

**SEIKO**

**QUARTZ**

**Cal. 2628A**

**PARTS LIST**

# Cal. 2628A



126 001



131 276



231 261



240 260



241 162



261 260



270 278



271 279



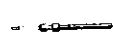
281 261



282 262



317 001



☆354 261



☆354 263



383 260



384 263



387 262



389 260



391 260



436 261



491 141



493 260



495 261



701 260



706 262



4001 270



4002 262



4146 260



4216 260



4219 261



4240 260



4242 262



4270 260



4455 260



☆SEIKO SB-DL



012 151



012 159



012 459



012 768



017 125



017 131



017 132



017 221



017 222



017 226



017 229



017 936

2/1

# Cal. 2628A

## Characteristics

Two hands time indication (with a small second hand)

Casing diameter :  $\phi$  17.6 mm

Maximum height : 3.7 mm without battery

Jewels : 2 j

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                                                     | PART NO.        | PART NAME                                                        |
|----------|---------------------------------------------------------------|-----------------|------------------------------------------------------------------|
| 126 001  | Additional train wheel bridge                                 | 4146 260        | Step rotor                                                       |
| 131 276  | Third wheel bridge                                            | 4216 260        | Insulator for battery                                            |
| 231 261  | Third wheel & pinion                                          | 4219 261        | Insulator for battery connection                                 |
| 240 260  | Small second wheel                                            | 4240 260        | Rotor stator                                                     |
| 241 162  | Fourth wheel & pinion                                         | 4242 262        | Plus terminal of battery connection                              |
| 261 260  | Minute wheel                                                  | 4270 260        | Battery connection                                               |
| 270 278  | Center minute wheel with cannon pinion (2.62 mm)              | 4455 260        | Reset lever                                                      |
| 270 279  | Center minute wheel with cannon pinion (2.62 mm, Gold plated) | 011 409         | Upper hole jewel for step rotor                                  |
| 271 279  | Hour wheel                                                    | 011 409         | Lower hole jewel for step rotor                                  |
| 281 261  | Setting wheel                                                 | 012 151         | Third wheel bridge screw                                         |
| 282 262  | Clutch wheel                                                  | 012 151         | Circuit block screw (A)                                          |
| 317 001  | Intermediate small second wheel                               | 012 151         | Coil block screw (Screw for plus terminal of battery connection) |
| ☆354 261 | Winding stem (13.13 mm)                                       | 012 151         | Screw for additional train wheel bridge (A)                      |
| ☆354 263 | Winding stem (18.58 mm)                                       | 012 159         | Circuit block screw (B)                                          |
| 383 260  | Setting lever                                                 | 012 159         | Screw for additional train wheel bridge (B)                      |
| 384 263  | Yoke (Clutch lever)                                           | 012 459         | Case screw                                                       |
| 387 262  | Minute wheel bridge                                           | 012 768         | Setting lever axle spring screw                                  |
| 389 260  | Setting lever axle spring                                     | 012 768         | Minute wheel bridge screw                                        |
| 391 260  | Train wheel setting lever                                     | 017 125         | Tube for circuit block (A)                                       |
| 436 261  | Lower end-piece for third wheel                               | 017 131         | Tube for coil block screw                                        |
| 491 141  | Dial washer                                                   | 017 132         | Train wheel setting lever pin                                    |
| 493 260  | Hour wheel ring (Gold, 0.03 mm thickness)                     | 017 221         | Tube for circuit block (B)                                       |
| 493 261  | Hour wheel ring (Silver, 0.05 mm thickness)                   | 017 232         | Tube for circuit block (C)                                       |
| 493 262  | Hour wheel ring (Gold, 0.07 mm thickness)                     | 017 226         | Tube for third wheel bridge screw (A)                            |
| 495 261  | Spacer for third wheel bridge                                 | 017 229         | Tube for third wheel bridge screw (B)                            |
| 701 260  | Fifth wheel & pinion                                          | 017 936         | Eccentric dial pin                                               |
| 706 262  | Sixth wheel & pinion                                          | ☆SEIKO SB-DL    | Silver (II) oxide battery                                        |
| 4001 270 | Circuit block                                                 | ☆SEIKO TR726SW  | Silver oxide battery                                             |
| 4002 262 | Coil block                                                    | ☆Maxell SR726SW |                                                                  |
|          |                                                               | ☆U.C.C.397      |                                                                  |

## Remarks :

Winding stem . . . . . Refer to the photograph on the front page.

☆354 261 . . . . . Short winding stem (Thread is provided completely on the stem.)

