

# Operating Manual

# Magnomaster



English, version 04-20

Greiner Vibrograf AG  
Mittelstrasse 2  
CH-4900 Langenthal  
Switzerland

+41 62 916 60 80  
+41 62 916 60 81  
[info@greinervibrograf.ch](mailto:info@greinervibrograf.ch)  
[www.greinervibrograf.ch](http://www.greinervibrograf.ch)

Helmut Klein GmbH  
Fritz-Neuert-Str. 31.  
D-75181 Pforzheim  
Deutschland

+49 (0)7231 95 35 90  
+49 (0)7231 95 35 95  
[info@klein-messtechnik.de](mailto:info@klein-messtechnik.de)  
[www.klein-messtechnik.de](http://www.klein-messtechnik.de)

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# 1 General instructions

## 1.1 Regarding this Operating Manual

This Operating Manual enables the safe, efficient handling of the Magnomaster.

The Operating Manual is a component part of the Magnomaster and must be stored close to it, so it is accessible to personnel at all times.

Before starting any work, personnel must have read this Operating Manual thoroughly and understood it.

The illustrations used in this Operating Manual are there to assist understanding and can vary from the actual design.

## 1.2 Use according to specifications

The Magnomaster is used for the demagnetisation of mechanical watches.

Thanks to its design a homogeneous magnetic field works in the zone of demagnetisation. The generated magnetic field penetrates the complete watch.

The Magnomaster can also be used to demagnetise watch movements, tools and small metallic parts.

## 1.3 Minimum requirements of operating personnel

Operators of the Magnomaster must have at their disposal the necessary know-how and training in working with watches, watch movements and tools. Only personnel who are capable of carrying out their work reliably should be allowed to operate the Magnomaster.

When selecting personnel, please observe the age and job-specific regulations applying to where they will be deployed.

## 1.4 Danger of material damage

### NOTE!

Short circuit caused by damaged power cable

#### Material damage to device

- Remove damaged cable
- Lay cable in such a way that it cannot be damaged by external influences
- Only ever have work done on the Magnomaster by Customer Service

### NOTE!

During demagnetisation damage caused by electromagnetic radiation

#### Material damage to devices and elements (mobile phone, credit card, etc.)

- Keep safety distance of 40 cm

## 2 Safety

### 2.1 Symbols used in this Operating Manual

#### 2.1.1 Safety instructions and warnings

##### WARNING



The combination of symbol and signal word indicates a potentially dangerous situation. This situation can lead to death or severe injuries if not avoided.

#### 2.1.2 General instructions



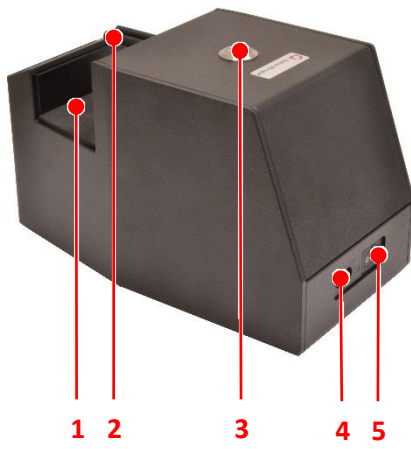
This instruction highlights useful information for trouble-free, efficient operation.

#### 2.1.3 Danger of material damage

##### NOTE!

This instruction warns of potential material damage.

### 3 Overview



- 1 Zone of demagnetisation
- 2 Holder for watch strap
- 3 Function key
- 4 Mains socket
- 5 Master switch

## 4 Delivery and storage

### 4.1 Delivery

All of the components included in the supply will be delivered together.



Please dispose of packaging materials correctly.

### 4.2 Incoming goods inspection

On receipt please check immediately that the delivery is complete and if there is any evidence of damage in transit.



Please advise us of any shortcomings immediately.

### 4.3 Storage

Please store the Magnomaster under the following conditions:

- In a dry, dust-free environment
- Protect from direct sunlight
- Avoid mechanical vibrations
- Storage temperature: 0 °C – 50 °C
- Relative air humidity: 30 % to 80 % non-condensing

### 4.4 Scope of supply



1 x power cable



2 x mat



## 5 Putting the Magnomaster into service

### WARNING



Electric shock due to defective power cable

**Personal injuries**

→ **Before use, examine power cable visually for any damage**

### WARNING



Injuries caused by electromagnetic radiation

**Personal injuries**

- **During demagnetising keep a safety distance of 1 m vertically above the zone of demagnetisation for critical parts of the body**
  - **During demagnetising do not bend over the zone of demagnetisation**
  
