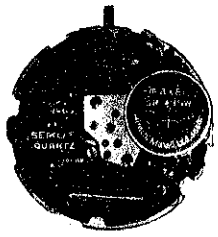
SEIKO

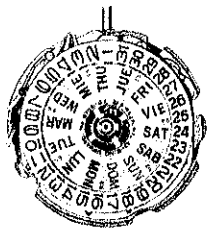
QUARTZ

Cal. 7559A

PARTS LIST

Cal. 7559A






122 750


131 750


221 750


225 611


231 750


241 750


261 611


271 611

282 601

354 753


383 601


384 601


387 601


388 753

390 601


391 750


701 750


☆801 601


802 601


803 757


808 601


810 601


817 611


868 601

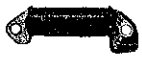

☆870 510


873 601


884 605


963 610


4001 751


4002 753

4032 753


4050 746

4146 750


☆4219 753


4239 750


4242 754

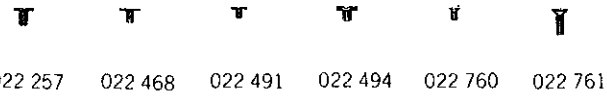
4259 750


4259 751

4450 753


4455 750

☆Maxell SR43SW


022 257 022 468 022 491 022 494 022 760 022 761

2/1

☆⇨Please see remarks on the next reverse page.

Cal. 7559A

Characteristics

Casing diameter : ϕ 27.0 mm
Maximum height : 4.6 mm without battery
Jewels: 4 j
Frequency of quartz crystal oscillator : 32,768 Hz (Hz = Hertz . . . . . Cycles per second)
Driving system : Step motor system (2 poles)
Regulation system : Trimmer condenser
Second setting device
Calendar (Day & Date)
Instant setting device for day & date calendar
Bilingual change-over system for day of the week
Illuminating light : Illuminates the dial in the dark by depressing the crown.
Battery life indicator : Second hand moves in two-second interval.

PART NO.	PART NAME
122 750	Center wheel bridge
131 750	Third wheel bridge
221 750	Center wheel & pinion
225 611	Cannon pinion
231 750	Third wheel & pinion
241 750	Fourth wheel & pinion
261 611	Minute wheel
271 611	Hour wheel
282 601	Clutch wheel
354 753	Winding stem
383 601	Setting lever
384 601	Yoke (Clutch lever)
387 601	Minute wheel bridge
388 753	Setting lever spring
390 601	Setting lever axle
391 750	Second setting lever
701 750	Fifth wheel & pinion
☆**801 601** / ☆801 604	Date dial
802 601	Date driving wheel
803 757	Setting wheel lever complete
808 601	Date dial guard
810 601	Date jumper
817 611	Intermediate date wheel
868 601	Day finger
☆**870 510** / ☆870 601	Day star with dial disk
873 601	Day jumper
884 605	Holding ring for dial
963 610	Snap for day star with dial disk
4001 751	Circuit block
4002 753	Coil block
4032 753	Bulb block
4050 746	Circuit bridge plate
4146 750	Step rotor
☆**4219 753**	Bulb terminal insulator
4239 750	Rotar stator
4242 754	Plus temrinal of battery connection
4259 750	Anti-magnetic shield plate A
4259 751	Anti-magnetic shield plate B
4450 753	Switch lever
4455 750	Reset lever
011 405	Lower hole jewel for fifth wheel
011 405	Upper hole jewel for fifth wheel
011 537	Lower hole jewel for step rotor
011 537	Upper hole jewel for step rotor
023 076	Pin for anti-magnetic shield plate

PART NO.	PART NAME
027 866	Switch lever axle
022 257	Setting lever spring screw
022 468	Center wheel bridge screw
022 468	Third wheel bridge screw
022 468	Circuit block screw
022 468	Screw for plus terminal of battery connection
022 468	Date driving wheel screw
022 491	Minute wheel bridge screw
022 494	Reset lever screw
022 760	Day jumper screw
022 760	Date dial guard screw
022 761	Dial screw
☆Maxell SR43SW / ☆U.C.C. 301	Silver oxide battery

☆ ⇨Please see remarks on the reverse page.
Part numbers in light letters are not shown in photos.