☆354 263 . . . . . Long winding stem (Thread is provided only on the end of the stem.)

## Battery

☆SEIKO TR726SW } The substitutive battery might be added to the applied battery in the future.  
 ☆SEIKO SB-DL } ..... In that case, please refer to separate "BATTERY LIST FOR SEIKO  
 ☆Maxell SR726SW } QUARTZ WATCHES".  
 ☆U.C.C.397 } Note that SEIKO battery is marked with "SEIZAIKEN" on its (+) side.

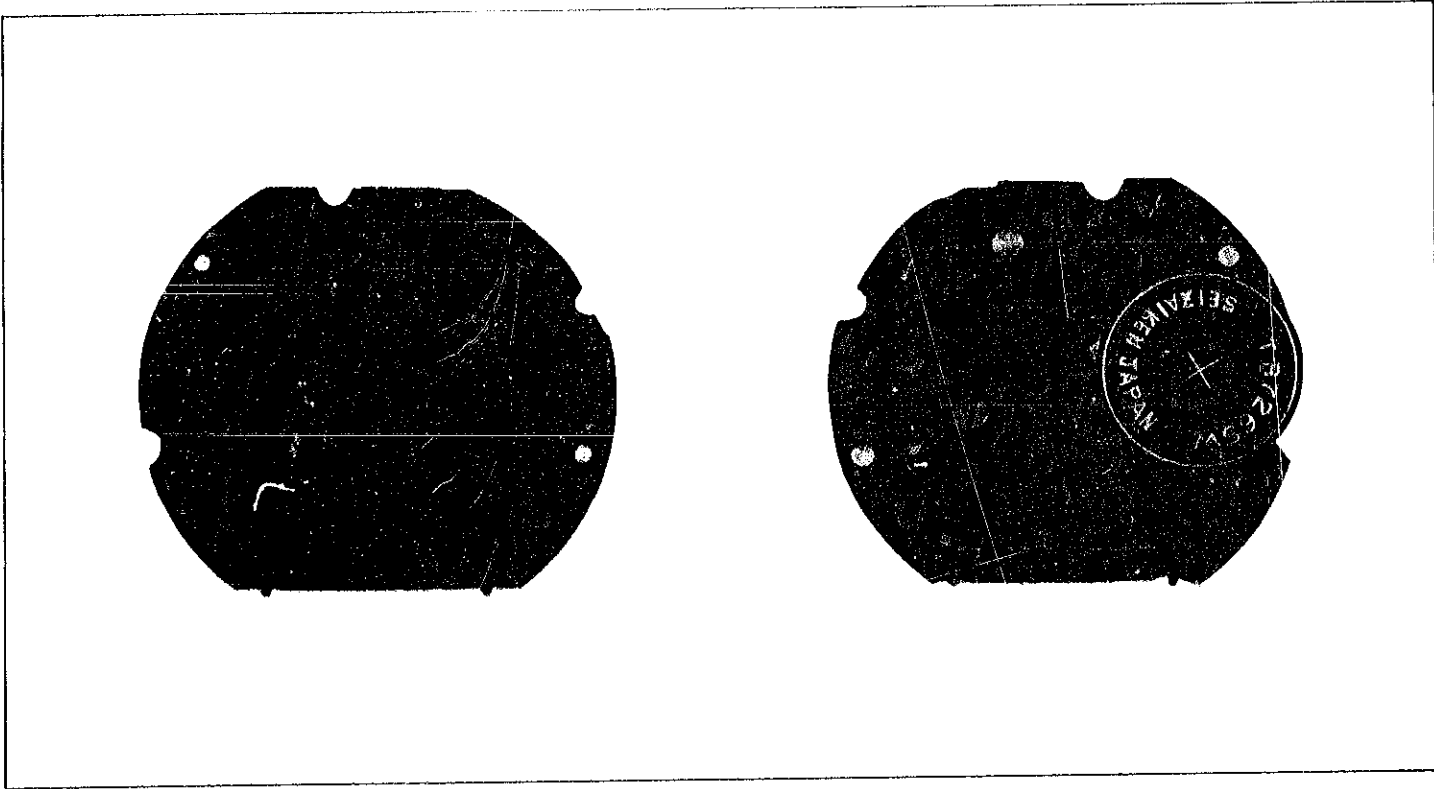
☆⇒ Please see remarks.

Part numbers in light letters are not shown in photos.

