ISA 9002

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1. GENERAL POINTS

The ISA Swiss Made movement 9002 is composed by an analogical part for the hour display and of a digital module for several functions which are detailed in the chapter Modes.

The analogical time is displayed through 2 hands (hours and minutes) driven in independent ways. The rotation of hands is only in one direction.

The digital display is done through by a **LCD** screen. It is composed of 5 alphanumerical characters, 6 numerical characters and 3 pictograms.

The analogical and the digital times are synchronised.

The **LCD display** is lightened through an electro luminescent cell placed under it.

The movement is driven through 3 buttons and 1 crown which description is defined in the chapter pushbuttons.

The program includes a perpetual calendar between 2000 and 2049.

WARNING: From each mode, local time (**TIME1**) can be adjusted by pulling the crown (**C**).
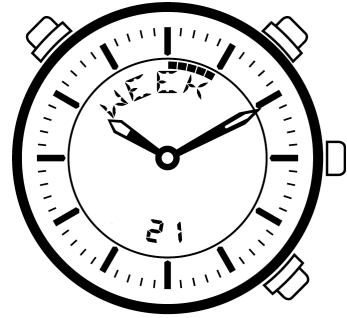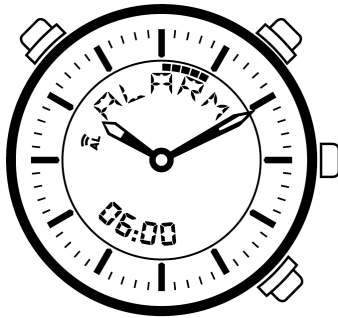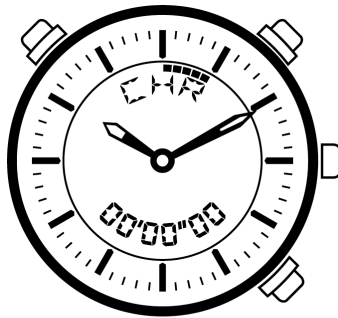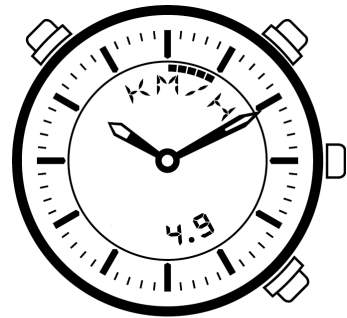
1.1   Modes
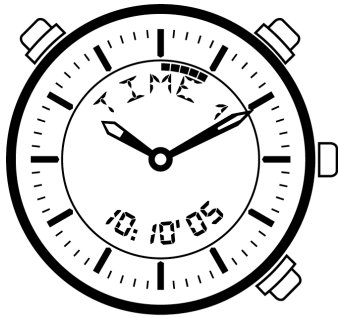
TIME1 MODE | 2.1
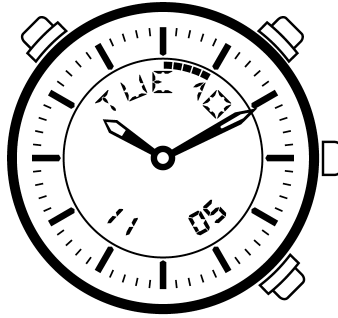
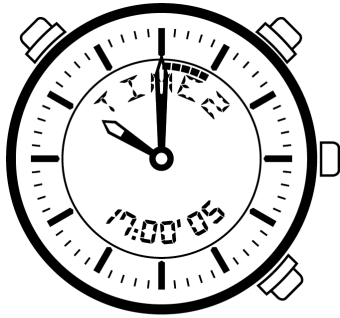**DATE MODE | 2.2**

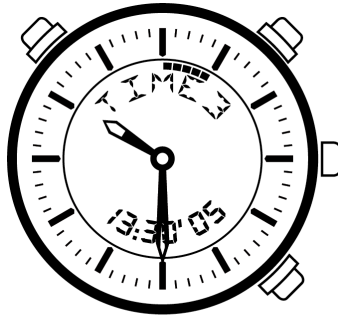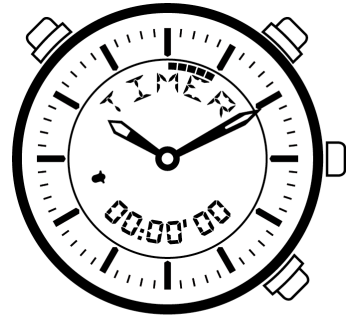**WEEK MODE | 2.3**

