daily rate worn on the wrist at temperature-range between 5 °C and 35 °C)	Between + 25 and - 15 seconds				
	Standard rate for measurement	Mainspring wind up status	Fully wind up			After 24 hours from fully wind up
		Testing positions	Dial upward: T0 (CH)	6 o'clock at the top	9 o'clock at the top	Dial upward : T24 (CH)
		Measurement (daily rate in seconds:s/d)	± 10 s/d	± 15 s/d	± 15 s/d	(Isochronism fault: T24-T0) ± 10 s/d
Regulation system		ETACHRON system				
Lift angle of the escapment		52 °				
Power reserve		From fully wound to stoppage: Approximately 45 hours				
Number of jewels		31 jewels				

SEIKO WATCH CORPORATION

SPECIFICATIONS

FEATURES

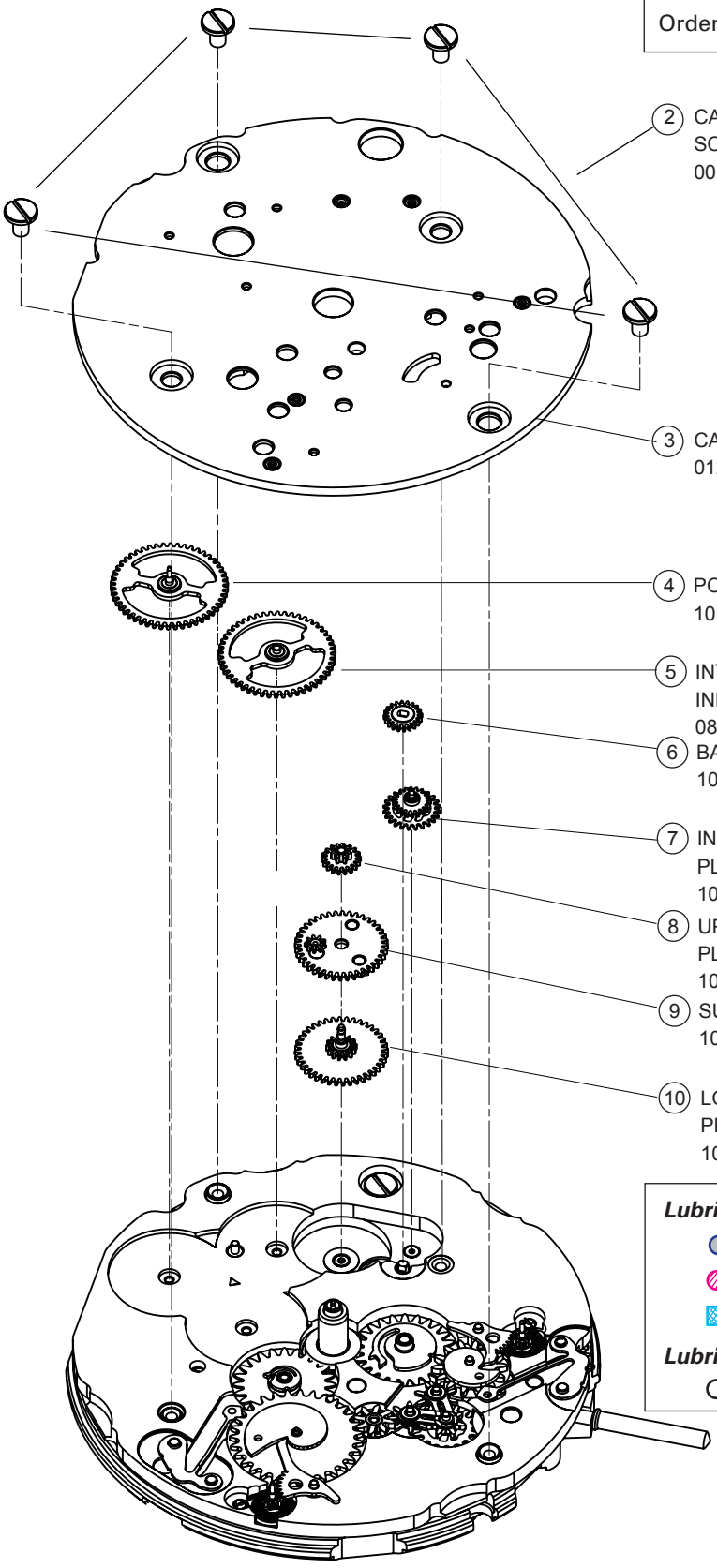
SEIKO Automatic Cal. 6R24A was developed based on the design of the Cal. 6R20A and 6R21A. For Cal. 6R24A, its day and date indicators have been changed to the retrograde indications.

