MIYOTA

MOVEMENT SPECIFICATIONS
CAL. **0S80**

ALARM WITH 1/20 CHRONOGRAPH 3EYES
ANALOGUE QUARTZ, 0 JEWEL
BY CITIZEN WATCH CO., LTD. JAPAN
MANUFACTURED IN JAPAN

1.BASIC SPECIFICATION
(1) CAL. NO.   *TO CONFIRM WITH MOV'T DRAWING ATTACHED

CALIBRE	0S80
Ligne Size*mm	**13-1/2** **Φ30.80mm**
Alarm	**3-minute snooze type** **ON/OFF indication: HAND TYPE**
Chonograph	**3 EYES** **12-hour measurment** and 1/20 second unit
Calendar	**O**
Total height	**4.68mm**
Battery life	***2 Year**
Battery	**SILVER OXIDE SR927W** or equivalent

(* 12hours chronograph and 15seconds alarm operation per day)

(2) Time standard
     Type of quartz : Tuning fork type quartz crystal
     Frequency   : 32,768Hz
     Accuracy   : **+/-20 s/month** worn under normal circumstances
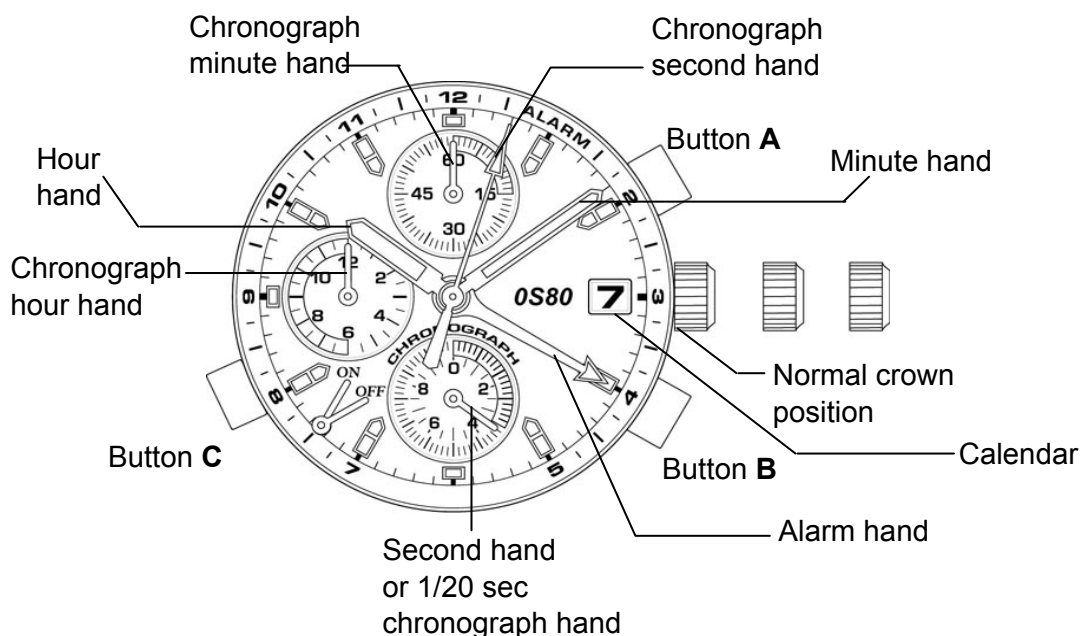(3) Battery installed
     Type of battery : See above: JAPAN-MADE
(4) Others
     Driving systems   : Two-pole stepping motor x 3
     Number of Jewel : No(0) jewels

(5) Functions
ALARM FUNCTIONS
TYPE   **ALARM 3-MINUTE SNOOZE TYPE**

(Sounding for 15seconds + no sounding 2 munute and 45seconds) x several times

"Pi-Pi-Pi-Pi" sound for 15seconds is repeated several times with interval of 2 minutes and 45 seconds.

ALARM TIME INDICATION

Hand type

ALARM ON/OFF

Hand type

ACCURACY

Movement +/- 5min.

This accuracy is changed depending on the setting condition of "alarm time indicator" and "hour/minute/second hands".

