



Cal. YM62A

ϕ 27.0 mm
H 3.7 mm

Items	Rev.	Page
Specifications	02	1
Appearance	00	2
Casing	02	3
Hand fitting	01	4
Hand setting stem	01	5
Dial-01	01	6-01
Dial-02	00	6-02
Dial-03	00	6-03
Dial-04	00	6-04
Casing ring-01	02	7-01
Casing ring-02	01	7-02
Attention for Assembly	00	8
Casing Instructions	01	9
Operation-01	01	10-01
Operation-02	01	10-02

Date: 29/Mar./'12

S.EPSON Products

MOVEMENT SPECIFICATIONS

CAL. YM62A

Analog Quartz 12''' Center second Chronograph and Alarm Movement

1. MOVEMENT DIMENSIONS

Outside diameter $\phi 27.60\text{mm}(12\text{H}-6\text{H}) \times 24.00\text{mm}(3\text{H}-9\text{H})$
 Casing diameter $\phi 27.00\text{mm}(12\text{H}-6\text{H})$
 Total height 3.70mm (including battery)

2. TIME STANDARD

Type of quartz oscillator Tuning fork
 Frequency of quartz oscillator 32,768 Hz
 Accuracy ± 20 seconds per month (on wrist)
 Operating temperature range -5°C to $+50^{\circ}\text{C}$
 Regulation device Nil (Pre-adjusted)

3. INDICATOR / FUNCTIONS

3 Hands Hour hand / Minute hand / 1/5 second chronograph hand (Center)
 Small hands Alarm hour and minute hand (6H) / Small second hand (9H)
 Minute chronograph hand (12H)
 Calendar Instant setting device for date calendar
 Reset switch
 Alarm
 Power depletion warning function (BLD)
 (Small second hand moves at 2-second intervals)
 Setting mechanism Crown at normal position : Free
 Crown pulled out 1st click : Instant date change / Alarm setting
 Crown pulled out 2nd click : Time setting / Reset
 : Chronograph hand reset / Alarm time setting
 Stopwatch 2H button: start / stop
 4H button: split / reset

4. FEATURES

Jewels 0 Jewel
 Anti-magnetism Over 1600A/m (Direct current magnetic field)
 Maximum unbalance of hands Small second hand : $0.03 \mu \text{N}\cdot\text{m}$
 Minute chronograph / Alarm minute hand : $0.03 \mu \text{N}\cdot\text{m}$
 1/5 second chronograph hand : $0.09 \mu \text{N}\cdot\text{m}$
 Minute hand : $0.70 \mu \text{N}\cdot\text{m}$
 Inertia of second hand's moment 1/5 second chronograph hand : less than $0.2 \mu \text{g}\cdot\text{m}^2$

5. BATTERY

Type / Size Silver oxide battery / $\phi 9.5\text{mm} \times t 2.73\text{mm}$
 Recommended battery SR927W
 Nominal voltage 1.55 V
 Battery life Approx. 3 years
 Driving current consumption Approx. $0.80 \mu \text{A}$
 Operation stopping voltage 0.9 V

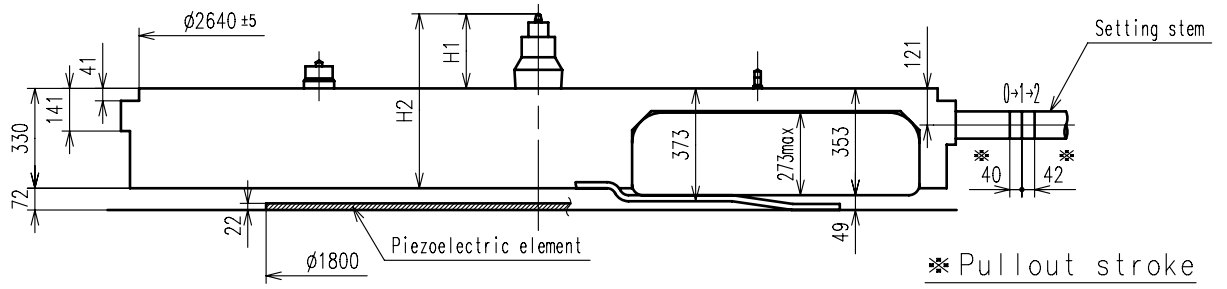
6. SEPARATED PARTS (Parts code)

Hand setting stem 0351584 (Standard) or 0351585 (Long)
 Holding ring for dial 0866650 (standard) 0866789 (special)
 Battery SR927W
 Piezoelectric element 4589801

7. TEST OF ACCURACY

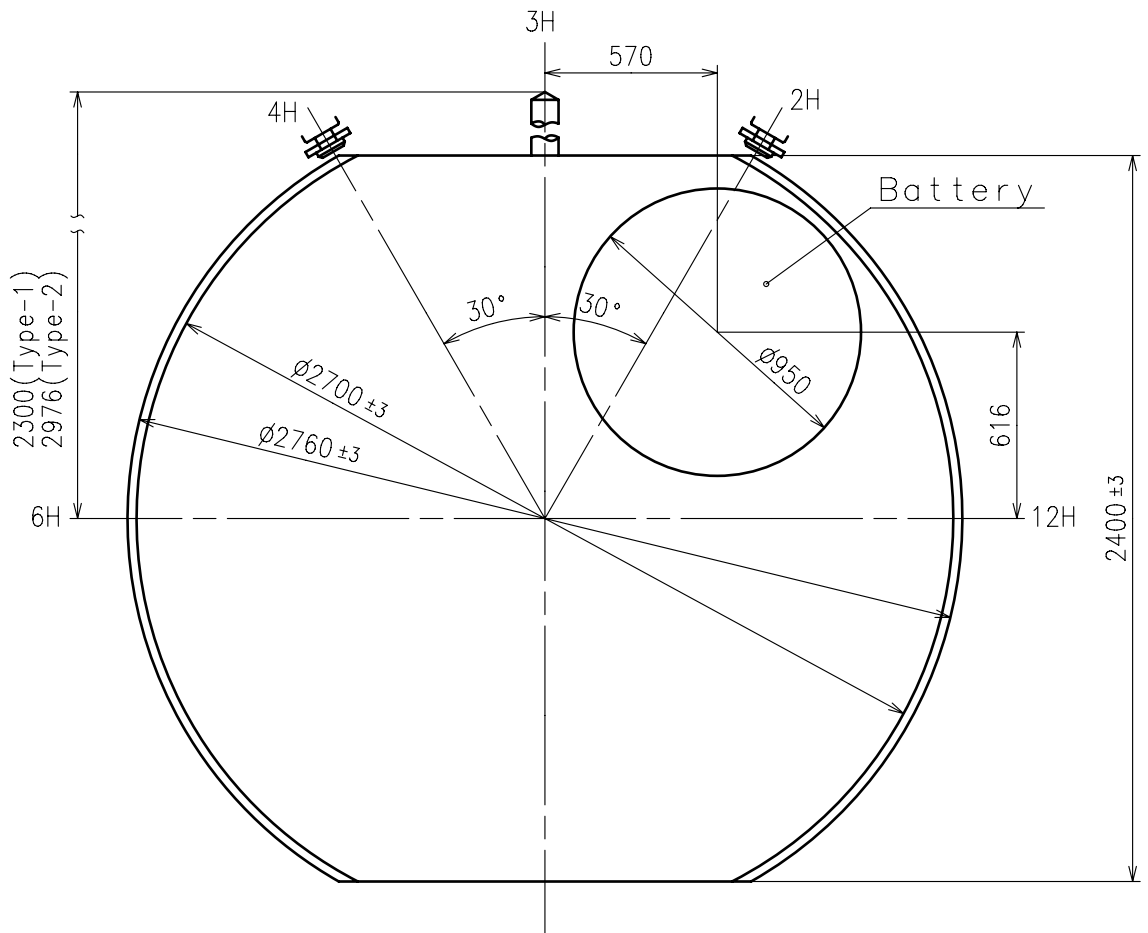
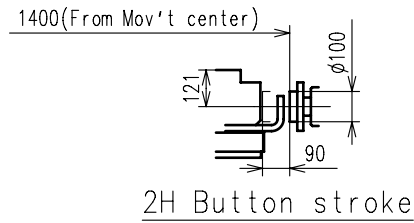
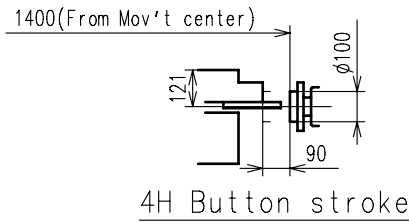
Equipment to be used SEIKO quartz tester QT-99, QT2100
 Greiner quartz timer-C , Witschi Q-tester 4000
 Duration of measurement 10 seconds
 Microphone to be used Electromagnetic detection type

