



Ebosa 168.100,168.110 Movement Parts (1)

*Compiled by EmmyWatch - <https://www.emmywatch.com>*

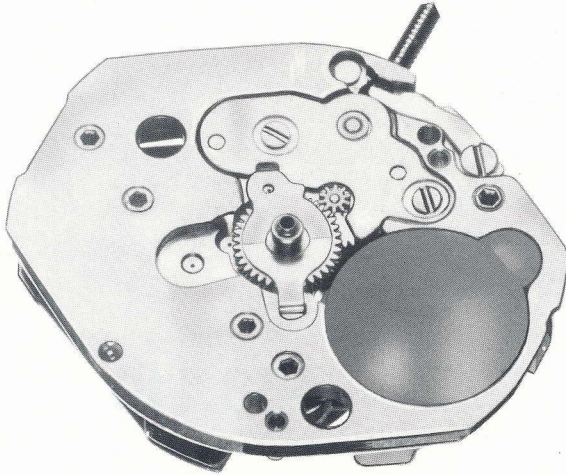


BLUEBIRD

# 168

## TECHNICAL INFORMATION

March 1988



# EMMYWATCH

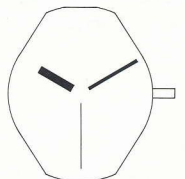
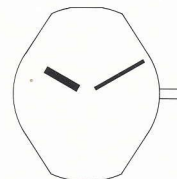
## VINTAGE RESTORATION

Dimension:	0,6024 × 0,7008 inch (15,30 × 17,80 mm)
Height:	0,1102 inch (2,80 mm)
Height of handsetting stem:	0,0394 inch (1,00 mm)
Position of dial feet:	DIN 8240
Independent coil	
With or without second	

### 6 3/4 × 8'''

### 168.100

### 168.110



It's Swiss  
It's Quality  
It's Quartz



BLUEBIRD



# It's EBO S.A.

EBO SA, CH-2540 Grenchen Téléphone 065/512215 Télèx 934302 Fax 065/527997

## Technical characteristics

### Movement

- 0 Jewels.
- With or without centre seconds.
- Stop-second device interrupting the current of the motor by means of pulling the crown.
- Battery (Silveroxyd)  $\varnothing$  0,2677  $\times$  0,0827 inch (6,80  $\times$  2,10 mm), easy interchangeable by swivelling bridge+.

### Frame

- Basic elements according to NIHS norms.
- Height of handsetting stem from dial base 0,0394 inch (1,00 mm),  $\varnothing$  of thread S 0,0354 inch (S 0,90 mm (see illustr. C).
- The magnetic screen and the battery are integrated in the dimension of the movement.

### Train wheel gear

- By interchanging 5 components, the version with seconds can be transferred to the execution without seconds (see illustr. A/B).

#### With seconds:

10.513	Electronic module (with second)
20.590	Coil (with second)
30.027	Second wheel
31.083	Cannon pinion with driver, (with second)
56.071	Stop lever, for sweep second

#### Without seconds:

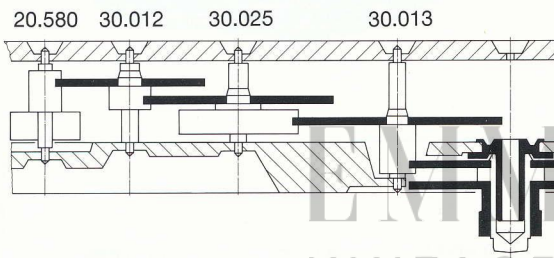
10.513.18	Electronic module (without second)
20.590.18	Coil (without second)
30.025	Third wheel
31.083.18	Cannon pinion with driver (without second)
56.70	Stop lever

### Performance

- Precision of rate by 25° C  $\pm$  4 mon/a ( $\pm$  0,7 s/d).
- Self contained operation:
 

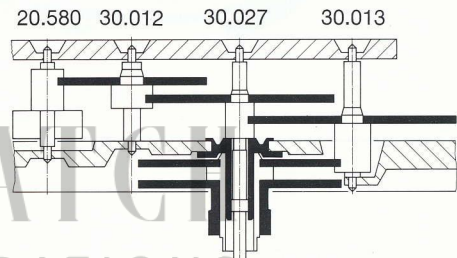
with seconds	20 months
without seconds	38 months
- Working temperature from + 8° to + 38° C.
- Resistance to shocks and magnetic fields corresponds with the official quality control of the swiss watch industry.

