TECHNICAL GUIDE

SEIKO

DIGITAL QUARTZ

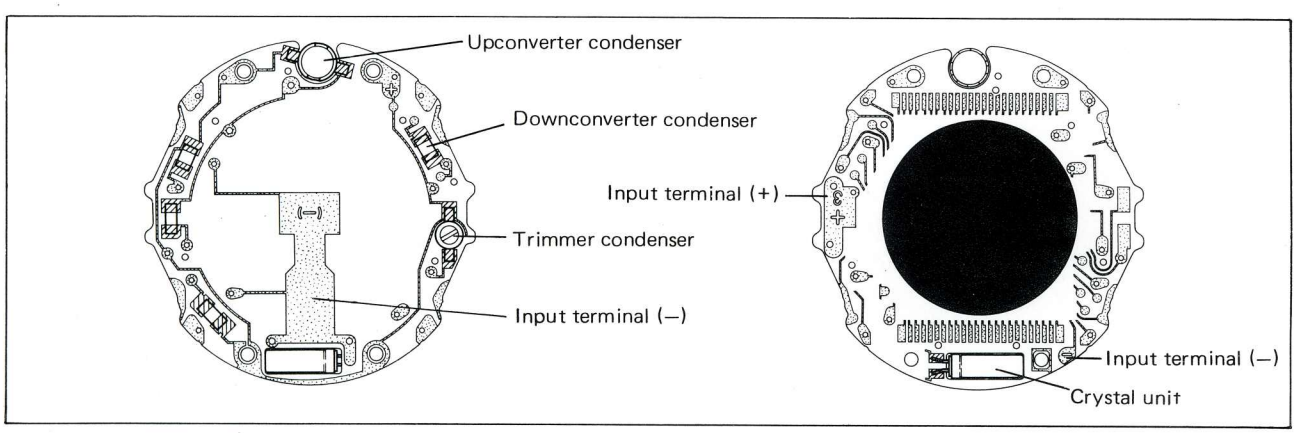
CAL. A826A

CONTENTS

I. SPECIFICATIONS

Item \ Cal. No.		A826A
Display medium		Nematic Liquid Crystal, FEM (Field Effect Mode)
Liquid crystal driving system		Multiplex driving system
Display system		• Time and calendar function • Stopwatch function (up to 12 hours) • Point function (Target time to reach up to 8 points can be set.) • Training timer function (with Split memory) • Repeat function
Additional mechanism		• Hourly time signal • Alarm test system • Function changeover confirmation sound ("beep") • Illuminating light • Automatic calendar display system (except February of leap years)
Loss/gain		Monthly rate at normal temperature range: less than 15 seconds
Movement size	Outside diameter	ϕ31.4 mm (29.6 mm between 6 o'clock and 12 o'clock sides) (27.6 mm between 3 o'clock and 9 o'clock sides)
	Casing diameter	ϕ28.0 mm
	Height	4.9 mm
Regulation system		Trimmer condenser
Measuring gate by quartz tester		Any gate is available.
Battery		Lithium battery Sanyo CR2016, Maxell CR2016, Matsushita BR2016 Battery life is approximately 3 years. Voltage: 3.0V for Sanyo CR2016, Maxell CR2016 2.8V for Matsushita BR2016

II. STRUCTURE OF THE CIRCUIT BLOCK



III. DISPLAY FUNCTION

The display changes by turning the rotating ring to match up each mode selection word to the mode mark "△".

TIME **How to set the time and calendar**

- Depress button "A" to activate the time/calendar setting function.

Ⓑ : Select

Ⓒ : Set

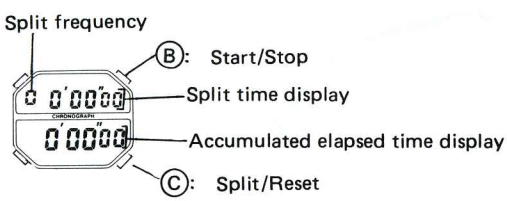
Second → 1-minute → 10-minute → Hour
↑ ↓
12- or 24-hour indication ← Day ← Month ← Date

- How to engage and disengage the hourly time signal
  Push buttons "B" and "C" at the same time.

