

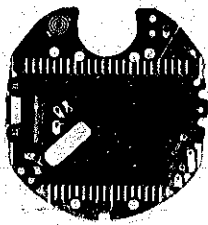
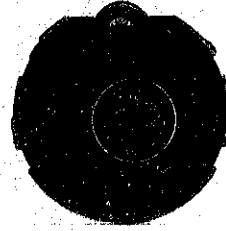
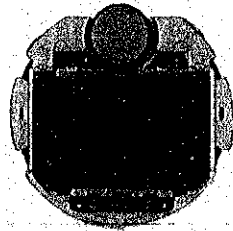
**SEIKO**

**DIGITAL QUARTZ**

**Cal. A354A**

**PARTS LIST**

# Cal. A354A



4001 532



4242 530



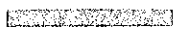
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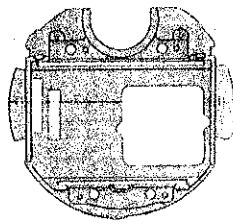
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4313 530



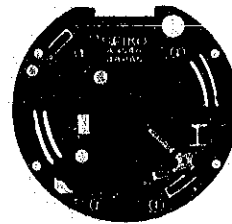
4313 531



4398 530



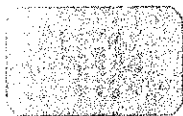
4408 530



4410 538



4510 550



4521 580



4530 649



4540 530



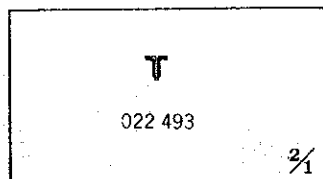
4540 860



4580 530



☆ Maxell SR1120W



T  
022 493

2/1

# Cal. A354A

## Characteristics

Casing diameter :  $\phi$  30.2 mm  
 Maximum height : 4.8 mm without battery  
 Frequency of quartz crystal oscillator : 32,768 Hz (Hz=Hertz . . . . Cycles per second)  
 Time and calendar display : Hour, minute, second and the monthly calendar of the present month (the present date is flashing).  
 date is flashing). Month and year is displayed by depressing the button.  
 Monthly calendar display : Month, year and date for the designated month are displayed. It can be displayed for any desired month  
 within the 200 years period from January, 1900 to December, 2099.  
 Alarm display : Can be set to ring at any desired hour and minute.  
 Display medium : Nematic Liquid Crystal, FE-Mode  
 Regulation system : Trimmer condenser  
 Time signal and quarter-hour signal : Time signal can be set to ring every hour on the hour and the quarter-hour signal can be set  
 to ring every fifteen minutes.  
 Illuminating light : Illuminates the display in the dark by depressing the light button.  
 Battery life indicator : All the digits in the display begin flashing.

PART NO.	PART NAME	PART NO.	PART NAME
4001 532	Circuit block		
4242 530	Plus terminal of battery connection		
4242 531	Speaker block lead terminal		
4245 530	Switch spring		
4313 530	Connector A		
4313 531	Connector B		
4398 530	Liquid crystal panel frame		
4408 530	Bulb rest		
4410 538	Circuit cover		
4510 550	Liquid crystal panel		
4521 580	Reflecting mirror		
4530 649	Bulb		
4540 530	Liquid crystal panel holder A		
4540 860	Liquid crystal panel holder B		
4580 530	Speaker block		
022 493	Liquid crystal panel holder screw		
☆U.C.C. 391 } ☆Maxell SR1120W }	Silver oxide battery		

## Remarks :

### Battery

☆U.C.C. 391 } ..... The applied battery for this calibre might be added the substitutive in the future.  
 ☆Maxell SR1120W } In that case, please refer to separate "BATTERIES FOR SEIKO QUARTZ  
 WATCHES".

☆⇨Please see remarks.

