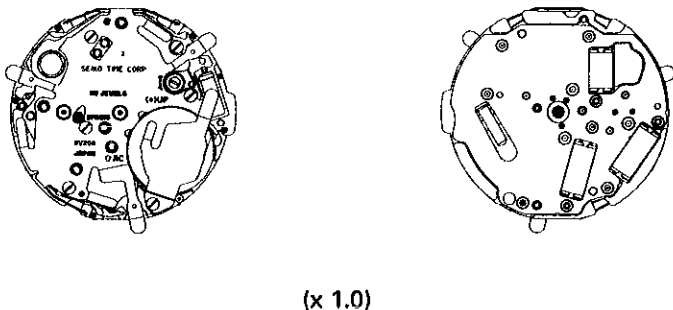


# PARTS CATALOGUE / TECHNICAL GUIDE

## Cal. 8V20A

### [SPECIFICATIONS]

Item		Cal. No.	8V20A
Movement			 <p>(x 1.0)</p>
Movement size	Outside diameter		ø29.1mm
	Casing diameter		—
	Height		3.3mm (3.8mm including the battery portion)
Time indication			3 hands and multi-function hand
Driving system			Step motor (Fixed-width pulse system, 3 pcs.)
Additional mechanism			<ul style="list-style-type: none"> <li>• Alarm (24-hour indication system)</li> <li>• Countdown timer (Up to 30 minutes in minutes)</li> <li>• Stopwatch (Up to 30 minutes in 1/10 seconds)</li> <li>• Hands 0-reset adjustment function</li> <li>• Alarm test system</li> <li>• Confirmation sound for watch operation and finish sound for countdown timer</li> </ul>
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 SR1130W, Maxell SR1130W, SONY SR1130W, EVEREADY 389 Battery life is approximately 2 years. Voltage: 1.55V
Jewels			0 jewel

# PARTS CATALOGUE

Cal. 8V20A

Disassembling procedures Figs. :

① → ④③

Reassembling procedures Figs. :

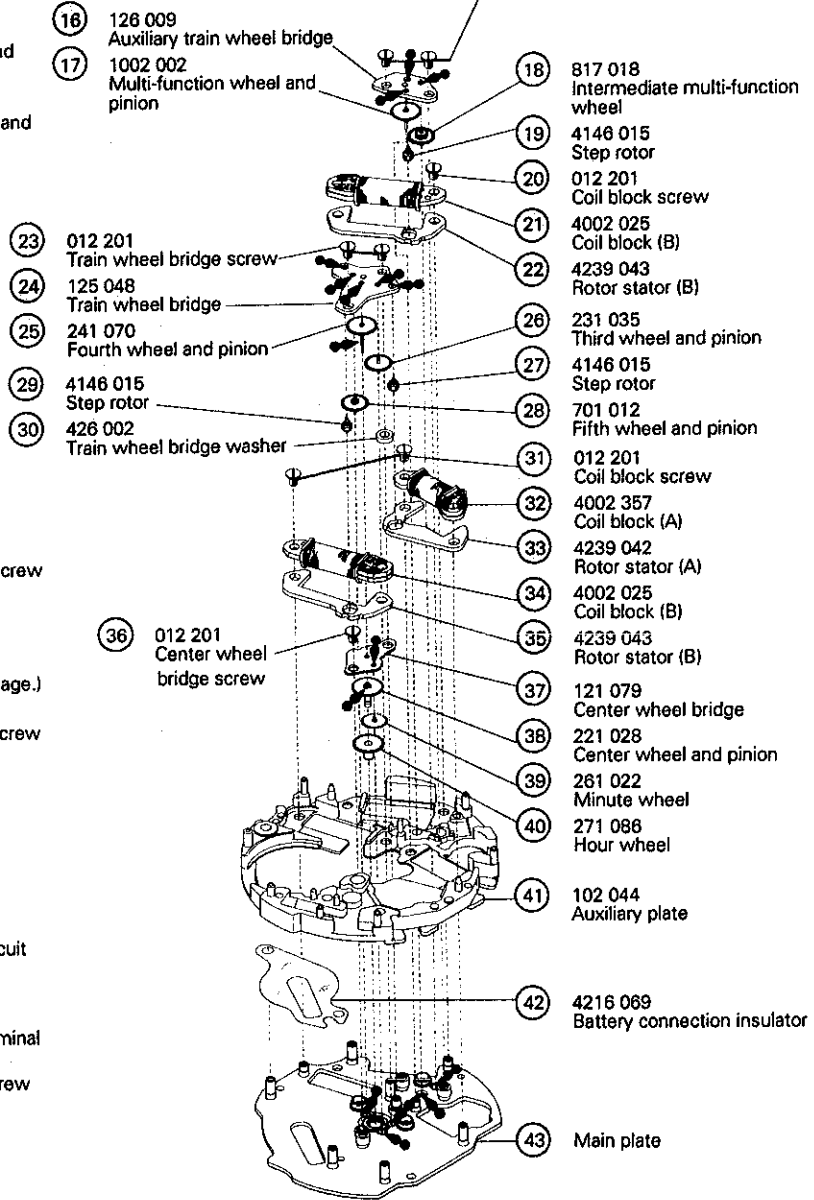
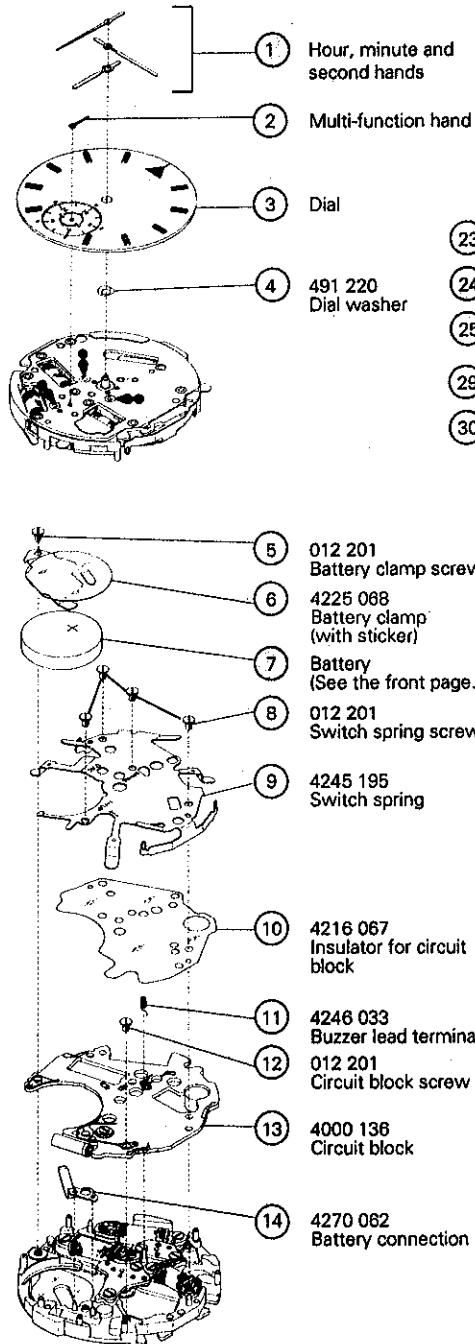
④③ → ①

