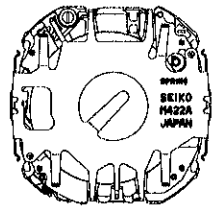
PARTS CATALOGUE/TECHNICAL GUIDE

Cal. M422A

[SPECIFICATIONS]

Item \ Cal. No.		M422A
Module		  (x 1.0)
Module size	Outside diameter	—
	Casing diameter	ϕ29.3 mm 26.0 mm between 3 o'clock and 9 o'clock sides 26.0 mm between 6 o'clock and 12 o'clock sides
	Height	5.7 mm
Display medium		Nematic Liquid Crystal, FEM (Field Effect Mode)
Liquid crystal driving system		Multiplex driving system
Display system		• Time/calendar display (12- or 24-hour indication) • Alarm display • Stopwatch display • Timer display • Dual time display
Additional mechanism		• Hourly time signal • Alarm test system • Illuminating light • Automatic calendar
Loss/gain		Monthly rate at normal temperature range: less than 20 seconds
Regulation system		Trimmer condenser
Measuring gate by quartz tester		Any gate can be used.
Battery		SEIKO CR2025 Battery life is approximately 10 years. Voltage: 3.0V

PARTS CATALOGUE

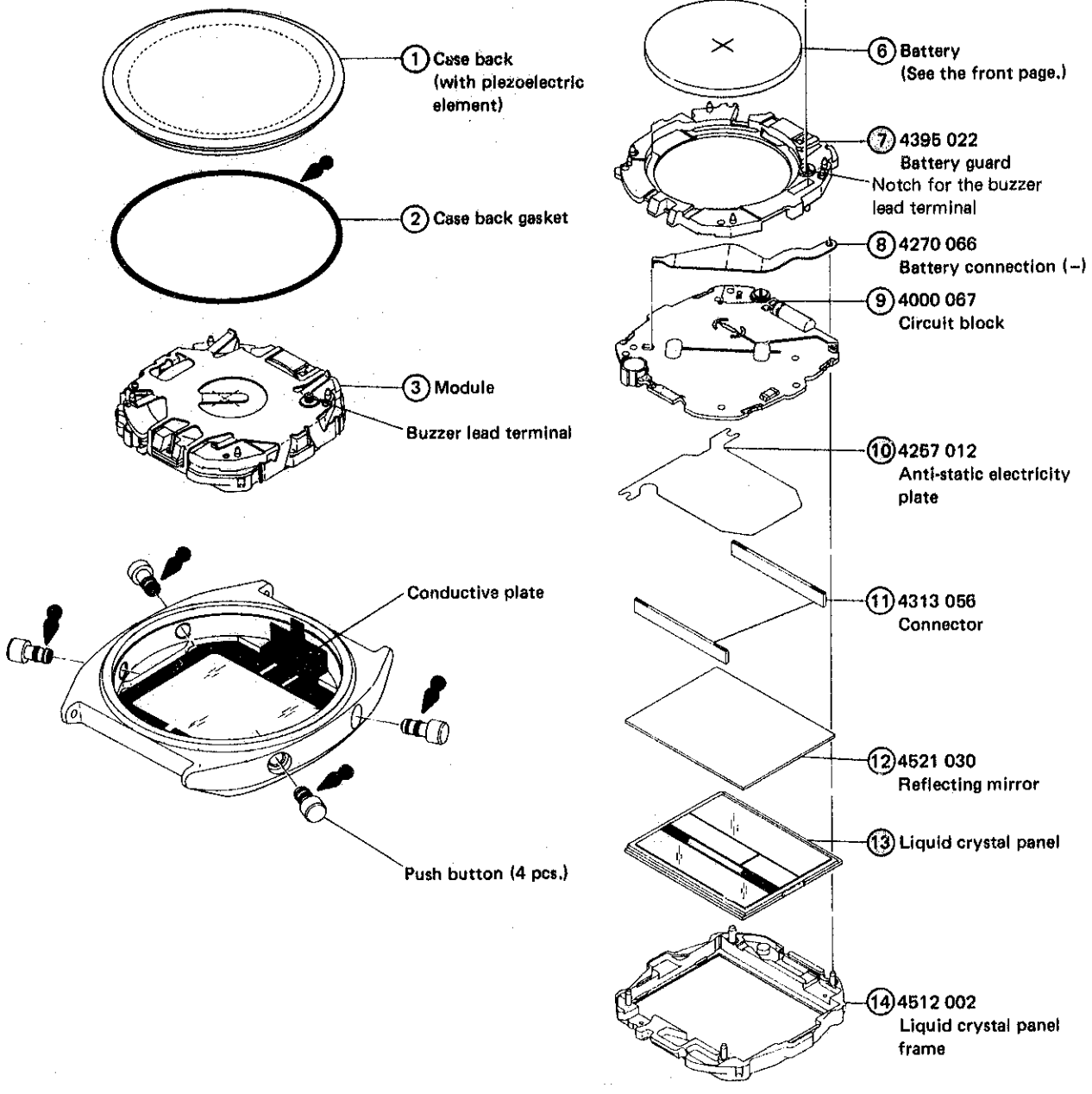
Cal. M422A

Disassembling procedures Figs.: ① → ⑭

Reassembling procedures Figs.: ⑭ → ①

Lubricating:

Types of oil	Oil quantity
Silicone oil 500,000 c.s.	Normal quantity



Please see the remarks on the following pages.

