EMMENTAGE RESTORATIONS

Seiko 6309A Movement Parts (1)

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SEIKO



 $\Rightarrow \Rightarrow$ Please see remarks.

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 $\Rightarrow \Rightarrow$ Please see remarks on the next page.

Style Name

PART NO. PART NAME 014 365 Diashock hole jewel with frame 022 257 Setting lever spring screw 022 458 Screw for oscillating weight 022 457 Ratchet wheel screw 022 458 Pallet cock screw 022 459 Pallet cock screw 022 459 Pallet cock screw 022 459 Date driving wheel screw 022 459 Barrel & train wheel bridge screw 022 760 Date dial guard screw 022 760 Day jumper screw 023 039 Tube for pallet cock screw (recessed type) 023 150 Tube for pallet cock screw (recessed type) 023 151 Tube for barrel & train wheel bridge screw 023 151 Tube for barrel & train wheel bridge screw 023 151 Tube for pallet cock screw (recessed type) 023 151 Tube for barrel & train wheel bridge screw	F	PART NO.	PART NAME
014 365 Diashock hole jewel with frame 022 257 Setting lever spring screw 022 458 Screw for oscillating weight 022 467 Ratohet wheel screw 022 468 Pallet cock screw 022 468 Date driving wheel screw 022 469 Date driving wheel screw 022 461 Minute wheel bridge screw 022 462 Barrel & train wheel bridge screw 022 463 Balance cock screw 022 464 Balance cock screw 022 465 Balance cock screw 022 466 Day jumper screw 022 760 Date dial guard screw 022 760 Date screw 022 760 Day jumper screw 022 760 Day jumper screw 022 760 Day for pallet cock screw (recessed type) 023 039 Tube for pallet cock screw (cylinder type) 023 040 Tube for pallet cock screw (cylinder type) 023 151 Tube for screw & screw 023 151 Tube for screw & screw 023 151 Tube for screw & screw 023 151 Screw & screw 023 151 Screw & screw		014 365	
		022 257 022 458 022 467 022 468 022 468 022 468 022 468 022 493 022 493 022 493 022 760 022 760 022 761 022 160 023 039 023 040 023 150 023 151	Diashock hole jewel with frame Center wheel bridge screw Setting lever spring screw Pallet cock screw Pallet cock screw Framework screw for automatic device with ball-bearing Date driving wheel screw Minute wheel bridge screw Barrel & train wheel bridge screw Balance cock screw Date dial guard screw Date dial guard screw Date for framework screw of automatic device Tube for pallet cock screw (recessed type) Tube for pallet cock screw (cylinder type) Tube for barrel & train wheel bridge screw

Calibre No.		Jewels	Style Name		
6	309A	17i			
•	••••	•••			
Remarks :					
Lever for unlock	king stem				
☆397 601…	······Used for the one-pie (When the dial is sh the lever for unlocki	ece type case aped other than ng stem.)	with the dial whose exte an round, the radius is to	rnal diameter is 2 5 ble measured in th	7mm or longer. ne direction of
☆397 602…	······Used for the one-pie (When the dial is sh the lever for unlocki	ece type case aped other than ng stem.)	with the dial whose exte an round, the radius is to	rnal diameter is les 5 be measured in th	s than 27mm. ne direction of
Date dial					
☆801601(Black figures on white bac	kground)	···Used when both the cr	rown and the calend	lar frame are
			located at 3 o'clock p	osition.	an aslandar
If any frame	other type of date dial is position and (1) the dial N	requirea, spec No.	city (_) Cal. No, (2) the c	rown position (3) a	
Day star with d	al disk				
☆870 510(English ←→ Spanish)······	Used when bo 3 o'clock posi	oth the crown and the ca ition.	lendar frame are lo	cated at
If any	other type of day star wi	ith dial disk is	required, specify the nur	mber printed on the	e disk.
بريعة محماد محمالية الأرا	dial				
Holding ring for	The type of a hold!	na rina for dia	at is determined based or	n the decign of cas	as and dials
Holding ring for ☆884 931• Oscillating weig	The type of a holdin Check the case num holding ring for dial.	ng ring for dia nber and refer	al is determined based or to "SEIKO Casing P	n the design of cas arts List" to choo movements of calib	es and dials. ose a corresponding
Holding ring for ☆884 931• Oscillating weig ☆500 601•	The type of a holdin Check the case num holding ring for dial. ht This oscillating weig listed below, and the	ng ring for dia nber and refer tht is interchan e interchangea	al is determined based or to "SEIKO Casing P ngeable with the one for bility is limited within the	n the design of cas arts List" to choo movements of calib e listed calibres.	es and dials. ose a corresponding ore 61 series
Holoing ring for ☆884 931 Oscillating weig ☆500 601	The type of a holdin Check the case num holding ring for dial. ht This oscillating weight	ng ring for dia nber and refer	al is determined based or to "SEIKO Casing P ngeable with the one for bility is limited within the	n the design of cas arts List" to choo movements of calib e listed calibres.	es and dials. ose a corresponding ore 61 series
Holding ring for ☆884 931+ Oscillating weig ☆500 601+	The type of a holdi Check the case num holding ring for dial. This oscillating weigh listed below, and the Qscillating weight Cal. No.	ng ring for dia nber and refer	al is determined based or to "SEIKO Casing P ageable with the one for bility is limited within the 500 622	n the design of cas arts List" to choo movements of calib isted calibres. 500 601	es and dials. ose a corresponding ore 61 series
Holding ring for ☆884 931+ Oscillating weig ☆500 601+	The type of a holdin Check the case num holding ring for dial. Int Call No. 6105 A & B	ng ring for dia nber and refer	al is determined based or to "SEIKO Casing P ngeable with the one for bility is limited within the 500 622	n the design of cas arts List" to choo movements of calib e listed calibres.	es and dials. ose a corresponding ore 61 series
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RESTORATIONS