CHRONOGRAPH FUNCTION

CENTER SECOND CHRONOGRAPH   **- "TACHYMETER" DEVICE AVAILABLE * REFER TO THE NEXT PA**

CHRONOGRAPH 1/20 SEC. BASIS

12-hour measurement and 1/20 second unit

CALENDAR FUNCTION

Quick Date Change by turning crown

OTHER FUNCTION

Powercell Saving Reset Mechanism(PSRM)

Over-loading Compensation Device(OLCD)

Digital Frequency Control(DFC) for time adjustment

(6) Balanceable weight of hand

Minute hand Max. 0.4 µN.m

Alarm time indicator Max. 0.35 µN.m

Center Chrono second hand Max. 0.07 µN.m

1/20 second hand Max. 0.02 µN.m

Chronograph hand (minute/ hour) Max. 0.02 µN.m

Alarm ON/OFF indicator Max. 0.02 µN.m

2. SEPARATED PARTS

Setting stem x1

Code	065-453
Length from movement center to far end of setting stem	23.00mm
Thread................................	Φ0.9mm x 8.50mm

Alarm setting stem x 1

Code	065-513
Length from movement center to far end of setting stem	20.00mm
Thread................................	Φ0.9mm x 4.72mm

3. Others

* Measurement of time rate

The unit(gate) time of measurement must be set at "10 sec." or integer fold value of 10 sec. owing to the DFC system, and the measurement must be performed in the form of complete watch.

* Marking on movement

JAPAN
MIYOTA CO.
(CAL. NO.)
NO JEWELS

* Typical clearance

Mov't - Caseback	minimum 550 μ
Mov't - Piezo electro	minimum 300 μ
Thickness of piezo incl. stick-on portion	minimum 250 μ

* Be sure PIEZO should be stuck on case back firmly.

Top of hands - Glass	300 - 400 μ *

* depending and subject to the glass and case structure, and hand length

* Interchangeability of appearance components:

Dial Foot positon & the diameter	same as Cal. 0S series*1
Date window position	same as Cal. 0S10/60
Hands	same as Cal. 0S series*2

REMARKS

*1 :Modificatrion of center hole diameter and hole for alrarm ON/OFF indicator" required.

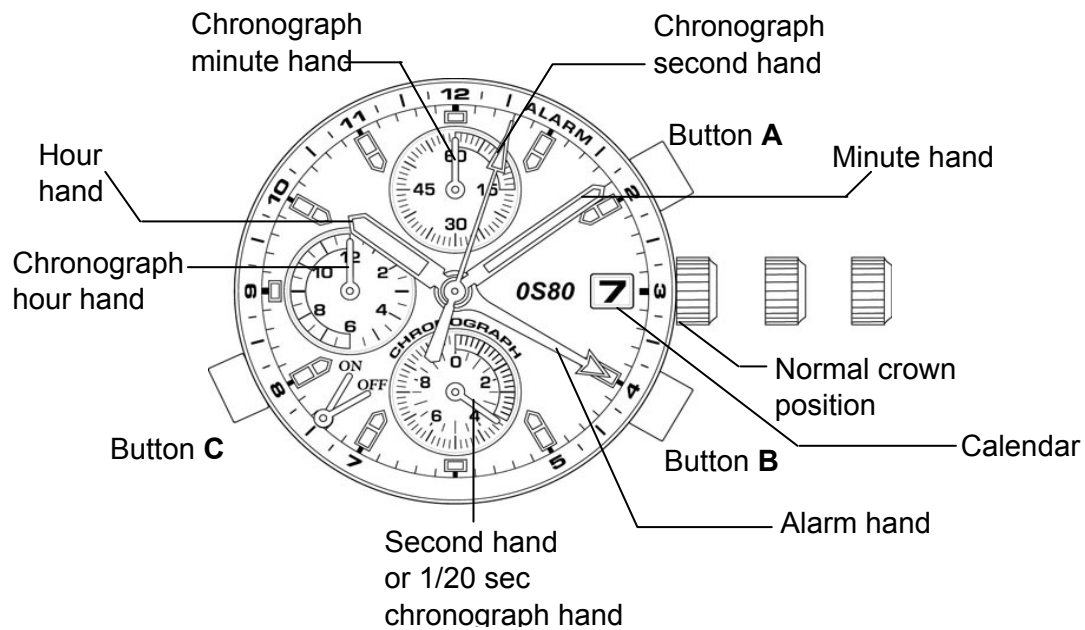*2 : "Alarm ON/OFF indicatior" and "Alarm time indicator" required.