ALARM MODE | 2.4

CHRONO MODE | 2.5

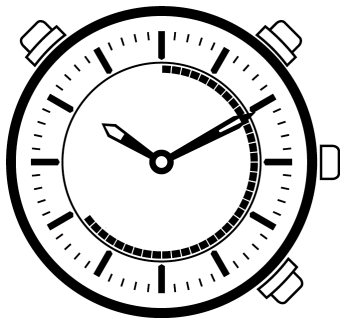**TACHOMETER MODE | 2.6**
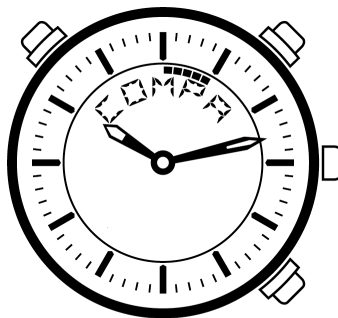
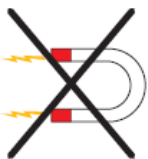**TIME2 MODE | 2.7**   **TIME3 MODE | 2.8**   **TIMER MODE | 2.9**

SECOND MODE | 2.10   COMPASS MODE | 2.11

IMPORTANT: COMPASS

- Always maintain compass in horizontal position. In this case, accuracy will be better than +/- 3°

- The compass must not be used near a metallic or magnetic mass.

- If the watch is close to a strong magnetic field (e.g. presence of magnets, electromagnets, high-voltage lines, electrical & household appliances, etc.), the compass is likely to lose its settings (compass blocked or pointing in a direction other than the North).

- If you detect one of these problems, you can solve it by initializing the compass (see page 20-21 of our instruction manual).
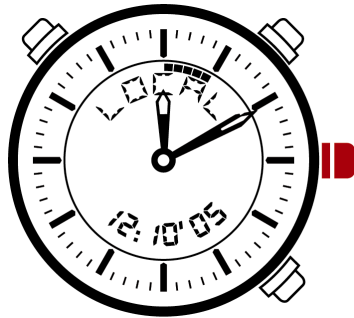
- If the compass does not point to geographic North: adjust the declination (see page 20 of the manual).

1.2   Pushbuttons
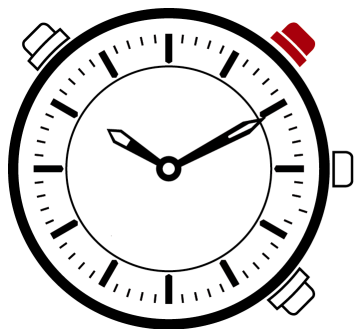
1)   Pushbutton C (Crown)
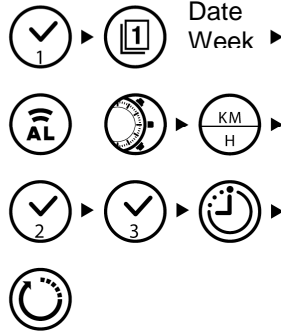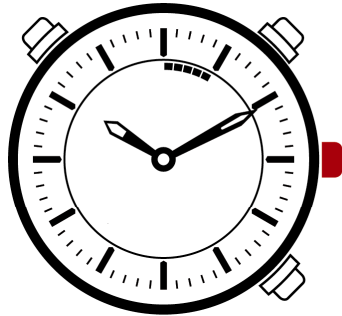
PUSH C
Change mode.

PULL C
Get in TIME1 hour correction directly from any mode.
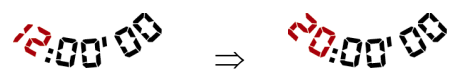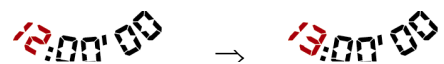
2)   Pushbutton A

ON   OFF

PUSH A
The pushbutton **A** allows to modify the selected value.