All specifications are subject to change without notice.

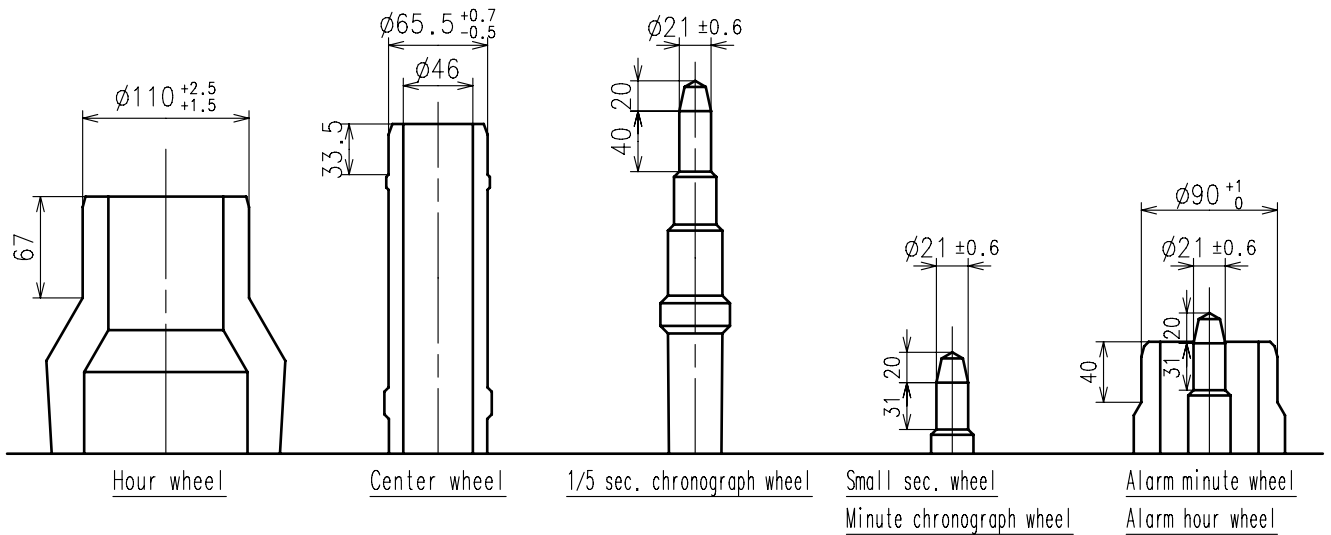


* Pullout stroke

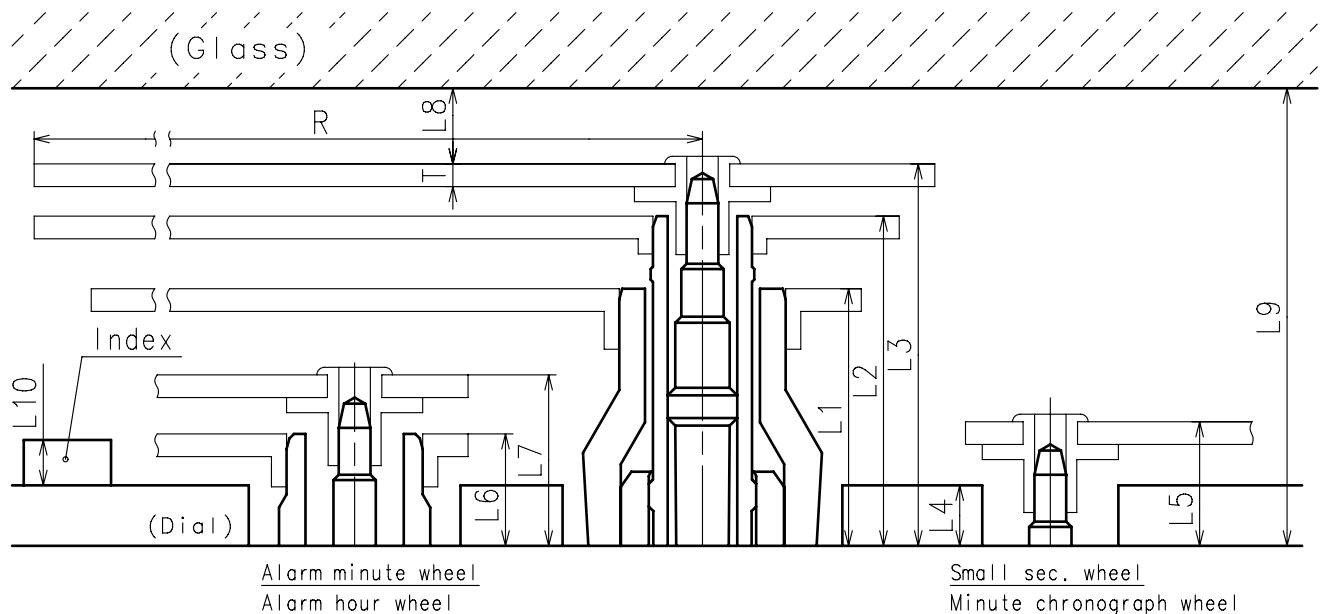
Center post		Type M (2) YM62A**
Maximum height from dial support	H1	246.5
Total height incl. movement	H2	576.5



