

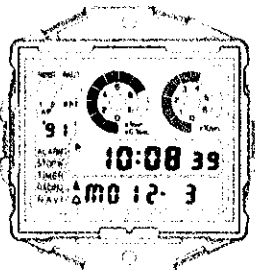
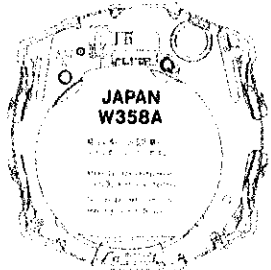
PARTS CATALOGUE/TECHNICAL GUIDE

Cal. W358A

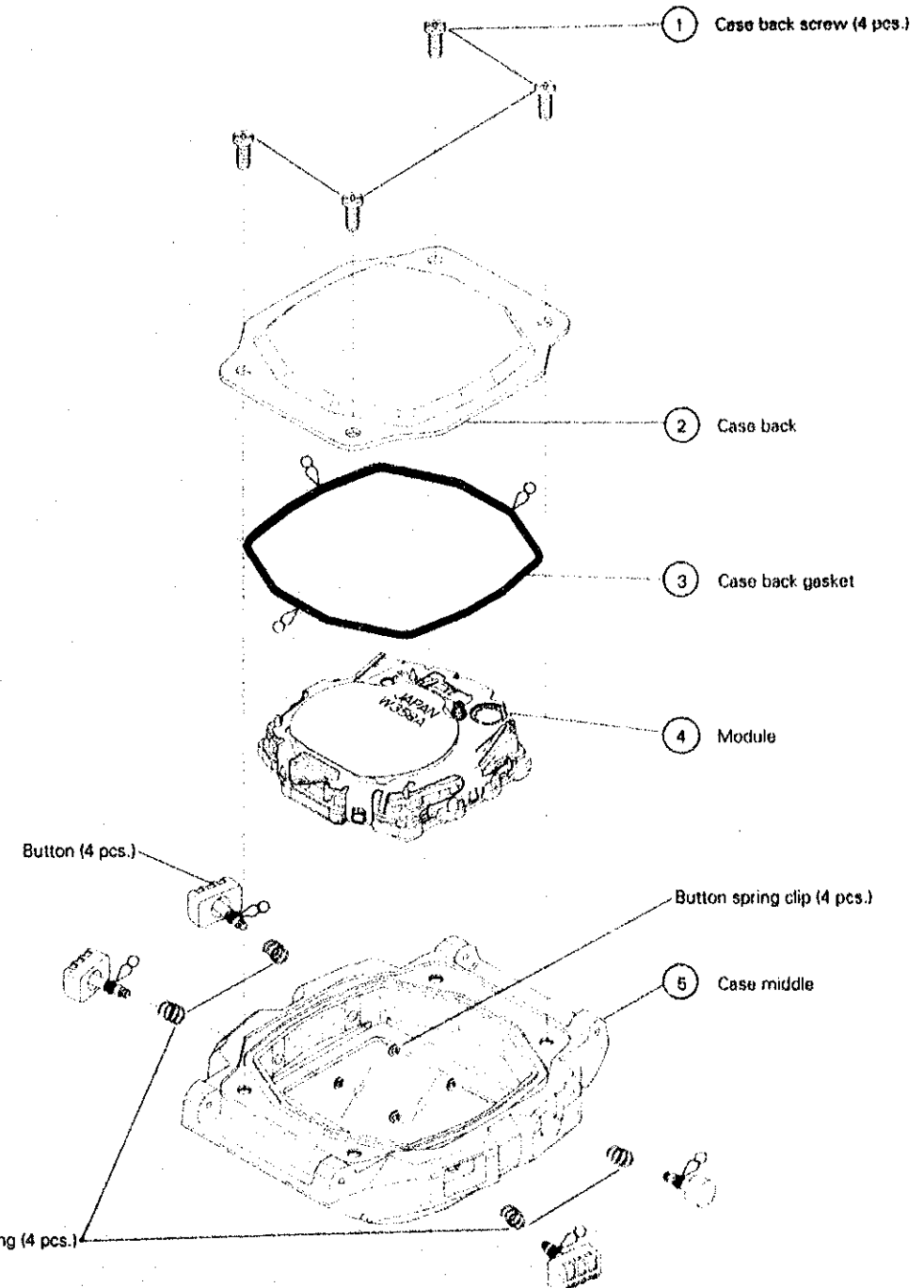
PARTS CATALOGUE

Cal. W358A

[SPECIFICATIONS]

