

**TECHNICAL GUIDE
&
PARTS CATALOGUE**

Cal.VD67A

ANALOGUE QUARTZ

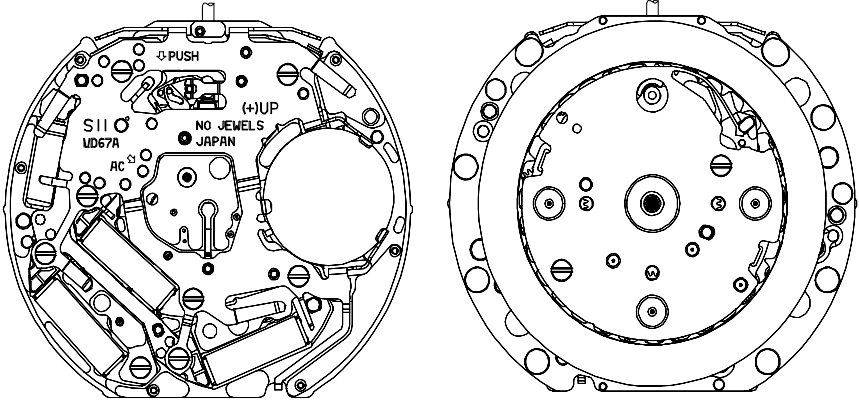
SII Products