CHARACTERISTICS OF A MECHANICAL WATCH

1. This mechanical watch operates using power obtained from a mainspring.
2. While loss/gain of a quartz watch is indicated by a monthly or annual rate, accuracy of a mechanical watch is normally indicated by a daily rate (loss/gain per day).
3. Normal usage accuracy of a mechanical watch varies according to conditions of use (time period that the watch is worn on the wrist, temperature environment, hand movement, and winding state of the mainspring).
4. When the watch is affected by strong magnetism, it temporarily gains or loses time. If the watch encounters a strong magnetic field, the parts of the watch may be magnetized. In this case, repairs such as removal of magnetism are required.

PARTS LIST

[POWER RESERVE INDICATOR MECHANISM]



Order of disassembly: (1) → (71)
Order of assembly: (71) ← (1)

(2) CALENDAR TRAIN BRIDGE SCREW
0012201

(3) CALENDAR TRAIN BRIDGE
0126032

(4) POWER RESERVE INDICATOR WHEEL
1019002

(5) INTERMEDIATE POWER RESERVE INDICATOR WHEEL
0817047

(6) BARREL PINION
1010267

(7) INTERMEDIATE WHEEL FOR SUN AND PLANETARY WHEEL
1026002

(8) UPPER WHEEL FOR SUN AND PLANETARY WHEEL
1009004

(9) SUN AND PLANETARY WHEEL
1001025

(10) LOWER WHEEL FOR SUN AND PLANETARY WHEEL
1009003

Lubricating: Types of lubricant
- Watch Oil AO-3
- SEIKO Watch Grease S-6
- SEIKO Watch Grease S-4

