

**CALIBRE**  
**1377**  
**Q 6 jewels (20.4 x 1.5)**

Ø 20.40 mm	
Movement height	1.60 mm
Jewel number Frequency	6 32'768 A/h

**GENERAL DESCRIPTION**

A new design in quartz watches with its reduced height.

**DISPLAY** analogue with hands

**FUNCTIONS** hours, minutes

**CORRECTIONS** hours, minutes : by 2nd stem position

**VARIATION DURING WEAR** better than ± 15 seconds per month

**RESISTANCE TO SHOCKS** NIHS 91-10

**RESISTANCE TO MAGNETIC FIELDS** better than 20 Oe

**TEMPERATURE FUNCTIONING RANGE** from 0° to 50° C

**RUNNING TIME** typical 2 years

**CONSUMPTION** maximum 1.00 µA

**YEAR OF CONSTRUCTION** 1982

**DIMENSIONS**

Diameter 20.40 mm  
height on movement 1.60 mm  
height on battery clamp 1.75 mm

**MINIMUM FUNCTIONING VOLTAGE**  
≥ 1.35 V**BATTERY**

**REFERENCE** 9937

**TYPE** silver oxide-zinc (low drain)

**DIAMETER** 7.90 mm

**HEIGHT** 1.60 mm

**VOLTAGE** 1.55 V

**CAPACITY** 15 mAh

**ELECTRONIC MODULE**

**TYPE OF RESONATOR** quartz tuning-fork

**FREQUENCY** 32768 Hz

**MOTOR COIL** adjacent to the module

**FREQUENCY CORRECTOR** without

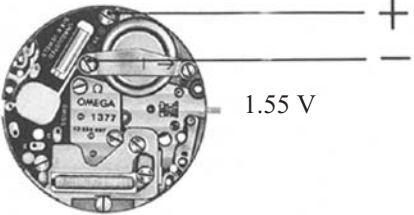
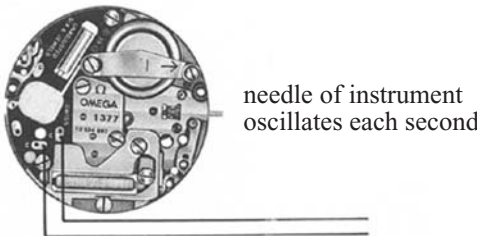
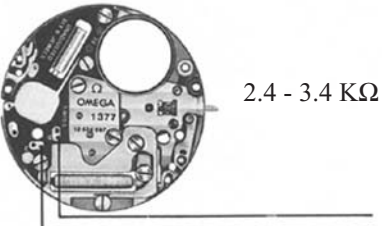
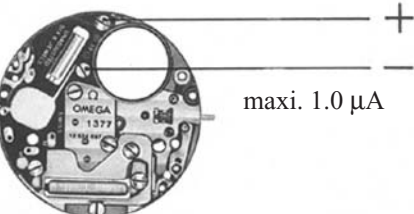
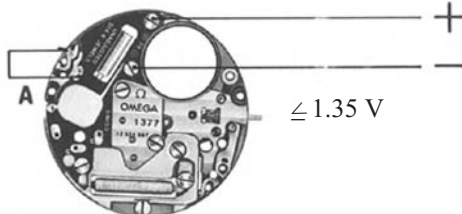
**MOTOR**

**TYPE** electromagnetic with radial field, coil on the same level, step-by-step (180° / 5 sec., LAVET type)

**DESIGN** integrated, can be disassembled

# 1. DIAGNOSIS

Important : for all these measurements, do not pull the crown to the time-setting position

CONTROLS	MEASUREMENTS	INSTRUMENTS
<b>BATTERY VOLTAGE</b> , battery fitted		CHECKER 1  ALITEST
<b>FREQUENCY</b> , battery fitted (no frequency corrector)	<p>between - 0.4 and + 0.6 s/d</p>	CHECKER 1 Measurement time 5 seconds DELTATEST
<b>MOTOR IMPULSES</b> , battery fitted		CHECKER 1 Measurement time 5 seconds ALITEST
<b>MOTOR COIL RESISTANCE</b> , without battery		CHECKER 1 Measurement tension less than 0.4 Volt
<b>CONSUMPTION</b> , without battery		CHECKER 1 Measurement tension 1.55V Measurement time 5 seconds
<b>MINIMUM FUNCTIONING VOLTAGE</b> , without battery, in rapide advance 32Hz (connect contact "A" to the mass using tweezers)		CHECKER 1  ALITEST