# TECHNICAL GUIDE

**SEIKO**  
QUARTZ

CAL. 2628A



## CONTENTS

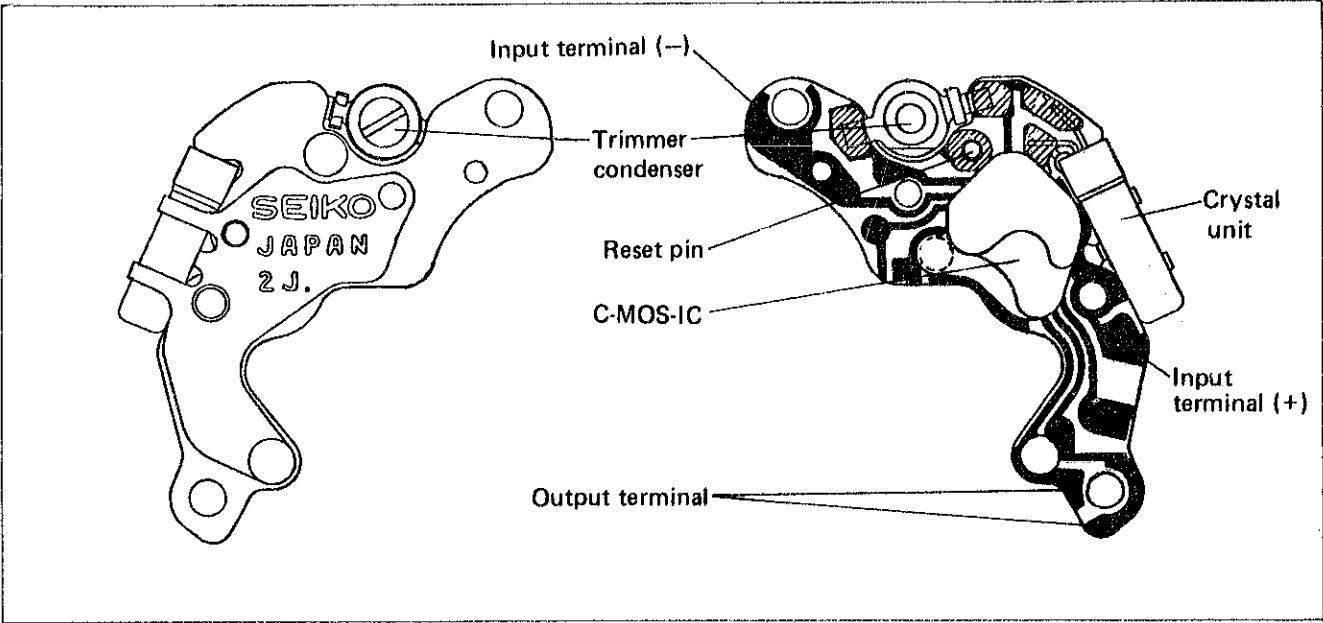
|                                                        |   |
|--------------------------------------------------------|---|
| I. SPECIFICATIONS .....                                | 1 |
| II. STRUCTURE OF THE CIRCUIT BLOCK .....               | 1 |
| III. DISASSEMBLING, REASSEMBLING AND LUBRICATING ..... | 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.

| Item \ Cal. No.                 | 2628A                                                                                                                                        |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Time indication                 | Two hand time indication (with a small second hand)                                                                                          |
| Additional mechanism            | Electronic circuit reset switch<br>Battery life indicator                                                                                    |
| Loss/gain                       | Loss/gain at normal temperature range<br>Monthly rate: less than 15 seconds<br>(Annual rate: less than 3 minutes)                            |
| Movement size                   | φ18.0 mm                                                                                                                                     |
| Casing diameter                 | φ17.6 mm                                                                                                                                     |
| Height                          | 3.7 mm without battery                                                                                                                       |
| Regulation system               | Trimmer condenser                                                                                                                            |
| Measuring gate by Quartz Tester | Any gate is available.                                                                                                                       |
| Battery power                   | Battery life is approximately 3 years for SEIKO (SEIZAIKEN) TR726SW or SB-DL and 2 years for Maxell SR726SW or U.C.C. 397.<br>Voltage: 1.55V |
| Jewels                          | 2 jewels                                                                                                                                     |

