

**TECHNICAL GUIDE
&
PARTS CATALOGUE**

Cal.VD59B

ANALOGUE QUARTZ

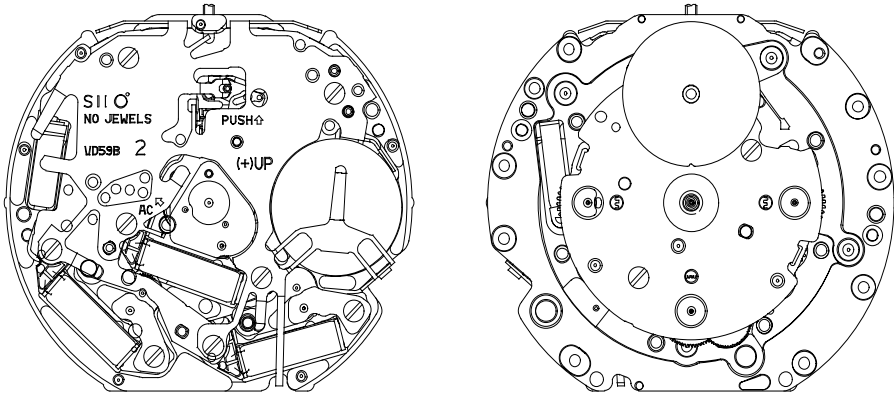
SII Products

PARTS CATALOGUE / TECHNICAL GUIDE

Cal.VD59B

Version-03

[SPECIFICATION]

Item		Cal. No.	VD59B
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			3 Hands (Hour , Minute , Second) Chronograph (Minute , Second , 1/10 second) Sun & Moon indicator disc
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 Sun & Moon disc [Stop watch] Up to 1 minutes in 1/10 second (2 seconds per round) Up to 60 minutes in 1 second split time
Antimagnetic			≥ 1600 A/m
Accuracy			Less than ± 20seconds : Monthly rate at normal temperature range
Battery			SR920SW (SEIZAIKEN) Silver oxide battery φ 9.5 × t 2.0 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