* TACHYMETER

The tachymeter is the device which measures the speed of an automobile. Knowing is how many seconds the car covers a distance of 1km, the meter can measure the approximate average speed per hour during a journey (up to the maxinum measureable range of tachymeter is 60 seconds.)

If the chronograph is started at the same time as measurement, and stopped after 1 km, the average speed per hour can be determined according to the position of the second hand. If the car covers the distance of 1km in 45second, the average hourly speed during the journey will be about 80 km.

A) DISPLAYS AND BUTTONS

Chronograph minute hand

Chronograph second hand

Button **A**

Minute hand

Hour hand

Chronograph hour hand

Button **C**

0S80

Normal crown position

Button **B**

Calendar
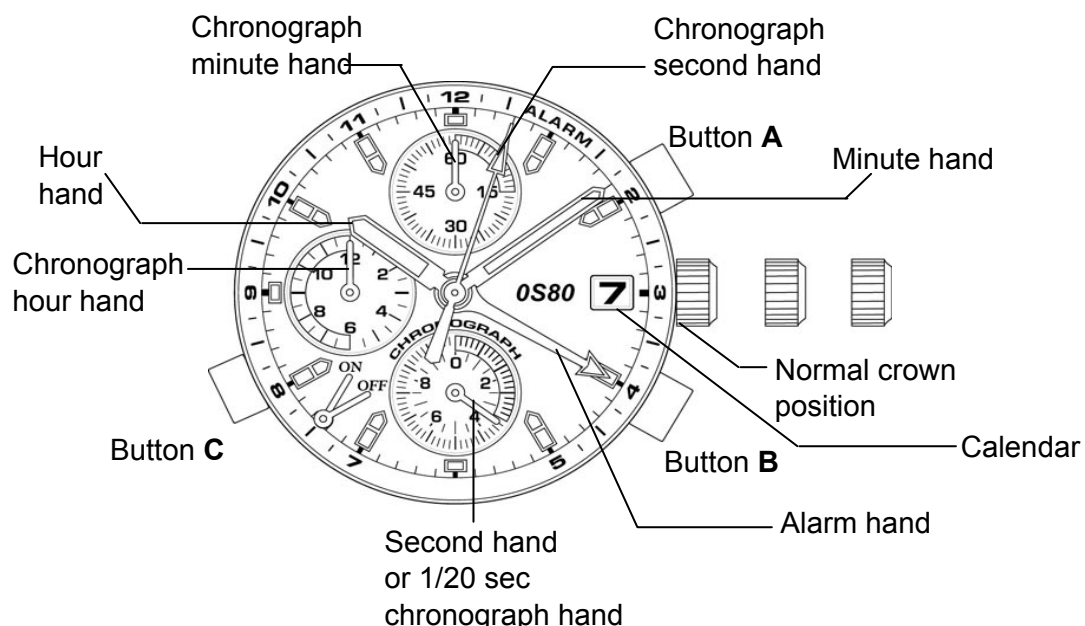
Alarm hand

Second hand or 1/20 sec chronograph hand

B) SETTING THE TIME
1. Pull the crown out to the 2nd position so that the second hand stops at (0) position.
2. Turn the crown to set hour and minute hands.
3. When the crown is pushed back to the normal position in synchonization with a time signal, small second hand begins to run.
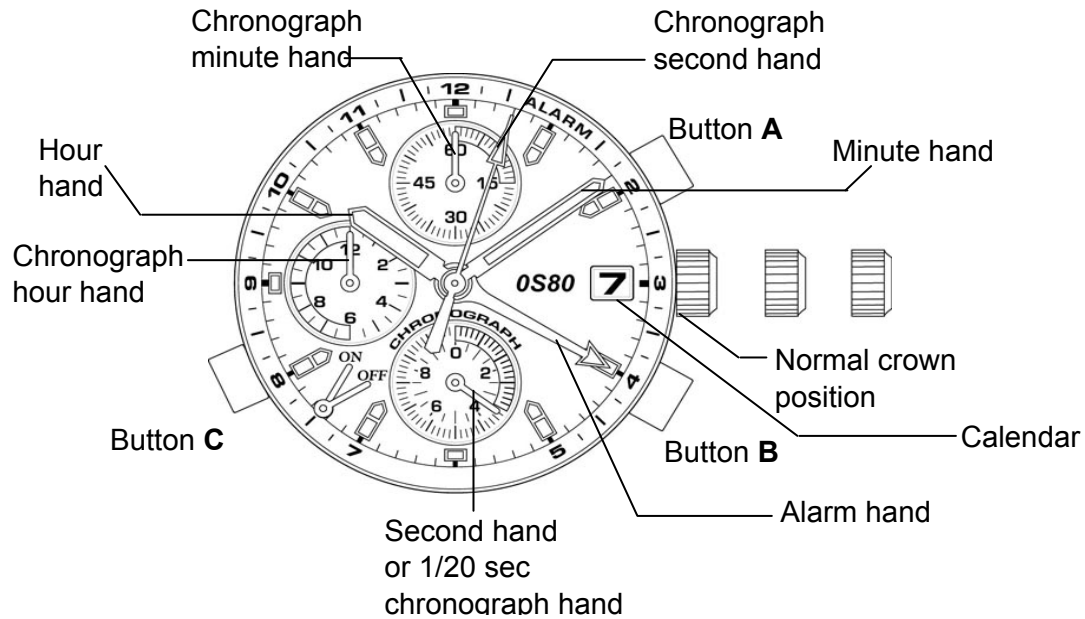
C) SETTING THE DATE
1. Pull the crown out to the 1st position.
2. Turn the crown to the left to set the date.