6309A

1) Specifications

Casing diameter: Height: Vibrations per hour: Automatic winding

\$ 27.0 mm 5.2 mm 21,600

Calendar mechanism: Day and date, bilingual change-over system for the day of the week, instant day and date setting device

2) Features

- Highly reliable movement The highly stabilized accuracy and high reliability established for the 61 series has been incorporated into the movement.
- Easy-to-use day/date setting device All that is required for day-date correction is to turn the crown. Turn clockwise (away from you) for date setting; turn counter clockwise (towards you) for day setting.
- Easy after-servicing Disassembling and reassembling procedures and serviceability have been improved largely by:
 - employment of a new balance hairspring holding device;
 - decrease in number of parts resulting from the simplification of the movement structure;
 - decrease in number of new parts resulting from interchangeability of some parts with Cal. 61 series.

3) Disassembling and reassembling

Disassembling procedures Figs.: $(1) \sim 57$ Reassembling procedures Figs.: $67 \sim (1)$ The movement holder for 61 series is also used for disassembling and reassembling.

4) Lubrication

The following marks indicate the types of oil, and quantity to be applied and lubricating portions.

Type of oil

- Moebius A
- Moebius V
- SEIKO Watch Oil, S-2 •
- SEIKO Watch Oil, S-6 -
- **Oil quantity**

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- ••• Liberal quantity
- Normal quantity
- Extremely small quantity
- Note: Never lubricate the portions marked 🛞



6309A Hands, dial and holding ring for dial

Holding ring for dial

As this holding ring for the dial incorporates the two functions of both the currently used holding ring for dial and the case ring, it simplifies the casing of the watch.



The holding ring for dial is generally classified into two types.



• The movement holder for 61 series cannot be used if the holding ring for dial is assembled with the movement, because the holding ring for dial touches when setting the movement into the movement holder as shown in the illustration. (The movement holder for 61 series can be used for the one-piece type case, square type case and case with dial ring.)



The holding ring for dial touches when setting the movement into the movement holder.

• Disassembling and reassembling of this holding ring for dial from the movement is a little different from that of the current holding ring for dial. Follow the procedures below.

Disassembling

• When the movement is to be removed from the case, pull out the winding stem and turn the case upside down. The movement should fall out. It is not necessary to pull up on the holding ring for dial.

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• After loosening the dial screws, the dial and the holding ring for dial can be removed together. Put the tip of tweezers into the groove of the main plate located near the barrel and pry toward the arrow marked direction as shown in the illustration. Then the dial and the holding ring for dial will be removed together.



Reassembling

- Place the groove for the stem of the holding ring for dial upon the winding stem, and press down the holding ring for dial on the mainplate.
- Place the movement on a clean cloth when handling.



Hour, minute and second hands

Note for reassembling:

• When mounting the hands, place the movement on a clean cloth.