The displayed value can be modified step by step or in accelerated speed respectively through short or maintained push on A when the watch is in setting mode.
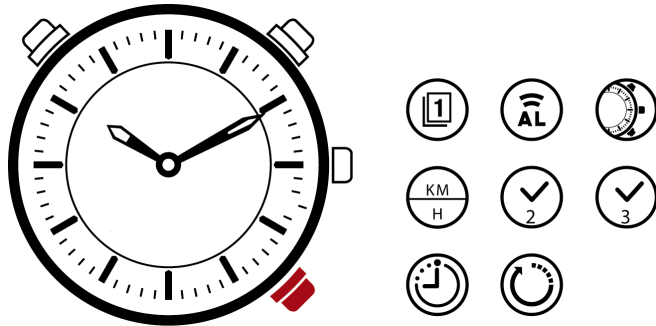
holding push   12 → 20
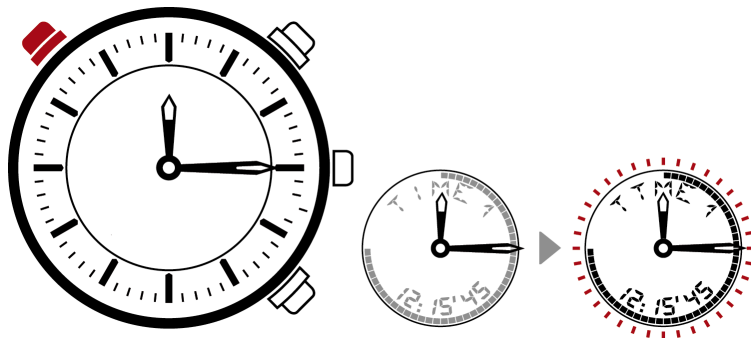
 ⇒

step by step push   12, 13, 14, 15....

 →

3)   Pushbutton B

PUSH B

Allows to enter in setting mode and to select sub-modes. Reset / Split in mode Chrono.
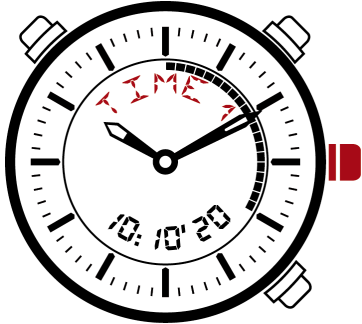
4)   Pushbutton D

PUSH D

Allows to switch on the EL. A timer keeps the EL on for 3 seconds after releasing the pushbutton.

When EL is on: Any action on A, B or C will switch on EL for 3 sec. more.

2. MODES DESCRIPTION
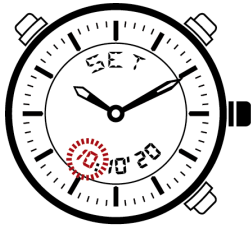
2.1 TIME1 mode (Local time zone)

PULL C

From each mode, local time (**TIME1**) can be adjusted by pulling the crown (**C**).
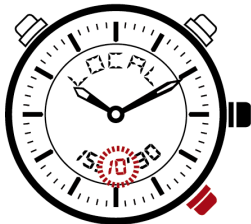
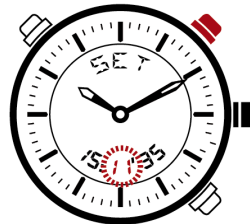**LOCAL** and **SET** are blinking alternatively.

Digital **hour** indication starts blinking.

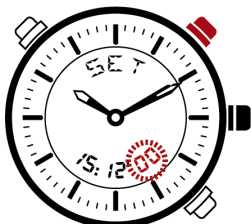**PUSH A**
Select **hour**.

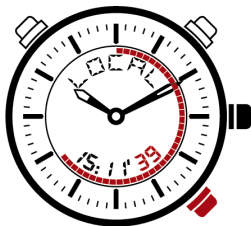**PUSH B**
Confirm selected hour and digital **minute** indication starts blinking.
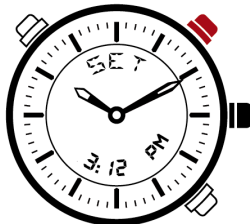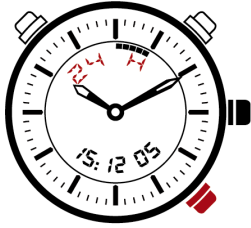
PUSH A
Select **minute**.

24H DISPLAY | **12H DISPLAY**
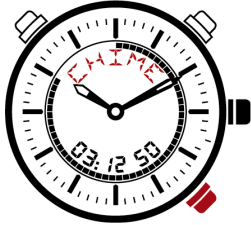
PUSH B
Confirm minute and second starts blinking

PUSH A
Reset seconds

PUSH B
24H or **12H**
AM/PM
selection.

PUSH A
Select the
display mode.
(**24H / 12H**)

PUSH B
Chime starts
blinking.