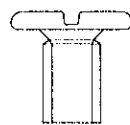
Lubricating: Types of oil

Moebius A

Oil quantity

Normal quantity



	Battery clamp screw	(1 pc.)
	Switch spring screw	(4 pcs.)
	Coil block screw	(3 pcs.)
	Circuit block screw	(1 pc.)
	Auxiliary train wheel bridge screw	(2 pcs.)
	Train wheel bridge screw	(2 pcs.)
	Center wheel bridge screw	(1 pc.)

### Remarks:

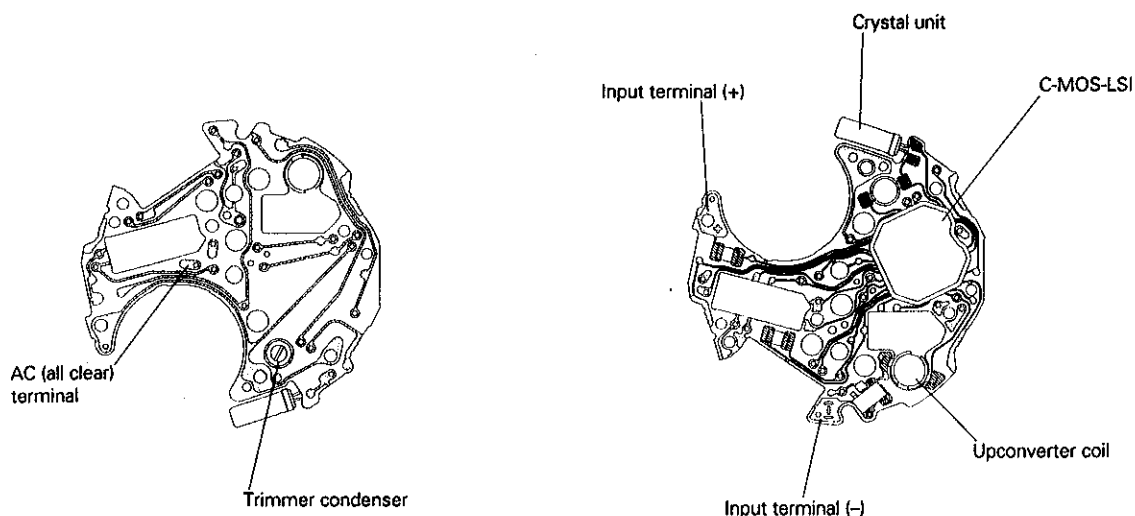
• Other parts

Piezoelectric element 4589 650

○ → Please see the remarks on the following pages.