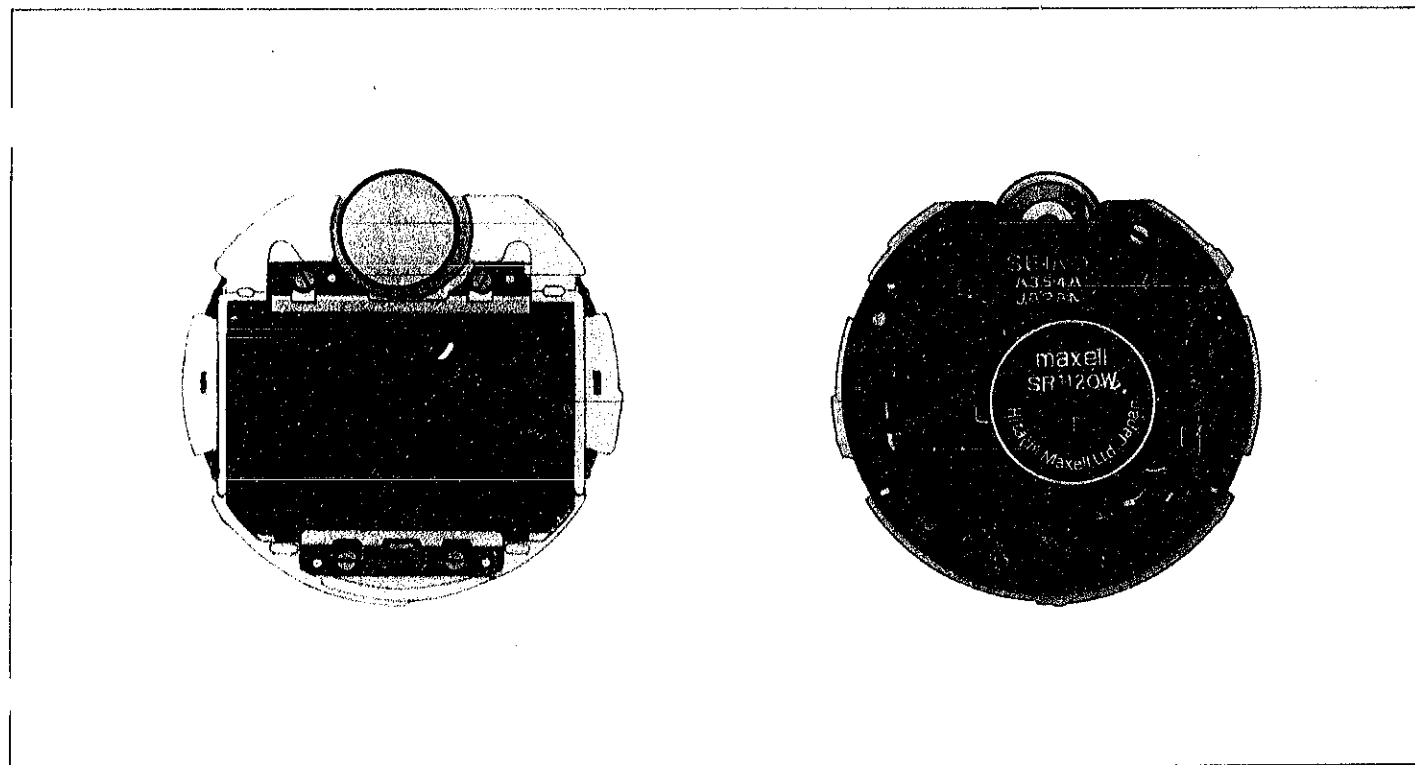
Part numbers in light letters are not shown in photos.