PUSH A
ON / Off Icon 🔔
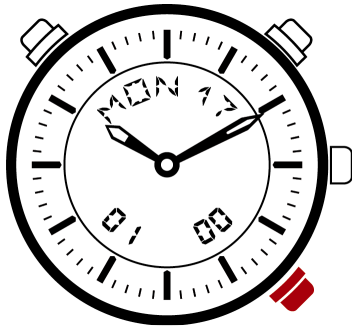appears.
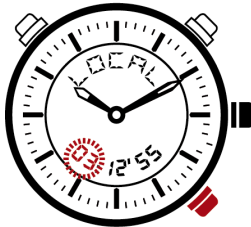
PUSH B
Push B for going
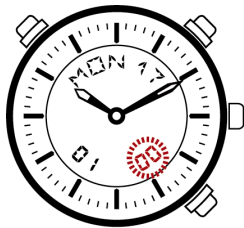on beginning.
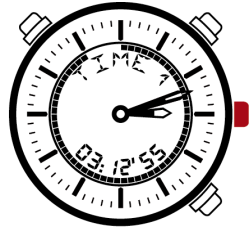
PUSH C

2.2 Date mode

PUSH C
Push on **C** to enter in **DATE** mode.

PUSH B
Date can be adjusted by pressing **B** at least one second in **DATE** mode. Number of the week is automatically calculated from this date.

Year indication starts blinking.

PUSH A
Select **year**.

PUSH B
Confirm **year** and **month** indication starts blinking.

PUSH A
Select **month**.

PUSH B
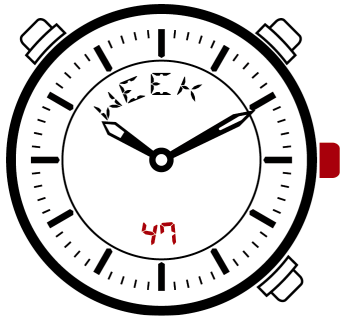Confirm **month** and **day** indication starts blinking.

PUSH A
Select **day**.

PUSH B
End of adjustment. Week day changes automatically when you go out of the adjustment.
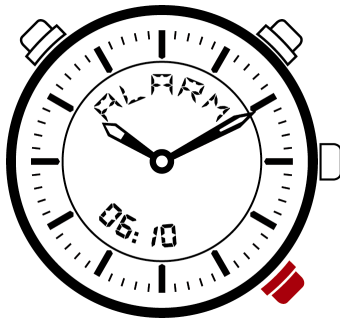
2.3   Week mode

PUSH C
Enter in WEEK mode.

The display shows **week number**, this number is automatically calculated according perpetual calendar.
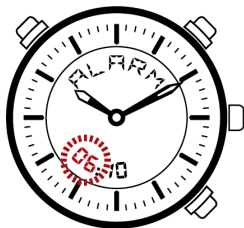
Note:
The week number changes automatically each Monday at 0 o'clock, Number 1 is attributed to the week including the first Thursday of the year, the last week of the year could then have number 53.

2.4   Alarm mode

PRESS B
Alarm can be adjusted pressing **B** at least one second in **ALARM** mode.

Hour indication starts blinking.

PUSH A
Select **hour**.

PUSH B
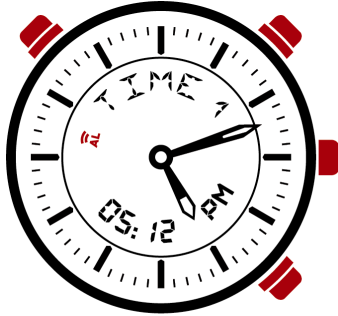Confirm **hour** and **minute** indication starts blinking.

PUSH A
Select **minute**.

PUSH B
End of adjustment.

PUSH A
ALARM ON

The Icon $\widehat{\mathbf{AL}}$ appears on the display.

bip bip

Alarm will start when alarm is **ON** and when there is coincidence between time showed by hands (TIME 1) and by display in alarm mode. Stop of alarm by push on **A, B, C, D** whatever in which mode.
Alarm is characterised by 20 double-bips, one per second (frequency 4kHz), repeated after **2 minutes** if the first alarm is not stopped.
Alarm pictogram will switch automatically on OFF after alarm (alarm being stopped or not) alarm time will not be reset.

2.5 Chrono mode

1)   Measure of elapsed time
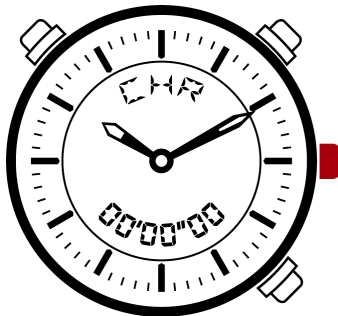
PUSH C
The tachometer will calculate the speed when the chrono is stopped.

PUSH A
Chrono starts.

PUSH A
Chrono stops. Display shows elapsed time.
To measure cumulated time, you must make several starts and stops.

PUSH A
In minute, second, and 1/100 second

In hours, minutes and seconds if the measured time is **higher than 60 minutes.**

- Push on B: Chrono reset.
- Push on A: 2) Measure of cumulated times

2) Reading of a partial time (when chrono display is frozen)

PUSH A
Chrono starts.

