Cal. 2628A

126 001  131 276  231 261  240 260  241 162  261 260
  270 278  271 279  281 261  282 262  317 001  ⭐ 354 261

⭐ 354 263  383 260  384 263  387 262  389 260  391 260

436 261  491 141  493 250  495 261  701 260  706 262

4001 270  4002 262  4146 250  4216 260  4219 261  4240 260

4242 262  4270 260  4455 250  011 409  ⭐ SEIKO SB-OI

012 151  012 159  012 469  012 768  017 126  017 131  017 132  017 221

017 222  017 226  017 229  017 936

⭐⭐ Please see remarks on the next page.
## Characteristics

Two hands time indication (with a small second hand)

- Casing diameter: \( \varnothing 17.6 \text{ mm} \)
- Maximum height: 3.7 mm without battery
- Jewels: 2
- Frequency of quartz crystal oscillator: 32,768 Hz (Hz = Hertz) .... Cycles per second
- Driving system: Step motor (2 poles)
- Regulation system: Trimmer condenser
- Battery life indicator: Small second hand moves in two-second interval.

## PART NO. | PART NAME
---|---
126 001 | Additional train wheel bridge
131 001 | Third wheel bridge
231 061 | Third wheel & pinion
240 000 | Small second wheel
241 002 | Fourth wheel & pinion
261 000 | Minute wheel
270 008 | Center minute wheel with cannon pinion (2.62 mm)
270 009 | Center minute wheel with cannon pinion (2.62 mm, Gold plated)
271 001 | Hour wheel
281 001 | Setting wheel
282 001 | Clutch wheel
317 001 | Intermediate small second wheel
334 001 | Winding stem (13.13 mm)
334 003 | Winding stem (18.58 mm)
383 000 | Setting lever
384 000 | Yoke (Clutch lever)
387 000 | Minute wheel bridge
389 000 | Setting lever axle spring
391 000 | Train wheel setting lever
436 000 | Lower end-piece for third wheel
491 000 | Dial washer
493 000 | Hour wheel ring (Gold, 0.03 mm thickness)
493 001 | Hour wheel ring (Silver, 0.05 mm thickness)
493 002 | Hour wheel ring (Gold, 0.07 mm thickness)
495 000 | Spacer for third wheel bridge
701 000 | Fifth wheel & pinion
706 000 | Sixth wheel & pinion
400 000 | Circuit block
400 002 | Coil block
414 000 | Step motor
421 000 | Insulator for battery
421 002 | Insulator for battery connection
424 000 | Rotor stator
427 000 | Plus terminal of battery connection
445 000 | Battery connection
445 001 | Reset lever
445 002 | Upper hole jewel for step rotor
445 003 | Lower hole jewel for step rotor
445 004 | Third wheel bridge screw
445 005 | Circuit block screw (A)
445 006 | Screw for Snap terminal of battery connection
445 007 | Screw for additional train wheel bridge (A)
445 008 | Circuit block screw (B)
445 009 | Screw for additional train wheel bridge (B)
445 010 | Case screw
445 011 | Setting lever axle spring screw
445 012 | Minute wheel bridge screw
445 013 | Tube for circuit block (A)
445 014 | Tube for coil block screw
445 015 | Train wheel setting lever pin
445 016 | Tube for circuit block (B)
445 017 | Tube for circuit block (C)
445 018 | Tube for third wheel bridge screw (A)
445 019 | Tube for third wheel bridge screw (B)
445 020 | Eccentric dial pin
445 021 | Silver (II) oxide battery
445 022 | Silver oxide battery

### Remarks:

- Winding stem……….Refer to the photograph on the front page.
  - 334 261………Short winding stem (Thread is provided completely on the stem.)
  - 334 263………Long winding stem (Thread is provided only on the end of the stem.)

### Battery

- SEIKO TR726SW
- SEIKO SB-8L
- Maxell SR726SW
- U.C.C.397

The substitutive battery might be added to the applied battery in the future. In that case, please refer to separate "BATTERY LIST FOR SEIKO QUARTZ WATCHES".

Note that SEIKO battery is marked with "SEIZAIKEN" on its (+) side.

☆☆ Please see remarks.
Part numbers in light letters are not shown in photos.
CONTENTS

I. SPECIFICATIONS ................................................. 1
II. STRUCTURE OF THE CIRCUIT BLOCK .................. 1
III. DISASSEMBLING, REASSEMBLING AND LUBRICATING .. 2
IV. CHECKING AND ADJUSTMENT ............................... 4
I. SPECIFICATIONS

Cal. 2628A, provided with a small second hand at the 6 o'clock position, is derived from Cal. 2620A.