# TECHNICAL GUIDE

## SEIKO

## DIGITAL QUARTZ

CAL. A354A



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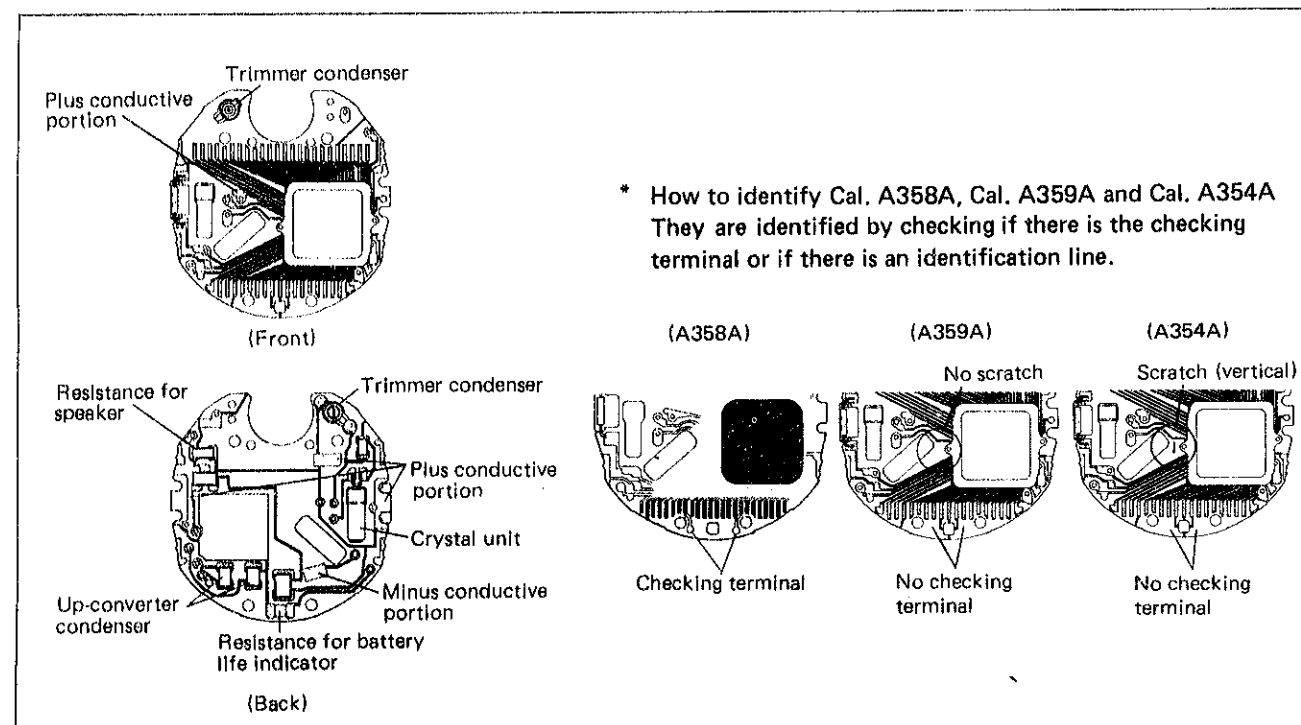
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II. STRUCTURE OF CIRCUIT BLOCK .....	1
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IV. RELATIONSHIP BETWEEN THE SEGMENT (LIQUID CRYSTAL PANEL ELECTRODE) AND THE C-MOS-LSI OUTPUT TERMINAL .....	3

The repairing procedures of Cal. A354A are the same as those of Cal. A358A with some exceptions. Refer to the Technical Guide of Cal. A358A and the "SEIKO WATCH CASING GUIDE" for repairing.