PUSH B
Split mode, display freezed. **Chrono** still running.

PUSH B
Display indicates the time run out.

PUSH B
Split mode, display freezed. **Chrono** always running.

* you can continue this operation.

3) Measure of a second time

FIRST PUSH A
Chrono starts.

FIRST PUSH B
Freeze the display
The chrono **still counts**
but the display indicates
the time elapsed at the
moment of pushing the
pushbutton.

SECOND PUSH A
Stop of **chrono**,
the display is
frozen, reading of
the first time.

SECOND PUSH B
Defreeze the display.
Which gives the time
elapsed at the moment of
chrono stops (second
time).

4) Measure of a time by circle

PUSH A
Chrono starts.

PRESS B
Split mode, Chrono always
running.
B pressed more than
1 second, chrono still
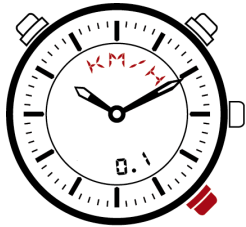running but time is reset.

PUSH B
Display new time.

PUSH A
Stop **chrono**

2.6 Tachometer mode

PU
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up
Th
mc
tor
so
a few seconds.
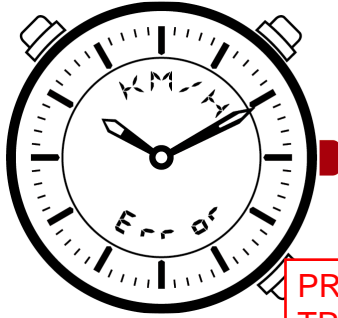
PRZYCISK B
TRYB REGULACJI - PRZYTRZYMAJ PRZYCISK B CO NAJMNIEJ 1 SEKUNDĘ .
(pojawia się miganie)

adjust mode. UNITS blinking.
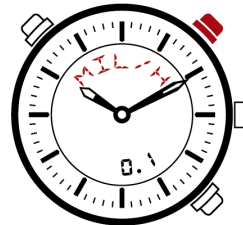
PUSH A
Set the required unit.
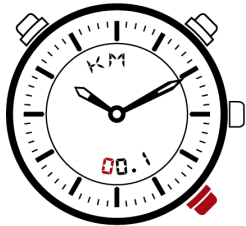
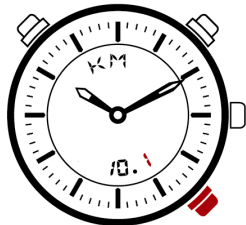**PUSH B**
Confirm unit tens is blinking.

PUSH A
A will adjust tens.
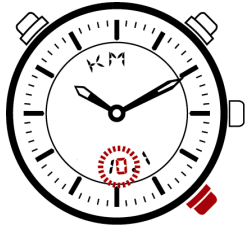
PUSH B
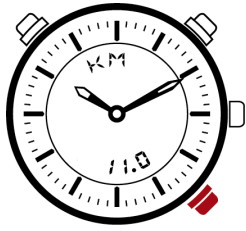Confirm tens Unit blinking.

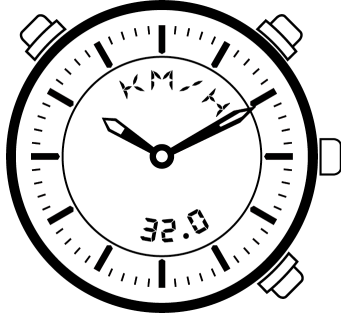**PUSH A**
Select **units**.

PUSH B
Confirm units tenth blinking.
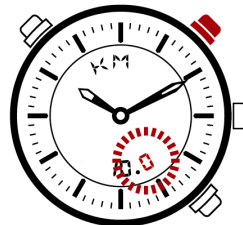
PUSH A
Select **tenth**.

PUSH B
Confirm setting.
End of adjustment.

Watch will automatically calculate the new speed with the previous time measured by chrono and the new distance parameters.
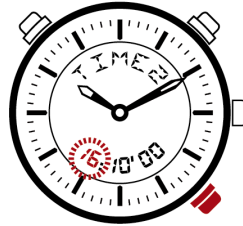It is possible to start the chrono and to walk, and setting the covered distance when you stop. Or to set the distance (for example 100 meters) and then starting the chrono when competitor is running.
Pushing A in this mode will start the chrono.
Movement goes into chrono mode.