PARTS CATALOGUE / TECHNICAL GUIDE

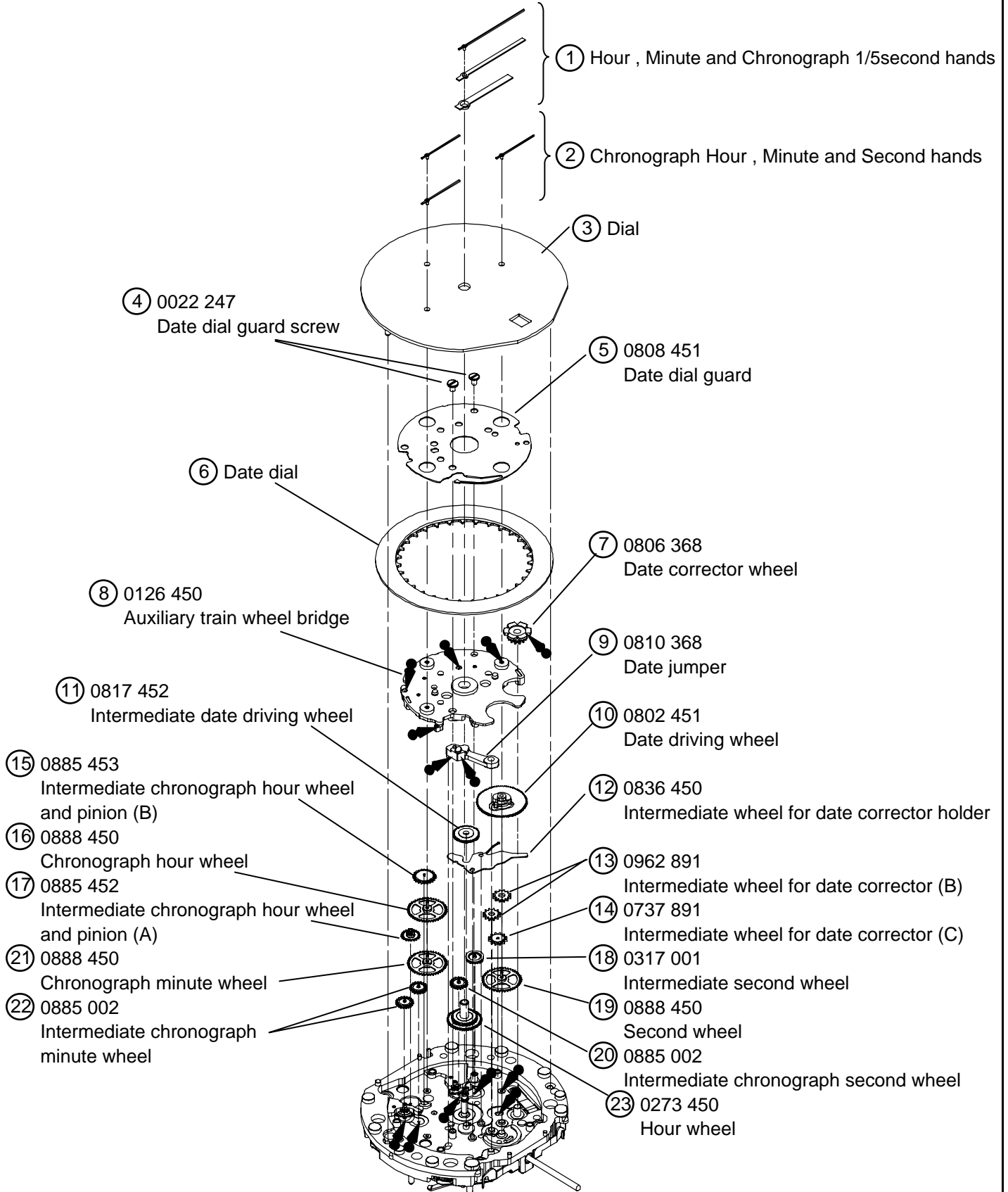
Cal.VD67A

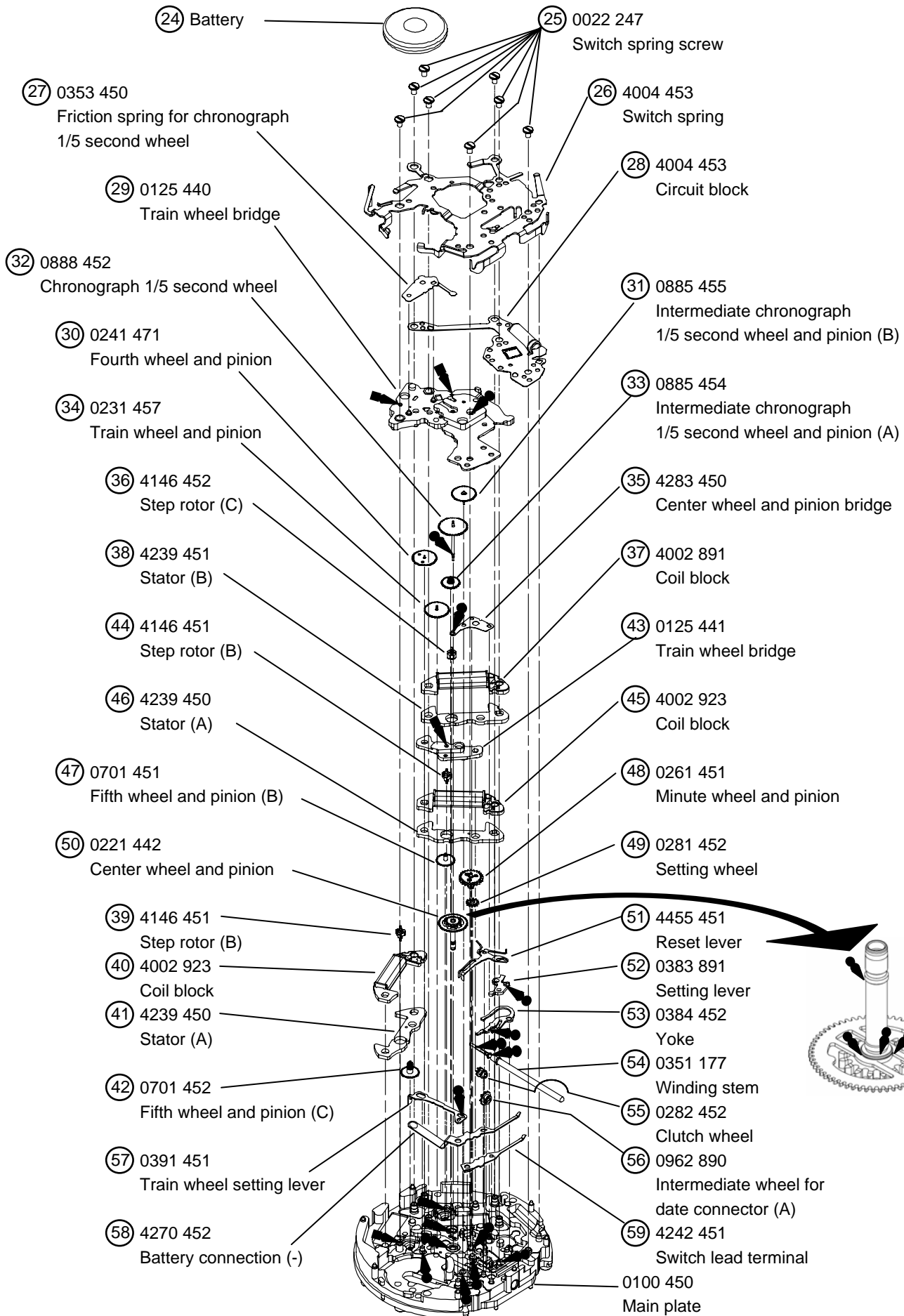
[SPECIFICATION]