Remarks:

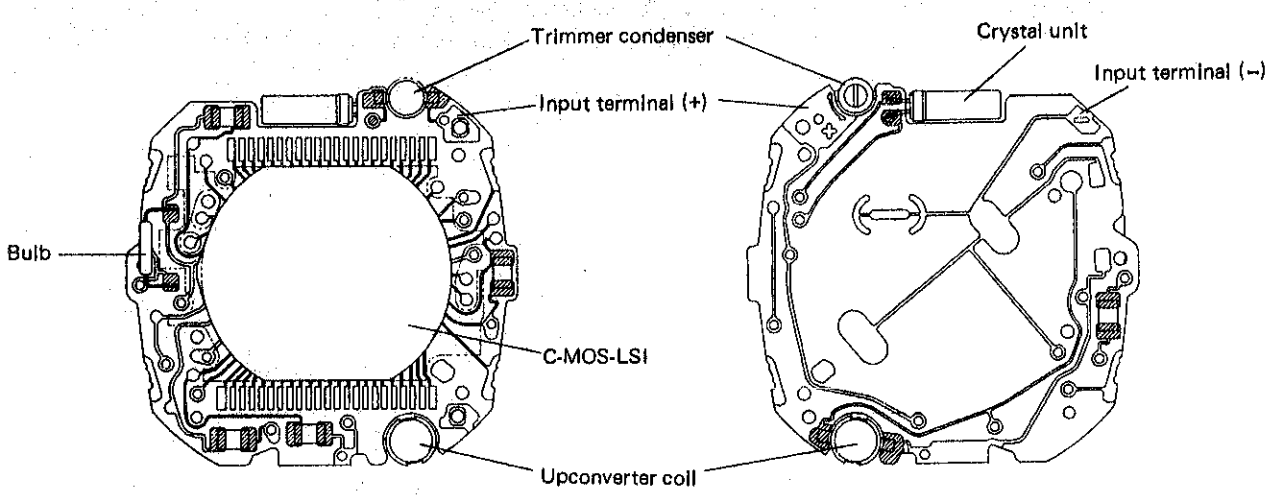
⑬ Liquid crystal panel 4510 039 (Gold), 4510 095 (Silver)

The type of liquid crystal panel is determined based on the design of cases.
Refer to "SEIKO Casing Parts Catalogue" to choose a corresponding liquid crystal panel.

- Other parts
  - Bulb 4530 230
  - Piezoelectric element 4589 003
  - Conductive plate
    In some models, the conductive plate is not used.
  - Push button
    In some models, the button retaining ring is used.

- The explanation here is only for the particular points of Cal. M422A
- For the repairing, checking and measuring procedures, refer to the "TECHNICAL GUIDE, GENERAL INSTRUCTIONS".

I. STRUCTURE OF THE CIRCUIT BLOCK



II. REMARKS ON DISASSEMBLING AND REASSEMBLING

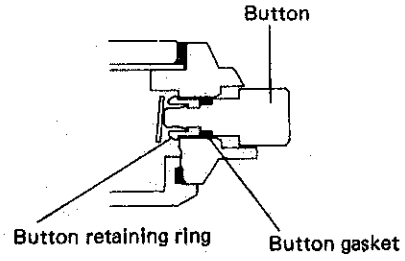
Push button

Do not disassemble the buttons except when they do not function correctly due to dust or lint.

- **How to remove**

While holding the button retaining ring with tweezers, press out the push button.

Note: Do not remove the button retaining ring from the case.



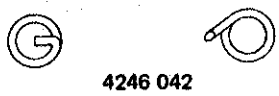
- **How to install**

Press in the push button to the case.

④ Buzzer lead terminal

To remove the buzzer lead terminal, turn it to align its tip with the notch in the battery guard.

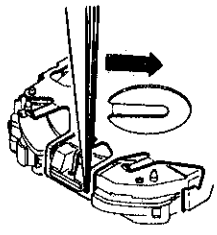
Note: Two types of buzzer lead terminals are used according to the construction of the case back as follows.

Construction of the case back	Mounting direction	
	Case back side	Circuit side
Screw type	 4246 042	
Other than screw type	Either is possible  4246 041	

⑤ Battery clamp

- **How to remove**

Insert the tip of the tweezers into the hooking portion of the battery clamp at 6 o'clock position as shown in the illustration and then pry it up.

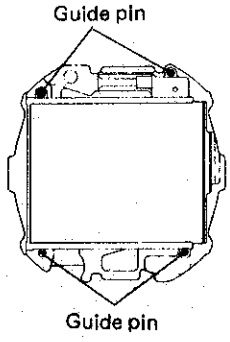


- **How to install**

Set the hooking portion of the battery clamp at 12 o'clock position first, and then set the hooking portion at 6 o'clock position.

⑦ Battery guard

The battery guard is fixed to the liquid crystal panel frame with 4 guide pins.



● **How to remove**

Insert the tip of the screwdriver between the circuit block and battery guard near the guide pins and pry up the battery guard.

● **How to install**

Completely press in the battery guard so that the circuit block, liquid crystal panel frame and battery guard are closely contact with one another.

⑩ Anti-static electricity plate

Set the anti-static plate to the guide pin of the liquid crystal panel.

III. VALUE CHECKING

● Current consumption

For the whole of the movement: less than 1.4μA
For the circuit block alone : less than 0.8μA

● Upconverter coil resistance

130Ω – 170Ω