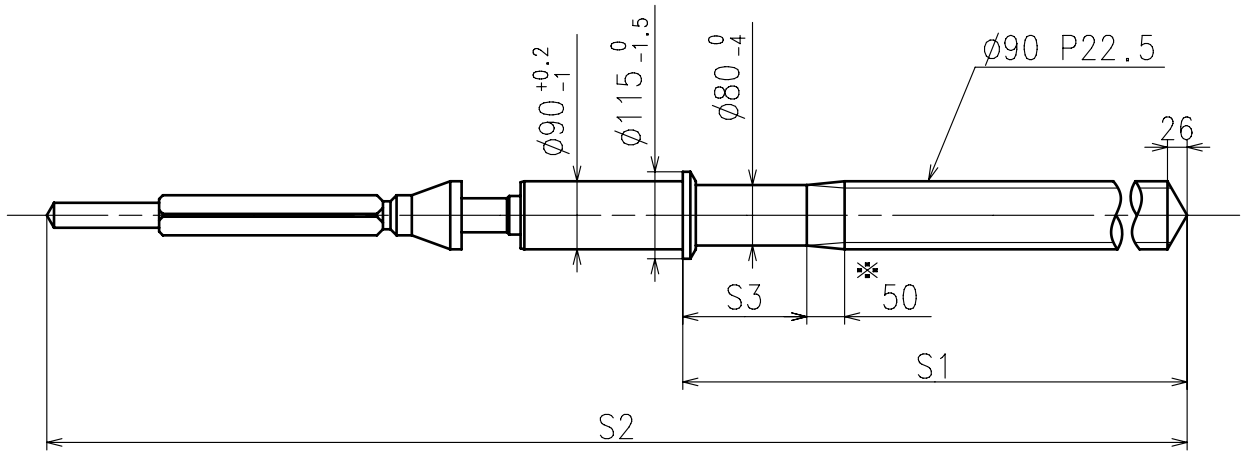
- * Unbalance
 - Small sec. hand $\leq 0.03\mu \text{ N} \cdot \text{m}$ ($3\mu \text{ g} \cdot \text{m}$)
 - Alarm minute hand $\leq 0.03\mu \text{ N} \cdot \text{m}$ ($3\mu \text{ g} \cdot \text{m}$)
 - Minute chronograph hand $\leq 0.03\mu \text{ N} \cdot \text{m}$ ($3\mu \text{ g} \cdot \text{m}$)
 - 1/5 sec. chronograph hand $\leq 0.09\mu \text{ N} \cdot \text{m}$ ($9\mu \text{ g} \cdot \text{m}$)
 - Minute hand $\leq 0.70\mu \text{ N} \cdot \text{m}$ ($70\mu \text{ g} \cdot \text{m}$)
- * Moment of inertia
 - 1/5 sec. chronograph hand $\leq 0.2\mu \text{ g} \cdot \text{m}^2$



	Parts No.						
	Hour wheel	Center wheel	1/5 sec. chronograph wheel	Small sec. wheel	Minute chronograph wheel	Alarm minute wheel	Alarm hour wheel
Type M (2) YM62A**	0271588	0221583	0888582	0240580	0902580	0270582	0271583



	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	T	R
Type M (2) YM62A**	170	218	252.5	40	77	74	113	MIN: 50	MIN: 302.5	MAX: 50	15	MAX: 1250

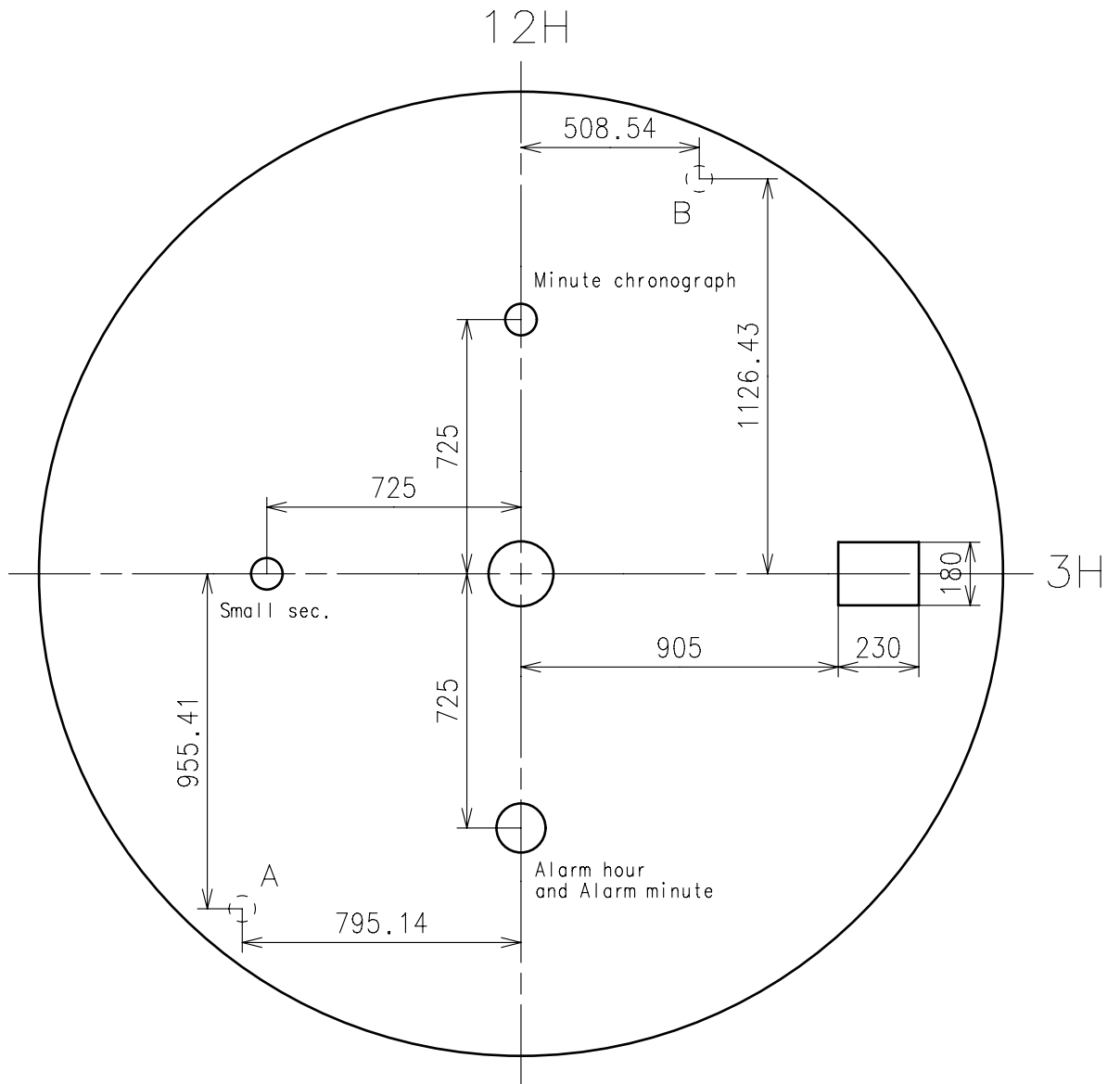


\ast Not threaded

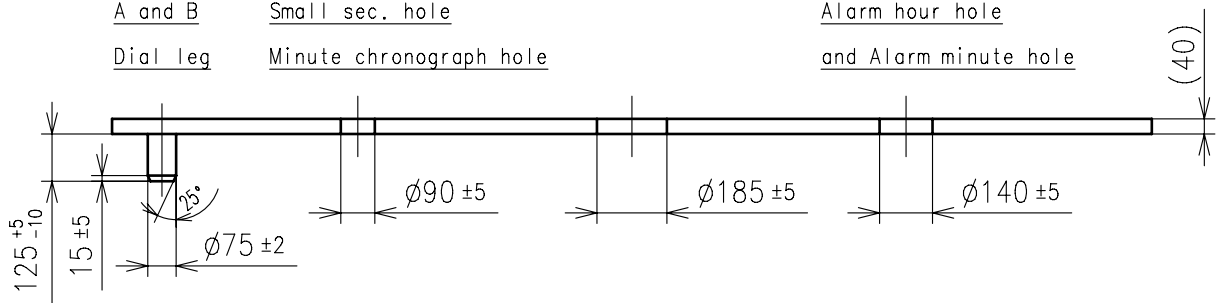
	Part No.	S1	S2	S3
Type-1 (Standard)	0351584	1164	2005.5	164
Type-2 (Long)	0351585	1840	2681.5	750