Disassembling procedures Figs. ① ⇒ ④⑦
Reassembling procedures Figs. ④⑦ ⇒ ①

Lubricating : Types of oil

Oil quantity



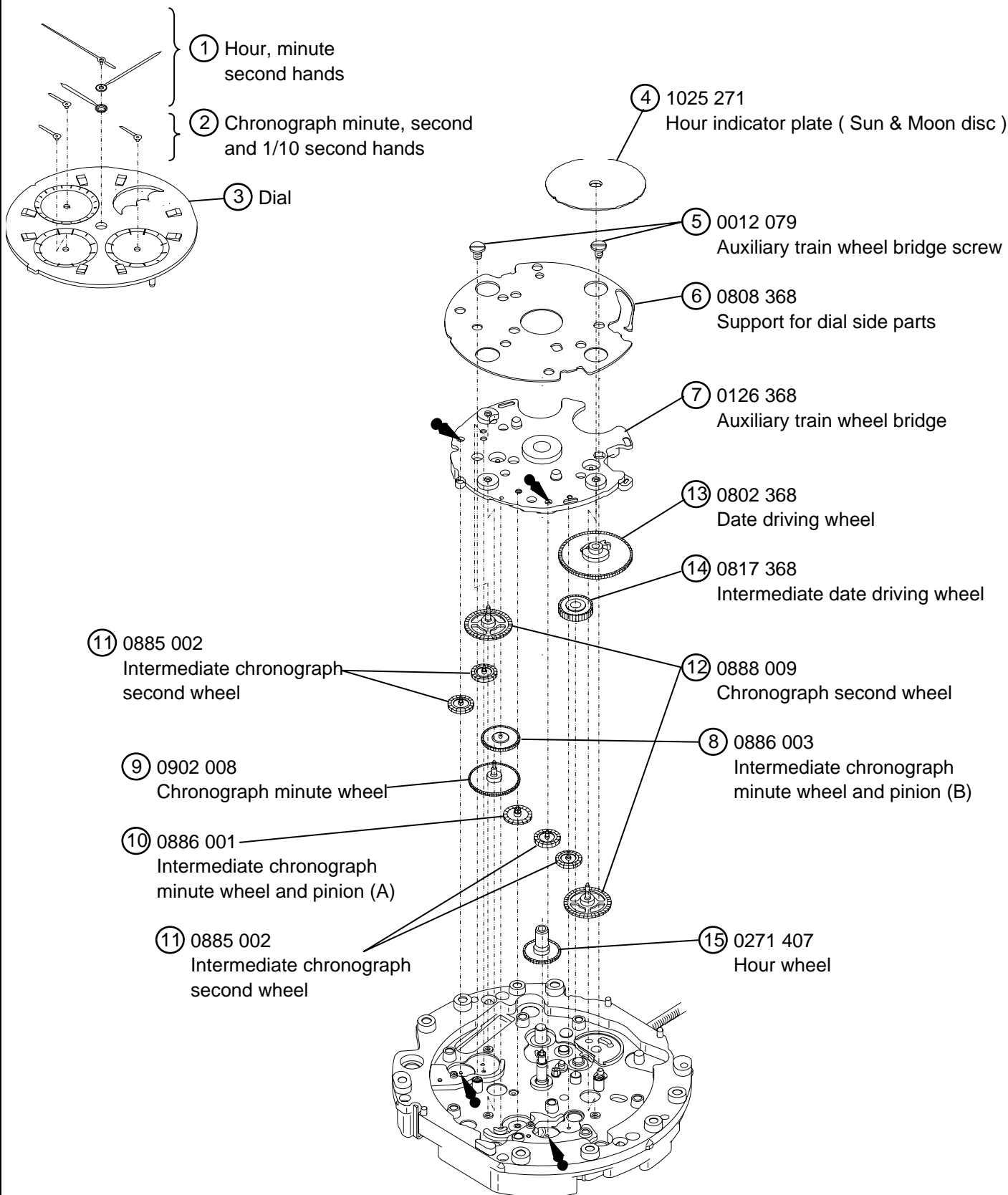
Moebius A



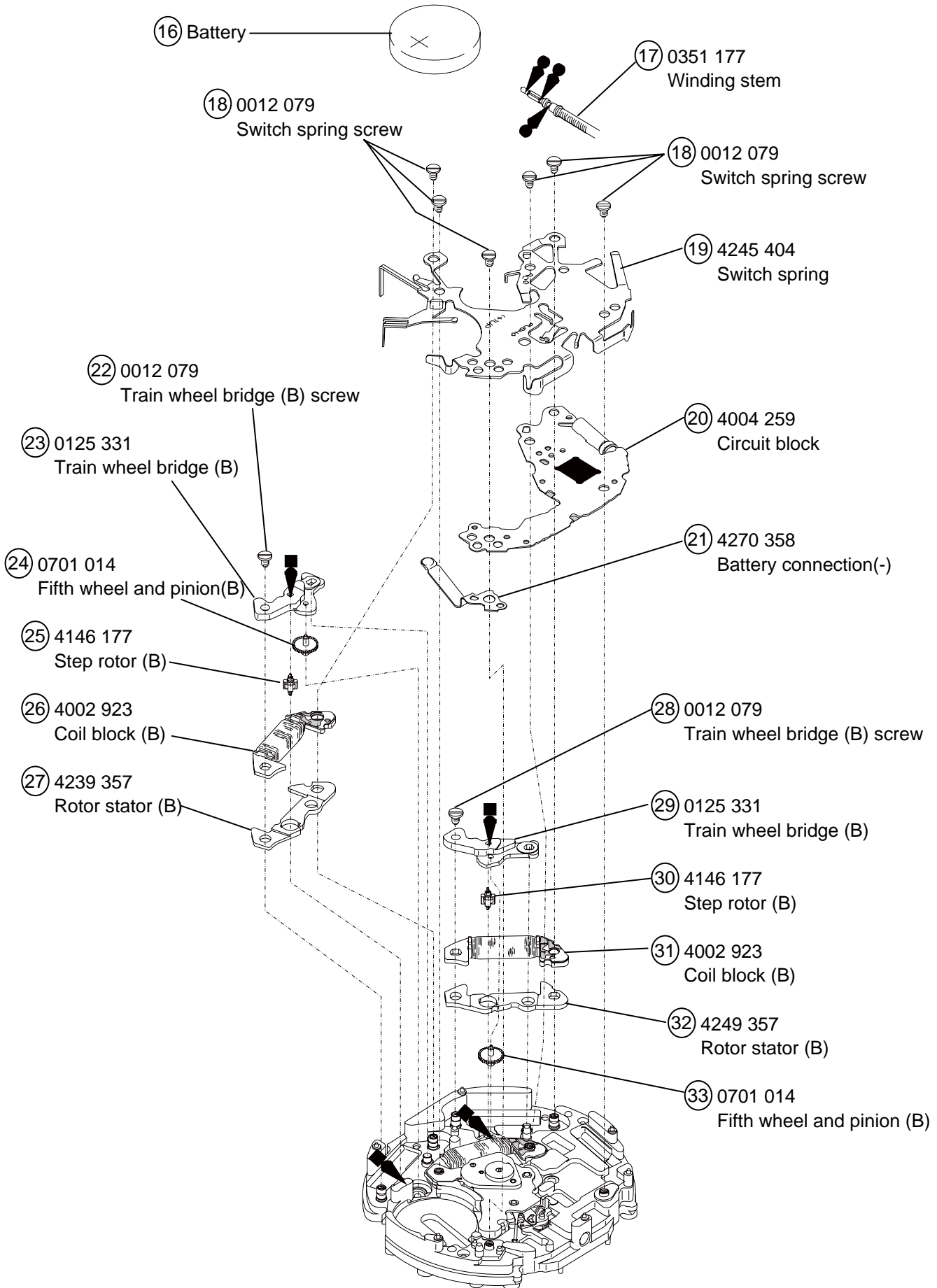
Normal quantity



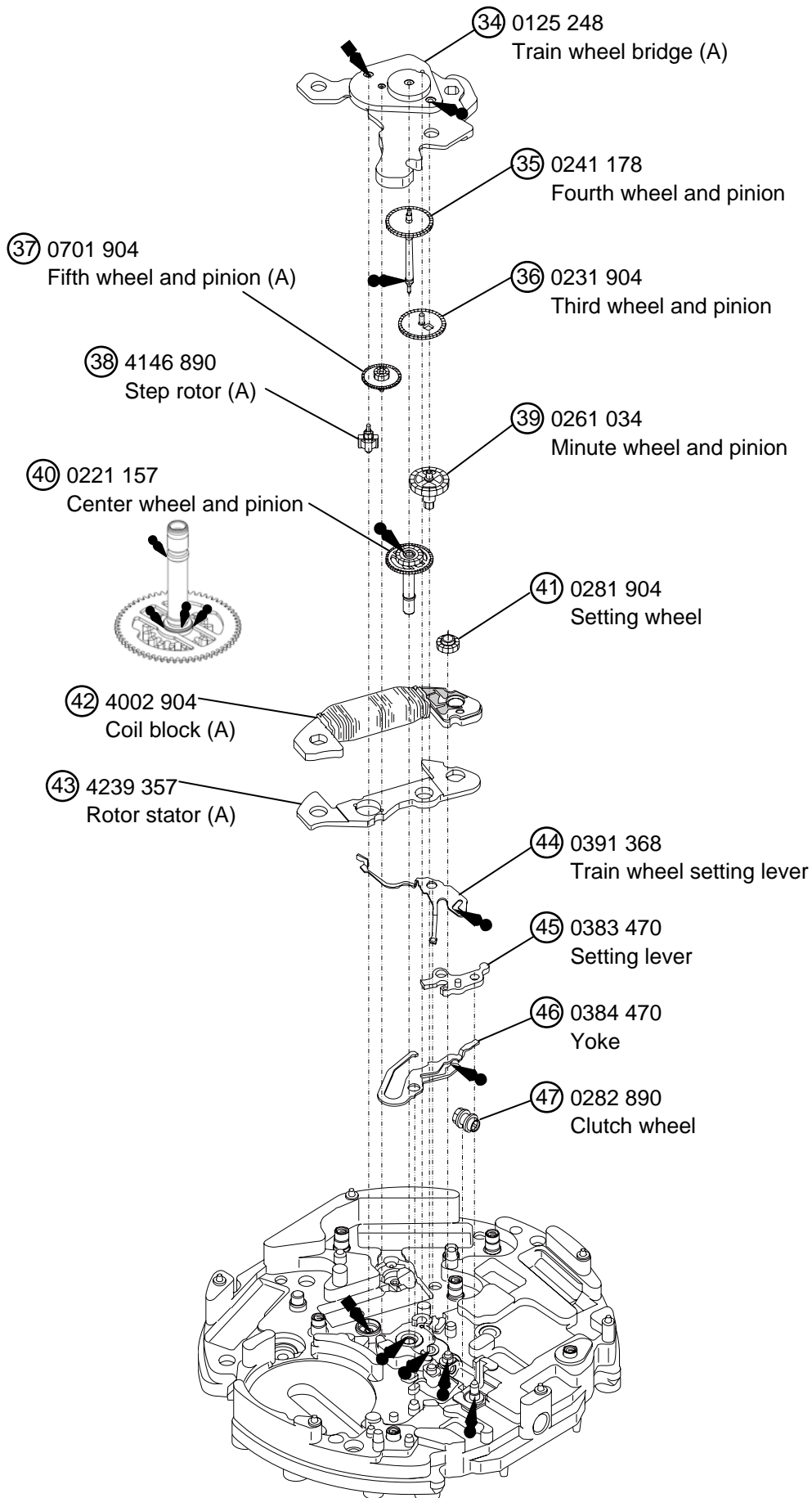
Moebius F



***All parts code are subject to change without notice.**



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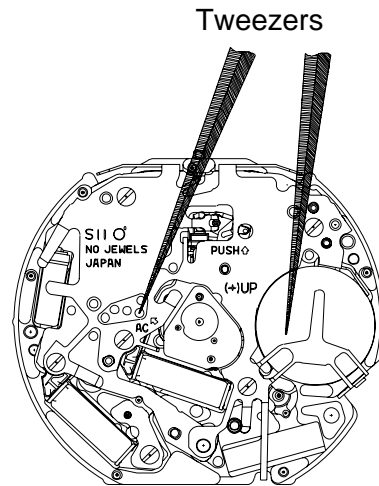


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• The explanation here is only for the particular point of Cal.VD59B