*The alarm test system can also be activated by depressing buttons "B" and "C" at the same time.

Colon	Hourly time signal
:	Disengaged
::	Engaged

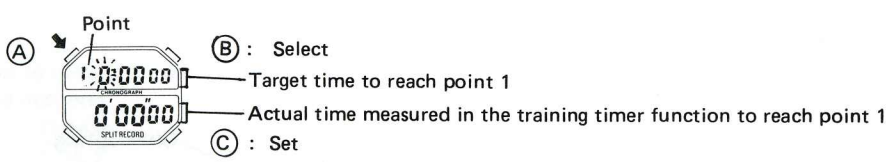
STOPW. **How to use the stopwatch**



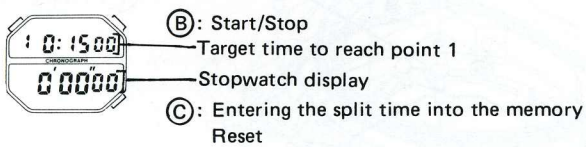
PT.1 ~ **PT.8** **How to set the target time**

Ex.: Target time to reach point 1

Depress button "A" to activate the target time setting function.

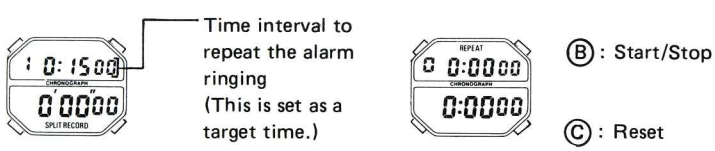


TRAINING **How to use the training timer function**



REPEAT **How to use the repeat function**

First, check that a target time is set for PT.1 and other desired point modes.