   * If the date is set between the hours of around 9:00 PM and 1:00 AM, the date may not change on the following day.
3. After the date has been set, push the crown back to the normanl position.

Chronograph minute hand

Chronograph second hand

Button **A**

Minute hand

Hour hand

Chronograph hour hand

Button **C**

0S80

Normal crown position

Button **B**

Calendar

Alarm hand

Second hand or 1/20 sec chronograph hand

D) USING THE ALARM
Pull the button "C". Alarm sounds when the hour hand aligns with the alarm time indicator.

Chronograph minute hand

Chronograph second hand

Button **A**

Minute hand

Hour hand

Chronograph hour hand

Button **C**

Normal crown position

Calendar

Button **B**

Alarm hand

Second hand or 1/20 sec chronograph hand

Setting the alarm time
1. Pull the crown out to the 1st position.
2. Turn the crown to the right to set the alarm time indicator to the desired set time.
The date can be changed by turning the crown to the left.
3. Return the crown to normal position.
4. Pull out button "C" to turn the alarm on.
5. The alarm will sound when the hour hand aligns with the alarm time indicator.

Switching the alarm ON and OFF
Button "C" pulled out to the 1st position : ALARM ON
Button "C" returned to the normal position : ALARM OFF

Turning off the alarm
Pressing button "C" to return it to its normal position turns the alarm off when the alarm is sounding.