Version-01

Item		Cal. No.	VD67A
Movement			
Movement size	Outside diameter	Φ 29.50 mm (12H - 6H) × 26.00 mm	
	Casing diameter	Φ 28.80 mm (12H - 6H)	
	Total height	4.57 mm	
Time indication		2 hands (Hour , Minute) Small second hand Chronograph (Hour , Minute , 1/5 center second) Calendar	
Driving System		Two pole stepping motor Step motor 3 pieces	
Additional mechanism		Electronic circuit reset switch Second setting device [Time] Indicated by the hour , minute , second and calendar [Stopwatch] Up to 12 hour in 1/5 second (60 second per round)	
Antimagnetic		≥ 1600 A/m	
Accuracy		Less than ±20 seconds : Monthly rate at normal temperature range	
Battery		SR920SW (SEIZAIKEN) Silver oxide battery Φ 9.5 × t2.0 mm Battery life is approximately 2 years	
Measuring gate by quartz tester		Use 10-second gate *Set the winding stem with crown at the normal position	
Jewels		0 Jewel	
Regular hands unbalance			
Small second		Less than 0.05 μN · mm (5mg · mm)	
Minute		Less than 0.60 μN · mm (60mg · mm)	
Hour		Less than 0.50 μN · mm (50mg · mm)	
1/5 Center chrono second		Less than 0.09 μN · mm (9mg · mm)	
Chrono minute / hour		Less than 0.05 μN · mm (5mg · mm)	

Disassembling procedures Figs.	① ⇒ ⑤⑥	Lubricating : Types of oil	Oil quantity
Reassembling procedures Figs.	⑤⑥ ⇒ ①	 Moebius A  Moebius F	 Normal quantity





Remarks:

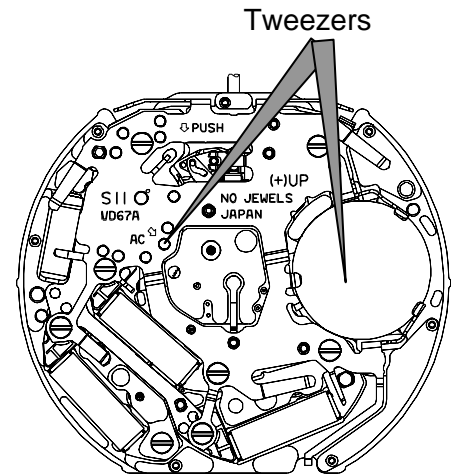
⑥ Date dial

Part code	Position of crown	Position of date frame	Color of figure	Color of background
0878 220	3H	3H	Black	White
0878 221	3H	3H	White	Black
0878 218	3H	3H	Silver	Black