Cal. No.		W358A
Item	Module	
Module size	 	
		(x 1.2)
Module size	Outside diameter	29.4mm between 6 o'clock and 12 o'clock sides 28.7mm between 3 o'clock and 9 o'clock sides
	Height	5.3mm (5.9mm including the battery portion)
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"> • Time/calendar display • Alarm display • Stopwatch display • Timer display • Circuit race timer display • Memory recall display • Navigator display 	
Additional mechanism	<ul style="list-style-type: none"> • Stopwatch auto start function • Alarm test system • 3-channel alarm • Hourly time signal • All segments light-up system 	
Loss/gain	Monthly rate at normal temperature range: less than 20 seconds	
Regulation system	Nil	
Measuring gate by quartz tester	Any gate can be used.	
Battery	SEIKO CR2025, Matsushita CR2025 Battery life is approximately 3 years. Voltage: 3.0 V	

Disassembling procedures Figs. : ① → ⑮
 Reassembling procedures Figs. : ⑮ → ①
 Lubricating: Types of oil Oil quantity
 ○ Silicone oil 500,000 c.s. ○ Normal quantity



• Other parts
 Piezoelectric element 4589 650

SEIKO CORPORATION

PARTS CATALOGUE

Cal. W358A

6 4216 763 Insulator for battery

7 Battery

8 4457 767 Circuit block cover

9 4246 767 Buzzer lead terminal

10 4410 767 Circuit block frame

11 4270 871 Battery connection (-)

12 4000 757 Circuit block

13 4313 767 Connector (2 pcs.)

14 Liquid crystal panel (with reflecting mirror)

15 4512 767 Liquid crystal panel frame

Remarks:

- After reassembling the liquid crystal panel and liquid crystal panel frame, reverse the module to install the parts ⑬ ~ ⑥.

○ → Please see the remarks on the following pages.

PARTS CATALOGUE

Cal. W358A

Remarks:

⑭ Liquid crystal panel

L/C panel No.	L/C panel color	Printing color of graphic display	Mov't ref. No.
4510 564	Silver	Red Silver letters	UW35822
4520 565	Gold	— Gold letters	UW35825
4520 566	Gold	— Silver letters	UW35826
4520 568	Silver	Red and blue Silver letters	UW35824

The type of liquid crystal panel is determined based on the design of cases. Refer to "Casing Parts Catalogue" to choose a corresponding liquid crystal panel.

TECHNICAL GUIDE

Cal. W358A

I. STRUCTURE OF THE CIRCUIT BLOCK

Crystal unit

Converter condenser

Resistance for circuit reset protection

Solid condenser

Upconverter coil

Transistor for buzzer

Resistance for buzzer

Converter condenser

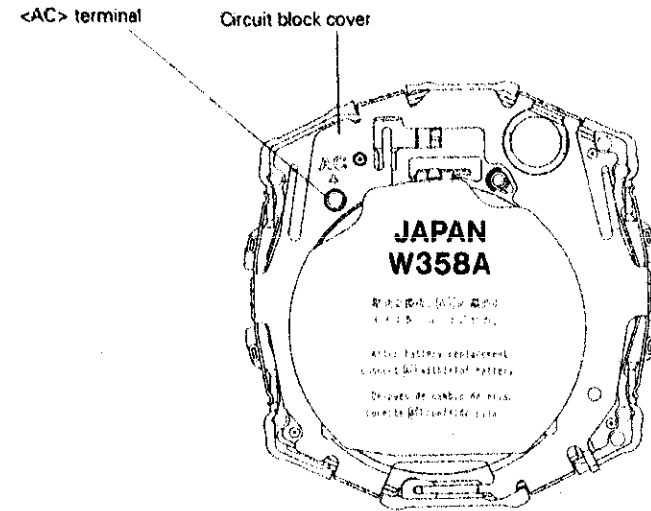
Converter condenser

Converter condenser

C-MOS-LSI

II. REMARKS ON INSTALLING THE BATTERY

- A necessary step after installing the battery
- After the battery is replaced with a new one, be sure to short-circuit the AC terminal and the battery connection (+) with tweezers to reset the circuit. Then, check that the displays will appear as follows:



- Time/calendar : 12:00'00" AM
January 1, 1990
Alarm and hourly time signal are disengaged.
- Alarm : Channel 1 12:00 AM
Channel 2 12:00 AM
Channel 3 12:00 AM
- Stopwatch : Reset to "00".
Auto start time is reset to "00'00"
- Timer : 00:00
- Circuit race timer : Number of cars is set to "2".
Distance is set to "5.859 km".
- Memory recall : Recall of lap time is selected.
- Navigator : Distance is set to "0.0 km".
Current time is displayed as the arrival time.
Hourly average speed is set to "0.0 km/h".

- After installing the battery, be sure to reset the insulator for battery in position. Otherwise, the alarm may not ring.

III. REMARKS ON DISASSEMBLING AND REASSEMBLING

- ⑭ Liquid crystal panel
- ⑮ Liquid crystal panel frame

- After reassembling the liquid crystal panel and liquid crystal panel frame, reverse the module to install the parts ⑬ ~ ⑥.

IV. VALUE CHECKING

- Upconverter coil resistance: 50Ω ~ 90Ω
- Current consumption
 - For the whole of the module : less than 4.0μA
 - For the circuit block alone : less than 3.0μA