Material : Steel

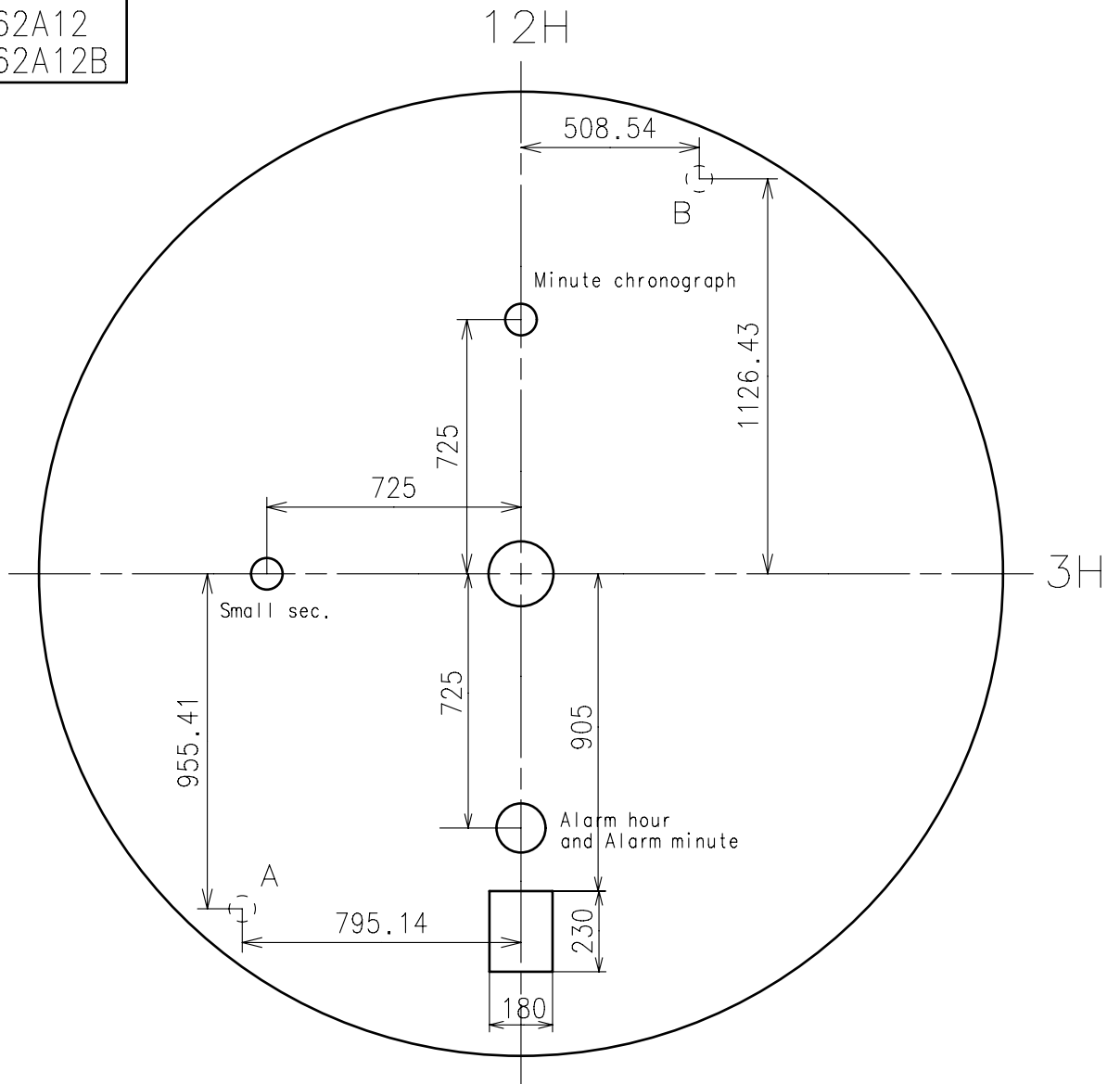
Hardness : Vickers 600 ± 50



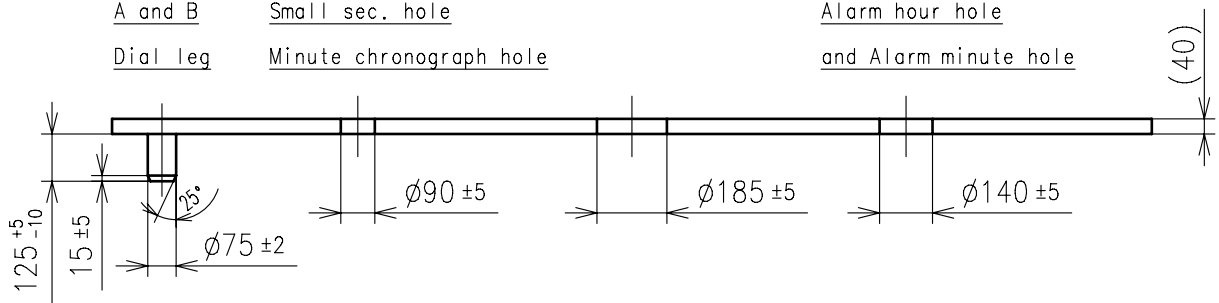
A and B Small sec. hole Alarm hour hole
Dial leg Minute chronograph hole and Alarm minute hole



