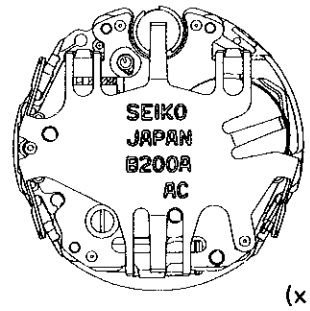
PARTS CATALOGUE/TECHNICAL GUIDE

Cal. B200A

[SPECIFICATIONS]

Item \ Cal. No.		B200A
Module		  (x 2.0)
Module size	Outside diameter	ϕ18.7 mm
	Casing diameter	—
	Height	4.5 mm
Display medium		Nematic Liquid Crystal, FEM (Field Effect Mode)
Liquid crystal driving system		Multiplex driving system
Display system		• Time display (12- or 24-hour indication) • Stopwatch display • Alarm display
Additional mechanism		• Alarm test system • Hourly time signal • Automatic calendar
Loss/gain		Monthly rate at normal temperature range: less than 15 seconds
Regulation system		Trimmer condenser
Measuring gate by quartz tester		Any gate can be used.
Battery		SEIKO SR726W, Maxell SR726W Battery life is approximately 2 years. Voltage: 1.55V

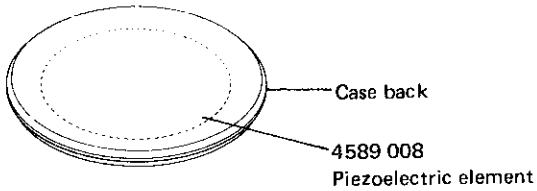
HATTORI SEIKO CO., LTD.

PARTS CATALOGUE

Cal. B200A

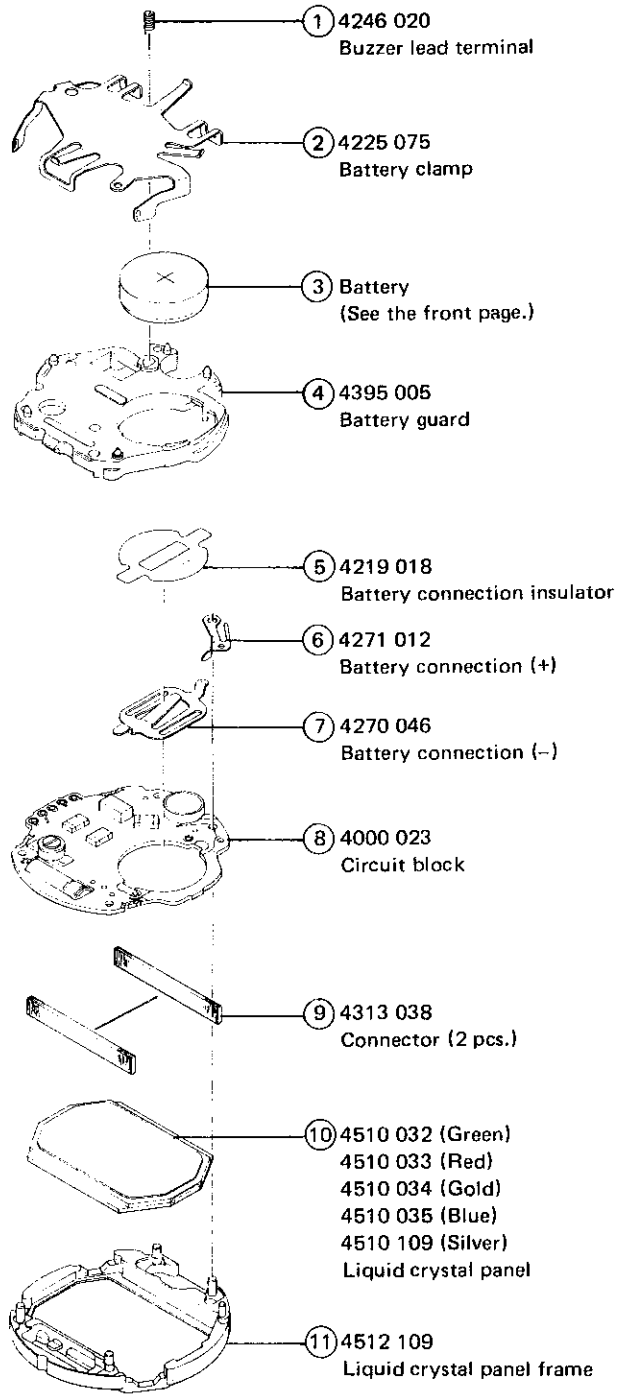
Disassembling procedures Figs.: ① → ⑪

Reassembling procedures Figs.: ⑪ → ①



Case back

4589 008
Piezoelectric element



① 4246 020
Buzzer lead terminal

② 4225 075
Battery clamp

③ Battery
(See the front page.)