Cal. 7559A

Remarks :

Date dial

☆801 601 (Black figures on white background) }
☆801 604 (White figures on black background) } ..... Used for both the crown and calendar frame at **3** o'clock position.

If any other type of date dial is required, specify ① Cal. No. ② The crown position ③ The calendar frame position and ④ Dial No.

Day star with dial disk

☆870 510 (English ↔ Spanish, black figures on white background) }
☆870 601 (English ↔ Spanish, white figures on black background) } .....
Used for both the crown and calendar frame at **3** o'clock position. If any other type of day star with dial disk is required, specify the number printed on the disk.

Bulb terminal insulator

☆4219 753 ..... When the bulb terminal insulator is adhered to the main plate, use the adhesive for glass. Refer to **"SEIKO QUARTZ TECHNICAL GUIDE"** for details.

Battery

☆Maxell SR43SW }
☆U.C.C. 301 } ..... The applied battery for this calibre might be added the substitutive in the future. In that case, please refer to separate **"BATTERIES FOR SEIKO QUARTZ WATCHES"**.

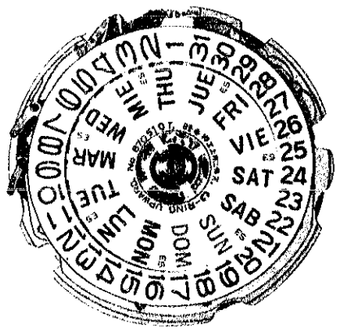
79. 9 Printed in Japan

TECHNICAL GUIDE

SEIKO

QUARTZ

CAL. 7559A



CONTENTS

I. SPECIFICATIONS

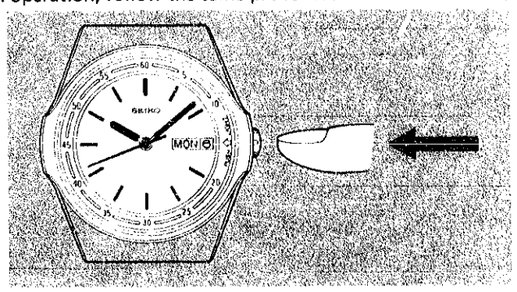
The SEIKO Quartz Cal. 7559A based on all the advanced mechanism of Cal. 75 Series watches is provided with an illuminating light which illuminates the dial in the dark. The after-sale servicing procedures are almost the same as those of Cal. 7546A watches except some parts. Refer to the "Technical Guide" of Cal. 7546A watches.

1. Specifications (Compared with Cal. 7546A)

Item \ Cal. No.		7559A	7546A
Time indication		Three hand time indication (Hour, minute and second)	
Additional mechanism	Date	○	○
	Day of the week	○	○
	Bilingual changeover system for the day of the week	○	○
	Instant day and date setting	○	○
	Electronic circuit reset switch	○	○
	Second setting device (Stops at every second)	○	○
	Battery life indicator	○	○
	illuminating light	○	—
Crystal oscillator		32,768 Hz (Hz = Hertz . . . . . Cycles per second)	
Loss/gain		Loss/gain at normal temperature range Monthly rate: less than 15 seconds (Annual rate: less than 3 minutes)	
Movement size		ϕ27.4 mm (with battery)	
Casing diameter		ϕ27.0 mm	
Height		4.6 mm (without battery)	
Operational temperature range		Time indication: $-10^{\circ}C \sim +60^{\circ}C$ ($14^{\circ}F \sim 140^{\circ}F$) Light is activated: $0^{\circ}C \sim +60^{\circ}C$ ($32^{\circ}F \sim 140^{\circ}F$)	
Driving system		Step motor system (2 poles)	
Regulation system		Trimmer condenser	
Battery power		Silver oxide battery (U.C.C.301 or Maxell SR 43SW) Battery life is approximately 5 years. Voltage: 1.55V	
Jewels		4 jewels	

II. HOW TO USE THE LIGHT (As for other crown operation, follow the same procedures as in Cal. 7546A.)

Depress the crown at the normal position and the light is activated while it is depressed.

