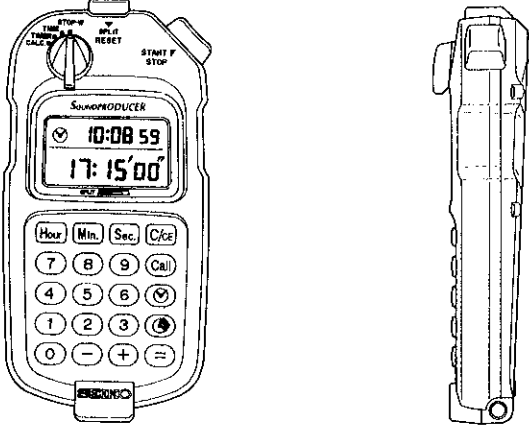


# PARTS CATALOGUE / TECHNICAL GUIDE

## Cal. S351A

### [SPECIFICATIONS]

Item		Cal. No.	S351A
Complete			 <p style="text-align: right;">(x 0.5)</p>
Module size	Outside diameter	112.0 mm between 6 o'clock and 12 o'clock sides 58.0 mm between 3 o'clock and 9 o'clock sides	
	Casing diameter	—	
	Height	22.6 mm	
Display medium		Nematic Liquid Crystal, FEM (Field Effect Mode)	
Liquid crystal driving system		1/4 multiplex driving system	
Display system		<ul style="list-style-type: none"> <li>• Time display</li> <li>• Time calculation display</li> <li>• Stopwatch display</li> <li>• Timer display</li> </ul>	
Additional mechanism		<ul style="list-style-type: none"> <li>• Battery life indicator</li> <li>• All segments light-up system</li> </ul>	
Loss/gain		Monthly rate at normal temperature range: less than 15 seconds	
Regulation system		Nil	
Measuring gate with quartz tester		Any gate can be used.	
Battery		SEIKO CR2032, Maxell CR2032, Matsushita CR2032 Battery life is approximately 3 years. Voltage: 3.0V	