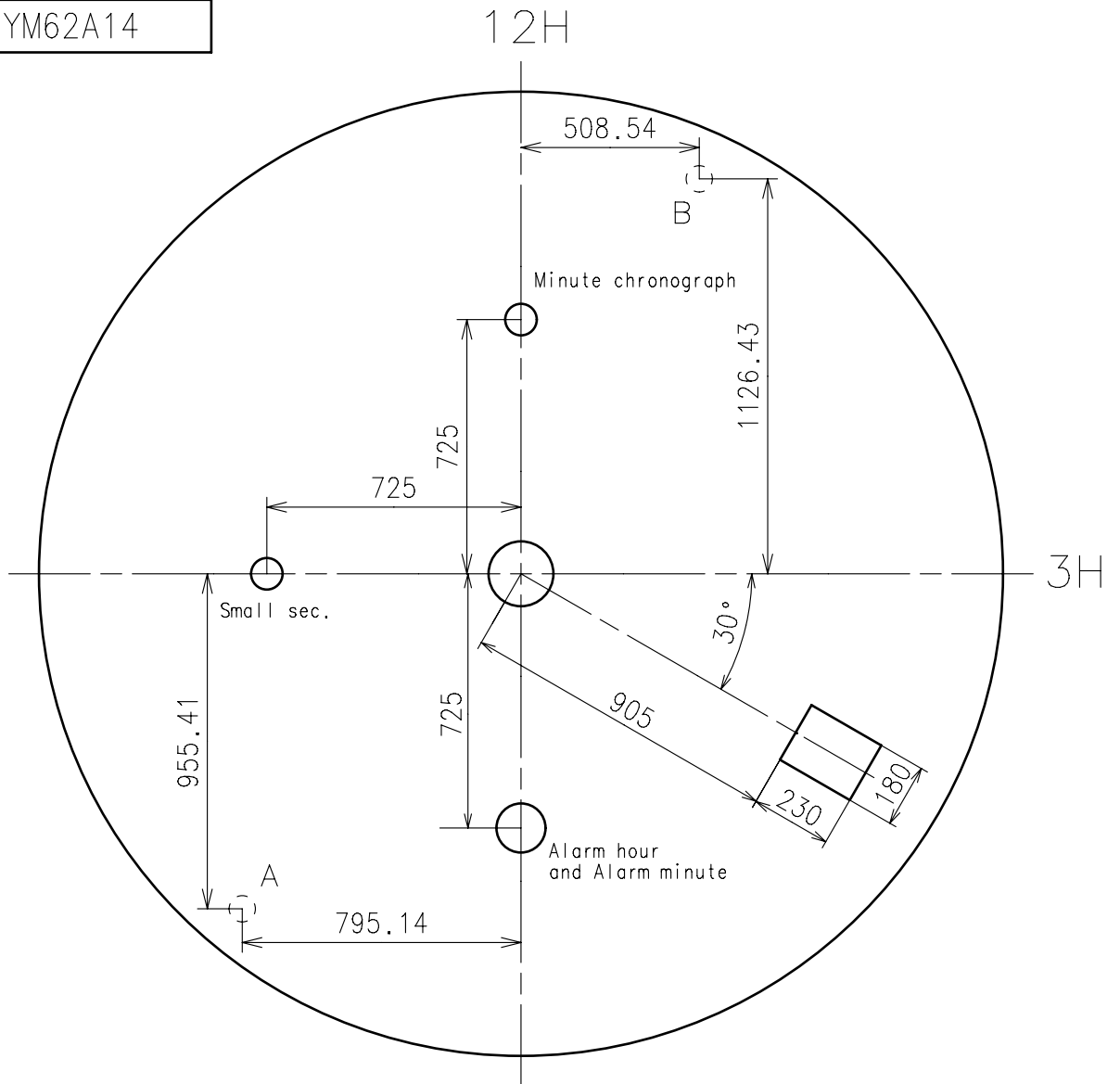
TM Ref.
YM62A12
YM62A12B



A and B Small sec. hole Alarm hour hole
 Dial leg Minute chronograph hole and Alarm minute hole

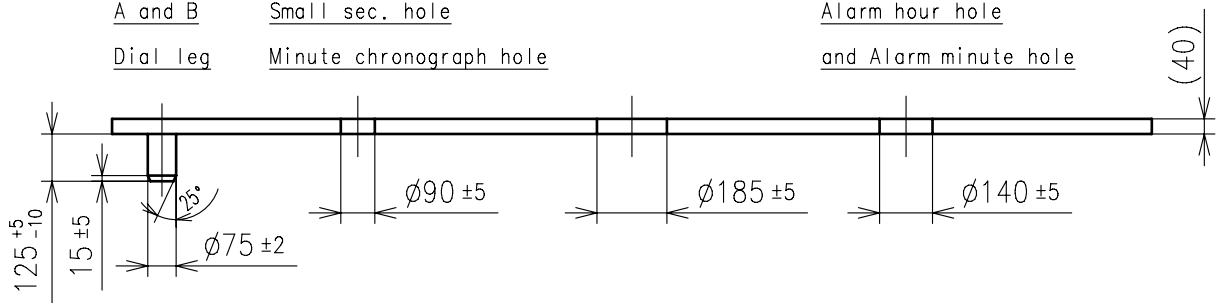


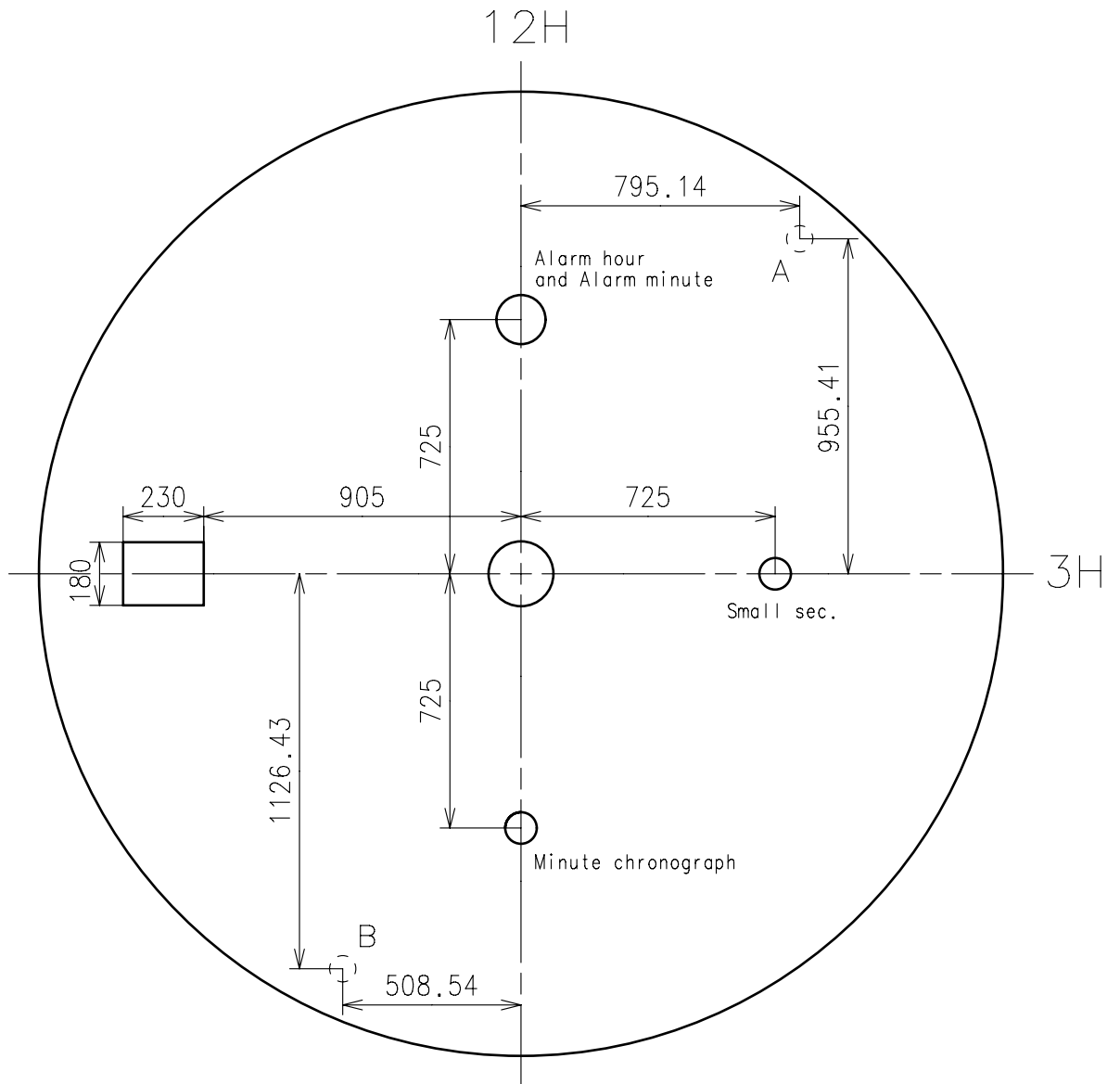
TM Ref.
YM62A14



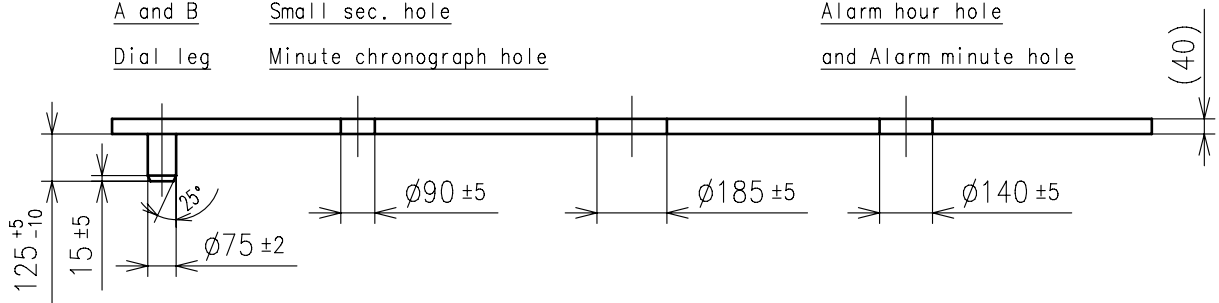
A and B Small sec. hole
Dial leg Minute chronograph hole