IV. DISASSEMBLING, REASSEMBLING, AND LUBRICATING OF THE CASE

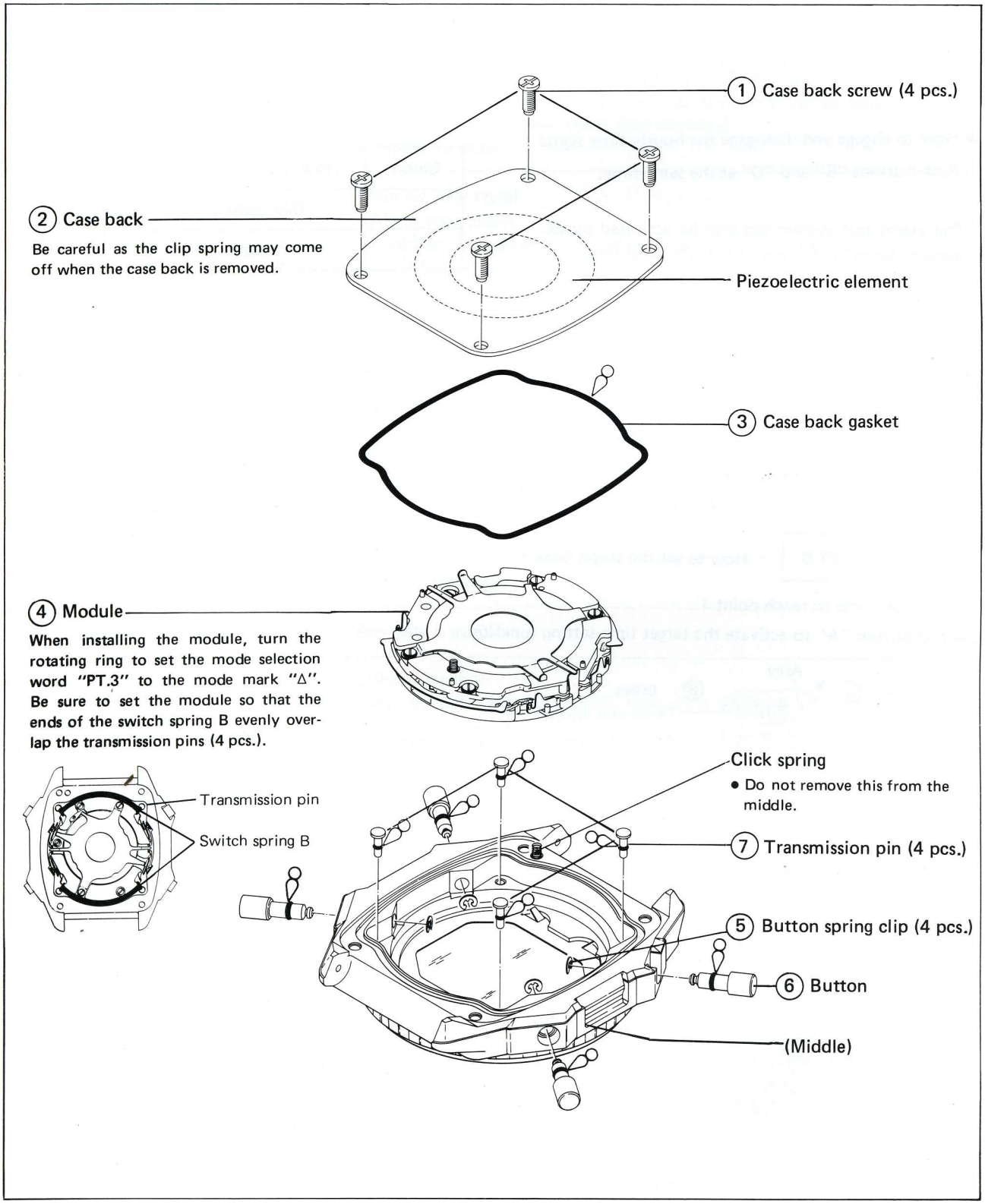
Disassembling procedures Figs. : ① → ⑬

Reassembling procedures Figs. : ⑬ → ①

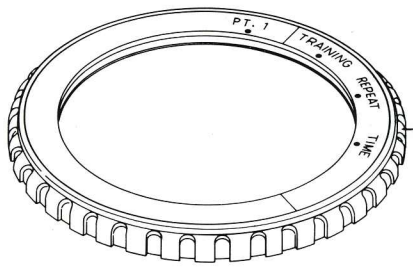
Lubricating: Silicon grease 500,000 c.s.

⊂⊃ Normal quantity

1. Case back screw ~ Transmission pin



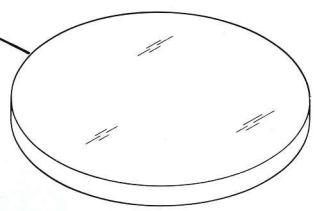
2. Rotating ring ~ Middle



⑧ Rotating ring

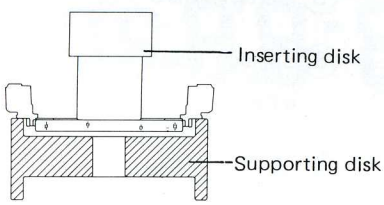
Install the rotating ring after assuring the module is not set in the middle.

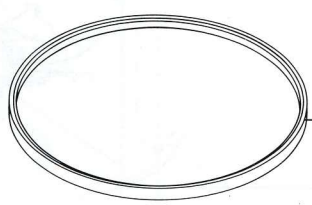
⑨ Glass



How to disassemble

Holding the middle with the supporting disk of a 31 mm inside diameter, push the glass from inside with the inserting disk and remove it.