# PARTS CATALOGUE

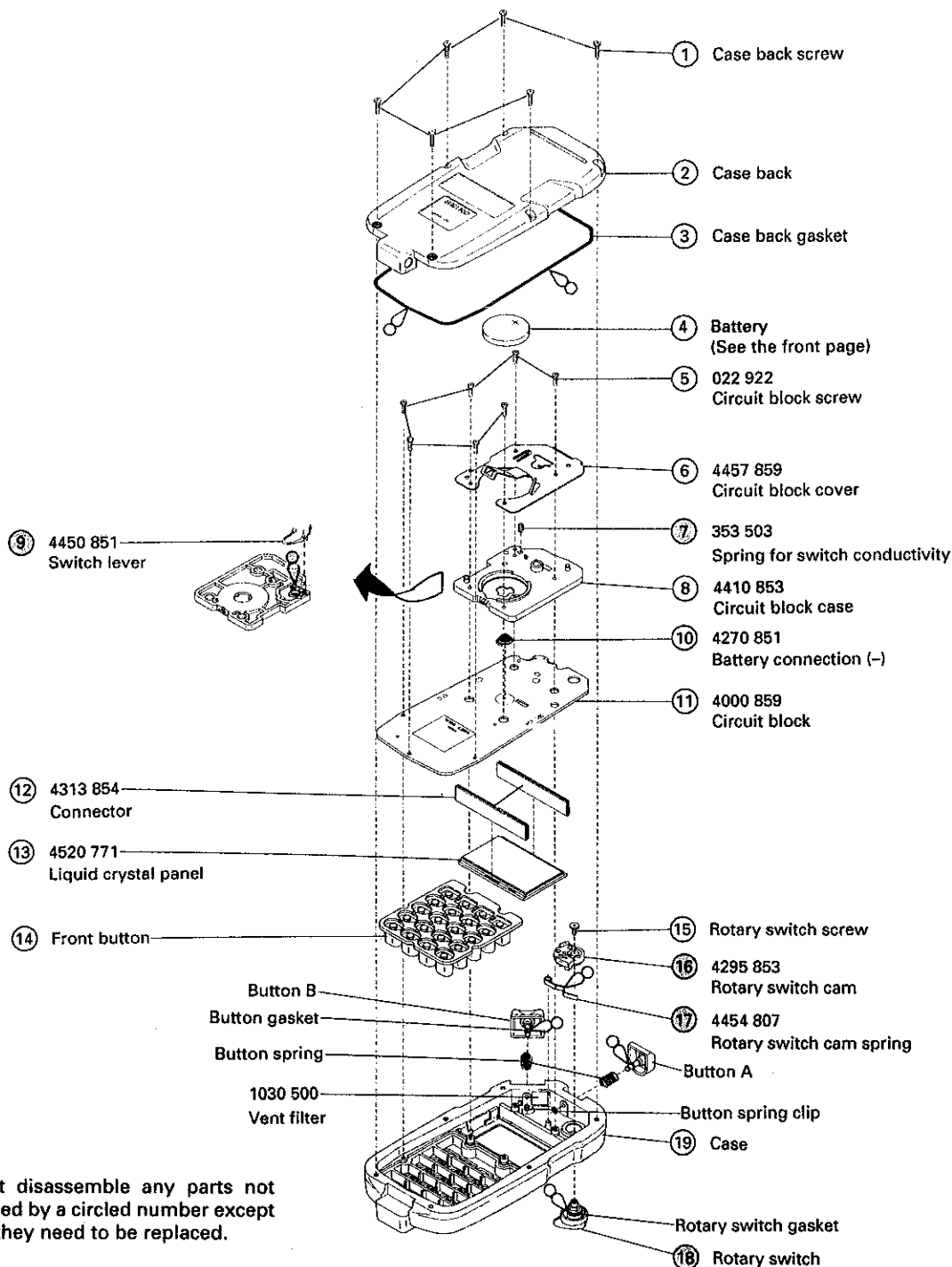
Cal. S351A

Disassembling procedure Figs. : ① → ⑱

Reassembling procedure Figs. : ⑱ → ①

**Lubricating: Types of oil**

○ Silicone oil 500,000 c.s.	○ Normal quantity
○ SEIKO Watch Oil S-6	

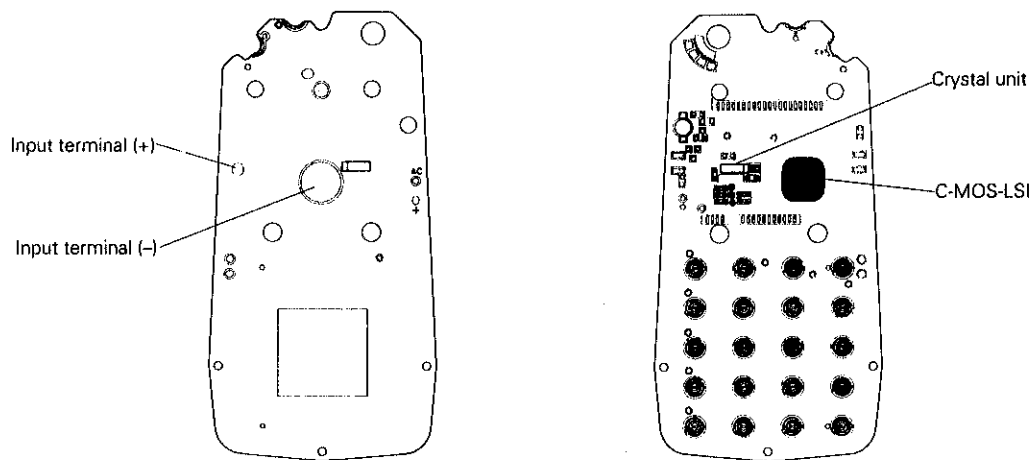


\* Do not disassemble any parts not preceded by a circled number except when they need to be replaced.

⊙ → Please see the remarks on the following pages.

- The explanation here is only for the particular points of Cal. S351A.
- For the repairing, checking and measuring procedures, refer to the "TECHNICAL GUIDE, GENERAL INSTRUCTIONS".