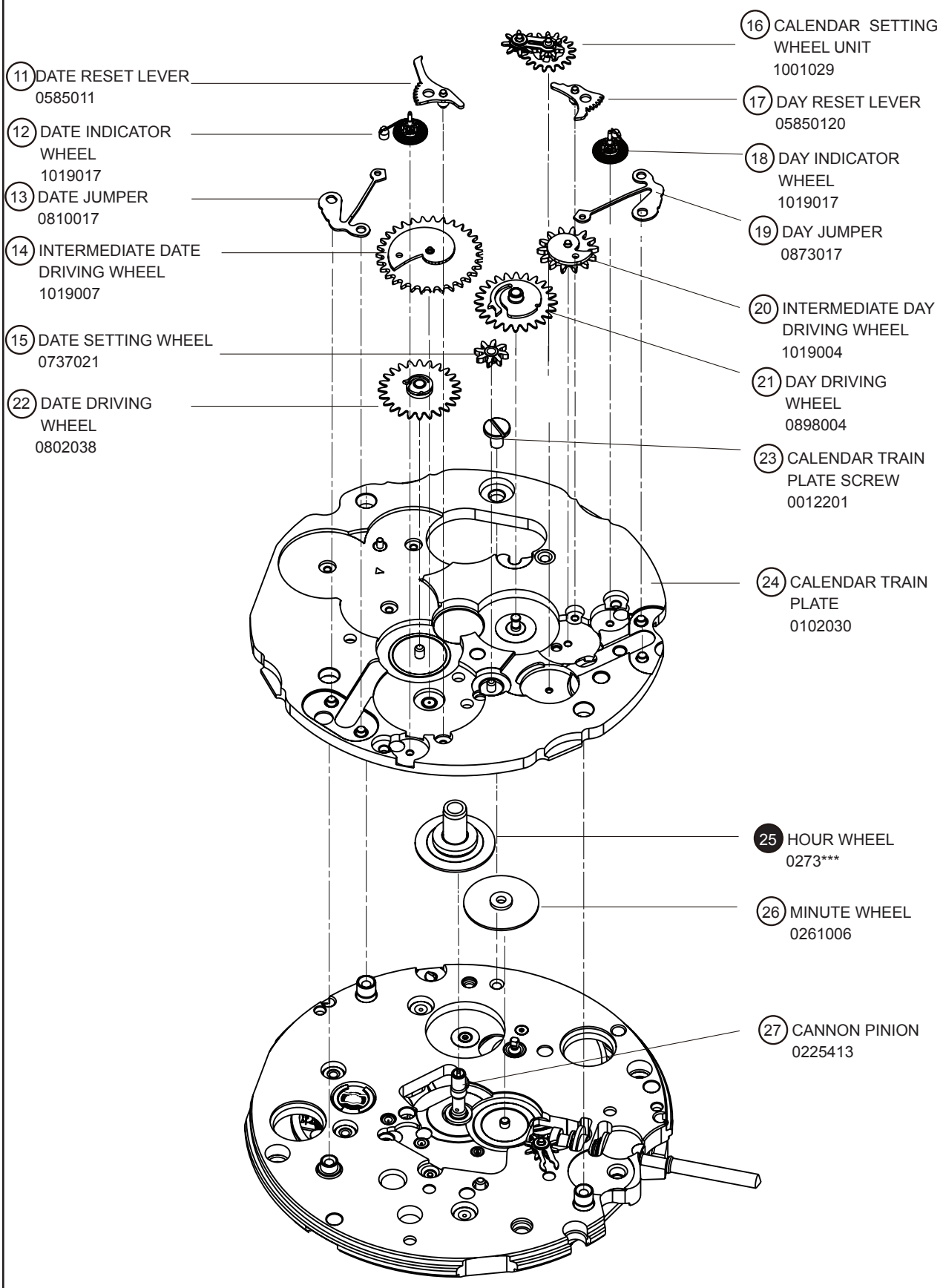
Lubricant quantity
- Normal quantity

*For parts❶, refer to page 9.