1.REMARKS ON INSTALLING THE BATTERY

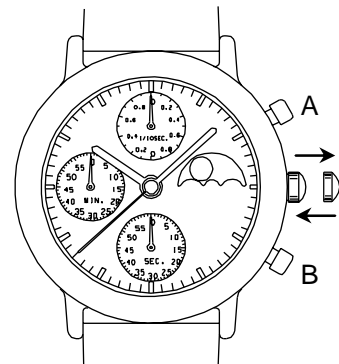
- 1) After the battery is replaced with a new one or after the battery is reinstalled following the repairing procedures, Be sure to touch the short-circuit the AC terminal of circuit block and the switch spring with conductive tweezers to reset the circuit as illustrated at right.



- 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 out the crown.
- ② Keep the 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 1/10 second hand.
 - * By pressing button "B", set the stopwatch second and minute hands.
- ④ Turn the crown to set the hour, and minute hands to the desired time, and push the crown back to the normal position.



1. REMARKS ON INSTALLING THE BATTERY

(1) HAND

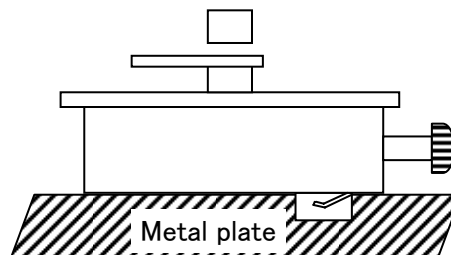
•How to install the hands

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

* Install the hour , minute and second hands at the "12"o'clock position.