•The explanation here is only for the particular point of Cal.VD67A

1.REMARKS ON INSTALLING THE BATTERY

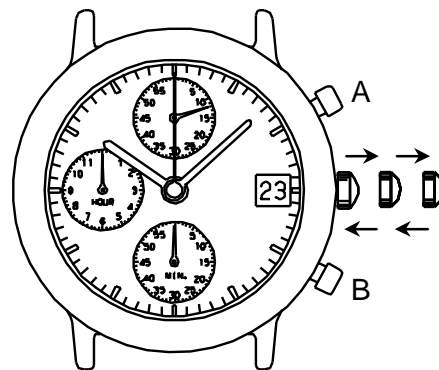
- 1) After the battery is replaced with a new one or after the battery is reinstalled following the repairing procedures, be sure to touch the short-circuit the AC terminal of the circuit block and the switch spring with conductive tweezers to reset the circuit as illustrated at right.



- 2) When the battery replaced with a new one, the time information stored in the built-in IC and the time indicated by the stopwatch hands do not correspond with each other. Reset the stopwatch hands to "0" position following the procedure below. If the stopwatch hands should move improperly, also follow the same procedure.

ORDER

- ① Pull the crown out to the second click.
- ② Keep buttons "A" and "B" pressed at the same time for 2 seconds, and then, release the buttons. The stopwatch second hand move back and returned to where it was.
- ③ Press button "A" or "B" to reset the stopwatch second and minute hands to "0" position.
 - * By pressing button "A", set the stopwatch 1/5 second hand.
 - * By pressing button "B", set the stopwatch minute and hour hands.
- ④ Turn the crown to set the hour, and minute hands to the desired time, and push the crown back in to the normal position.



When the crown is pulled to the 2nd position, pushing the B button, adjustment of minute and second hands position can be performed.

*By pressing button "A", the hands move counterclockwise.

*By pressing button "B", the hands move clockwise.

1. REMARKS ON INSTALLING THE BATTERY

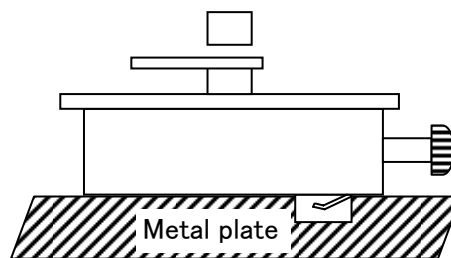
(1) HAND

•How to install the hands

Place the movement directly on a flat metal plate or the like and press in the hands.

* Install the hour , minute and 1/5second hand at the "12" o'clock position.

* Install the chrono minute and Hour hands at the "0" position.