PARTS LIST

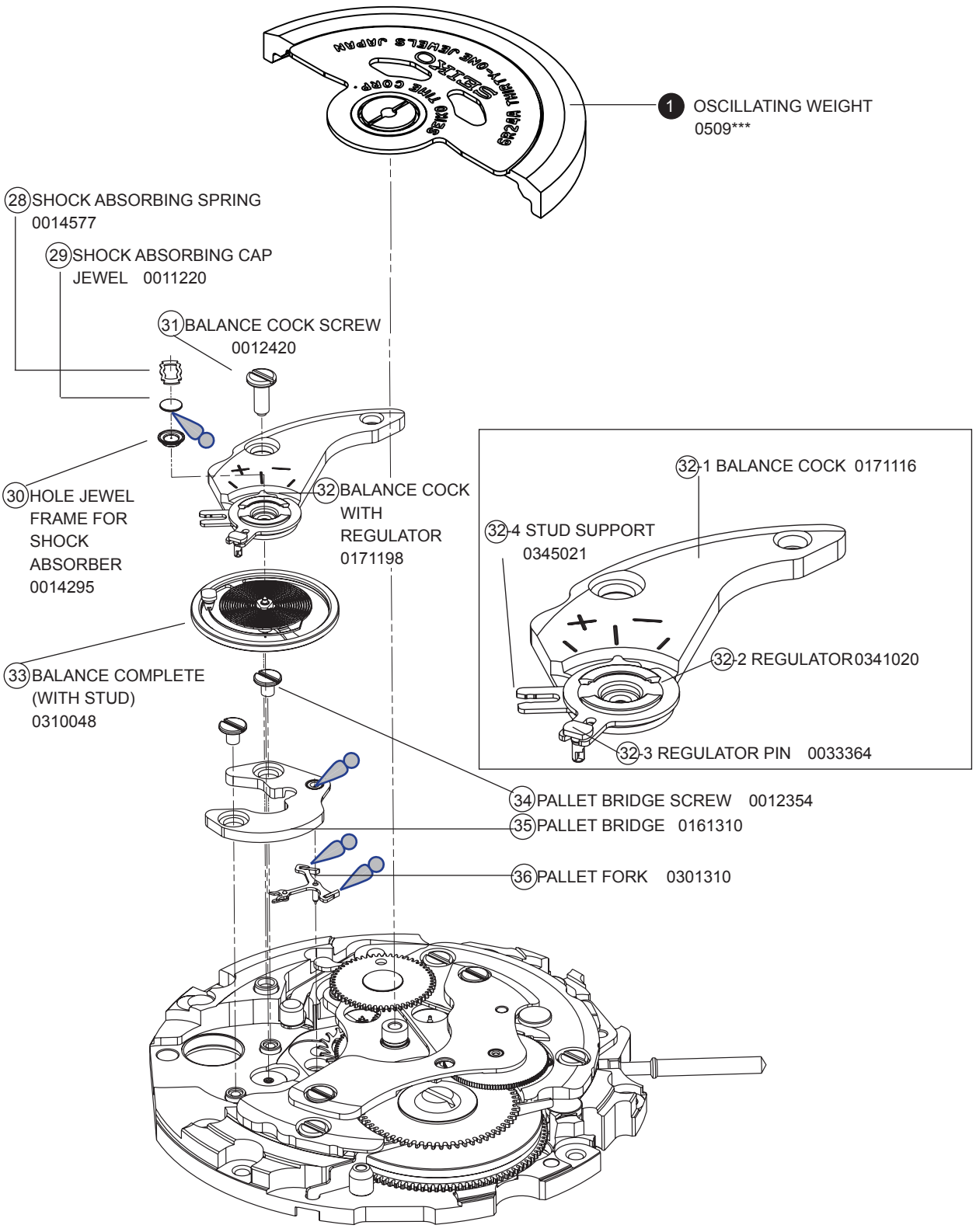
Cal. 6R24A

[CALENDAR MECHANISM]



PARTS LIST

[BALANCE AND ESCAPEMENT]