2.7 TIME2 mode (Second time zone)
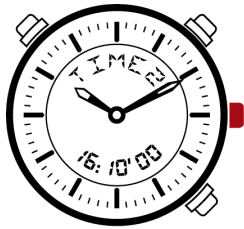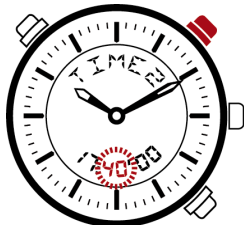
PUSH C
Enter **TIME2** mode.

PRESS B
Press B more than one second to enter in adjust mode.

PUSH A
Select **hour**.

PUSH B
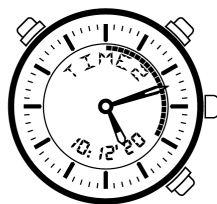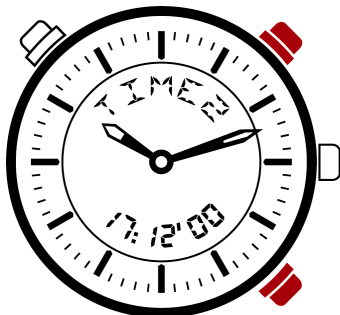Confirm **hour** and **minute** indication starts blinking.

PUSH A
Select **minutes**.

PUSH B
Confirm **minutes**. End of adjustment.

Minutes are synchronised with TIME1 and offset of 0 or 30 minutes can be selected.
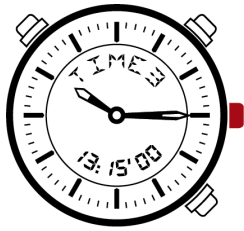Seconds are the same as TIME1 and can't be changed.
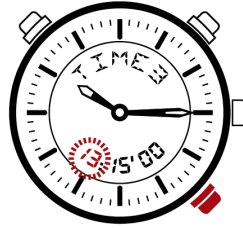
PUSH A + B
Exchange between TIME1 and TIME2
Push A and B together to switch between TIME1 and TIME2. TIME2 becomes TIME1 and TIME1 becomes TIME2. Hands will show new TIME1 (former TIME2).

2.8   TIME3 mode (Third time zone)
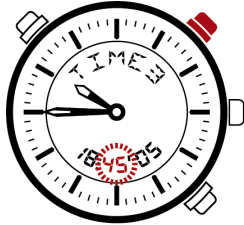

PUSH C
Enter **TIME3** mode.

PRESS B
Push on B more than one second to enter in adjust mode.

PUSH A
Select **hour**.

PUSH B
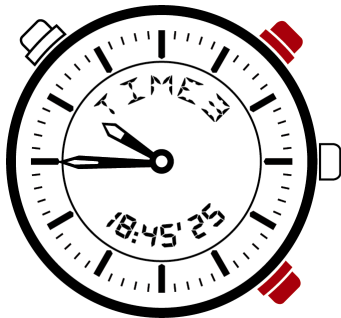Confirm **hour** and **minute** indication starts blinking.

PUSH A
Select **minutes**.

PUSH B
Confirm **minutes**.
End of adjustment.

Minutes are synchronised with TIME1 and offset of 0 or 30 minutes can be selected.
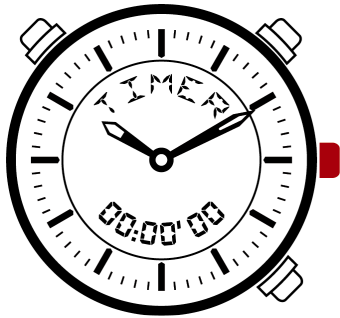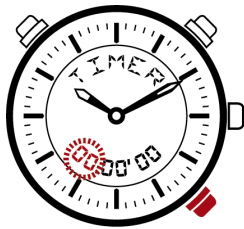Seconds are the same as TIME1 and can't be changed.

PUSH A + B
Exchange between TIME1 and TIME3
Push A and B together to switch between TIME1 and TIME3. TIME3 becomes TIME1 and TIME1 becomes TIME3. Hands will show new TIME1 (former TIME3).
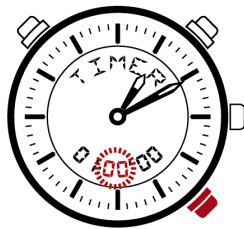
2.9   Timer mode

PUSH C
Enter in **TIMER** mode.

PRESS B
Press on B more than one second to enter in adjust

PUSH A
Select **hour**.

PUSH B
Confirm **hour** and **minute** indication starts blinking.

PUSH A
Select **minute**.