[Reference] The power of press hands

Minute & Hour hands < 5kg

Small second hand < 3kg

1/5 second hand < 3kg

Chrono minute & hour < 3kg

(2) Battery

•How to install

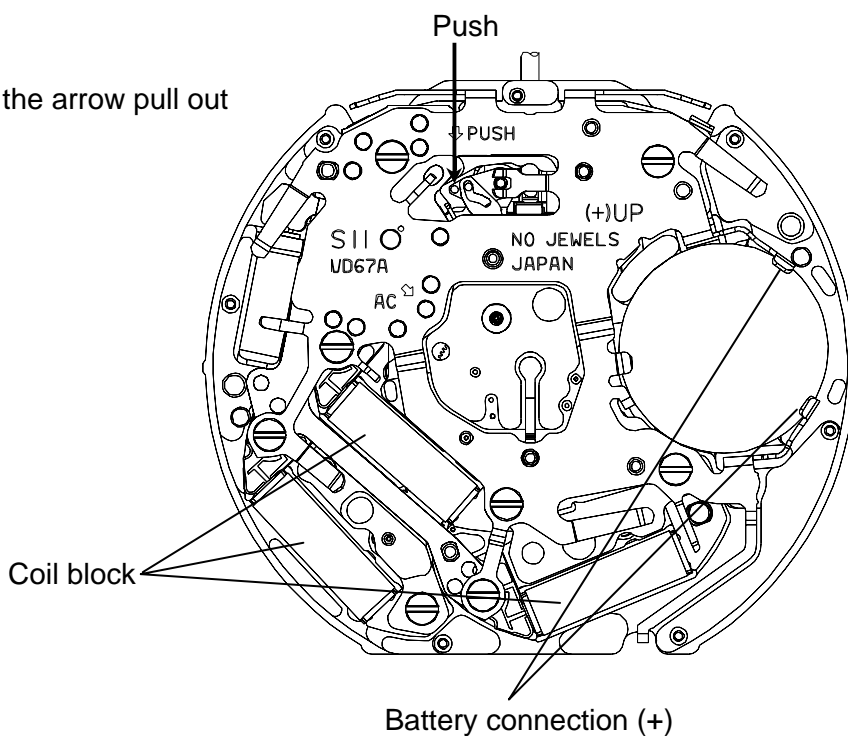
Insert the battery aslant in the direction shown by the arrow.

Check the battery connection (+) securely touches the side face of the battery.

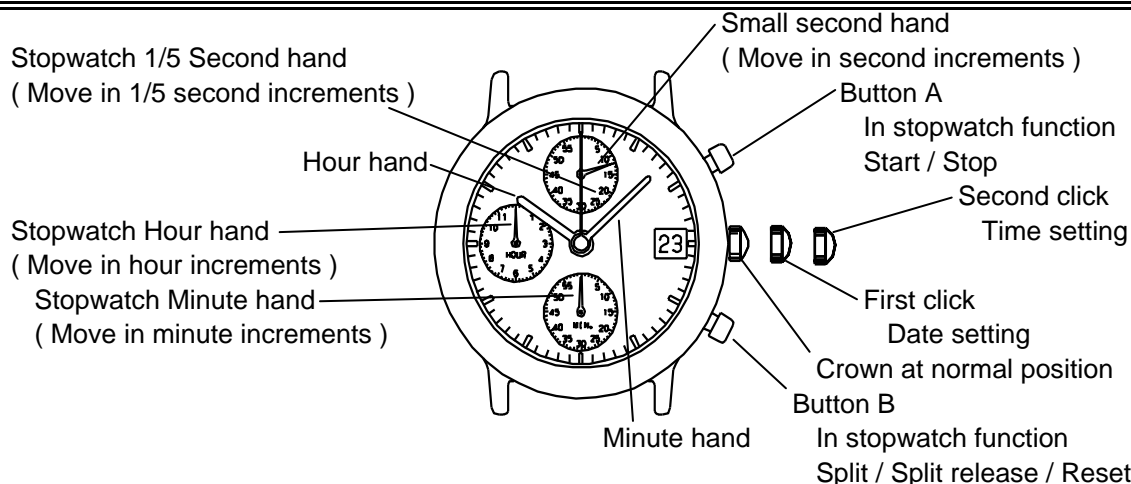
(3) Winding stem

•How to remove

While pushing the indented portion of the arrow pull out the winding stem.



DISPLAY AND CROWN / BUTTON OPERATION



*The measurement time is indicated by the stopwatch hands that move independently of small second hand.

*Stopwatch 1/5 second hand moves for 12 hours.