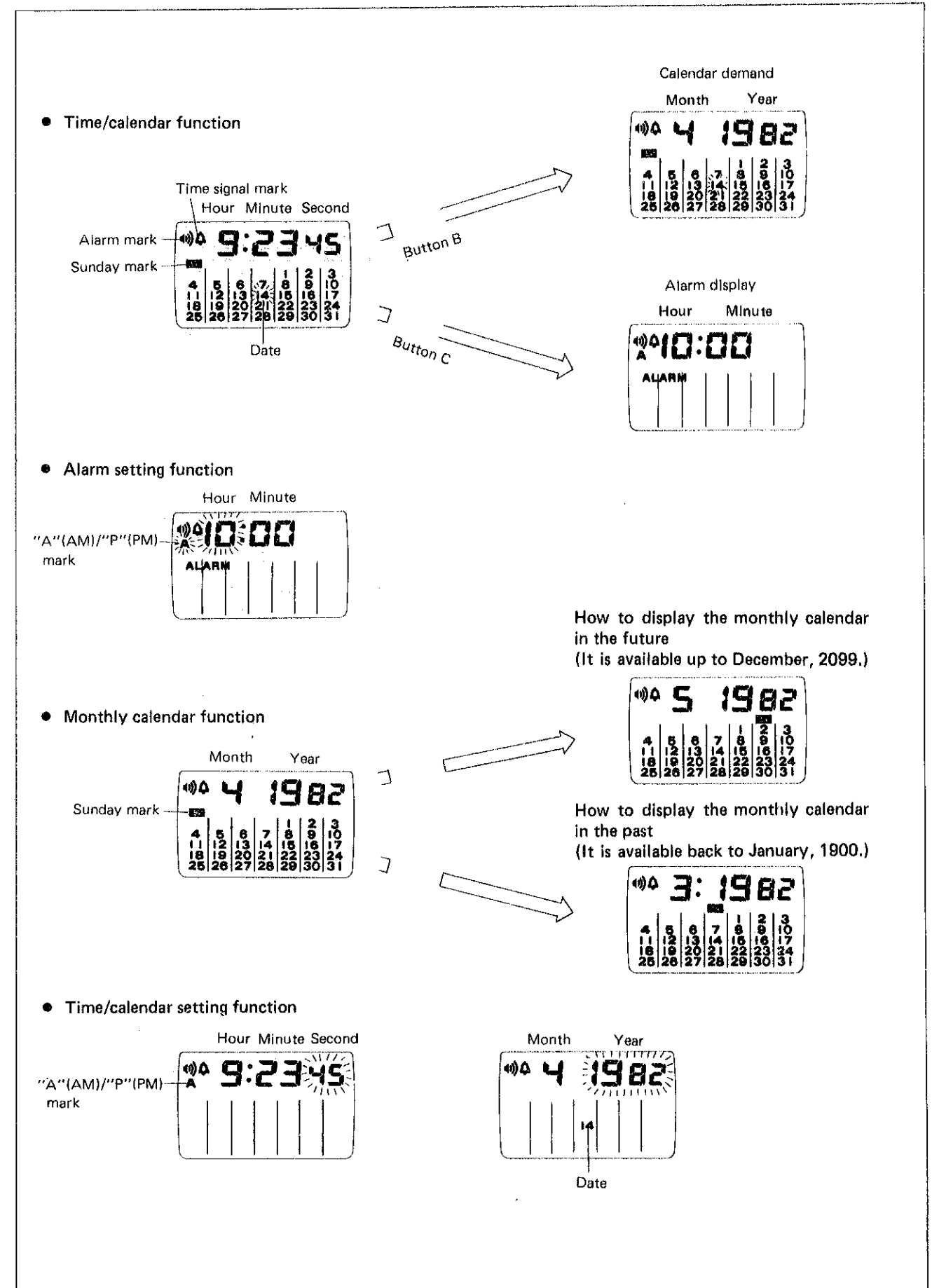
### I. SPECIFICATIONS

Item	Cal. No.	A354A
Display medium		Nematic Liquid Crystal, FEM (Field Effect Mode)
Display system		<ul style="list-style-type: none"> <li>Time/calendar function</li> <li>Alarm setting function</li> <li>Monthly calendar function</li> <li>Time/calendar setting function</li> </ul>
Additional mechanism		<ul style="list-style-type: none"> <li>Battery life indicator (All the digits in the display begin flashing when the battery life nears its end.)</li> <li>Illuminating light</li> <li>Alarm test system</li> <li>Time signal (It can be set to ring every hour on the hour.)</li> <li>Quarter-hour signal (It can be set to ring every fifteen minutes.)</li> <li>Monthly calendar display device</li> <li>Pattern segment checking system (also transmits the signal of measuring the daily rate)</li> </ul>
Loss/gain		Loss/gain at normal temperature range Mean monthly rate : less than 10 seconds (Annual rate : less than 2 minutes)
Casing diameter		φ30.2mm
Height		4.8mm (5.0mm with battery)
Driving system		Multiplex driving system
Regulation system		Trimmer condenser
Measuring gate by Quartz Tester		Any gate is available.
Battery		U.C.C. 391, Maxell SR1120W or Toshiba SR1120W Battery life is approximately 2 years. Voltage: 1.55V