## 2. DISASSEMBLY

### Order of operations

battery

hands, dial

magnetic screen

electronic module

wheel train

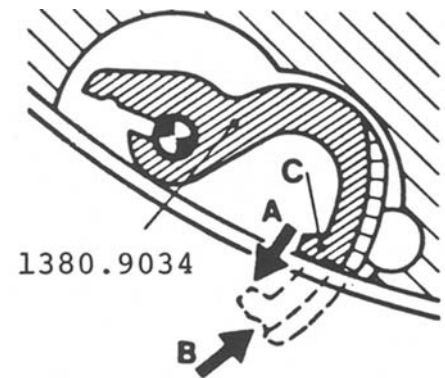
mechanism

Do not disassemble the stator

### 2.1. Dial fasteners

The dial feet are held by two dial fasteners.

To open them, pull the cam "C" with tool 4170.020.00 or with a screwdriver in the direction of arrow "A". To close the fasteners, after fitting the dial, press in the direction of arrow "B" up to the casing-diameter of the main plate.



## 3. CLEANING

### 3.1. Dry cleaning battery

electronic module

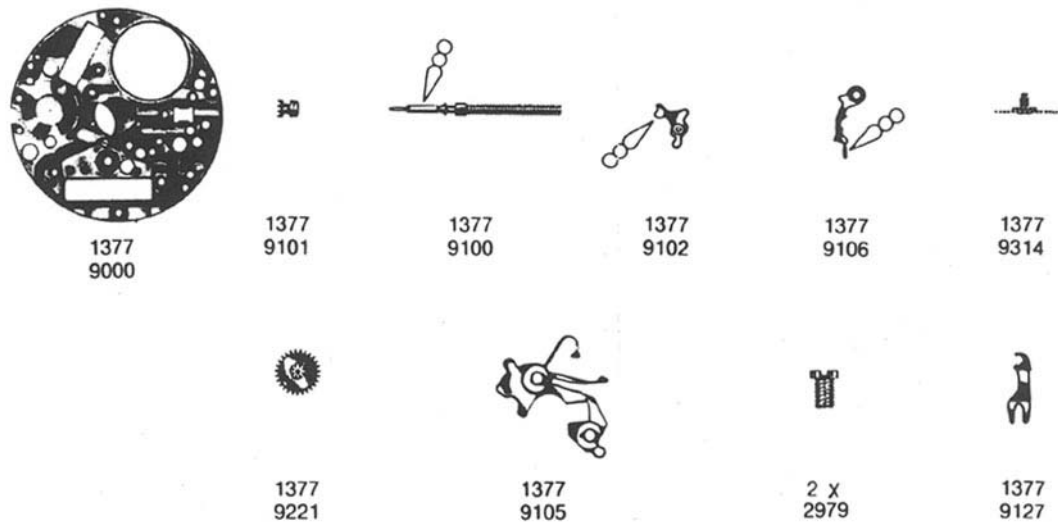
rotor (use cleaning Rodico paste for the rotor)

### 3.2. Cleaning in usual baths

all other components

## 4. ORDER OF ASSEMBLY

### 4.1. Time-setting mechanism



**Remark** The main plate exists in two different versions

1. no. 1377.9000 the center axle 9030 exceeds the main plate by 0.45 mm
2. no. 1377.9001 the center axle 9066 exceeds the main plate by 0.89 mm