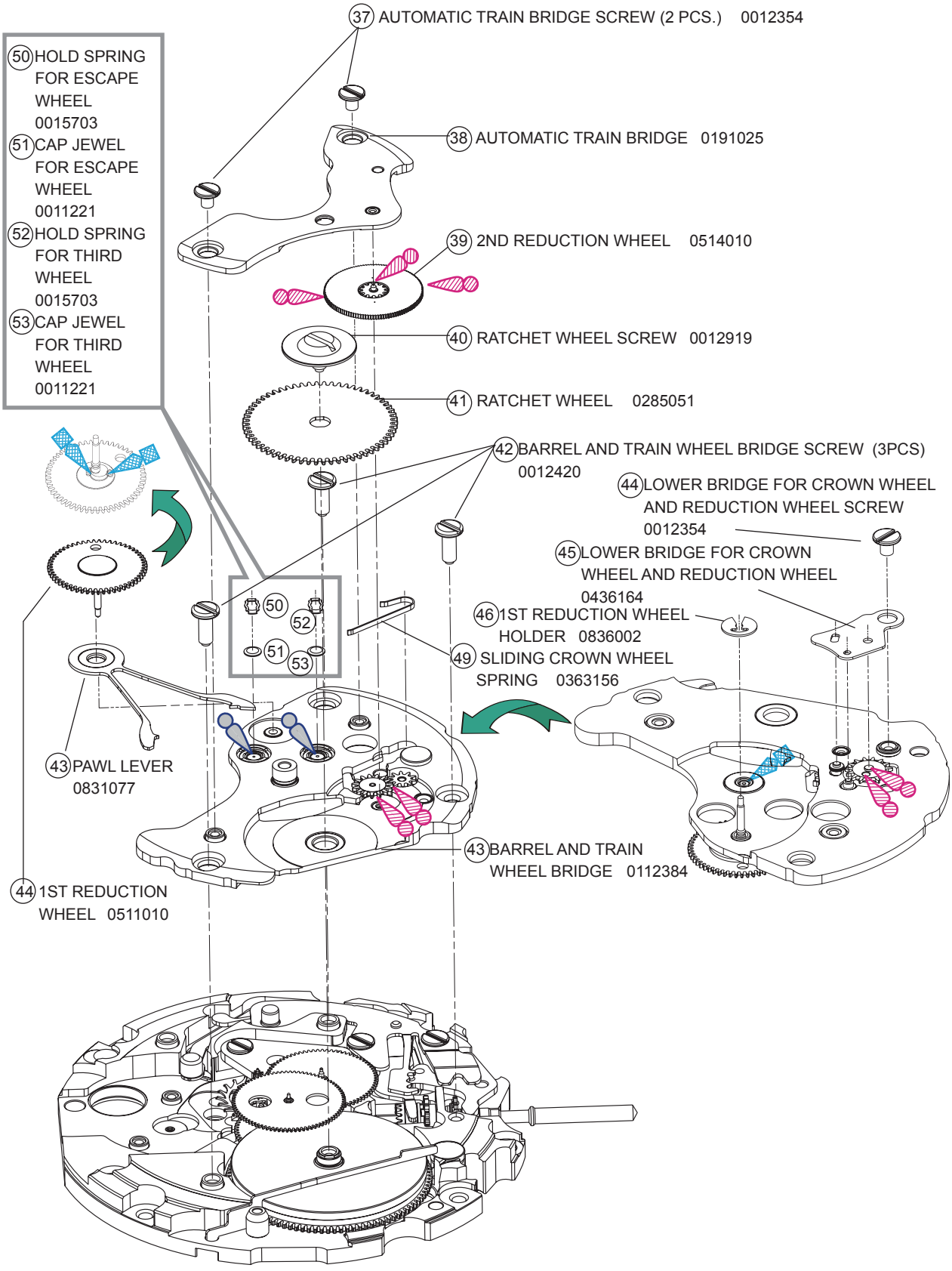


*For parts 1, refer to page 9.