# 168.100



Illustr. A

# 168.110



Illustr. B

### Electronic

- Integrated circuit C-MOS/impulse width of 59 0,8 ms for execution with seconds and 59 7,9 ms for execution without seconds.
- Adjustment of frequency by means of trimmer or Chip-Cap.

### Stepping motor

- Powerful stepping motor, 1 impulse per second (180°), for execution with seconds and 1 impulse every 5 seconds (180°) for execution without seconds.
- Low current consumption.
- Independent coil, with efficient protection, easy interchangeable.

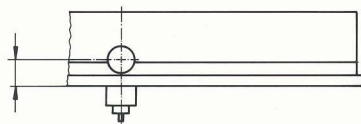
### Hands-fitting extracting the handsetting stem

- There are 3 different heights of handsetting (see page 6).
- When ordering spare parts please indicate part number and total height.
- The hour wheel (31.046) is positioned by hour wheel cover (10.211).
- In order to take out the handsetting stem (51.020.21), the axis of the setting lever (51.080) must be pressed down with a small screw driver [width approx. 0,0315 inch (0,80 mm)] (see illustr. D).

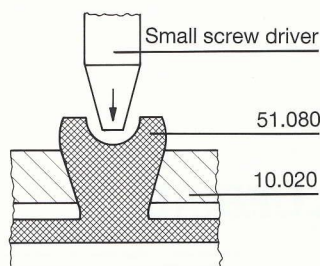
### Dial and hands indication

- Hands fitting and heights are in accordance with NIHS norms (see page 6).
  - The dial is fixed by means of 2 dial keys which are riveted to the main plate (see illustr. E).
- |                    |                       |
|--------------------|-----------------------|
| Feet $\varnothing$ | 0,0256 inch (0,65 mm) |
| Feet lengths       | 0,0472 inch (1,20 mm) |

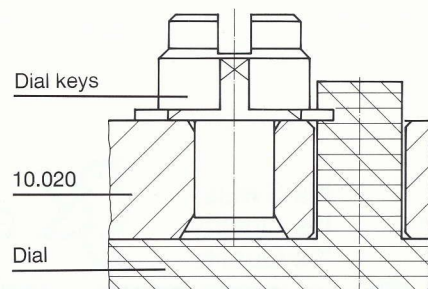
0,0394 inch  
(1,00 mm)