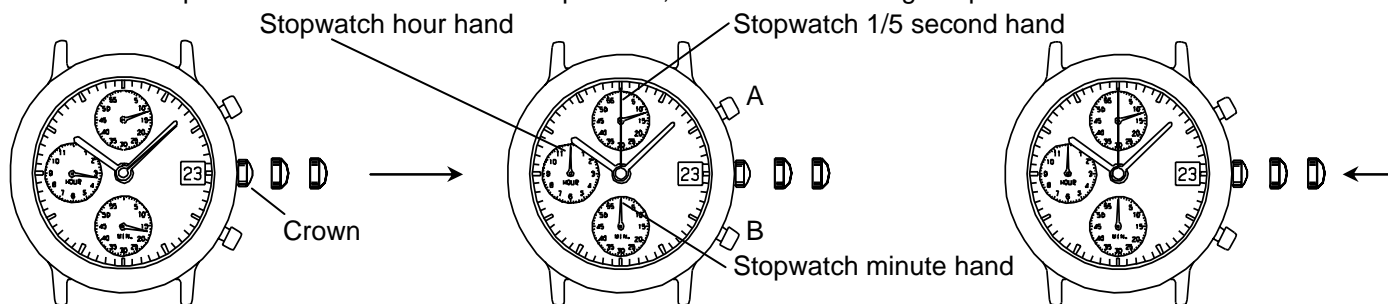
ADJUSTING THE STOPWATCH HAND POSITION

Before setting the time , check if the stopwatch 1/5 second , minute and hour hands are in the "0"(12 o'clock) position.

*if the stopwatch is in use , press the button in the following order to reset it , and then , check if the hands return to "0" position. (for details , see "HOW TO USE THE STOPWATCH")

- * If the stopwatch is counting : A → B
- * If the stopwatch is stopped : B
- * If the split time is displayed : B → A → B

If either of the stopwatch hands are not in the "0" position , reset them following the procedure below.



1. Put the crown out to the second click.

2. Press button A or B to reset the stopwatch 1/5 second , minute and hour hands to "0"position.
*By pressing button A set the stopwatch 1/5 second hand.
*By pressing button B set the stopwatch minute and hour hands.

3. Push the crown back in to the normal position

When the crown is pulled to the 2nd position, pushing the B button, adjustment of minute and second hands position can be performed.

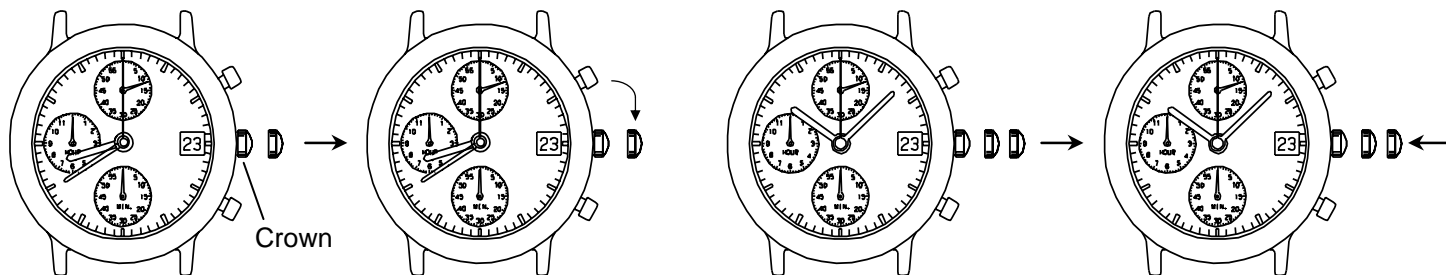
*By pressing button "A" , the hands move counterclockwise.

*By pressing button "B" , the hands move clockwise.

*The stopwatch hour hand moves correspondingly with the stopwatch minute hand.

*The hands move quickly if the respective buttons are kept pressed.

TIME SETTING



1. Pull out the crown to the first click.

2. Turn the crown clockwise until the previous day's date appears.

3. Pull out the crown to the second click when the second hand is at the 12 O'clock position. It will stop on the spot and advance the hour and minute hands by turning the crown.
(Check that AM/PM is set correctly.)

4. Push the crown back in to the normal position in accordance with a time signal.

*When the crown is at the second click position. Do not press any button. Otherwise, the chronograph hands will move.

*Do not set the date between 9:00 P.M. and 1:00 A.M.

Otherwise, the day may not change properly. If it is necessary to set the date during that time period, First change the time to any time outside it, set the date and then reset the correct time.