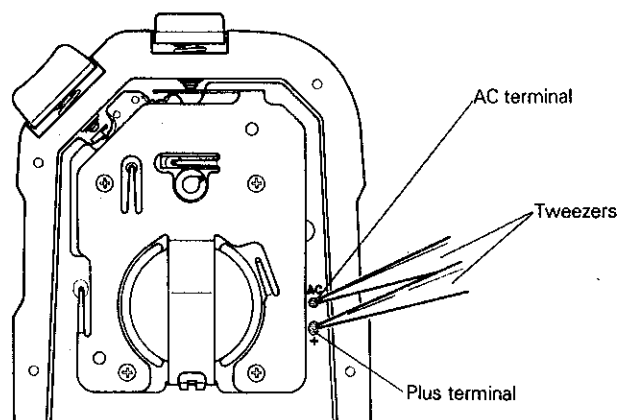
## I. STRUCTURE OF THE CIRCUIT BLOCK



## II. REMARKS ON INSTALLING THE BATTERY

- After the battery is replaced with a new one, or after the battery is re-installed following the repairing procedures, be sure to short-circuit the AC terminal and plus terminal of the circuit block with conductive tweezers as illustrated below to reset the circuit.

**Note:** When measuring the current consumption, be sure to reset the circuit following the procedure above after supplying power externally.

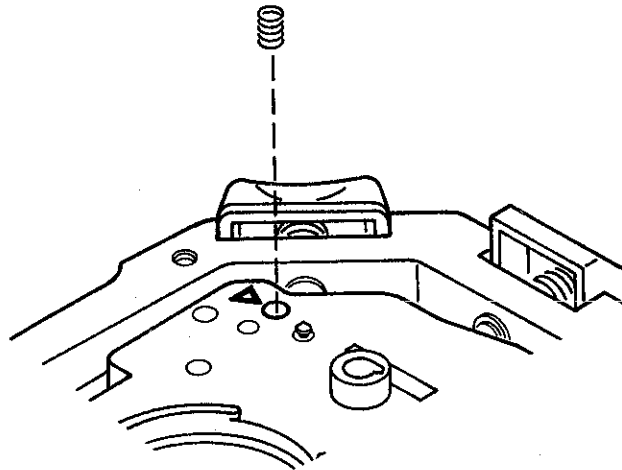


### III. REMARKS ON DISASSEMBLING AND REASSEMBLING

#### ⑦ Spring for switch conductivity

##### • How to install

Set the spring for switch conductivity to the hole indicated by the "▷" mark on the circuit case as shown in the illustration below.

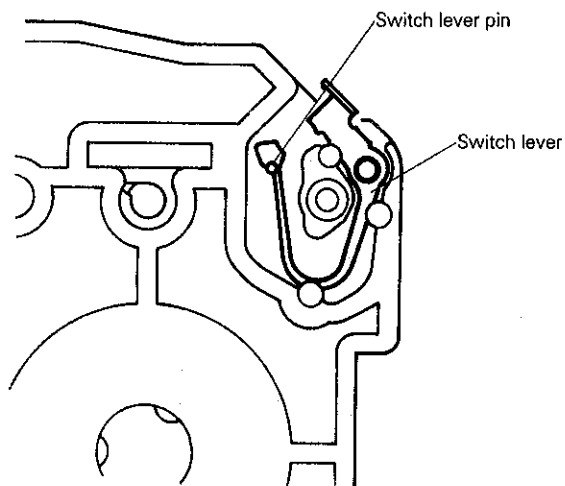


#### ⑨ Switch lever

##### • How to install

Set the hooking portion of the switch lever to the switch lever pin as shown in the illustration below.

