



## Operating Instructions



### Cyclomat

### Watch Mover

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## 1

### General

The present Operating Instructions are part of the delivered equipment. They must be ready for use at any time and remain with the unit in case of resale.

Reprints, translations and copying of any kind, including of parts of the document, must be authorized by the editor.

The copy right remains with the editor.

These Operating Instructions are not automatically revised. For the latest revised issue please contact the manufacturer and editor of these Operating Instructions.

The manufacturer's address is indicated on the last page of the Operating Instructions.

## 2

## Important safety warnings



### To be read before initial operation!

**Intended use** The Cyclomat is exclusively to the elevator more mechanically (more automatically) clocks.

**Transport damages** Check the unit and mains cable for transport damages. In case of visible damages do not put the unit into operation.

**Mains connection** For safety reasons, this electrical appliance must be connected to a correctly grounded socket only. the technical details indicated on the nameplate must correspond with the available mains connection details, in particular those of the mains voltage.



**Placement** Place the unit onto a stable surface. Keep the unit dry!

**Prevention of electrical accidents** In order to prevent electrical accidents keep the working surface, the unit and the mains plug dry! Do not put the unit under water!



In case of damages on the Super Elite or the mains cable do not connect the unit to the mains!  
The unit must be opened by authorized and specialized personnel only! Unplug the mains cable before opening the unit!

## 3

## Product description

The "artificial wrist" for control and winding of the automatic watch. Clamped on the unit the watch is put in every position possible at the wrist.

### 3.1

## Method of operation

The turning operation is as follows: while the 6- or 12-part spindlehead is making one revolution on its drive shaft, the individual spindles are simultaneously turning about 4,5 times about their axis. The watches thus describe epicycloides and are consequently continuously moved *through all* possible positions.

As is well known, regulation begins in the barrel. Consequently good mechanical repair is essential for good regulation. After the repair has been finished, the watches are observed in one vertical and one horizontal position, resp. t he capacity for regulation is determined using a timer. If the positional differences, according to the quality of the *watch*, remain within narrow limits then the watch can be put on the Cyclomat. Deviations shown on the "mechanical wrist" are the result of influences from the movement and the various positions and can be adjusted using the regulator. Substantial deviations on the other hand point to friction or positional faults in the movement, which must be put right.

Authoritative experts in the fields of commerce and industry, as well as the teaching staff of technical schools and colleges, have maintained all along that every watch should be adapted to the Individual habits and peculiarities of **wearing characteristic of its owner**. The **ELMA** Cyclomat is the machine which enables you to meet these requirements, since it supplements the findings of your electronic timer.

The rotor receives continuous pulses which are so designed that the watches are fully wound up, except for faulty rotors. A subsequent running-down test - or a power reserve indicator **will** provide conclusive proof of the winding reserve. Where the winding mechanism is faulty the watch will be only partially wound or not wound at all and this will become apparent in the subsequent running-down test.

It is well known that with the increasing tension, of the spring the resistance to winding also increases. It is sufficient therefore to check the winding only in the second half or in the last third. The checking time can thus quite safely be reduced by winding up the watches manually beforehand.

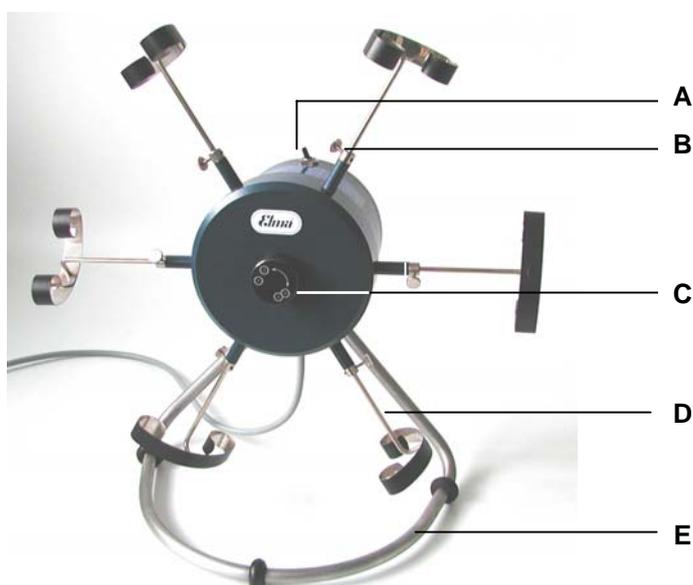
### 3.2 CE conformity

The present Elma Cyclomat complies with the CE criteria regard to

- the low-voltage-directive 73 / 23 / EWG (EEC)
- the EMC directive 89 / 336 / EWG (EEC)

The declaration of conformity is available from the manufacturer.

### 3.3 Designation of the elements



- A on/off switch
- B miled screw
- C miled knob
- D clamp
- E Stands for machine

### 3.4

### Technical details

Mains voltage (as per version) (Vac)	100-120 or 240-240
Mains frequency (Hz)	50 / 60
Power consumption of motor (Watt)	2
Revolution spindele head (per minute)	4
Revolution clamp (per minute)	18
Clips	6 /12
Outer dimensions of unit (6) D /H (mm)	380 / 155
Outer dimensions of unit (12/48) W / D / H (mm)	380 / 155 / 400
Weight (6) (Kg)	1,9
Weight (12) (Kg)	2,8
Material of housing	Steel sheet painted

## 4

### Fitting watches and operating machine

#### Preparation

1. Compare voltage on type-plate with the voltage in your workshop.
2. Place the unit onto a stable and dry surface
3. Turn black milled knob in centre of spindle head to left. which disconnects the spindle head from the drive shaft.

#### Clamping the watches

4. The watches are clamped in position. The elastic covering on the clamps prevents damage to watch cases. When clamping the watches make sure that the weight of the watches is distributed as uniformly as possible around the circumference of the spindle head. This prevents one-sided load on the mechanism and greatly increases the Service life of the machine.

#### Switch on/off the equipment

5. Turn the black milled knob in the centre of the spindle head to the right and tighten slightly by hand. The drive shaft is now once again connected firmly with the spindle head. Plug the connection cable with the safety-type earthed plug into a correspondingly correctly earthed wall socket By means of a switch at the back of the machine housing it can be switched on and off.

## 5 Upkeep of the Machine

### Mains cable and mains connection

For your own safety, we recommend that you check the mains cable and the mains connection jack at the unit for damage at regular intervals.

### Repair

In case of technical faults please contact your supplier or the manufacturer of the unit.

When corresponding in regard to your machine, please give motor serial number.

### Opening by authorized specialized personnel only



**DANGER**

Repair and maintenance works which require the unit to be connected and opened must be carried out by authorized and specialized personnel only.

Separate the unit from the mains before opening up the housing. The manufacturer cannot be held responsible for any damage caused by unauthorized repair works.

In case of damage please contact the manufacturer or your supplier.

## 6 Accessories/Spare Parts List

Cyclomat (6 clips)	334 000 3000
Cyclomat (12 clips)	334 000 0000
Cyclomat (with 12 clips for 48 watches)	334 000 6000
Stand for Cyclomat (6 clips)	334 000 6070
Clip with shaft for watches with straps	300 000 6066
Additional clip without shaft for watches with straps	300 000 6067
Industrial clip with shaft for watches without straps	300 000 6068

## 7 Putting out of action and waste disposal



The unit can be taken to metal and electronics recycling stations or returned to the manufacturer.