④ 4395 005
Battery guard

⑤ 4219 018
Battery connection insulator

⑥ 4271 012
Battery connection (+)

⑦ 4270 046
Battery connection (–)

⑧ 4000 023
Circuit block

⑨ 4313 038
Connector (2 pcs.)

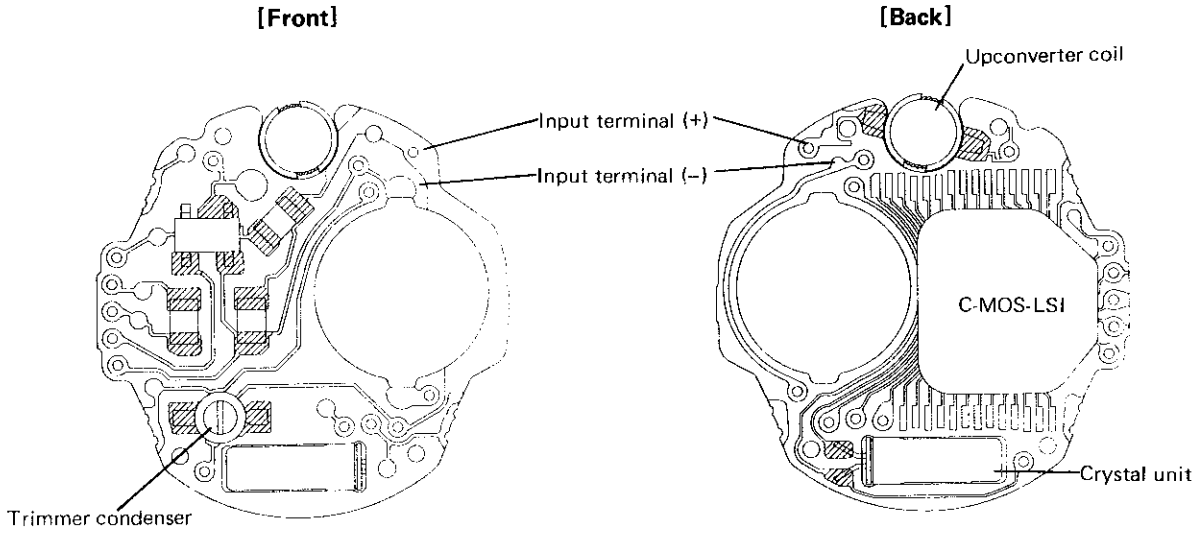
⑩ 4510 032 (Green)
4510 033 (Red)
4510 034 (Gold)
4510 035 (Blue)
4510 109 (Silver)
Liquid crystal panel

⑪ 4512 109
Liquid crystal panel frame

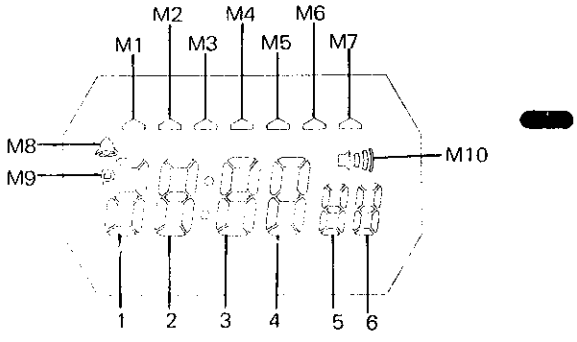
○ ⇨ Please see the remarks on the following pages.