* Install the chrono minute and second hands at the "0"o'clock position.

*Install the Sun & Moon disc so that a moon display may come to "24" position.



[Reference] The power of press hands

Minute & Hour Hands < 5kg

Second Hand < 5kg

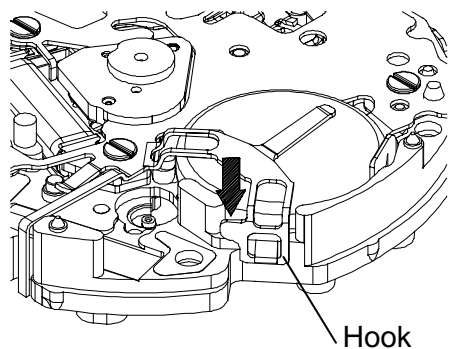
Chrono Minute & Second < 3kg

(2) Battery

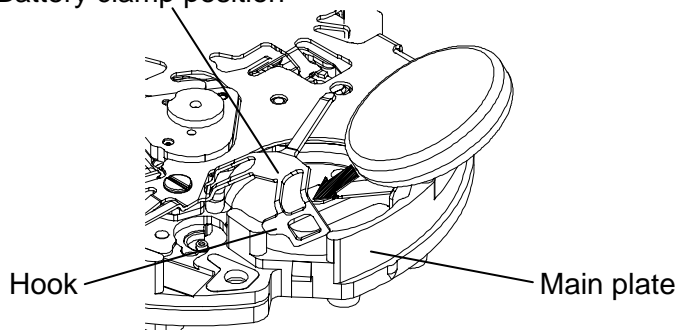
•How to install the battery

① Remove the hook of the switch springs battery clamp portion.

② Insert the battery sideways, and have the hook of the switch springs battery clamp portion catch the main plate.