### II. STRUCTURE OF CIRCUIT BLOCK



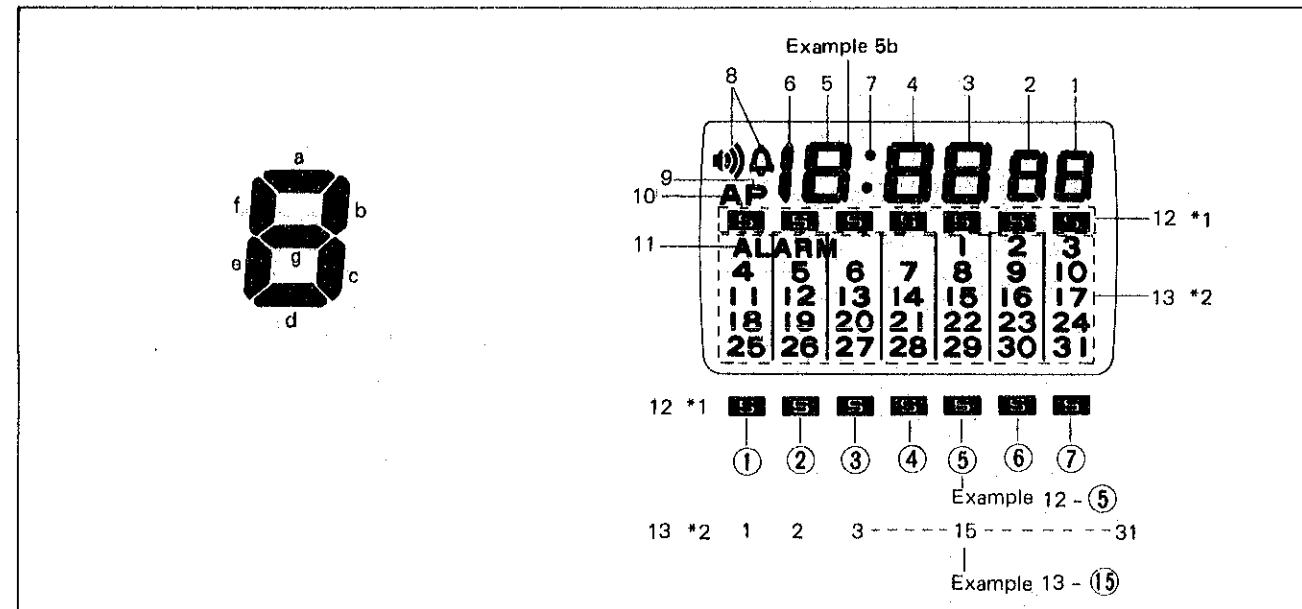
### III. DISPLAY FUNCTION



#### IV. RELATIONSHIP BETWEEN THE SEGMENT (LIQUID CRYSTAL PANEL ELECTRODE) AND THE C-MOS-LSI OUTPUT TERMINAL

A complete knowledge of how the segment (Liquid Crystal Panel Electrode) works with the C-MOS-LSI output terminal will provide the proper procedures for checking and adjustment.

- Designation of segment



- Relationship between the segment and the C-MOS-LSI output terminal

The liquid crystal panel electrode is connected electrically with each segment which forms a digital figure as shown in the illustration of the panel pattern below. (The panel pattern can be seen if the panel is slightly tilted and looked at in an angular position.)

Also, the liquid crystal panel electrode is connected electrically with the C-MOS-LSI output terminal by the connector.