PUSH B
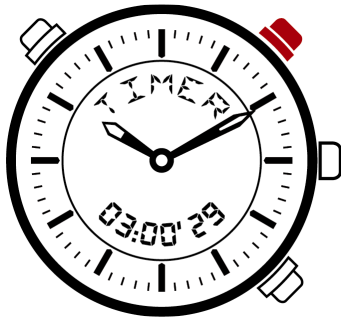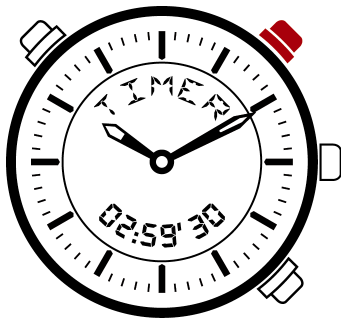Confirm **minute** and **second** indication starts blinking.

PUSH A
Select **second**.
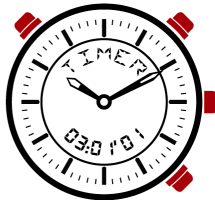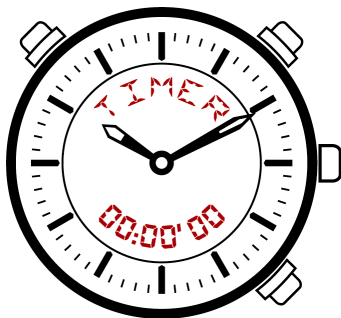
PUSH B
Confirm **second**.
End of adjustment.

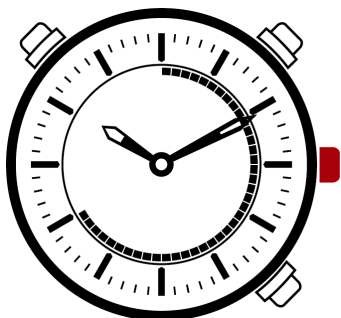### 1) Timer start/stop

PUSH A
TIMER starts.

PUSH A
TIMER stops.

When timer value is 0 movement leaves current mode and goes in TIMER mode.
Display is blinking until a button is pressed or 20 double-bips are generated. Preset timer value is restored.
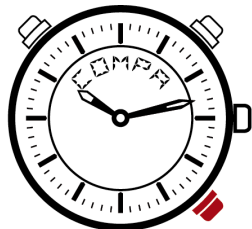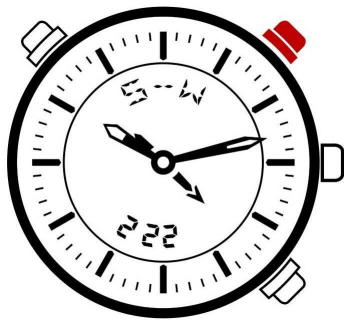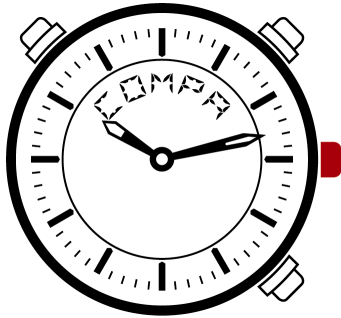
Button **A, B, C, D** can stop the 20 bips.

2.10 Second mode

PUSH C
Enter in **SECOND** mode.

In this mode we can only show just the circular second. In an another mode, the circular second is displayed.

2.11 Compass mode

PUSH B
Press B more than one second to enter in adjust mode.

The angle of magnetic variation is blinking.

PUSH A
Select angle of magnetic variation. Angle of magnetic variation can ben set between 40°East and 40°West.
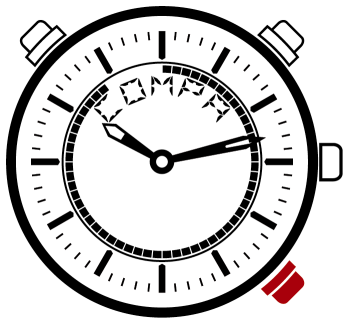

PUSH B
Validate the angle of magnetic variation and CAL is blinking.
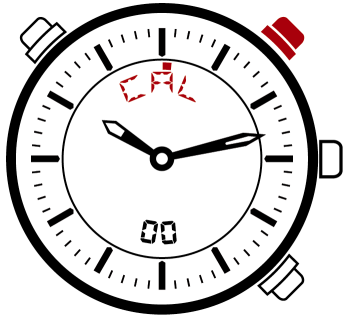
PUSH A
You start the calibration of the compass. During this calibration one second segment flashes in rotation, turn the watch, so as to keep the flashing second segment always in front of you. When the calibration is finished, it is going out of the setting mode.


PUSH B
End of adjustment.