PARTS LIST

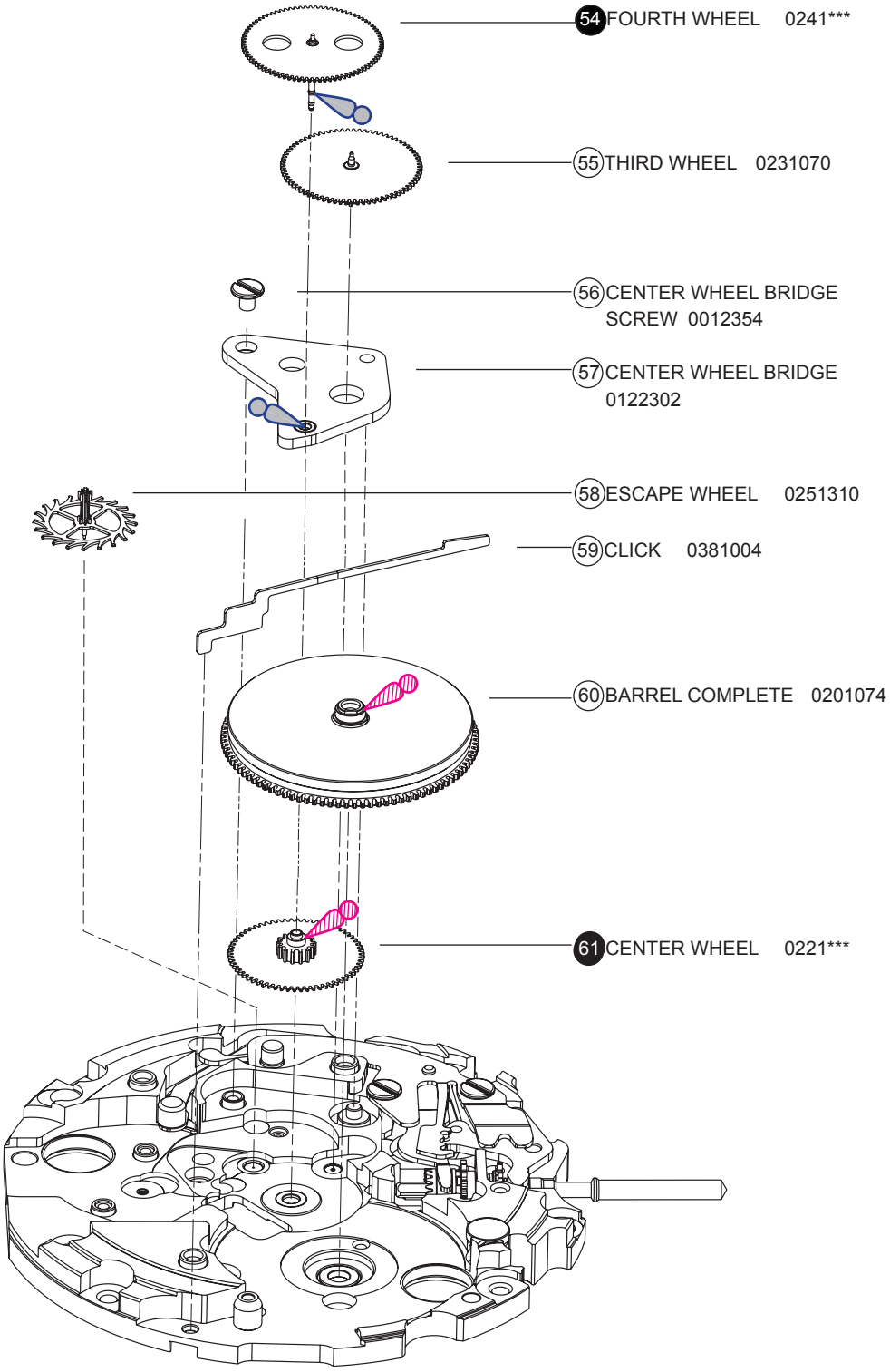
Cal. 6R24A

[WINDING MECHANISM]