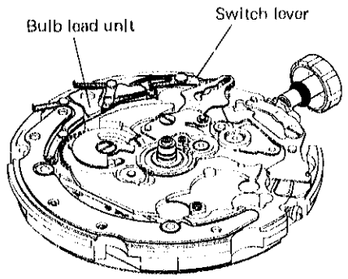


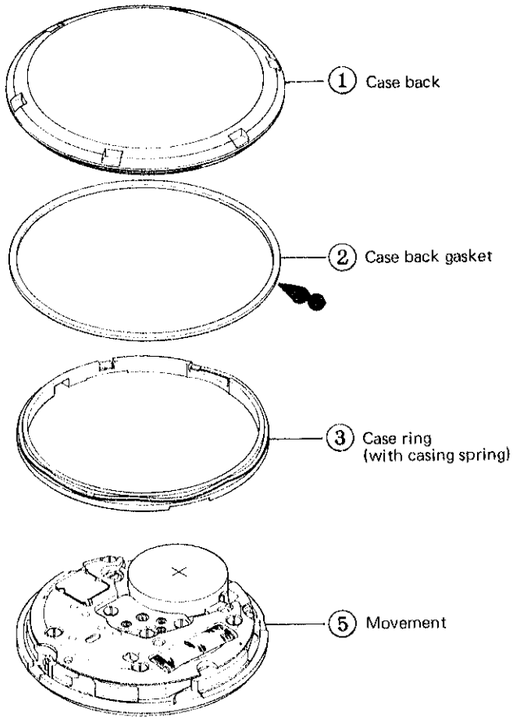
III. DISASSEMBLING AND REASSEMBLING OF THE ILLUMINATING LIGHT

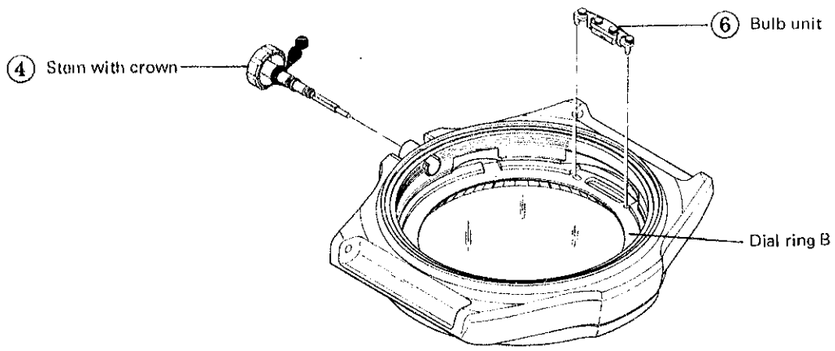
Disassembling procedures: ① → ⑥
Reassembling procedures: ⑥ → ①
Lubricating: Silicone grease (500,000 c.s.), normal quantity

Movement

The bulb lead unit and switch lever are fixed to the main plate, and it is not necessary to disassemble them except when the parts are replaced.