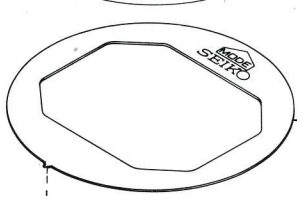




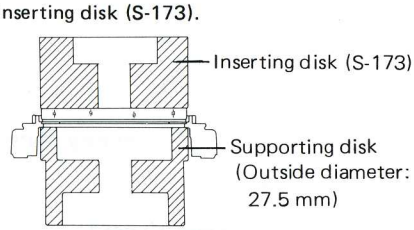
⑩ Glass gasket

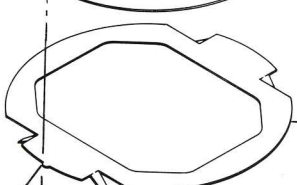
How to reassemble

After removing all the buttons, support the inside of the middle with the supporting disk of a 27.5 mm outside diameter and push in the glass with the plastic inserting disk (S-173).



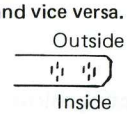
⑪ Panel cover





⑫ Conducting plate

Be careful not to mistake the outside for the inside and vice versa.

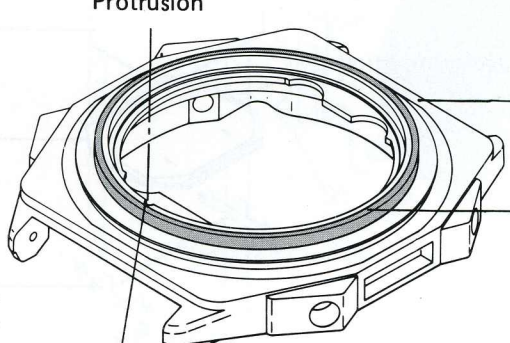


Protrusion

⑪ Panel cover

⑫ Conducting plate

When installing the panel cover and the conducting plate, set their protrusions in the groove of the middle.



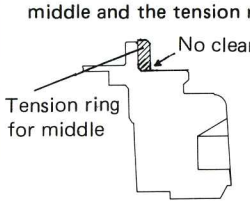
⑬ Middle

Tension ring for middle

- Do not remove the tension ring for middle. If it happens to come off, reset it in position.

- Tension ring for middle

Before pushing in the glass, check to see if there is no clearance between the middle and the tension ring.