PARTS LIST

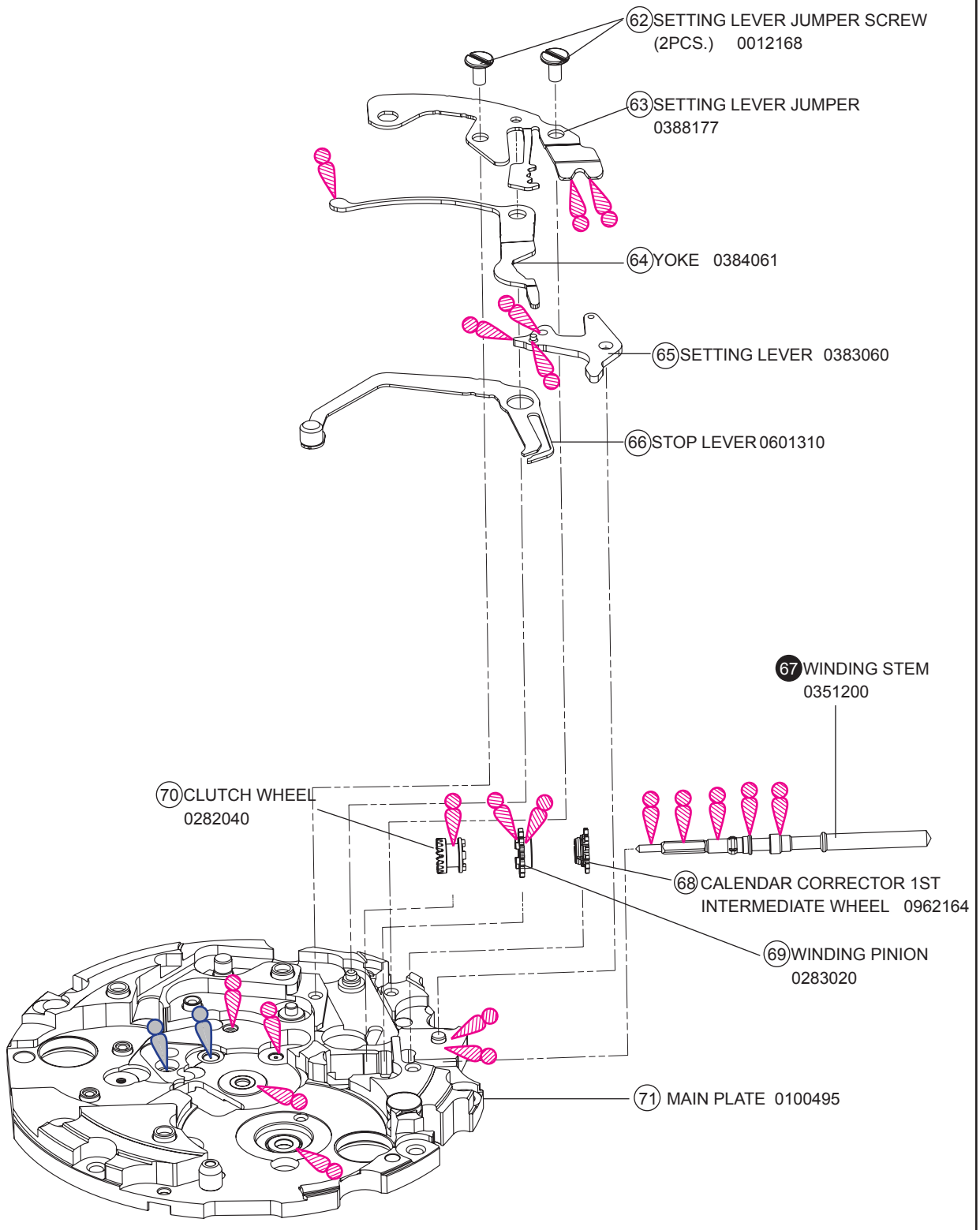
[GEAR TRAIN MECHANISM]



*For parts 54 and 61, refer to page 9.

PARTS LIST

[SETTING MECHANISM]



* For parts 67 , refer to page 10.

PARTS LIST

● How to find the correct parts, if not determined by 4 digit caliber number

Following parts are determined based on the design of watches, such as hands height, dial color, and design of cases. Please refer to the SEIKO WATCH PARTS CATALOGUE in order to choose corresponding parts.

1 OSCILLATING WEIGHT

0509290

0509291 (for ANANTA)

67 WINDING STEM 0351200

For screw down crown models, the stem is assembled to the crown and is not available separatelly.

25 HOUR WHEEL 0273***

54 FOURTH WHEEL 0241***

61 CENTER WHEEL 0221***

Please refer to the following table in order to find the correct part number of each wheel according to the hand installation height. The numeral 2 or 3 is printed on the DIAL.