IMPORTANT: COMPASS

- Always maintain compass in horizontal position. In this case, accuracy will be better than +/- 3°

- The compass must not be used near a metallic or magnetic mass.

- If the watch is close to a strong magnetic field (e.g. presence of magnets, electromagnets, high-voltage lines, electrical & household appliances, etc.), the compass is likely to lose its settings (compass blocked or pointing in a direction other than the North).

- If you detect one of these problems, you can solve it by initializing the compass (see page 20-21 of our instruction manual).

- If the compass does not point to geographic North: adjust the declination (see page 20 of the manual).
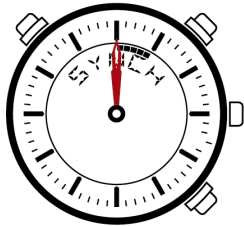
3.   BATTERY AND SYNCHRONIZING HANDS

3.1   Synchronizing the hands
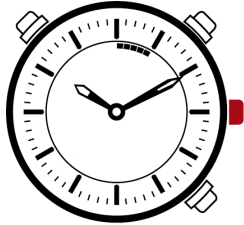
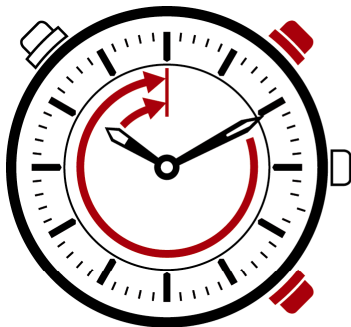**PUSH C**
Get into **Second Mode**.
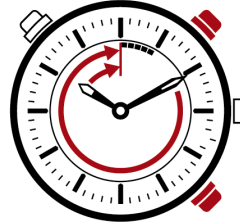
PUSH A and B together hold 2 seconds
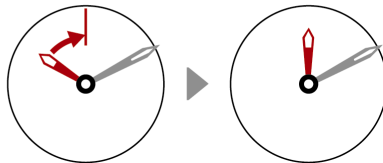Hands go on position 12h.

When the movement is in mode "hands sychronisation", **SYNCH** flashes on the display.
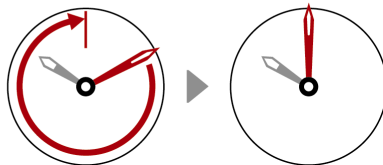
*If the two hands are not on 12h they are no longer synchronised
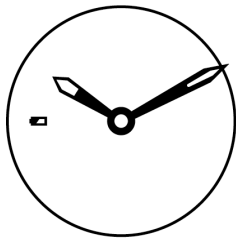
PUSH A to set hour hand on 12.

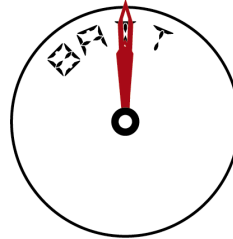**PUSH B** to set minute hand on 12.

When holding push button, hand move in fast mode. When pushing by pulses, hand move step by step. Push on **C** to go out mode.

3.2   Changing the battery

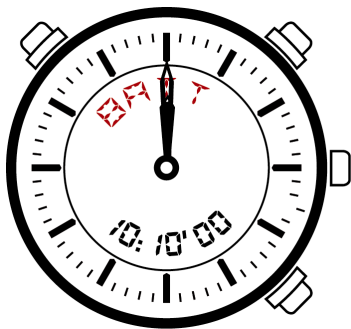Opening the case-back makes hands going automatically to 12h, in order to avoid lost of sychronisation.

One week after....

When the battery voltage has reached the minimum value to power the movement:
icon of a battery appears on the display indicating that the battery has to be changed.

The hands will go to 12h and the mode **TIME1** will become permanent.
BATT displays.

The word **TIME1** is replaced by a flashing indication **BATT**. In this mode it is no more possible to use other functions:
alarm, EL, chrono Timer and hands stay on 12.
Only the alarm programmed 24 hours or less before the movement enter in EOL mode will be activated.
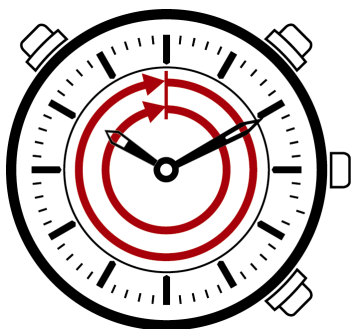
Put the new battery (CR2016 - 3.00V).
The 2 hands turn 360°. The 2 hands have to be on **12h**. Put the case back.
If the 2 hands are not at 12h, enter in synchronisation mode according to 3.1. - 1) to set it.
Adjust times date and other functions.

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