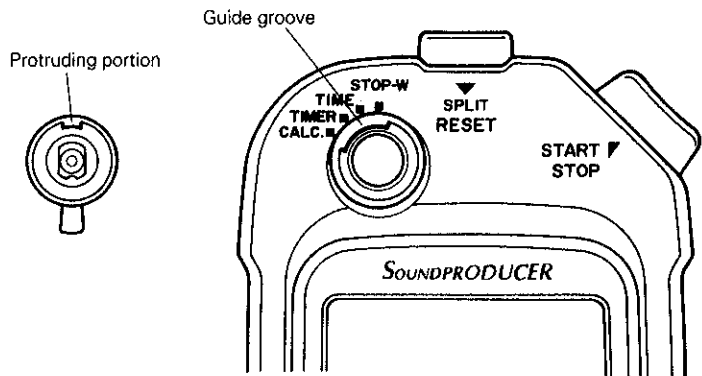
Rear of the circuit block case



18 Rotary switch

• How to install

Set the protruding portion of the rotary switch to the guide groove of the case.

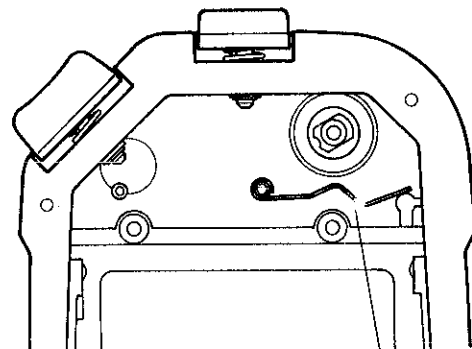


17 Rotary switch cam spring

• How to install

Set the rotary switch cam spring as shown in the illustration at right.

\* In doing so, take care not to set it upside down. See the illustration for guidance.

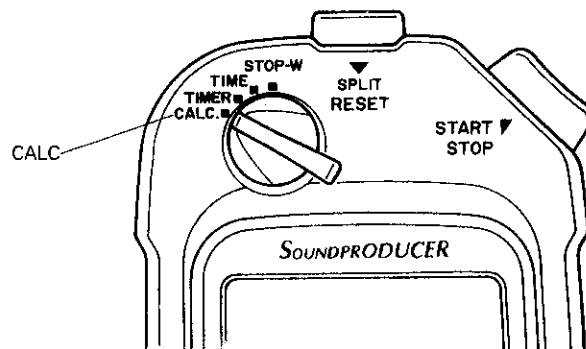


Rotary switch cam spring

16 Rotary switch cam

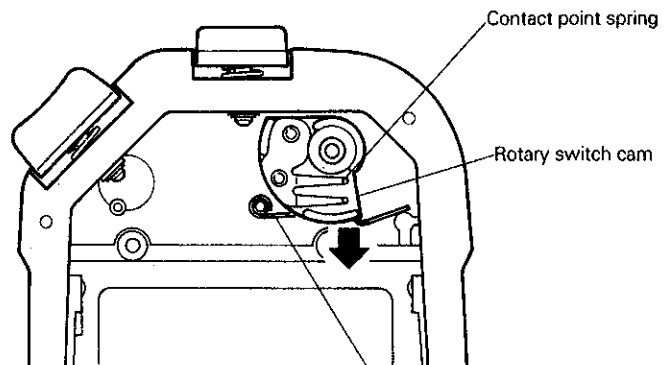
• How to install

Before installing the rotary switch cam, set the mode selector to "CALC".



Place the rotary switch cam at the position indicated in the illustration at right, and then push down the rotary switch cam spring so that the rotary switch cam is fixed in position.

\* When installing the rotary switch cam, do not hold down the contact point spring as it may be bent.

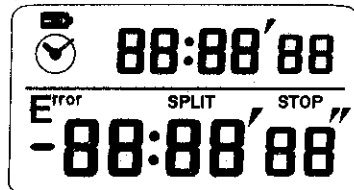


Rotary switch cam spring

## IV. VALUE CHECKING

- **Time accuracy**

To measure accuracy, light up all the segments of the display. To do so, in the TIME CALCULATION mode, press button "A" while keeping the clear/clear entry key pressed.



All the segments light up

After measurement, change to any other mode to return to the normal display.

- **Current consumption**

For the whole module : less than 6.0 $\mu$ A  
For the circuit block alone : less than 4.0 $\mu$ A