Illustr. C



Illustr. D

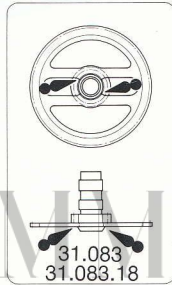
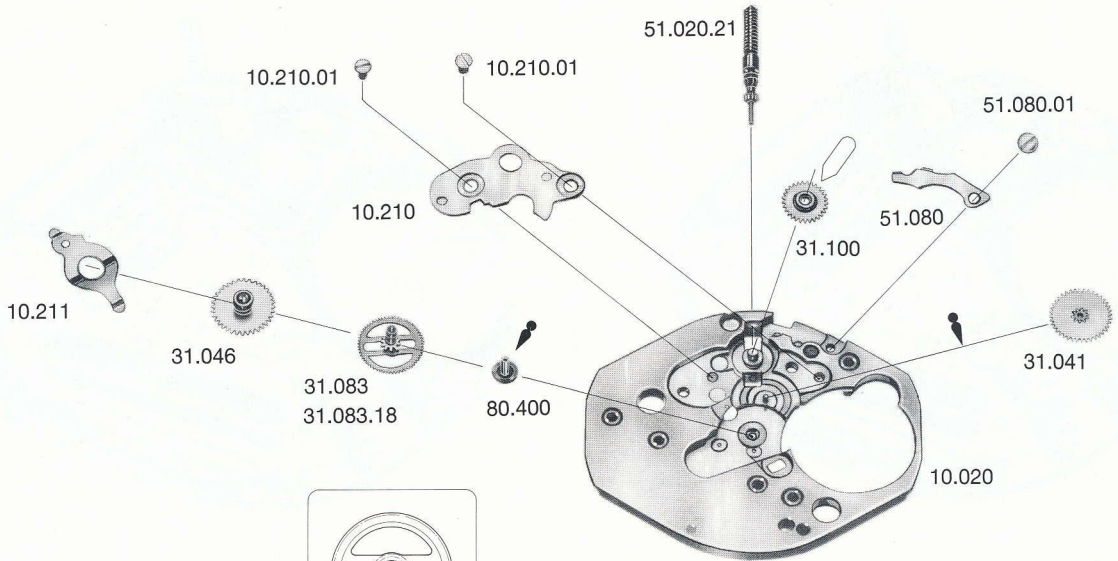


Illustr. E

We reserve the right for technical alterations.



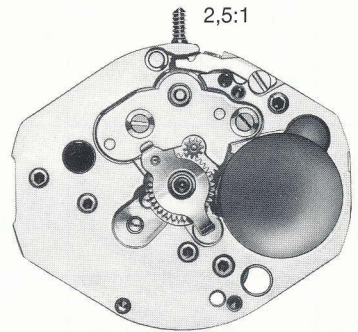
For the assembly and casing of this calibre, we have additional technical information and drawings free of charge at your disposal.



EMMYWATCH  
VINTAGE RESTORATIONS

Side of dial

2,5:1



**LIST OF BASIC MOVEMENT MATERIALS**

- 10.020 Main plate
- 10.048 Train wheel bridge
- 10.210 Winding and setting mechanism cover
- 10.211 Hour wheel cover
- 20.570 Battery
- 20.580 Rotor
- 20.582 Stator
- 20.584 Magnetic screen
- 20.701 Battery support
- 20.761 Bridle +
- 20.763 Bridle -
- 30.012 Intermediate wheel
- 30.013 Transmission wheel for intermediate wheel
- 31.041 Minute wheel
- 31.046 Hour wheel
- 31.100 Setting wheel
- 51.020.21 Handsetting stem, S 0,0354 inch (0,90 mm)
- 51.080 Setting lever
- 80.400 Centre tube

**WITH SECOND**

- 10.513 Electronic module (with second)
- 20.590 Coil (with second)
- 30.027 Second wheel
- 31.083 Cannon pinion with driver (with second)
- 56.071 Stop lever, for sweep second

**WITHOUT SECOND**

- 10.513.18 Electronic module (without second)
- 20.590.18 Coil (without second)
- 30.025 Third wheel
- 31.083.18 Cannon pinion with driver (without second)
- 56.070 Stop lever

**SCREWS**

- 10.048.01 Screw for train wheel bridge
- 10.210.01 Screw for winding and setting mechanism cover
- 10.513.01 Screw for electronic module
- 20.584.01 Screw for magnetic screen
- 51.080.01 Screw for setting lever