	25 HOUR WHEEL	54 FOURTH WHEEL	61 CENTER WHEEL
2	0273029	0247216	0221085

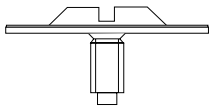
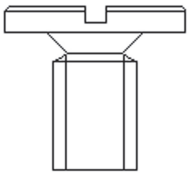
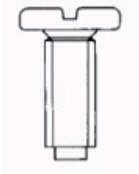
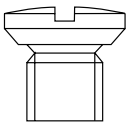
Example:

6R21-00C0 T2

↳Hand installation height

PARTS LIST

CROSS-SECTION VIEW OF THE SCREW PARTS

Parts code	Parts name
 0012 919	(40) RATCHET WHEEL SCREW
 0012 354	(34) PALLET BRIDGE SCREW (2 pcs) (37) AUTOMATIC TRAIN BRIDGE SCREW (2 pcs) (44) LOWER BRIDGE FOR CROWN WHEEL AND REDUCTION WHEEL SCREW (56) CENTER WHEEL BRIDGE SCREW
 0012 201	(2) CALENDAR TRAIN BRIDGE SCREW (4 pcs) (23) CALENDAR TRAIN PLATE SCREW
 0012 168	(62) SETTING LEVER JUMPER SCREW (2 pcs)
 0012 420	(31) BALANCE COCK SCREW (42) BARREL AND TRAIN WHEEL BRIDGE SCREW (3 pcs)
 0012 067	CASING CLAMP SCREW (2 pcs)

PARTS LIST

● **Location of the jewels**

		Upper		Lower	
		Cap jewel	Hole jewel	Cap jewel	Hole jewel
GEAR TRAIN MECHANISM	(54) FOURTH WHEEL	–	○	–	–
	(55) THIRD WHEEL	○	○	–	○
	(58) ESCAPE WHEEL	○	○	–	○
	(60) BARREL COMPLETE (WITH MAINSPRING)	–	–	–	○
	(61) CENTER WHEEL	–	○	–	○
WINDING MECHANISM	(39) 2ND REDUCTION WHEEL	–	○	–	○
	CROWN WHEEL (Assembled to the (43) BARREL AND TRAIN WHEEL BRIDGE)	–	○	–	–
	(48) 1ST REDUCTION WHEEL	–	○	–	○
POWER RESERVE INDICATOR / CALENDAR UNIT	(12) SUN WHEEL	–	○	–	○
	(7) PLANETARY REDUCTION WHEEL	–	○	–	○
	(15) DATE DRIVING REDUCTION WHEEL	–	–	–	○
BALANCE AND ESCAPEMENT	(9) DAY WHEEL	–	–	–	○
	(14) DATE WHEEL	–	–	–	○
	(33) BALANCE COMPLETE (WITH STUD)	○	○	○	○
	(36) PALLET FORK	–	○	–	○
	ENTRY PALLET JEWEL	○			
	EXIT PALLET JEWEL	○			
	ROLLER JEWEL	○			
TOTAL NUMBER OF JEWELS		31 jewels			

● Tools and consumables required for disassembling/reassembling

• Movement holder

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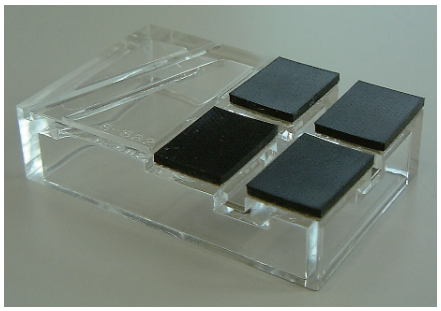
(S-682)



• Watch oils

SEIKO watch grease S-6 and S-4. watch oil AO-3 (or Moebius A)

S-6

AO-3

S-4