- **During demagnetising keep a safety distance of 40 cm horizontally around the zone of demagnetising for critical parts of the body**
  - **Pressing the button is not part of this as the hand and arm are not critical parts of the body**
  - **Critical body parts are head and torso**
  
- **Pregnant women, persons with implanted electronic devices (defibrillators, insulin pumps, cardiac pacemakers, brain stimulators, etc.) keep a safety distance of 1 m during demagnetisation**



Zone of demagnetisation: see chapter: *3 Overview, page 7*

## Putting the Magnomaster into service

### NOTE!

Short circuit caused by damaged power cable

#### **Material damage to device**

- **Remove damaged cable**
- **Lay cable in such a way that it cannot be damaged by external influences**
- **Only ever have work done on the Magnomaster by Customer Service**

### NOTE!

During demagnetisation damage caused by electromagnetic radiation

#### **Material damage to devices and elements (mobile phone, credit card, etc.)**

- **Keep safety distance of 40 cm**

## Putting the Magnomaster into service



The electromagnetic radiation only occurs during demagnetisation.

Demagnetisation takes place 1 second after pressing the key and is completed when the key lights up green.



### 1. Connect power cable



### 2. Switch device on

⇒ Function key illuminates green.

⇒ As soon as the device is ready for operation, the function key illuminates blue.

**The Magnomaster is ready for operation.**

## 6 Demagnetise watch

### WARNING



Injuries caused by electromagnetic radiation

#### Personal injuries

- **During demagnetizing keep a safety distance of 1 m vertically above the zone of demagnetisation for critical parts of the body**
  - **During demagnetizing do not bend over the zone of demagnetisation**
  
- **During demagnetizing keep a safety distance of 40 cm horizontally around the zone of demagnetising for critical parts of the body**
  - **Pressing the button is not part of this as the hand and arm are not critical parts of the body**
  - **Critical body parts are head and torso**
  
- **Pregnant women, persons with implanted electronic devices (defibrillators, insulin pumps, cardiac pacemakers, brain stimulators, etc.) keep a safety distance of 1 m during demagnetisation**



Zone of demagnetisation: see chapter: *3 Overview, page 7*

### NOTE!

During demagnetisation damage caused by electromagnetic radiation

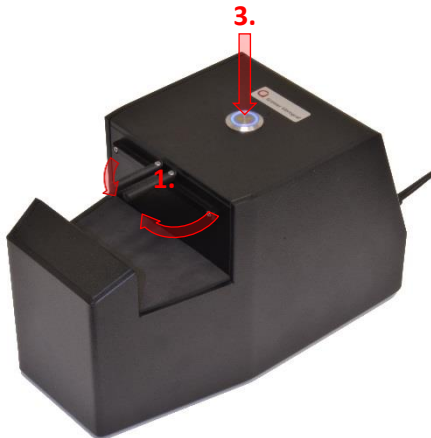
#### Material damage to devices and elements (mobile phone, credit card, etc.)

- **Keep safety distance of 40 cm**



The electromagnetic radiation only occurs during demagnetisation.

Demagnetisation takes place 1 second after pressing the key and is completed when the key lights up green.



**1. If necessary, install holder for watches**



**2. Position watch**

**3. Press function key**

⇒ As soon as demagnetisation is complete, the function key illuminates green.

⇒ As soon as the device is ready for operation again, the function key illuminates blue.

**The watch is demagnetised.**

## 7 Technical specifications

Power supply	110 to 230 V
Power rating	20 VA
Quiescent current if no key is pressed	20 mA
Peak current about approx. 10 ms at start of demagnetisation at 115 V	120 mA
Peak current about approx. 10 ms at start of demagnetisation at 230 V	70 mA
Magnetic flux density at a distance of 12.5 cm	max. 0.18 mT
Magnetic flux density at a distance of 30 cm	less than 75µT
Magnetic flux density at a distance of 75 cm	less than 10 µT
Magnetic flux density in the zone of demagnetisation	14 mT – 19 mT
Magnetic flux density at the edge of the housing but still in the zone of demagnetisation	2.5 mT
Frequency of demagnetisation	400 Hz
Weight (without packaging)	2.6 kg
Dimensions	H = 15 cm, W = 12 cm, D = 24 cm

## 8 Faults

Fault	Possible cause	Rectification	Chapter in this Operating Manual
You cannot switch the Magnomaster on.	The Magnomaster is switched off.	Switch Magnomaster on.	<i>5 Putting the Magnomaster into service, Page 9</i>
Demagnetisation is not working.	The power cable is not plugged in.	Plug power cable in.	
	Technical defect.	Contact our Customer Service.	<i>Address, Page 2</i>

## 9 Disposal



Waste disposal sites and authorities vary according to country. Please observe local regulations when disposing of equipment.