- The explanation here is only for the particular points of Cal. 8V20A.
- For the repairing, checking and measuring procedures, refer to the "TECHNICAL GUIDE, GENERAL INSTRUCTIONS".

## I. STRUCTURE OF THE CIRCUIT BLOCK



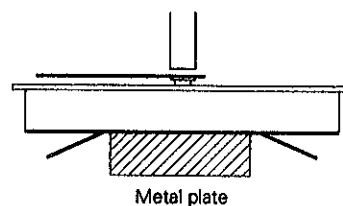
## II. REMARKS ON DISASSEMBLING AND REASSEMBLING

Use the universal movement holder for disassembling and reassembling.

- ① Hands

### • Remarks on installing

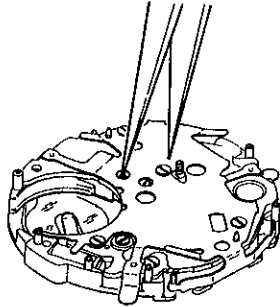
When installing the hands, remove the battery and place the movement directly on a flat metal plate or the like.



## 7 Battery

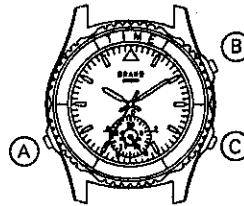
- A necessary step after installing the battery

After the battery is replaced with a new one, or after the battery is removed and re-installed following the repairing procedures, be sure to short-circuit the AC terminal of the circuit block and the switch spring with conductive tweezers to reset the circuit. (When checking the current consumption, short-circuit with the power supplied from external source.)



### [Remark]

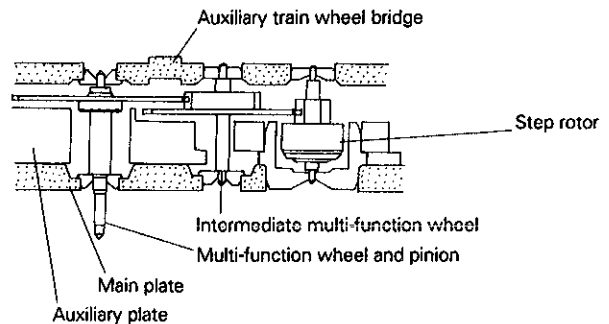
The circuit can be reset with a complete watch.



Keep the 3 buttons pressed simultaneously for a few seconds, and release. The alarm will sound with a "beep". This can be done in any mode.

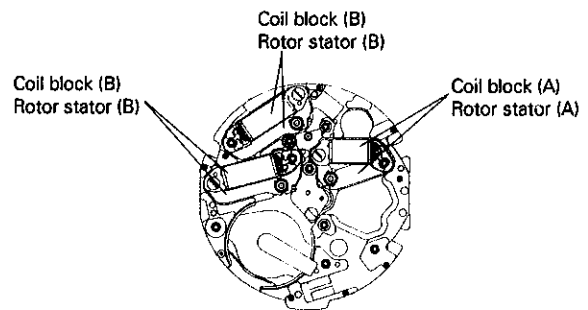
## 16 Auxiliary train wheel bridge

- Setting position



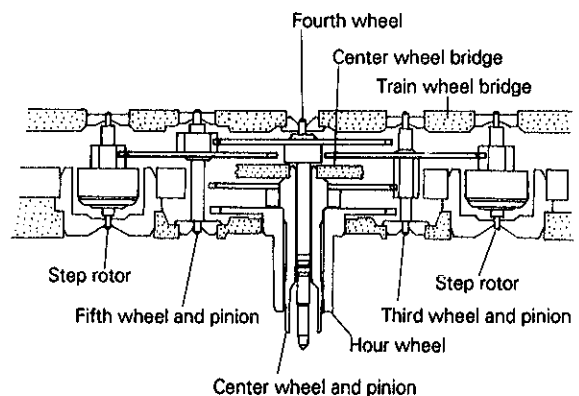
- 21 34 Coil block (B)
- 32 Coil block (A)
- 22 35 Rotor stator (B)
- 33 Rotor stator (A)

- Setting position



## 24 Train wheel bridge

- Setting position of the train wheel



## III. VALUE CHECKING

- Coil block resistance

Coil block (A) : 1.2K $\Omega$  ~ 1.8K $\Omega$

Coil block (B) : 1.9K $\Omega$  ~ 2.3K $\Omega$

- Upconverter coil resistance

130 $\Omega$  ~ 170 $\Omega$

- Current consumption

For the whole of the movement : less than 4.0 $\mu$ A

For the circuit block alone : less than 1.9 $\mu$ A