II. STRUCTURE OF THE CIRCUIT BLOCK



### III. DISASSEMBLING, REASSEMBLING AND LUBRICATING

#### • Disassembling and reassembling

Disassembling procedures Figs. ① ~ ③①  
Reassembling procedures Figs. ③① ~ ①

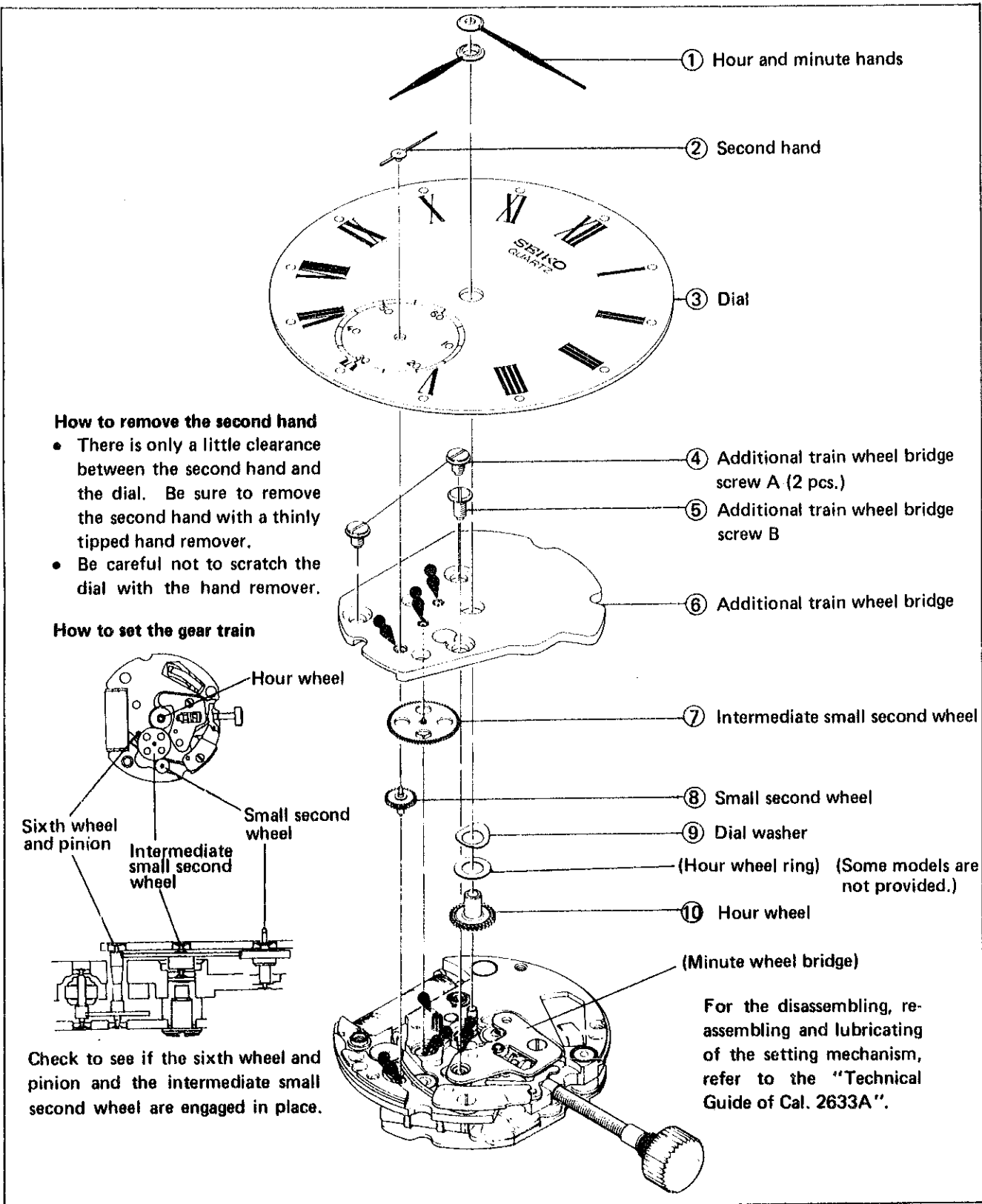
#### • Lubricating

Types of oil  
● Moebius A  
○ SEIKO Watch Oil S-6

Oil quantity  
○ Normal  
○ Extremely small

#### • Use the movement holder S-661

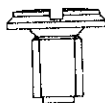
#### 1. Indicating mechanism



#### 2. Electronic circuit and gear train mechanism

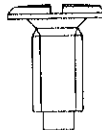
##### List of screws used

###### Parts No. 012 151



Additional train wheel bridge screw A (2 pcs.)  
Circuit block screw A (2 pcs.)  
Coil block screw (1 pc.)  
Third wheel bridge screw (2 pcs.)