Length of sounding time of alarm
The alarm sounds for 15seconds, then stops sounding for 2minutes and 45seconds.
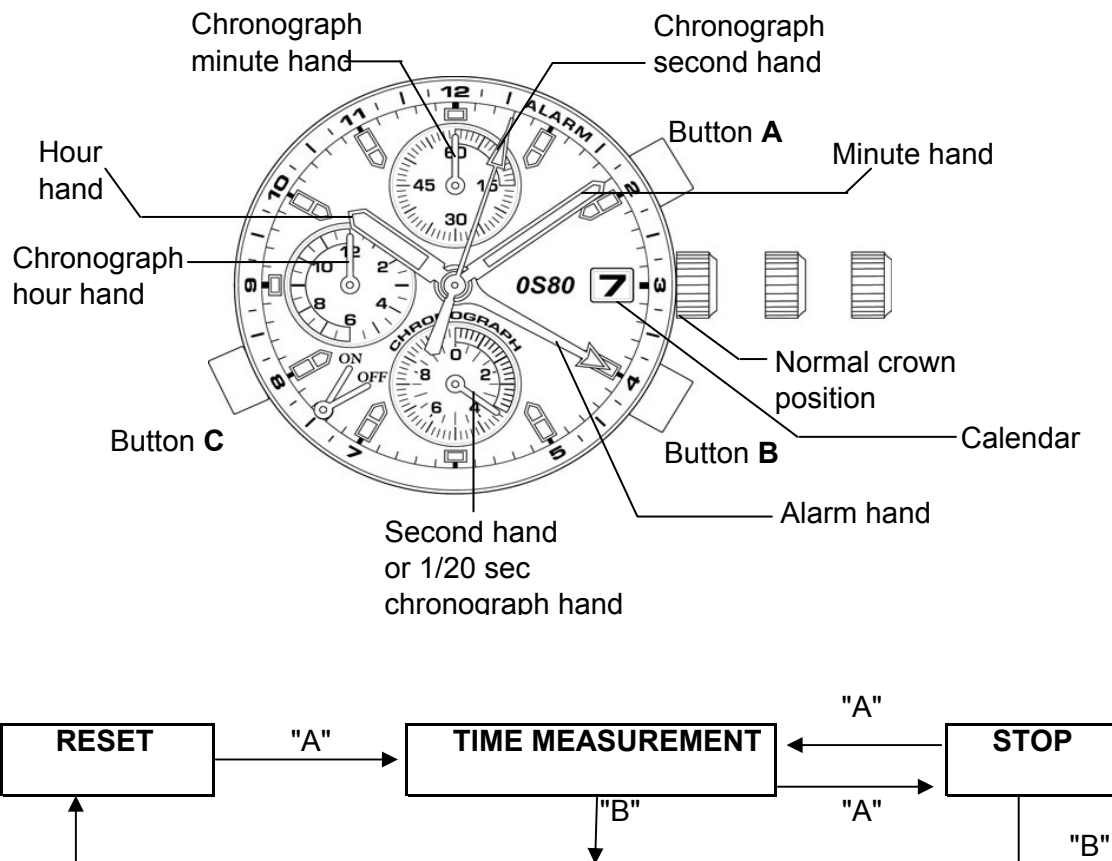"This cycle is repeated by several times.

E) USING THE CHRONOGRAPH
This chronograph is able to measure and display time in 1/20 second united up to maxinum of 12 hours.
The chronograph 1/20 second hand keeps continuously for 30 seconds after starting, and then stops at 0 position.
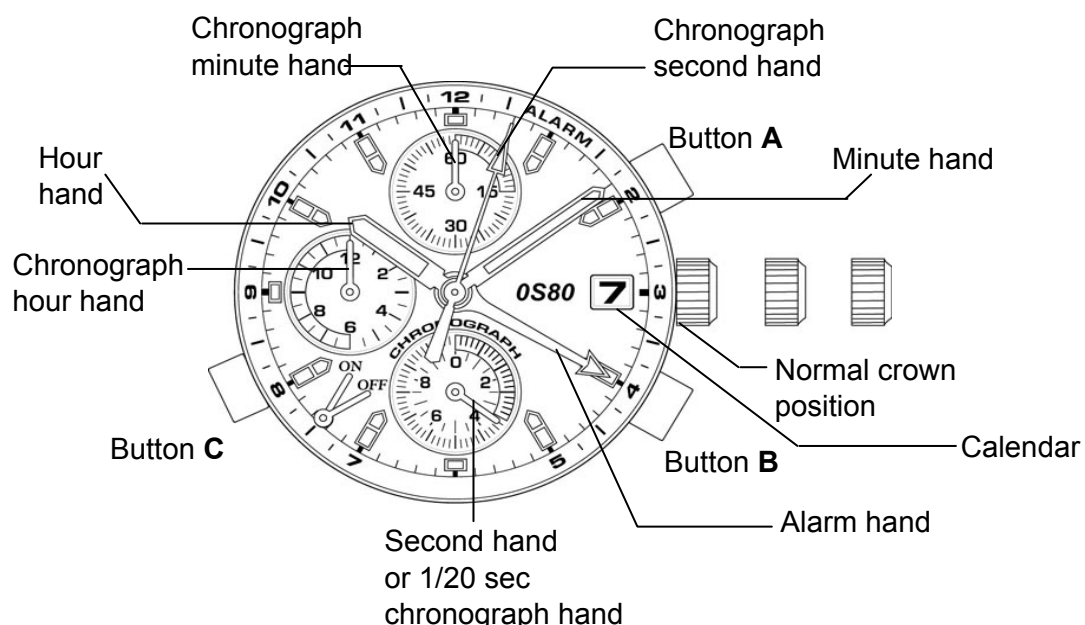
Measuring time with the chronograph
1. Press button "B" to change the watch to the chronograph mode.
   The second hand stops at the 0 second position, and changes to the chronograph 1/20 second hand.
2. The chronograph can be started and stopped each time button "A" is pressed.
The chronograph 1/20 second hand stops at the 0 second position 30 seconds after starting, When button "A" is pressed to stop the chronograph, the chronograph 1/20 second hand advances rapidly to display the measured time.
3. Pressing button "B" resets the chronograph and all hands return to their 0 positions.