6309A Calendar mechanism

6309A Automatic winding mechanism, escapement and governor mechanism



Screw for oscillating weight Note for reassembling: • After assembling, check to be sure that the oscillating weight does not touch the main plate or the framework for automatic device, and automatic winding mechanism work's correctly. Oscillating weight Framework screw for automatic device with ball bearing (3 pcs.) Framework for automatic device with ball bearing Note for disassembling: • The pawl lever with jewel (2) and the holder for transmission wheel and pawl lever (27) are removed together by any level (g) are removed together with it.
Be careful because the transmission wheel is liable to jump out, pushed by the power of the main spring. Note for reassembling: • Set the transmission wheel on the barrel and train-wheel bridge first, place the framework for automatic device in position, and engage the pawl of the pawl lever with jewel with the transmission wheel by opening the pawl with tweezers as illustrated helow. Tweezers (29)Transmission wheel Structure of balance hairspring holding device The batance hairspring holding device newly developed by SEIKO facilitates after-sale servicing with the following features: (1) The balance hairspring can be easily removed and reassembled by simply loosening the balance hairspring holder screw. (2) The balance hairspring terminal can be fixed without damaging its shape. (3) The balance hairspring can be kept horizontally (35) Pallet cock screw (2 pcs.) Note for disassembling: · Remove the pallet cock screw after releasing the mainspring. Pallet cock Jewelled pallet fork and staff

6309A Gear train mechanism

6309A Setting mechanism



–Setting lever spring screw (50)-Setting lever spring (51)Yoke (52) -Setting lever (53) (Lever for unlocking stem)
Only for the one-piece type case and the square type case. -Setting lover axle 54LINE DE -Winding stem (55)

6309A Setting mechanism

Crown at the normal position (free)

The clutch wheel and the setting wheel do not gear with each other, and no power can be transmitted to the mainspring by turning the crown.

Crown at the first click position (for day/date setting)

(1) Clockwise turning (date setting) Turn the crown clockwise, and the corrector wheel will move toward the date dial and it will gear with the date dial to correct the date.

The turning force is transmitted from the Crown, Clutch Wheel, Setting Wheel, Intermediate Setting Wheel, Corrector Wheel and Date Dial.

(2) Counterclockwise turning (day setting) Turn the crown counterclockwise, and the corrector wheel will move toward the day star with dial disk and it will gear with the intermediate wheel for day correction to the day.

The turning force is transmitted from the Crown, Clutch Wheel, Setting Wheel, Intermediate Setting Wheel, Corrector Wheel, Intermediate Wheel for Day Correction and Day Star with Dial Disk.

Crown at the second click position (for hand setting)

The setting wheel lever complete will move toward the minute wheel through the function of the setting lever and the intermediate setting wheel will gear with the minute wheel to set the hands.

At the same time, this motion of the setting wheel lever complete is transmitted to the day-date corrector wheel rocking lever and, the corrector wheel moves into a neutral position so that it will not gear with either the date dial and the intermediate wheel for day correction.

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6309A

 Specifications Casing diameter: Height: Vibrations per hour: Automatic winding Calendar mechanism: Day gual change-over system for week, instant day and dat 	φ 27.0 mm 5.2 mm 21,600 and date, bilin- r the day of the e setting device
 2) Features Highly reliable movemen The highly stabilized ac reliability established for been incorporated into Easy-to-use day/date sett All that is required for tion is to turn the crow wise (away from you) f turn counter clockwise for day setting. Easy after-servicing Disassembling and reass 	t curacy and high the 61 series has the movement. ing device day-date correc- wn. Turn clock- or date setting; (towards you)

dures and serviceability have been improved largely by:

- employment of a new balance hairspring holding device;
- decrease in number of parts resulting from the simplification of the movement structure;
- decrease in number of new parts resulting from interchangeability of some parts with Cal. 61 series.

3) Disassembling and reassembling

Disassembling procedures Figs.: (1) ~ (57) Reassembling procedures Figs.: (57) ~ (1) The movement holder for 61 series is also used for disassembling and reassembling.

4) Lubrication

The following marks indicate the types of oil, and quantity to be applied and lubricating portions.

Type of oil

- Moebius A
 Moebius V
- SEIKO Watch Oil, S-2
- SEIKO Watch Oil, S-2
 SEIKO Watch Oil, S-6
- SEIKO wa
- Oil quantity

- 6309A - 1 -

- ••• Liberal quantity
- Normal quantity

• Extremely small quantity Note: Never lubricate the portions marked &



6309A Hands, dial and holding ring for dial

Holding ring for dial

As this holding ring for the dial incorporates the two functions of both the currently used holding ring for dial and the case ring, it simplifies the casing of the watch.



The holding ring for dial is generally classified into two types.