<table>
<thead>
<tr>
<th>Item</th>
<th>Cal. No.</th>
<th>2628A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time indication</td>
<td></td>
<td>Two hand time indication (with a small second hand)</td>
</tr>
<tr>
<td>Additional mechanism</td>
<td></td>
<td>Electronic circuit reset switch</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Battery life indicator</td>
</tr>
<tr>
<td>Loss/gain</td>
<td></td>
<td>Loss/gain at normal temperature range</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monthly rate: less than 15 seconds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Annual rate: less than 3 minutes)</td>
</tr>
<tr>
<td>Movement size</td>
<td></td>
<td>φ18.0 mm</td>
</tr>
<tr>
<td>Casing diameter</td>
<td></td>
<td>φ17.8 mm</td>
</tr>
<tr>
<td>Height</td>
<td></td>
<td>3.7 mm without battery</td>
</tr>
<tr>
<td>Regulation system</td>
<td></td>
<td>Trimmer condenser</td>
</tr>
<tr>
<td>Measuring gate by Quertz Tester</td>
<td></td>
<td>Any gate is available.</td>
</tr>
<tr>
<td>Battery power</td>
<td></td>
<td>Battery life is approximately 3 years for SEIKO (SEIZAIKEN) Tr726SW or S8-0L, and 2 years for Maxell SR726SW or U.C.C. 397. Voltage: 1.55V</td>
</tr>
<tr>
<td>Jewels</td>
<td></td>
<td>2 jewels</td>
</tr>
</tbody>
</table>

II. STRUCTURE OF THE CIRCUIT BLOCK

![Diagram of the circuit block](image_url)
III. DISASSEMBLING, REASSEMBLING AND LUBRICATING

- Disassembling and reassembling
  Disassembling procedures Figs. ① ~ ⑥
  Reassembling procedures Figs. ⑦ ~ ⑨
- Use the movement holder S-661

1. Indicating mechanism

   - Hour and minute hands
   - Second hand
   - Dial

How to remove the second hand
- There is only a little clearance between the second hand and the dial. Be sure to remove the second hand with a slightly tipped hand remover.
- Be careful not to scratch the dial with the hand remover.

How to set the gear train

- Additional train wheel bridge screw A (2 pcs.)
- Additional train wheel bridge screw B
- Additional train wheel bridge
- Intermediate small second wheel
- Small second wheel
- Dial washer (Hour wheel ring) (Some models are not provided.)
- Hour wheel (Minute wheel bridge)

Check to see if the sixth wheel and pinion and the intermediate small second wheel are engaged in place.

- Lubricating
  Types of oil
  ▶ Moebius A
  ▶ SEIKO Watch Oil S-6
  ▶ Normal
  ▶ Extremely small

2. Electronic circuit and gear train mechanism

   - Circuit block screw A (2 pcs.)
   - Circuit block screw B
   - Circuit block
   - Coil block
   - Battery connection (−)
   - Battery connection insulator
   - Third wheel bridge screw (2 pcs.)
   - Plus terminal of battery connection
   - Third wheel bridge
   - Fourth wheel and pinion
   - Third wheel and pinion
   - Sixth wheel and pinion
   - Fifth wheel and pinion
   - Step rotor
   - Spacer for third wheel bridge
   - Rotor stator
   - Train wheel setting lever
   - Reset lever
   - Insulator for battery

* When reassembling, first assemble the setting mechanism and the indicating mechanism up to ④. Then start to reassemble from ⑤. That will facilitate the reassembling of the third wheel and pinion and the sixth wheel and pinion.
IV. CHECKING AND ADJUSTMENT

- Refer to the "Technical Guide of the Cal. 2633A" for details.
- The difference of checking and adjustment of Cal. 2633A and Cal. 2628A is as follows.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHECK COIL BLOCK</td>
<td>2.0 kΩ ~ 4.0 kΩ: Normal</td>
</tr>
<tr>
<td></td>
<td>Less than 2.0 kΩ: (Short circuit) Defective</td>
</tr>
<tr>
<td></td>
<td>More than 4.0 kΩ: (Broken wire)</td>
</tr>
<tr>
<td></td>
<td>Replace the coil block with a new one.</td>
</tr>
<tr>
<td>CHECK CURRENT CONSUMPTION</td>
<td>Result:</td>
</tr>
<tr>
<td></td>
<td>Less than 1.2 μA: Normal</td>
</tr>
<tr>
<td></td>
<td>More than 1.2 μA: Defective</td>
</tr>
<tr>
<td></td>
<td>Check the electronic circuit.</td>
</tr>
</tbody>
</table>

All procedures of Disassembling, Reassembling, Checking and Adjustment are completed.