Chronograph minute hand — Chronograph second hand

Hour hand

Chronograph hour hand

Button **A**

Minute hand

Normal crown position

Button **C**

Button **B**

Calendar

Alarm hand

Second hand or 1/20 sec chronograph hand

RESET	→ "A" →	TIME MEASUREMENT	← "A" ←	STOP

"B" (TIME MEASUREMENT → RESET)

"A" (TIME MEASUREMENT → STOP)

"B" (STOP → RESET)

F) CHRONOGRAPH RESET (INCL. AFTER REPLACING BATTERY)

This procedure shoud be performed when the chronograph second hand and chronograph 1/20 second hand do not return to the 0 second position after the chronograph has been reset, and including after the battery has been replaced.

Chronograph minute hand — Chronograph second hand

Hour hand

Chronograph hour hand

Button **A**

Minute hand

Normal crown position

Button **C**

Button **B**

Calendar

Alarm hand

Second hand or 1/20 sec chronograph hand

1. Pull the crown out to the 2nd position.
2. Press button "A" to set the chronograph second hand to the 0 position.
3. Press button "B" to set the chronograph 1/20 second hand to 0 position.
The chronograph hands can be advanced rapidly by continuously pressing button "A"or "B".
4. Once the hands have been zeroed, reset the time and return the crown to its normal position.
5. Press button "B" to check that the chronograph hands are reset to the 0 position.

* Do not return crown to normal position while chronograph second hand and 1/20 chronograph second hand return to 12:00 (ZERO) position.
Each hands stop on the way when crown are returned to normal position and these positions are recognized as 12:00 (ZERO) position.

G) FITTING METHOD OF HANDS
Place the module on case back shown in the figure and position the reference hand, then fit the hands according to the following procedure.
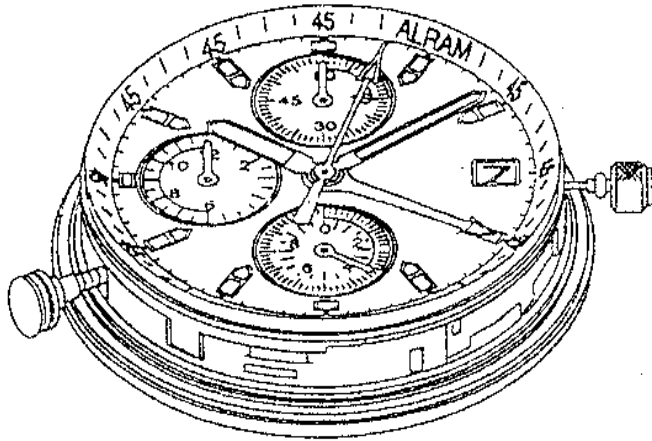
1.Pull out the "C" button to turn the alarm.
2. Pull out the crown to the time setting position.
3. Turn the crown to the left, and stop it just after the date changes. After the date starts changing, Turn the crown slowly.
4. Push in the crown by one step, taking care not to turn it.
5. Turn the crown slowly to the right unit the alarm starts sounding, then stop it.
6. Pull our the crown to the time setting position again, taking care not to turn it.
7. Turn the crown to the right until the alarm stops sounding.
8. Turn the crown slowly to the left until the alarm starts sounding again.
9. Stop turning the crown just after the alarm starts sounding, then fit the reference hand, hour hand and minute hand to the 12-o'clock position. When fitting the hands, remove the case back and place the movement on work stand.

This specifications might be changed without prior notice.