Alarm hour hole
and Alarm minute hole

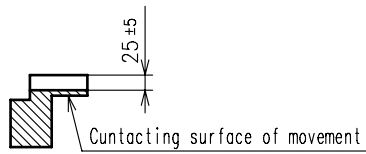
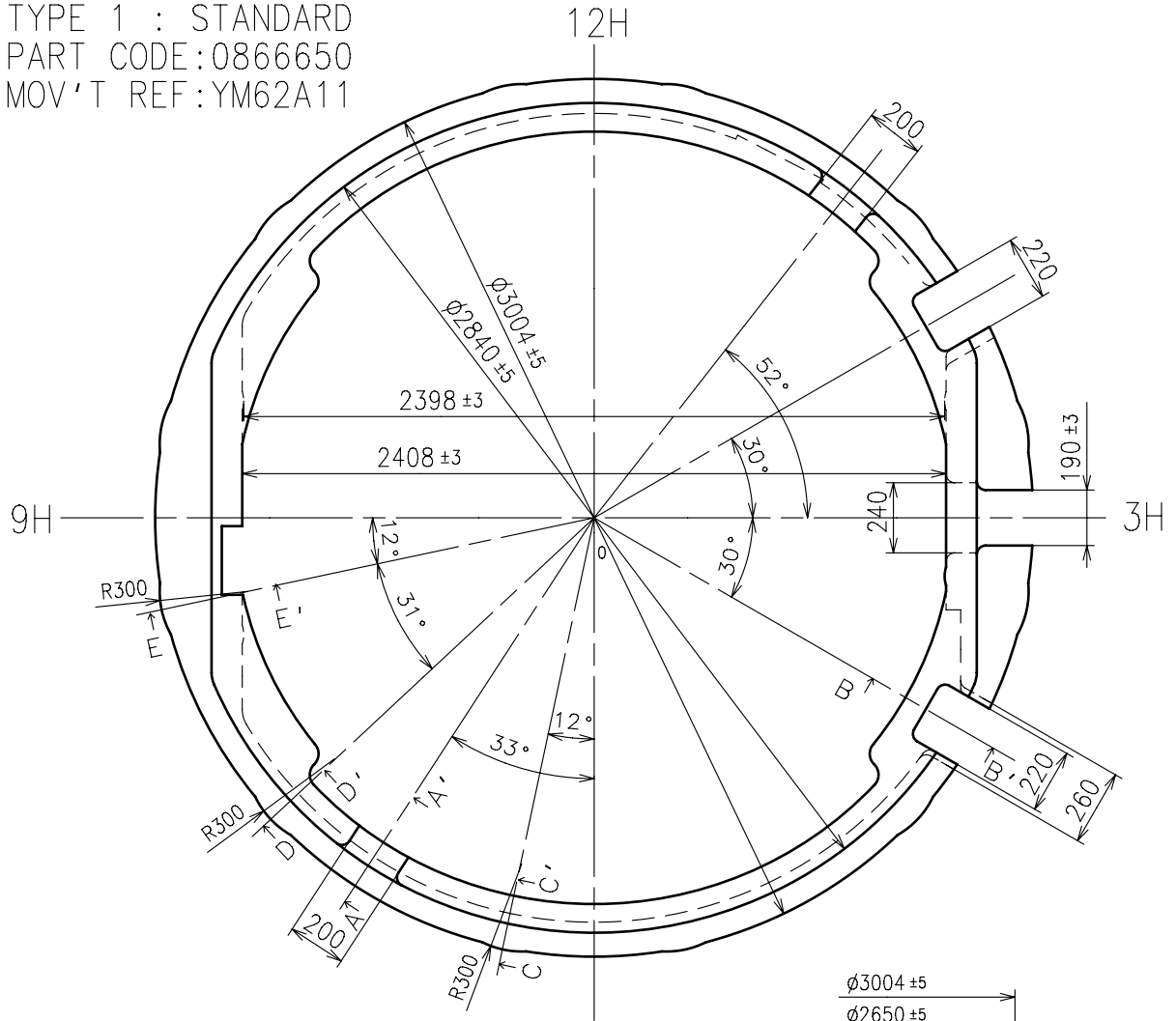




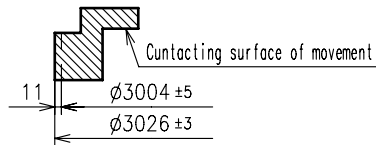
A and B	Small sec. hole	Alarm hour hole
Dial leg	Minute chronograph hole	and Alarm minute hole



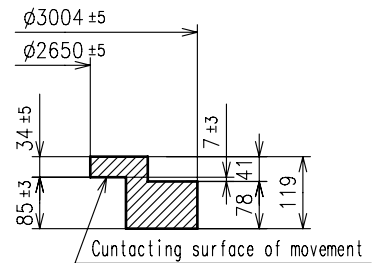
TYPE 1 : STANDARD
PART CODE: 0866650
MOV'T REF: YM62A11