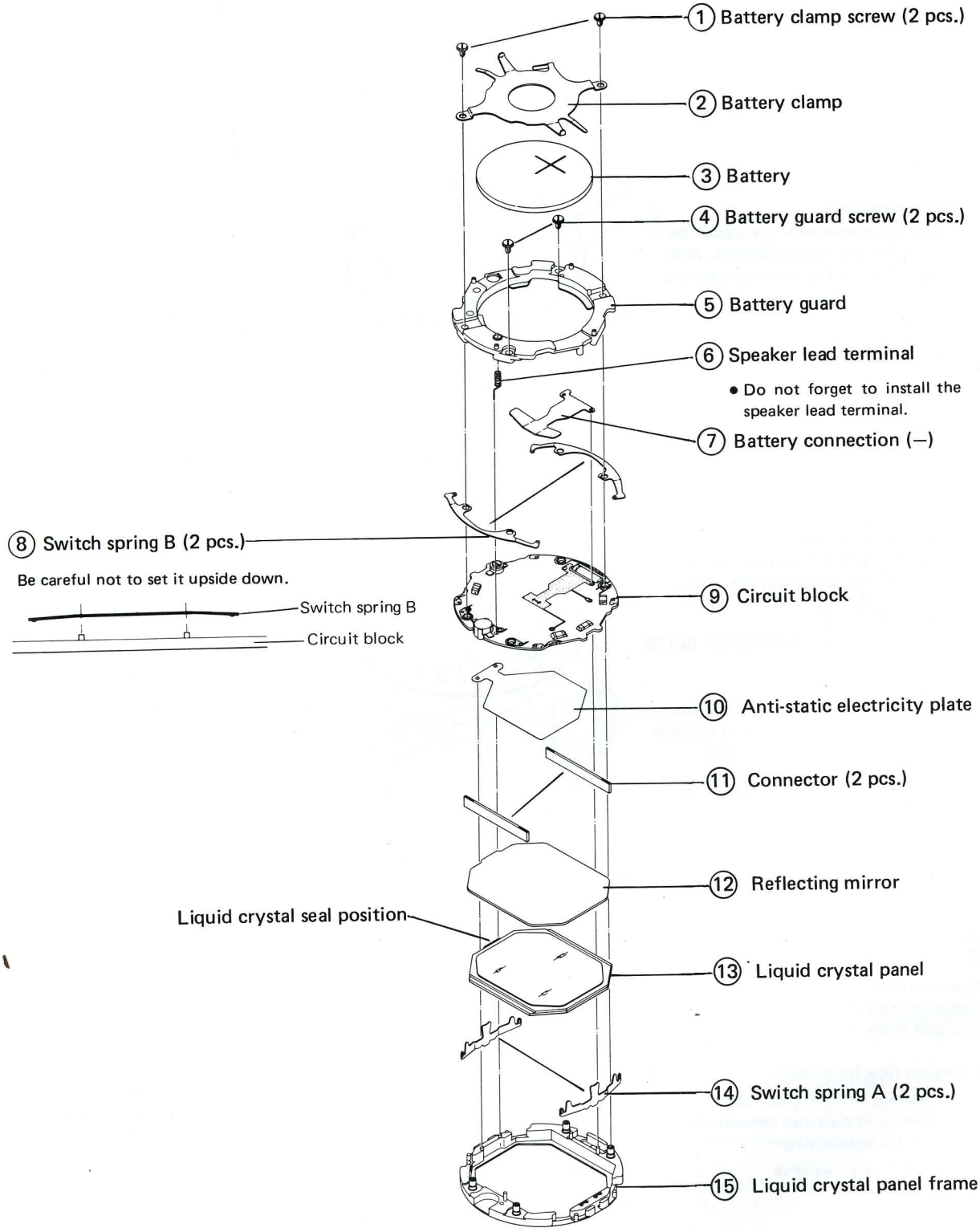


Guide groove for panel cover and conducting plate

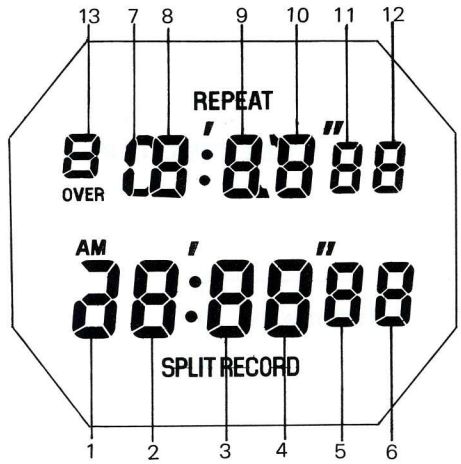
V. DISASSEMBLING AND REASSEMBLING OF THE MODULE

Disassembling procedures Figs. : ① → ⑮

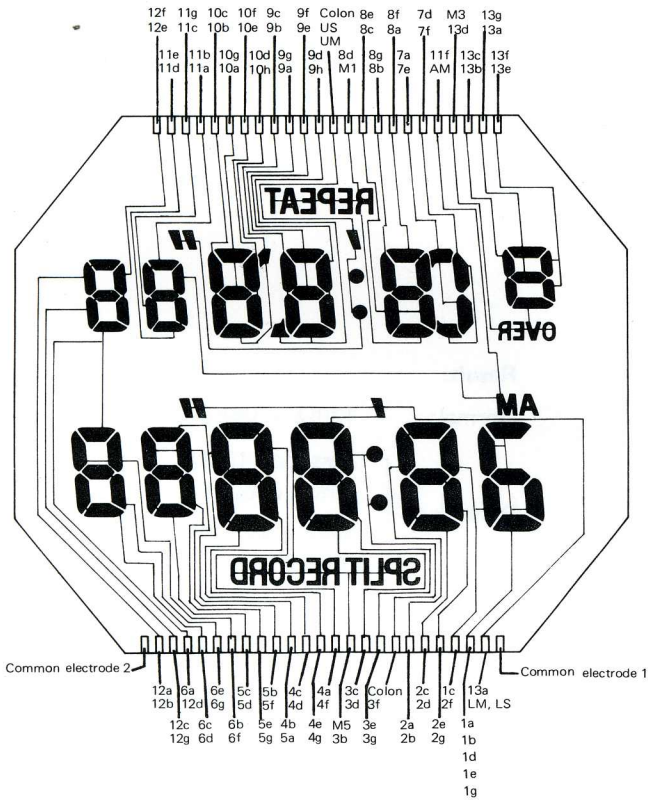
Reassembling procedures Figs. : ⑮ → ①

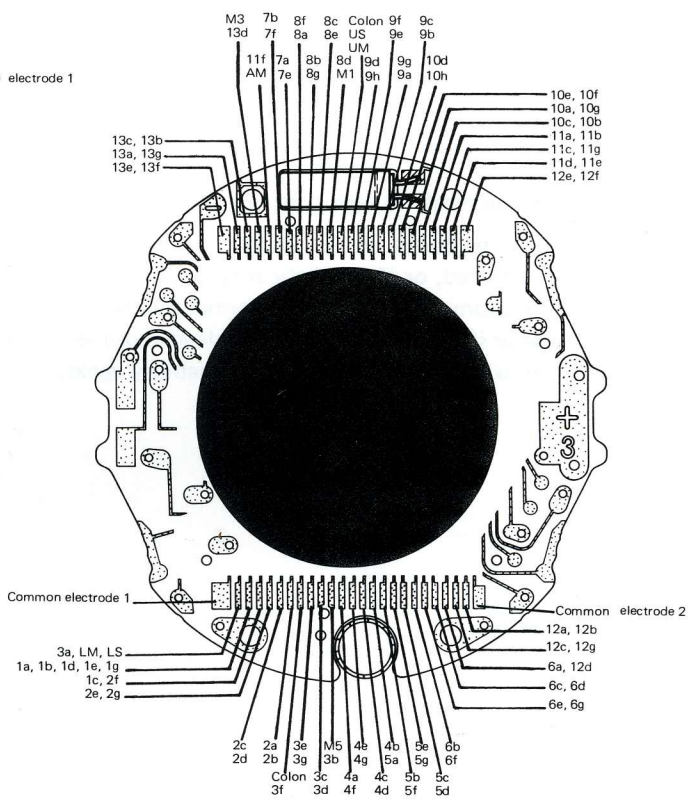


• Relationship between the segment (Liquid Crystal Panel Electrode) and the C-MOS-LSI output terminal



M1: REPEAT
M3: OVER
M5: SPLIT RECORD
UM.US: Minute and second marks in the upper row
LM.LS: Minute and second marks in the lower row





VI. CHECKING AND ADJUSTMENT

For checking and adjustment, refer to the "TECHNICAL GUIDE, SEIKO DIGITAL QUARTZ Cal. A829A". The following procedures of Cal. A826A, however, differ from those of Cal. A829A.

Procedure

Remarks

- After checking battery voltage or replacing battery, depress the 4 buttons at the same time.

CHECK ALL SEGMENTS LIT UP

Not needed

CHECK ACCURACY

Measure the daily rate in a function where the display does not change.

CHECK ALARM CONDITION

Check the upconverter coil.

Result:

Normal: 120Ω – 180Ω

Defective:
- Less than 120Ω (Short circuit)
- More than 180Ω (Broken wire)

OTHERS

- **Caution when receiving repair requests**

  Care should be taken not to expose the watch to a high temperature over 80°C, as its time display may become distorted, or its memory may be changed or extinguished. If a watch is requested to be repaired for such a symptom, place it first in normal temperature (5°C ~ 35°C), and then push all the 4 buttons at the same time or short-circuit the AC (all clear) terminal of the circuit block with tweezers.
  After that, adjust the time and set the memory again.