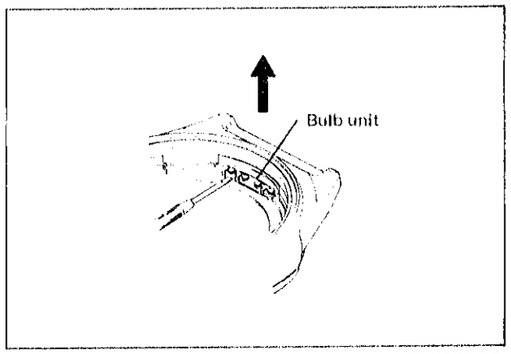


HOW TO REPLACE THE BULB UNIT

- How to remove the bulb unit

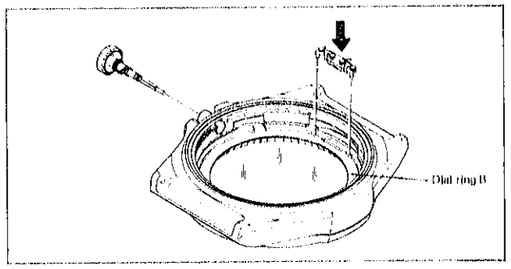
1) Remove the movement from the caseband.
   - The bulb unit is assembled to the caseband.

2) Pry up the bulb unit with a screwdriver as shown in the illustration.
   - Pry up the pin portions of the two sides slowly to remove.



- How to reassemble the bulb unit

Put the bulb unit pins in the holes of the dial ring "B" and push the bulb unit with tweezers.



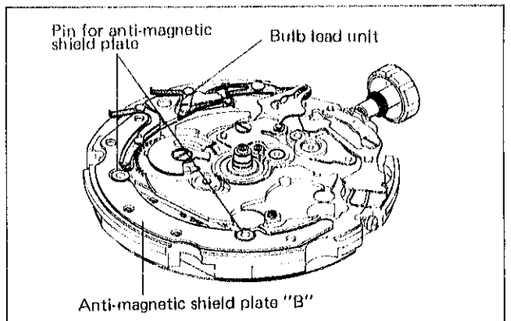
HOW TO REPLACE THE BULB LEAD UNIT

(It is not necessary to disassemble the bulb lead unit except when the parts are replaced.)

- How to disassemble the bulb lead unit

1) Place the movement on the staking tool, pull out the pins shown in the illustration, and remove the anti-magnetic shield plate "B".

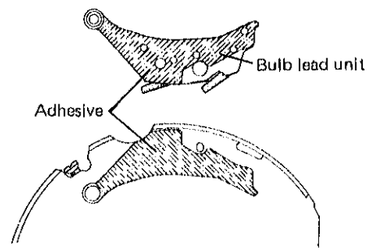
2) Put the tip of a screwdriver between the bulb lead unit and the main plate, and pry up the bulb lead unit to remove it.

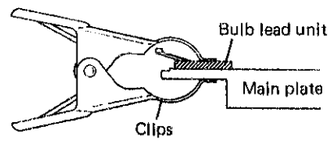


- How to stick the bulb lead unit

1) Apply adhesive on both the bulb lead unit and the main plate, and put the bulb lead unit on the main plate.
(Use the adhesive S-310.)

   - Be careful that the adhesive S-310 does not come out and be sure that the bulb lead unit sticks tightly.
   - After the bulb lead unit is stuck on the main plate, hold them together with clips as shown in the illustration.

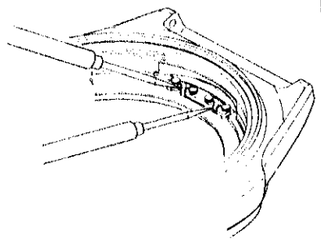
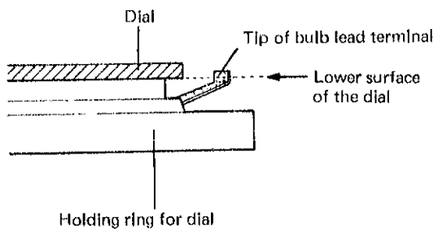