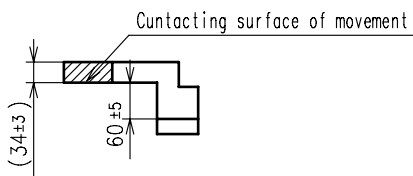
A-A' section



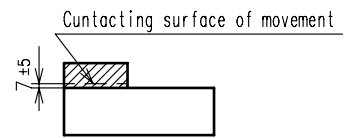
D-D' section
E-E' section



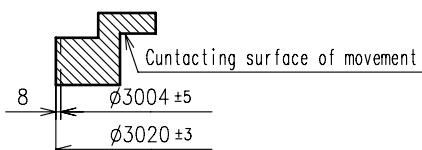
0-12H section



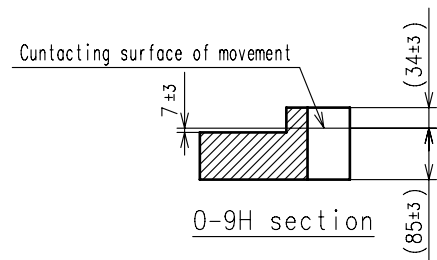
B-B' section



0-3H section

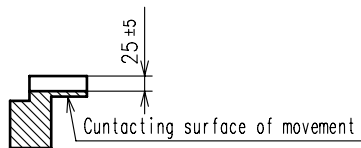
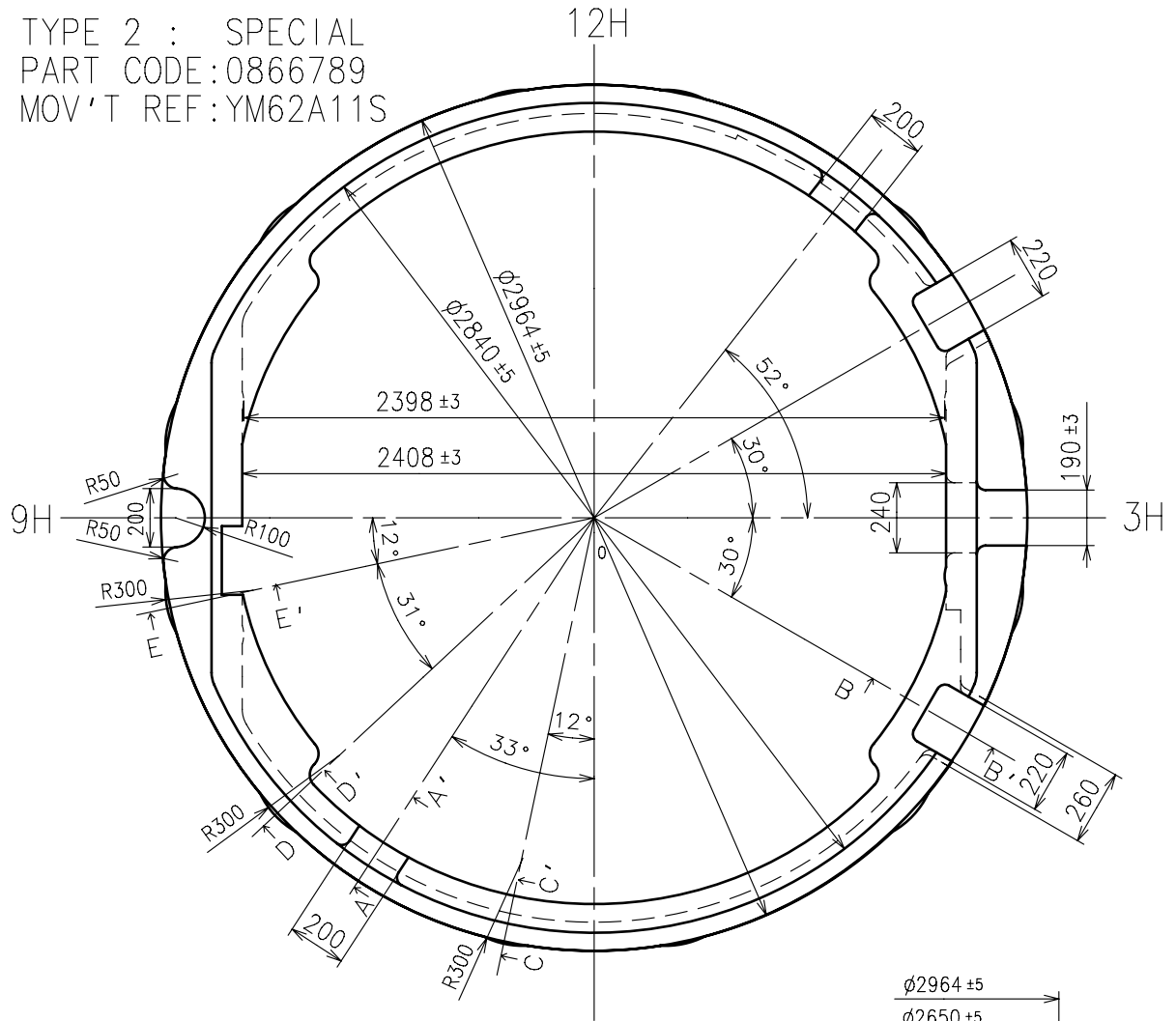


C-C' section

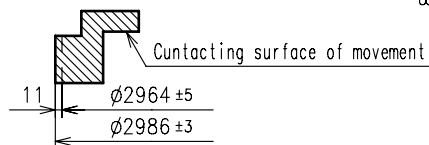


0-9H section

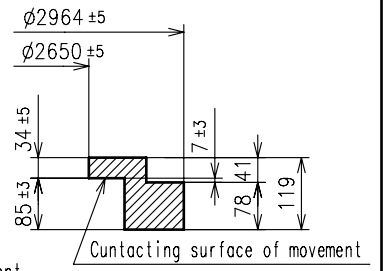
TYPE 2 : SPECIAL
PART CODE: 0866789
MOV'T REF: YM62A11S



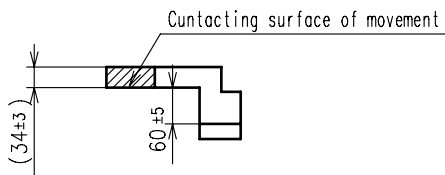
A-A' section



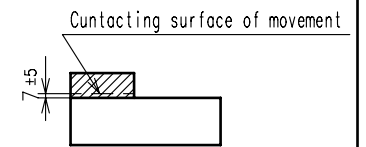
D-D' section
E-E' section



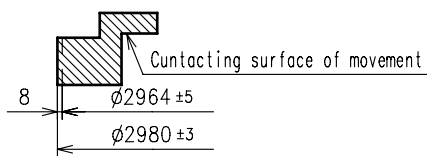
0-12H section



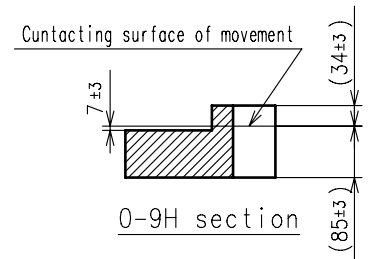
B-B' section



0-3H section



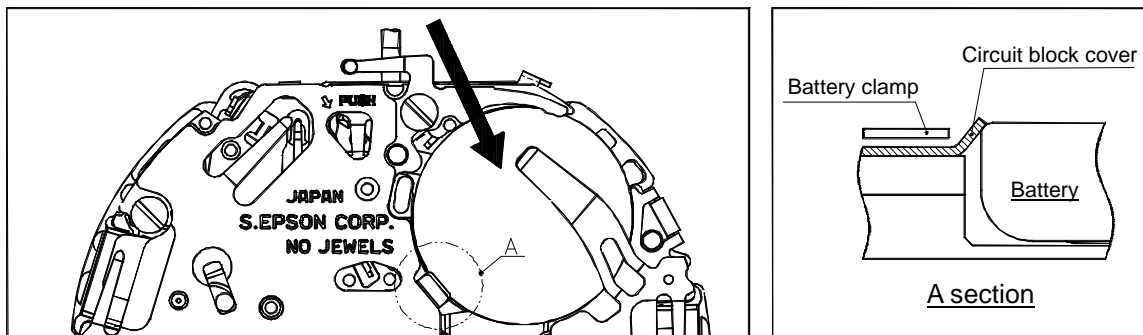
C-C' section



0-9H section

1.How to change the battery

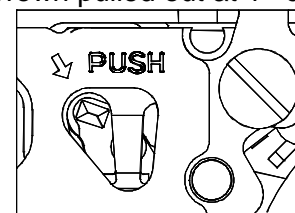
- Please use the exclusive battery to keep the stable performance for a long time.
- Please set the battery with the minus part toward the inside of the watch.
- When you assemble or change the battery, it is recommended to pull out two battery clamp screws first, and then take out the battery clump in order not to add the damage to the movement part.
- When you assemble the battery without taking out the battery clump, please refer to the picture in below and set the battery from the [→] direction.
- Regarding the [A] part of the following chart, it is recommended that the battery must be under the circuit holder.
- It is not necessary to do system-reset.
- After the battery is changed, please set the current time first, and then set the alarm time at current time too, in order to let the alarm work correctly.
- Please set the 1/5 second CG hand and minute CG hand at 12H position.



