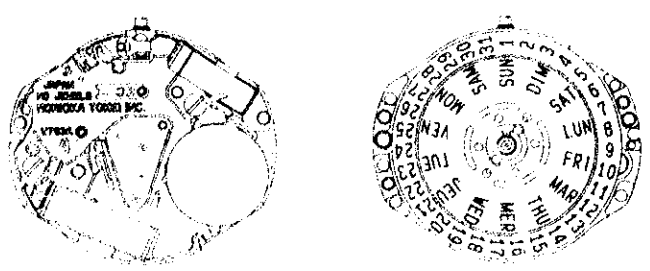


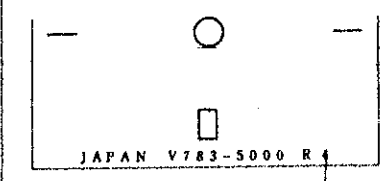

SERVICE GUIDE CAL. V782A/V783A/V789A

1. SPECIFICATIONS

Item	Cal. No.	V782A			V783A			V789A		
Movement		 <p>The illustrations refer to Cal. V783A. (x 2.0)</p>								
Movement size	Outside diameter	ø17.8mm 15.7mm between 3 o'clock and 9 o'clock sides								
	Casing diameter	ø17.4mm 15.3mm between 3 o'clock and 9 o'clock sides								
	Height	2.6mm			2.9mm			2.6mm		
Time indication		3 hands						2 hands		
Driving system		Step motor (Load compensated driving pulse type)								
Additional mechanism	Date calendar	-								
	Instant setting device for date calendar	-								
	Day calendar	-			Day calendar			-		
	Instant setting device for day calendar	-			Instant setting device for day calendar			-		
	Train wheel setting device	-								
		Electronic circuit reset switch								
Loss/gain		Monthly rate at normal temperature range: less than 20 seconds								
Regulation system		Nil								
Measuring gate by Quartz Tester		Use 10-second gate.								
Battery		SEIKO SR621SW MAXELL SR621SW SONY SR621SW MATSUSHITA SR621SW EVEREADY 364 Voltage: 1.55V Battery life is approximately 2 years.								
Jewels		0 jewel								
After-sales servicing system		Whole movement will be replaced with a new one. (Only the circuit block is available for supply.)								

2. DISCRIMINATION OF THE INSTALLING HEIGHT OF THE HANDS

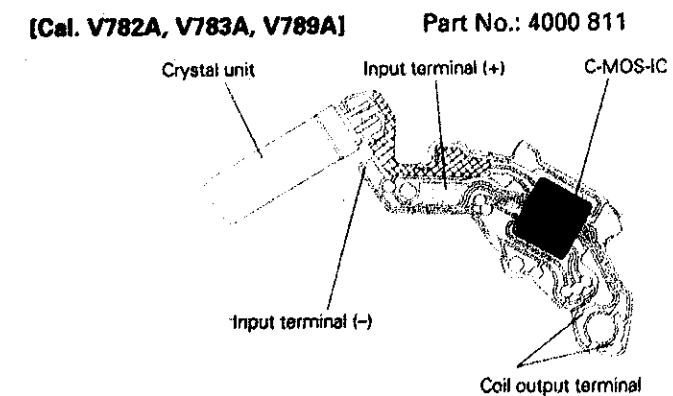
Cal. V7 series watches have numerals printed on the dial and the movement to indicate the installing heights of hands. When repairing, refer to the table below.

Discrimination	Height	Short type	Standard type	Extra long type
	Numeral for discrimination	1	2	4
Printed on		Dial		Movement
Printed position		 <p>Ex.) Extra long type</p> <p>The numeral is printed at the right end.</p>		 <p>Ex.) Extra long type</p> <p>The numeral is printed below the calibre number.</p>

3. REMARKS ON THE MARK ON THE BATTERY CONNECTION (+)

The battery connection (+) is marked either "SHIOJIRI LTD" or "MORIOKA TOKEI INC". Both movements are otherwise identical and can be used interchangeably.

4. STRUCTURE OF THE CIRCUIT BLOCK



5. VALUE CHECKING

Cal. No.		V782A	V783A	V789A
Coil block resistance		2.4KΩ ~ 2.8KΩ		
Current consumption	For the whole of the movement	less than 1.3μA		
	For the circuit block alone	less than 0.4μA		

Remarks:

When the current consumption exceeds the standard value for the whole of the movement but within the standard value range for the circuit block alone, overhaul and clean the movement parts and then measure current consumption for the whole of the movement again. The reason for this is that the driving pulse generated to compensate for a heavy load that may be applied to the gear train, etc., is considered to cause excessive current consumption by the whole of the movement.