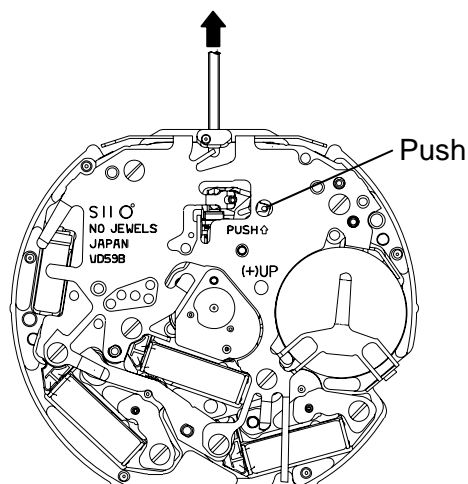
Battery clamp position



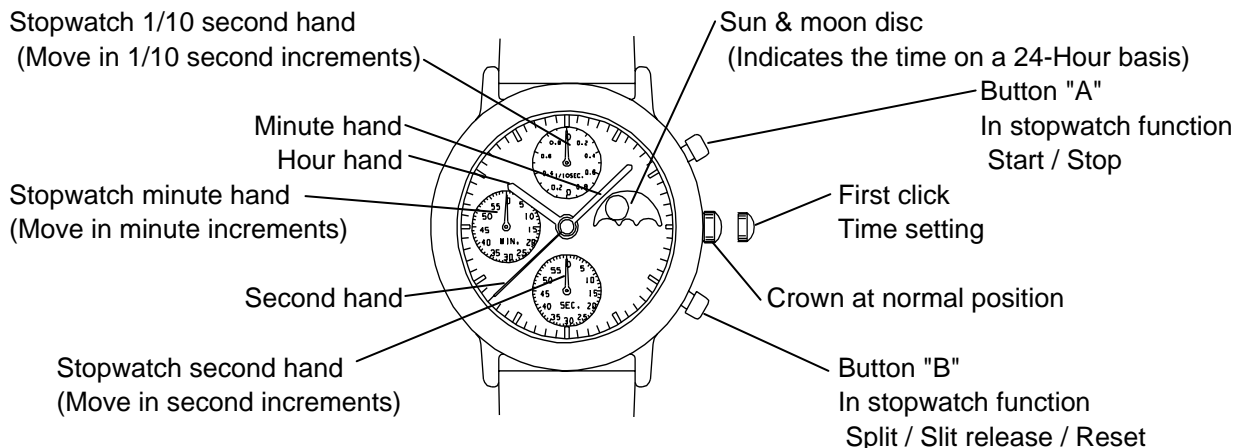
(3) Winding stem

•How to remove

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



DISPLAY AND CROWN / BUTTON OPERATION



*The measurement time indicated by the stopwatch hands that move independently of center hands.

*Stopwatch 1/10 second hand moves for a first minute.

After one minute , it indicates the measurement time when it is stopped.

ADJUSTING THE STOPWATCH HAND POSITION

Before setting the time , check if the stopwatch 1/10 second , second and minute hands are in the "0"(12 o'clock) position.

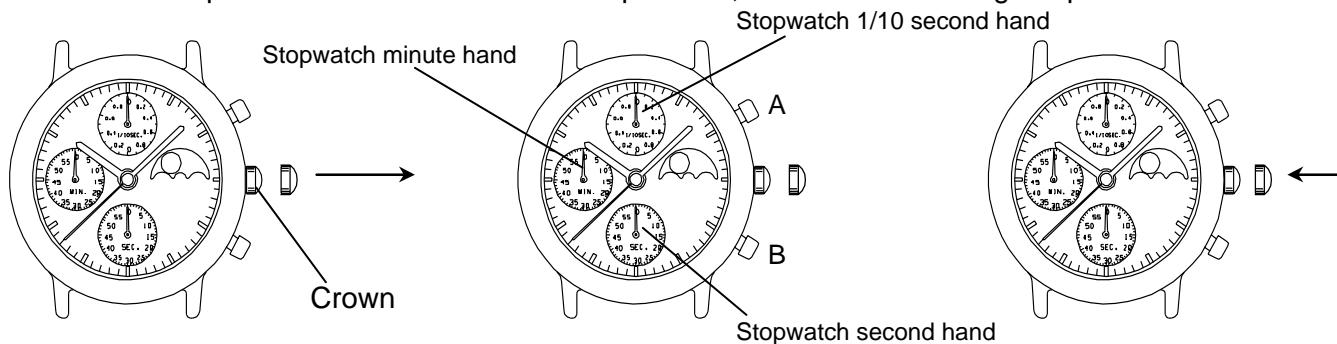
*If the stopwatch is in use , press the button in the following order to reset it , and then , check if the hands return to "0" position. (For details , see "HOW TO USE THE STOPWATCH")

* 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.Pull out the crown

2.Press button A or B to reset the stopwatch 1/10 second , second and minute hands to "0"position.

3.Push the crown back to the normal position.

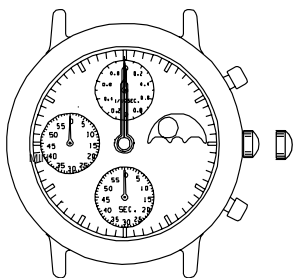
*By pressing button A set the Stopwatch 1/10 second hand.

*By pressing button B set the Stopwatch second and minute hands.

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

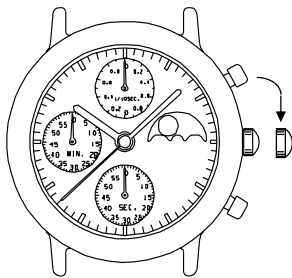
*The hands move quickly if the respective buttons are kept pressed.

TIME SETTING



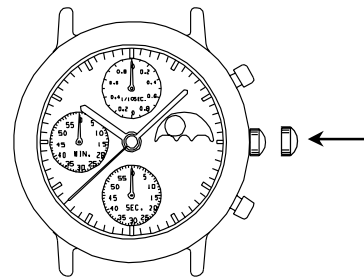
1. Pull out the crown when the second hand is at the 12 o'clock position. The second hand will stop on the spot.