###### Parts No. 012 159

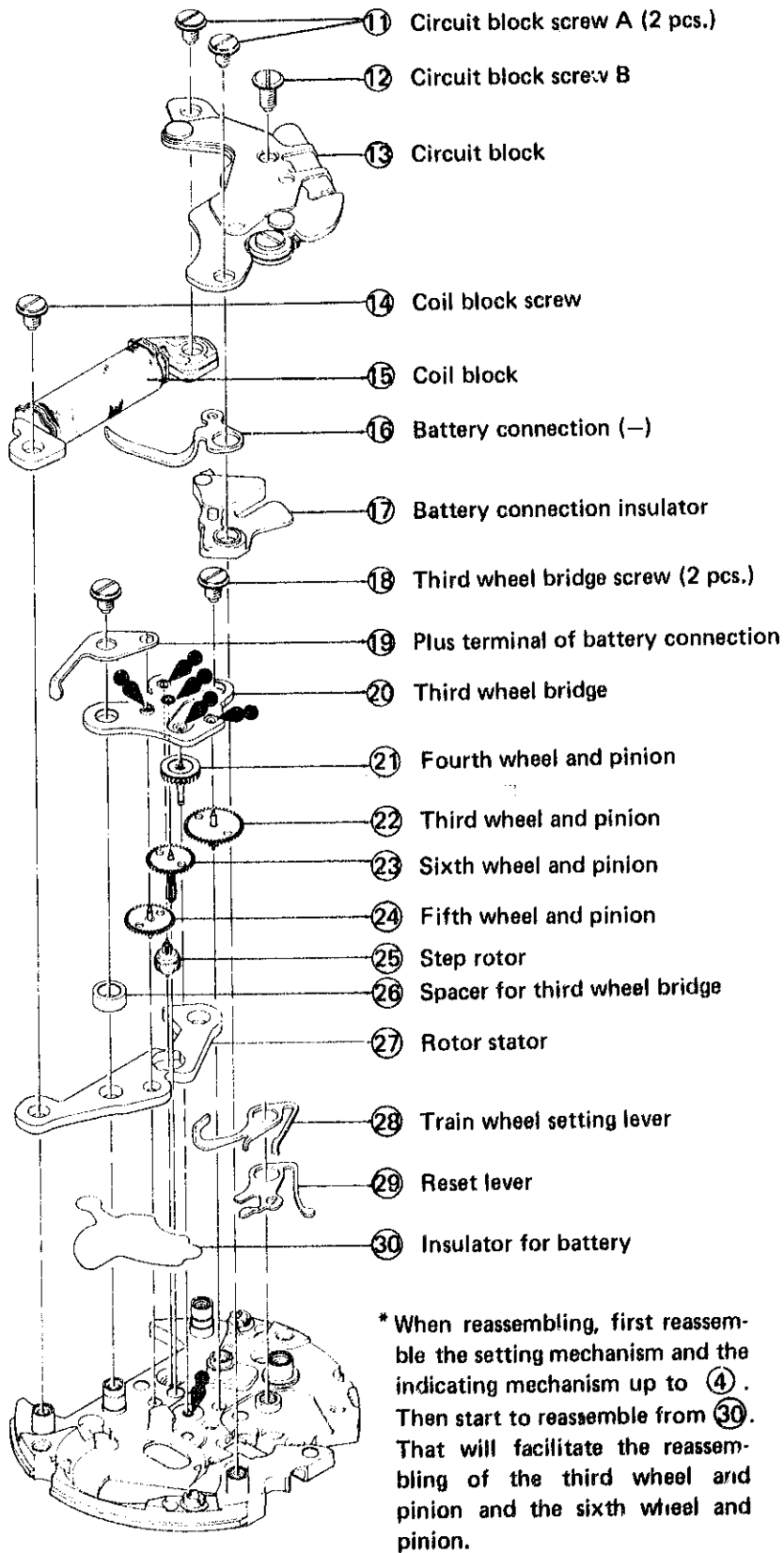


Circuit block screw B (1 pc.)  
Additional train wheel bridge screw B (1 pc.)

###### Parts No. 012 768



Setting lever axle spring screw (1 pc.)  
Minute wheel bridge screw (1 pc.)



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.

| Procedure                 |                                                                                                                                                                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CHECK COIL BLOCK          | <div>Result:</div> <div>2.0 kΩ ~ 4.0 kΩ: Normal</div> <div>Less than 2.0 kΩ } Defective</div> <div>(Short circuit)</div> <div>More than 4.0 kΩ } Defective</div> <div>(Broken wire)</div> <div>Replace the coil block with a new one.</div> |
| CHECK CURRENT CONSUMPTION | <div>Result:</div> <div>Less than 1.2 μA: Normal</div> <div>More than 1.2μA: Defective</div> <div>Check the electronic circuit.</div>                                                                                                       |

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