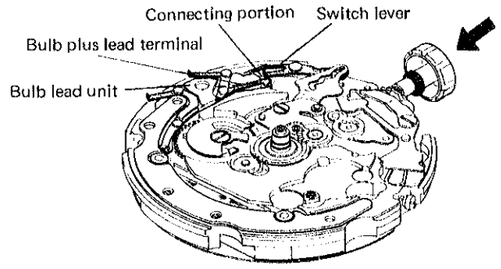
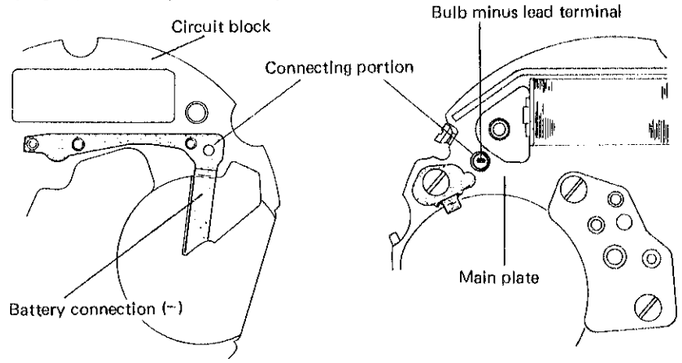
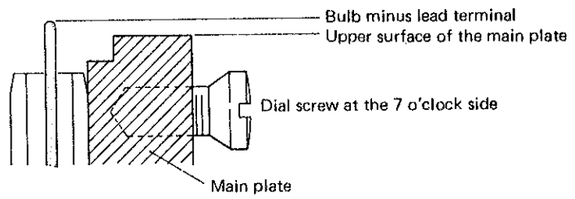


2) Set the anti-magnetic shield plate "B".

IV. CHECKING AND ADJUSTMENT

Checking and adjusting procedures when the light is not lit or dim. (As for the checking and adjustment of other parts, follow the same procedures as in Cal. 7546A.)
When the light is not lit or dim, follow the checking and adjusting procedures below (1) – (5).

Procedure	Result and Repair
(1) Check battery voltage. (Refer to the procedures for "Checking and adjustment" of Technical Guide Cal. 7546A watches.)	More than 1.5 V: Normal Proceed to (2). Less than 1.5 V: Defective Proceed to Replace the Battery.
(2) Check for a broken filament or a soldered portion. 1 Set up the Volt-ohm-meter. Range to be used: OHMS R x 1 2 Apply the probes of the Volt-ohm-meter to the bulb terminals. **Note:** Either red or black probe will do. 	Light is lit: Normal Proceed to (3). Light is not lit: Defective Proceed to Replace the Bulb Unit. See page 3.
(3) Check the height of the bulb lead terminal. Check to see if the bulb lead terminal is little higher than the lower surface of the dial, and that it does not touch the lower surface of the dial. 	It is little higher than the lower surface of the dial and does not touch it: Normal Proceed to (4). It is lower than the lower surface of the dial and it touches the dial: Defective Correct it with tweezers.

Procedure	Result and Repair
(4) Check to see if the switch of the bulb functions correctly. 1 Check to see if the switch lever touches the bulb plus lead terminal completely when the crown is depressed. 	It touches: Normal Proceed to 2 of (4). It does not touch: Defective If the switch lever does not touch the bulb plus lead terminal after the switch lever is bent by tweezers. Proceed to Replace the switch lever.
2 Check for dust, lint and any stain on the connecting portion.	Uncontaminated: Normal Proceed to (5). Contaminated: Defective Wipe off any foreign matter.
(5) Check to see if the bulb minus lead terminal touches battery connection (–) correctly. 1 Check for dust, lint and any stain. 	Uncontaminated: Normal Proceed to 2 of (5). Contaminated: Defective Wipe off any foreign matter.
2 Check to see if the bulb minus lead terminal (see the illustration above) is higher than the upper surface of the main plate. 	Higher than the upper surface of the main plate: Normal Lower: Defective Correct it with tweezers.

All procedures of Disassembling, Reassembling, Checking and Adjustment are completed.