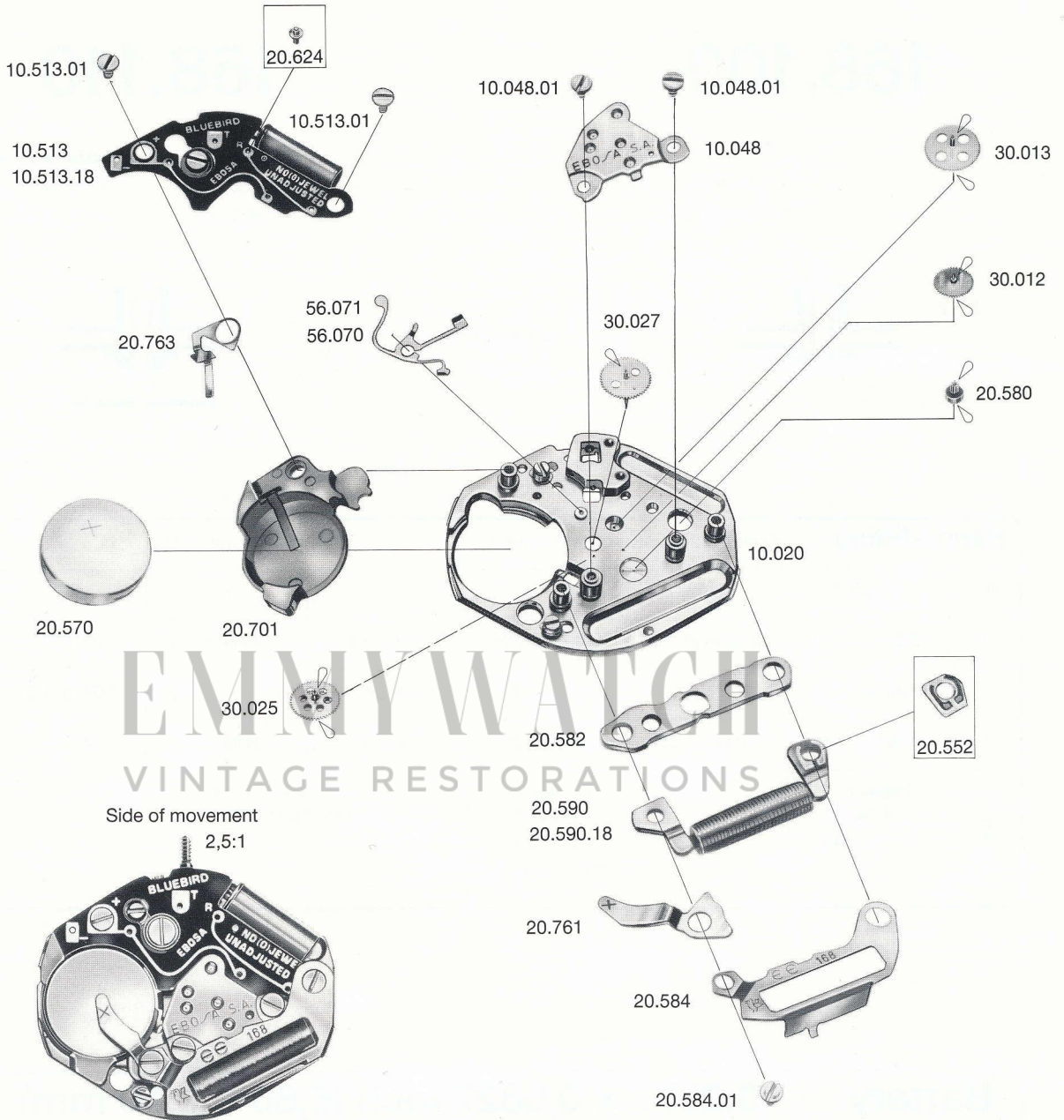
**FOR SPECIAL DEMANDS**




- 20.552 Coil additional printed circuit
- 20.624 Contactor banking stop



BLUEBIRD

# 168



 Fine oil, e.g. Moebius 9010, 9020	 Thick, pressure-resistant oil, e.g. Rubi G8 or JISMAA 124V	 Pregreased state. After washing lubricate with Moebius spec. 8222
According to NIHS-norm 99-02 and SN 289 902.		Oil only very little!

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# It's EBO SA

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