2.How to pull out the stem

- Please pull out the crown at 1st click and then pull out the stem while you are pressing the hollow part of the setting lever by tweezers. If the stem is not at 1st position, it is impossible to be pulled out.

(Crown pulled out at 1st click.)



3.Attention to set each hand

- Hand moves at one-second interval. Please set the each hand at correct position according to the scale of the dial in order not to make a mistake to read the time.
- Please do not turn the hour hand forcibly.

4.How to take off the hand

- When you take off the hand, please use the fork-shaped exclusive tools.
- Please do not take the dial when any hands are assembled.

5.How to test the accuracy

- Measure the timing with Quartz Tester in 10 second's gate.

1. Minute hand

- In order not to push the minute hand too much, the second wheel have a safety stopper structure. However, please pay attention for the friction between hour hand and minute hand.

2. Casing ring

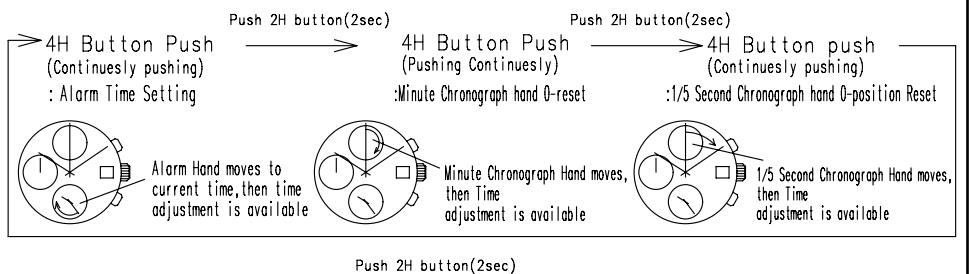
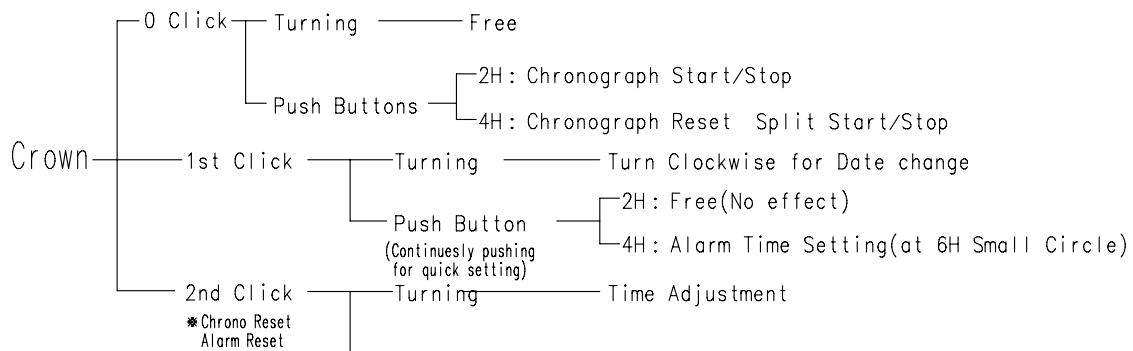
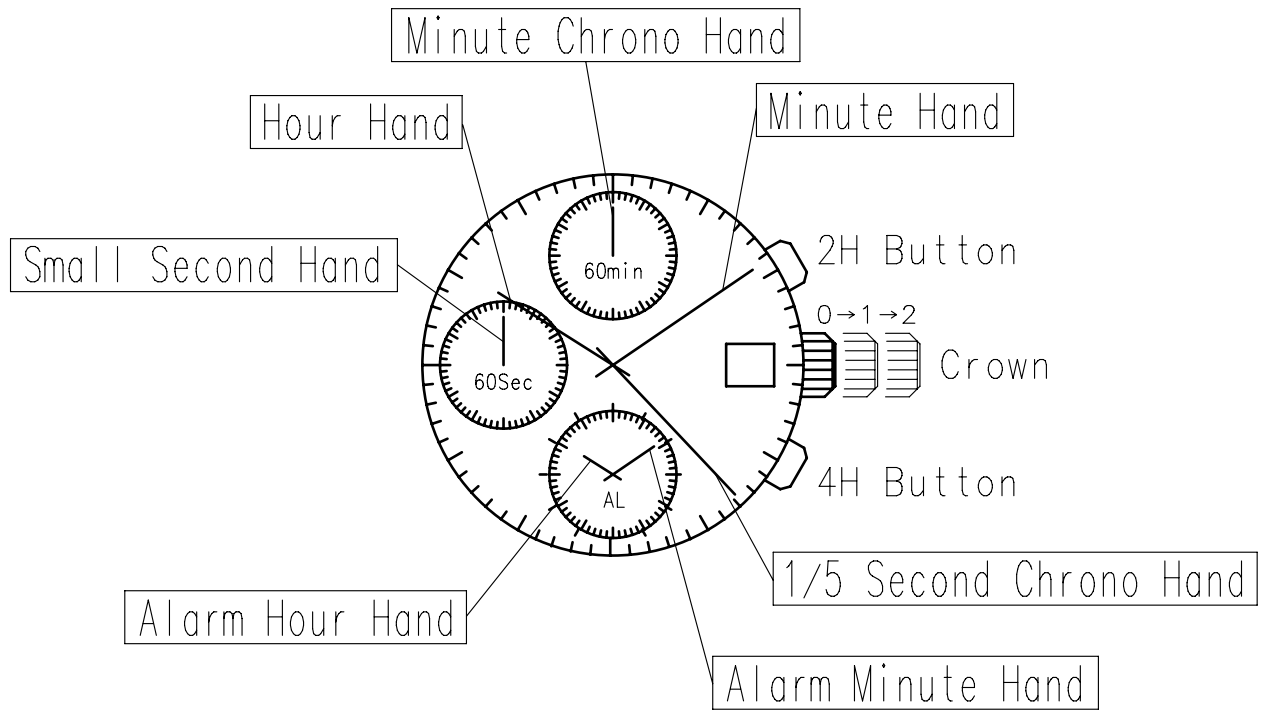
- Please use the exclusive casing ring to fix the movement tightly inside of the case, and to stabilize the button switching stroke. As to the shape and tolerance, please refer to the [Casing ring] page instruction.

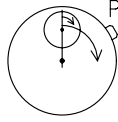
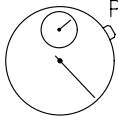
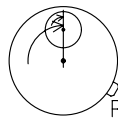
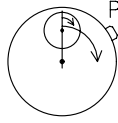
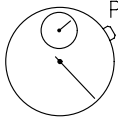
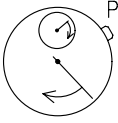
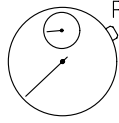
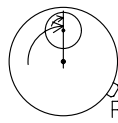
3. Case

- Please use the metal case to prevent movement from being mal-functioned by static electricity.

4. Hour wheel

- The hour wheel is made by plastic. If you re-assemble the hour hand repeatedly, it may reduce the hand fixing torque. To keep the enough fixing torque, please do not change the hour hand more than 5 times.



Chronograph Operation (Crown 0-Click)					
Total Time	START	STOP			RESET
					
Accumulated Time	START	STOP	RESTART	STOP	RESET
					
Split Time	START	SPLIT	RESPLIT	STOP	RESET
	