HOW TO USE THE STOPWATCH

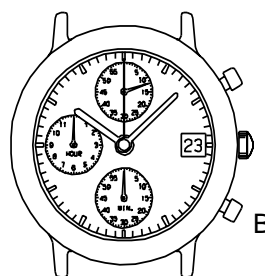
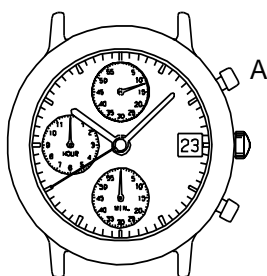
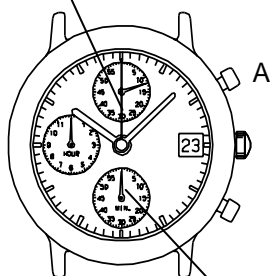
- The measurement time is indicated by the stopwatch hands that move independently of the center hands.
- The stopwatch can measure up to 12 hour in second.

(Standard measurement)

Ex) 100m race (Press the buttons in the following order A → A → B)

START → STOP (Finish) → RESET (Reset to "0'00")

Stopwatch 1/5 second hand

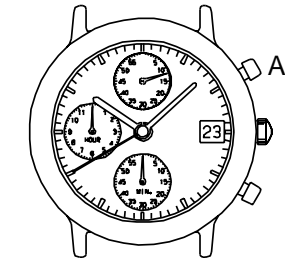
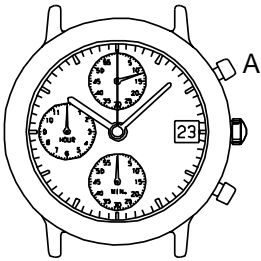


Stopwatch minute hand

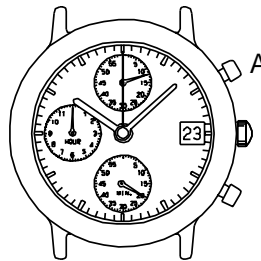
(Accumulated elapsed time measurement)

Ex) Basketball game (Press the buttons in the following order: A → A / A ... → A → B)

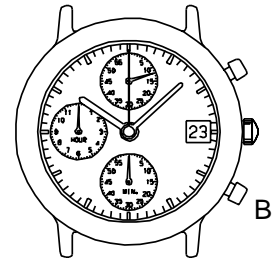
START → STOP RESTART ... → STOP → RESET
(Start of game) (Time out) (Restart of game) (Game over)



00 minute 40 seconds



20 minutes 0 second

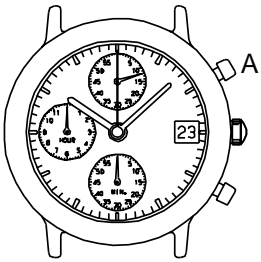


*Restart and stop of the stopwatch can be repeated as many times as necessary by pressing button A

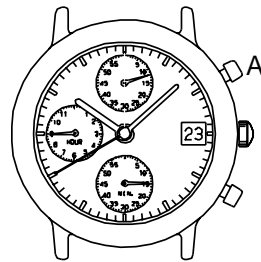
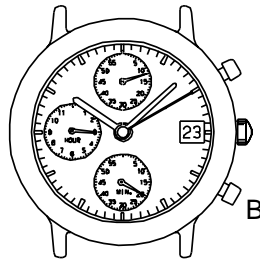
(Split time measurement)

Ex) 5,000m race (Press the buttons in the following order: A → B / B ... → A → B)

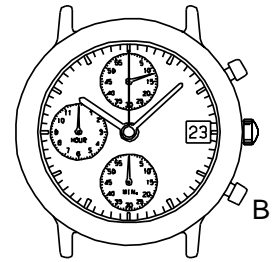
START → SPLIT / SPLIT RELEASE ... → STOP → RESET



3 hours 20 minutes 0 seconds



9 hours 15 minutes 40 seconds



* Measurement and release of the split time can be repeated as many times as necessary by pressing button B.