The device must be handed in at the appropriate collection point.  
Or it should be disposed of through a specialist company.



## 10 CE-Declaration



Greiner Vibrograf AG  
Mittelstrasse 2  
4900 Langenthal  
Switzerland

Tel. +41 62 916 60 80  
Fax +41 62 916 60 81  
info@greiner vibrograf.ch  
www.greiner vibrograf.ch

### CE- Declaration

After EC EMV guideline 2006/42/EG, dated May 17th. , 2006, appendix IIA

We hereby declare that the machine specified below corresponds in their conception and design, as well as distributed by us, specified conforms to the essential safety and health requirements of the EU Directive 2006/42/EG. This conformity lose the validity if changes to be made at the product, which were not coordinated with us or were not approved in writing by us.

Manufacturer: **Greiner Vibrograf AG**  
**Mittelstrasse 2**  
**CH – 4900 Langenthal**

#### Description and identification of the product

Product designation: **Device for demagnetisation**  
Type: **Magnomaster**

**It is confirmed the accordance with other EC directives / regulations, which also apply to the product:**

**EC-Low Voltage Directive 2014/30/EU**  
**EC-EMC-Directive 2014/35/EU**

The following harmonized standards were used:

DIN EN ISO 12100 : 2013-03	Safety of machinery – General principles for design Risk assessment and risk reduction
DIN EN ISO 12100 : 2011-03 Correction 1	Safety of machinery – General principles for design Risk assessment and risk reduction
DIN EN 60204-1 (VDE 0113-1) : 2019-06	Safety of machinery – Electrical equipment of machines – Part 1: General requirements (IEC 60204-1:2016, modified); German version EN 60204-12018
DIN EN 55011 (VDE 0875-11) : 2018-05	Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement (CISPR 11:2015, modified + A1:2017); German version EN 55011:2016 + A1:2017

## CE-Declaration



Greiner Vibrograf AG  
Mittelstrasse 2  
4900 Langenthal  
Switzerland

Tel. +41 62 916 60 80  
Fax +41 62 916 60 81  
info@greiner vibrograf.ch  
www.greiner vibrograf.ch

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as well as for the use of the device for demagnetisation in residential areas, business and trade areas as well as small businesses:

DIN EN 61000-6-1  
(VDE 0839-6-1) : 2007-10  
Electromagnetic compatibility (EMC) – Part 6-1:  
Generic standards – Immunity for residential, commercial and  
light-industrial environments (IEC 61000-6-1:2005);  
German version EN 61000-6-1:2007

DIN EN 61000-6-3  
(VDE 0839-6-3) : 2011-09  
Electromagnetic compatibility (EMC) – Part 6-3:  
Generic standards – Emission standard for residential, commercial  
and light-industrial environments (IEC 61000-6-3:2006 + A1:2010);  
German version EN 61000-6-3:2007 + A1:2011

DIN EN 61000-6-3  
(VDE 0839-6-3)  
Rectification 1:2012-11  
Electromagnetic compatibility (EMC) – Part 6-3:  
Generic standards – Emission standard for residential, commercial  
and light-industrial environments (IEC 61000-6-3:2006 + A1:2010);  
German version EN 61000-6-3:2007 + A1:2011

respectively for the use of the demagnetizing device in an industrial environment industrial environ-  
ment:

DIN EN 61000-6-2  
(VDE 0839-6-2) : 2006-03  
Electromagnetic compatibility (EMC) – Part 6-2:  
Generic standards – Immunity standard for industrial environ-  
ments (IEC 77/488/CDV:2015);  
German version FprEN 61000-6-2:2015

DIN EN 61000-6-4  
(VDE 0839-6-4) : 2011-09  
Electromagnetic compatibility (EMC) – Part 6-4:  
Generic standards – Emission standard for industrial environments  
(IEC 61000-6-4:2006);  
German version EN 61000-6-4:2007

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Langenthal, 12. August 2019

Greiner Vibrograf AG  
Mittelstrasse 2  
CH – 4900 Langenthal

A handwritten signature in blue ink, appearing to read 'Michael Kläfiger', written over a horizontal line.

Michael Kläfiger

Signature of the management