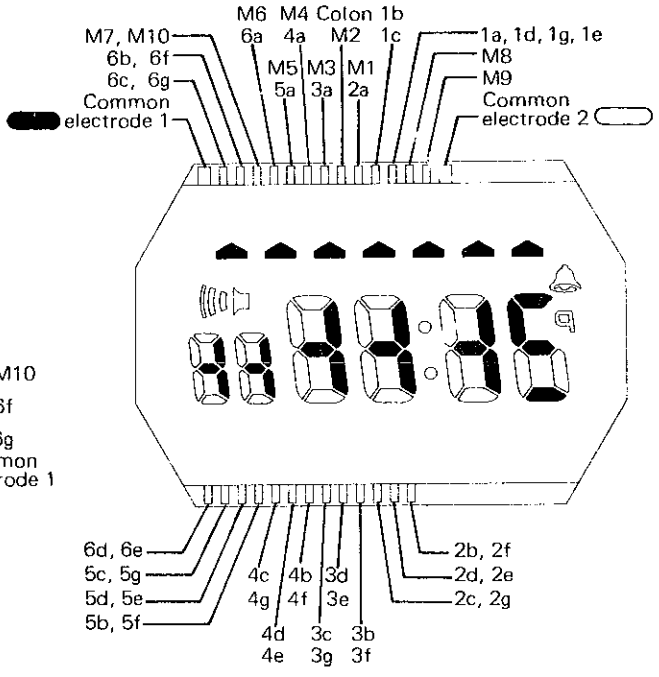
- The explanation here is only for the particular points of Cal. B200A.
- For the repairing, checking and measuring procedures, refer to the "TECHNICAL GUIDE, GENERAL INSTRUCTION".

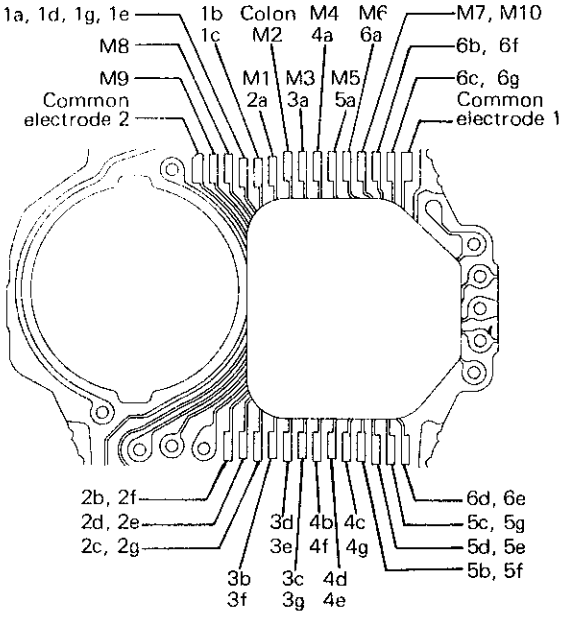
I. STRUCTURE OF THE CIRCUIT BLOCK



II. RELATIONSHIP BETWEEN THE SEGMENT (LIQUID CRYSTAL PANEL ELECTRODE) AND THE C-MOS-LSI OUTPUT TERMINAL







III. REMARKS ON DISASSEMBLING AND REASSEMBLING

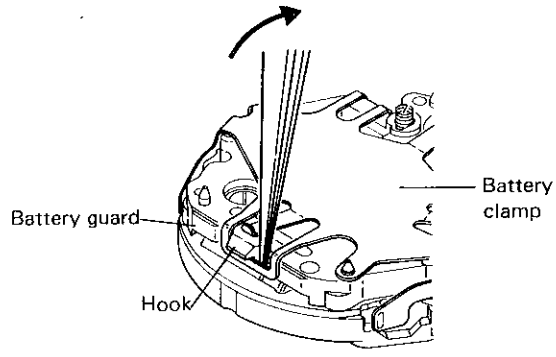
② Battery clamp

- **How to remove**

Release the battery clamp hook portion from the battery guard at the 6 o'clock position first.

- **How to install**

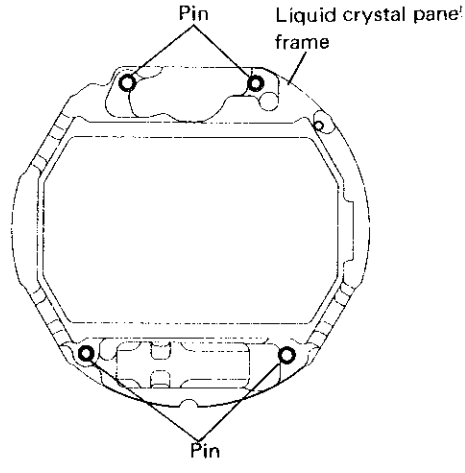
First, hook the battery clamp to the battery guard at 2 places on the 12 o'clock side and then at the 6 o'clock position.



④ Battery guard

- **How to remove**

Pry up the battery guard lightly at the four hooking places by using a screwdriver. The hooking places are located at the pins on the liquid crystal panel frame as shown on the right.



IV. VALUE CHECKING

- Upconverter coil resistance

  130Ω ~ 170Ω

- Current consumption

  For the whole of the module: less than 2.3μA
  For the circuit block alone : less than 2.0μA

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