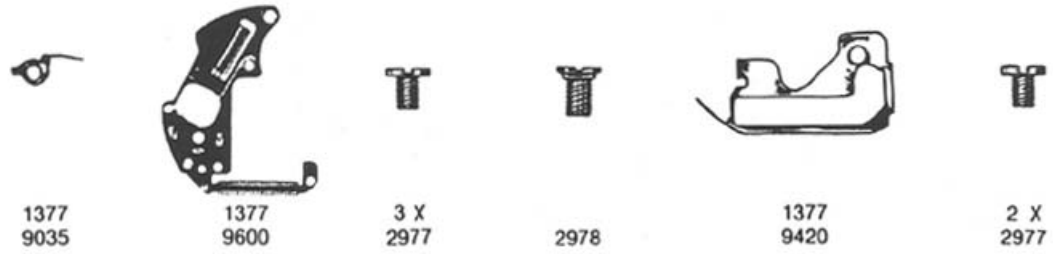
### 4.2. Wheel train



Owing to the magnetic force existing between the magnet and the stator, the rotor (1377.9415) remains suspended between its two bearings.


Control the axial clearance of the rotor above and below.

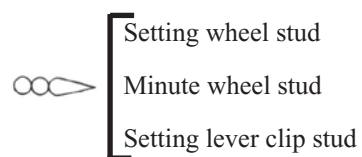
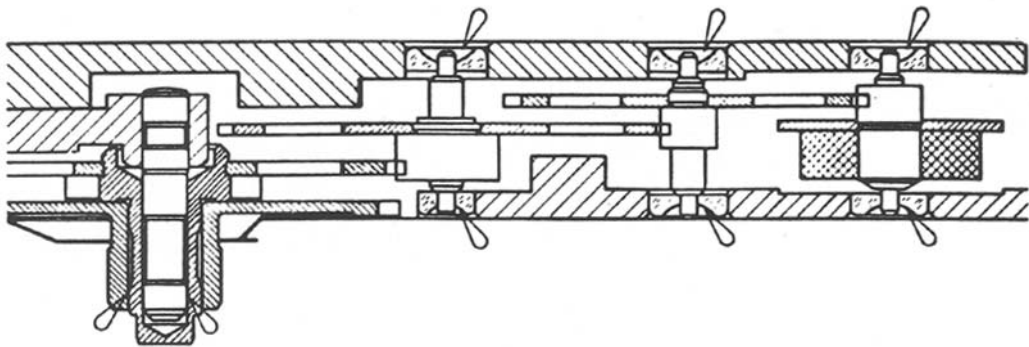
### 4.3. Electronic module



### 4.4. Lubrication

 1.15 (Synt-A-Lube 9010 bleue)

 1.14 (Moebius D5)



### 4.5. Control and Adjustment (see 1. Diagnosis)

Movement consumption, maxi 1.0  $\mu$ A

Minimum functioning voltage  $\leq$  1.35 V

Frequency between - 0.4 and + 0.6 s/d. Check at a temperature of 20° to 25° C after 30 minutes' run without interruption.

#### 4.6. Fitting the battery

Insert a fresh, checked battery taking care to place it in the movement with the negativ pole on top (bridge side).

Before screwing the negative clamp 1377.9033, make sure that the insulating washer 1377.9650 is placed correctly.



#### Life time calculator

position "E"

### 5. CASING COMPONENTS

#### 5.1. Fitting of hands

To fit the hour and minute hands, the movement should be supported on its entire surface. Do not use the movement-holder.

#### 5.2. Case

Beware of short-circuits. It is possible that a thin insulator is placed between the movement and the case-back. The case-back may also be covered with an insulating paint. In this case, one must be very careful during cleaning and not use any solvents.

#### 5.3. Time-Setting stem

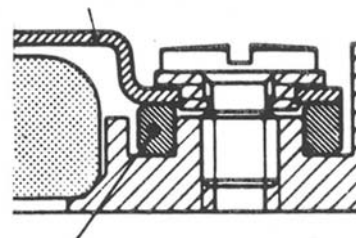
The hand-setting stems which are equipped with very small crowns and are destined to certain references, are supplied with the crowns mounted. In these cases the hand-setting stems are ranked as casing components and bare the crown numbers.

### 6. TIME-SETTING

#### 2 positions stem

1. neutral position
2. correction of hours and minutes in both directions.

1377.9033



1377.9650