*Do not press any button. Otherwise, the chronograph hands will move.



2. Turn the crown to set the hour, minute hands to the desired time. As the hour hand moves, the Sun & Moon disc also moves correspondingly.

When setting the hour hand, check that the Sun & Moon disc is set properly. (Check that AM / PM is set correctly)



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

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 60 minutes in second.

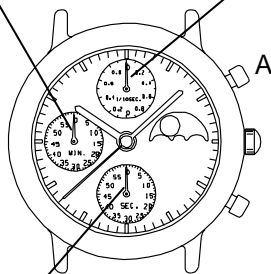
(Standard measurement)

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

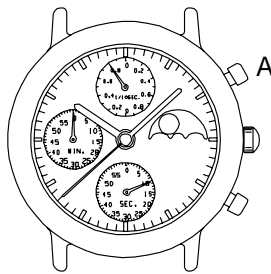
START → STOP (Finish) → RESET (Reset to "0'00")

Stopwatch minute hand

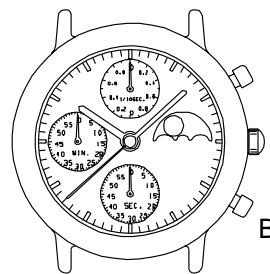
Stopwatch 1/10 second hand



Stopwatch second hand



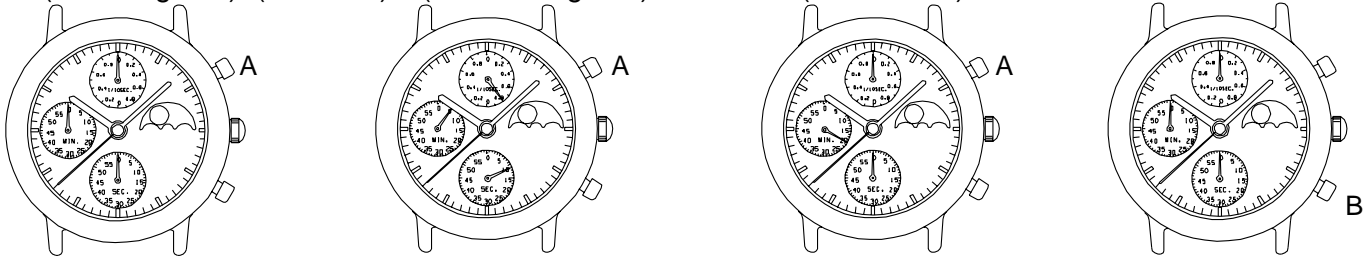
9.8/10 second



(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)



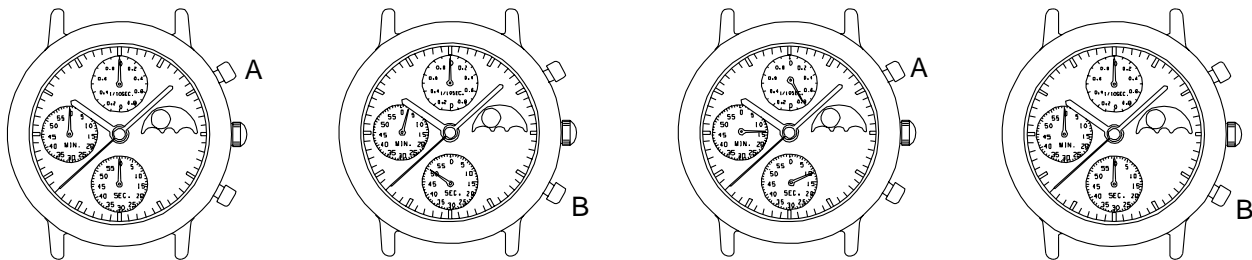
5 minutes 10,8/10 seconds 20 minutes 00 seconds

*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



2 minutes 50 seconds 15 minutes 10,8/10 seconds

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