• The movement holder for 61 series cannot be used if the holding ring for dial is assembled with the movement, because the holding ring for dial touches when setting the movement into the movement holder as shown in the illustration. (The movement holder for 61 series can be used for the one-piece type case, square type case and case with dial ring.)



The holding ring for dial touches when setting the movement into the movement holder.

• Disassembling and reassembling of this holding ring for dial from the movement is a little different from that of the current holding ring for dial. Follow the procedures below.

Disassembling

• When the movement is to be removed from the case, pull out the winding stem and turn the case upside down. The movement should fall out. It is not necessary to pull up on the holding ring for dial.

····

• After loosening the dial screws, the dial and the holding ring for dial can be removed together. Put the tip of tweezers into the groove of the main plate located near the barrel and pry toward the arrow marked direction as shown in the illustration. Then the dial and the holding ring for dial will be removed together.



Reassembling

- Place the groove for the stem of the holding ring for dial upon the winding stem, and press down the holding ring for dial on the mainplate.
- Place the movement on a clean cloth when handling.



Hour, minute and second hands

Note for reassembling:

• When mounting the hands, place the movement on a clean cloth.



-Clean cloth

6309A Calendar mechanism

6309A Automatic winding mechanism, escapement and governor mechanism



Screw for oscillating weight -Note for reassembling: • After assembling, check to be sure that the oscillating weight does not touch the main plate or the framework for automatic device, and automatic winding mechanism work's correctly. Oscillating weight Framework screw for automatic device with ball bearing (3 pcs.) Framework for automatic device with ball bearing Note for disassembling: • The pawl lever with jowel @ and the holder for transmission wheel and pawl lever () are removed together With it.
Be careful because the transmission wheel is liable to jump out, pushed by the power of the main spring. Note for reassembling: • Set the transmission wheel on the barrel and train-wheel bridge first, place the framework for automatic device in position, and engage the pawl of the pawl lever with jewel with the transmission wheel by opening the pawl with tweezers as illustrated helow Tweezers Transmission wheel Structure of balance hairspring holding device The balance hairspring holding device newly developed by SEIKO facilitates after-sale servicing with the following features: (1) The balance hairspring can be easily removed and reassembled by simply loosening the balance hairspring holder SCLOW. (2) The balance hairspring terminal can be fixed without damaging its shape, (3) The balance hairspring can be kept horizontally (35)Pallet cock screw (2 pcs.) Note for disassembling: • Remove the pallet cock screw after releasing the mainspring. Pallet cock Jewelled pallet fork and staff

6309A Setting mechanism 6309A Gear train mechanism -Ratchet wheel screw (38)-Ratchet wheel (39)-Barrel & train-wheel bridge screw (3 pcs.) (40)Barrel & train-wheel bridge (41)Click (42) Note for reassembling: Hook the tip of the click to the arrow-marked portion of the main plate before setting the barrel and train-wheel bridge (1) as illustrated below. That will facilitate setting the barrel and train-wheel bridge. **43** Fourth wheel and pinion 88 44 Third wheel and pinion ଟ୍ର Se!» (45) Escape wheel and pinion Ô (56) Clutch wheel ٢ -Complete barrel with arbor 46đ (57) Diashock (47) Center wheel bridge screw Turning 10 (48) Center wheel bridge (49) Center wheel and pinion-0-

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6309A Setting mechanism

Crown at the normal position (free)

The clutch wheel and the setting wheel do not gear with each other, and no power can be transmitted to the mainspring by turning the crown.

Crown at the first click position (for day/date setting)

(1) Clockwise turning (date setting)

Turn the crown clockwise, and the corrector wheel will move toward the date dial and it will gear with the date dial to correct the date.

The turning force is transmitted from the Crown, Clutch Wheel, Setting Wheel, Intermediate Setting Wheel, Corrector Wheel and Date Dial.

(2) Counterclockwise turning (day setting) Turn the crown counterclockwise, and the corrector wheel will move toward the day star with dial disk and it will gear with the intermediate wheel for day correction to the day.

The turning force is transmitted from the Crown, Clutch Wheel, Setting Wheel, Intermediate Setting Wheel, Corrector Wheel, Intermediate Wheel for Day Correction and Day Star with Dial Disk.

Crown at the second click position (for hand setting)

The setting wheel lever complete will move toward the minute wheel through the function of the setting lever and the intermediate setting wheel will gear with the minute wheel to set the hands.

At the same time, this motion of the setting wheel lever complete is transmitted to the day-date corrector wheel rocking lever and, the corrector wheel moves into a neutral position so that it will not gear with either the date dial and the intermediate wheel for day correction.





NWATCH RESTORATIONS

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