

SONOREX TECHNIK

Oscillation

MO 16.2 / MO 40



Example **SONOREX TECHNIK** MO 16.2

The unit has to be strictly used according to the instruction manual.
Keep the unit away from children and from persons not instructed for correct use by means of these instructions.
In case of improper use, the manufacturer does not take any responsibility for safety and proper functioning. Unauthorized changes/modifications will result in expiration of the CE-conformity.

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BANDELIN *electronic* GmbH & Co. KG, Heinrichstraße 3 – 4, Germany, 12207 Berlin,

Tel.: +49-30-768 80 - 0, Fax: +49-30-773 46 99, info@bandelin.com

1 Safety instructions – to be strictly observed



General

- The oscillation may be used intended and according to this operating instructions only together with SONOREX TECHNIK RM - unit. From there additionally all safety instructions of the operating instructions of the used unit are valid.
- Keep units away from children and also away from persons not instructed for correct use by means of these instructions.
- Protect the unit against corrosive influences.
- Place the unit horizontally on a dry and solid base.
- Keep the unit's surface and control elements clean and dry!
- **Use only connecting material supplied with the equipment.**
- The operating instructions with safety instructions have to remain always with the unit and are to be strictly followed!
- With delivery of the equipment the operating instructions with the safety instructions are to be handed over.

Damages and defects

- After the packing has been removed, check the housing and the operating elements of the unit for any damage which might have occurred during transport. If damage due to transport has been discovered, **do not** connect the unit to the mains supply, but report the damage immediately and in writing to the carrier and to your supplier. **Save** the original packing.
- In case of defects disconnect the mains supply immediately.
- The unit must only be repaired by authorised personnel or the manufacturer.
- **Use only** original parts or of the same quality for replacement!
- Exchange defective mains cable completely.

Operation

- Connect the unit to a grounded safety socket only.
- Pay attention to environmental conditions (chapter 8).
- Do not allow the unit to run without supervision.
- Do not touch moving parts when the unit is in operation!
- There is danger of squeezing between edge of tank and bracket during operation of the oscillation (MO).
- Put on or take off cleaning goods and the basket from the bracket only when the unit is switched off.



2 Purpose

2.1 General description of the unit

The electrically driven oscillation MO enables automatic movement of the baskets in tanks of the production line SONOREX TECHNIK RM. The oscillating movement of the parts to be cleaned reinforces the cleaning efficiency of the ultrasonic irradiation and helps to remove dirt particles more efficiently.

The movement is generated by an electromechanically driven lifting rod with a bracket on which the basket is hung with its handles. The SONOREX TECHNIK-RM unit is standing on the basis of the oscillation and is fixed against moving / shaking by feet supports.

Important!

Maximum load:

oscillation MO 16.2	→	8 kg
oscillation MO 40	→	10 kg

Existing SONOREX TECHNIK RM units can be upgraded with an oscillation without modifications. Depending on the size of the unit the following combinations of units are feasible:

oscillation MO 16.2	→	SONOREX TECHNIK RM 16 - units
oscillation MO 40	→	SONOREX TECHNIK RM 40 - units

The primary use is ultrasonic cleaning, but other processes like rinsing are also permitted and depend on the type of the SONOREX TECHNIK RM- unit.

The units are operated with rotary knobs on the front side. It is recommended to use them as table devices.

2.2 CE Conformity

The oscillations comply with the CE marking criteria of the following European directives:

- Low-voltage directive
 - Electromagnetic compatibility directive (EMC)
 - Machine directive
- in their latest valid version.

The Declaration of Conformity can be requested from the manufacturer.

3 Scope of delivery

1 ×	unit MO 16.2 or MO 40
1 ×	bracket
1 ×	washer
1 ×	screw

Note:

Tools for assembly are not included in the scope of delivery.

4 Installation, assembly and connection

① Assembly of the bracket:

- Place the bracket onto the lifting rod and fix it with the washer and the screw by hand.
- Align the bracket to the front (see picture).
- Hold the lifting rod with spanner 16 and fix the screw tightly (Allen key 5 mm).

② Place the unit on an even and rigid base keeping a distance of at least 10 cm between adjacent structures.

③ Place the SONOREX TECHNIK RM unit with the feet onto the feet supports.



④ Attach the provided stickers „warning of hand injury“ to well visible places at the ultrasonic unit.



⑤ Connect the unit to a grounded socket 230 V~ (± 10 %) 50/60 Hz.

⑥ Hang the basket onto the bracket.

5 Start

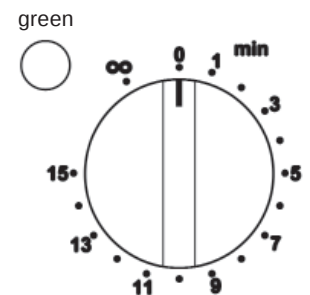
- Set the desired oscillation time with the timer $\Rightarrow$ processing time (oscillation) starts. At the end of the desired time the oscillation stops.

Timed operation

- Turn the knob to the right $\rightarrow$ the green pilot lamp lights up.
- The timer switches off automatically after run-off of time.
- You can reduce the time or switch the unit off by turning the knob back.

Continuous operation (∞ position)

- Turn the knob to the left $\rightarrow$ the green pilot lamp lights up.
- The unit does not switch off automatically, turn the knob back to "0" in order to switch off.



- Motion downwards is caused only by the weight of the bracket and the weight of the goods to be cleaned. If the motion downwards is blocked for some reason or other, the oscillation device will not be damaged.
- The operational running noise of the oscillation is functional conditioned and can vary load dependent.
- At the end of the oscillation process the bracket might move down to the lower dead centre. This motion is not a malfunction.

6 Cleaning and care

The lifting rod must be cleaned in regular intervals (approx. 4 weeks) by wiping.

7 Maintenance and repair

The oscillations MO 16.2 and MO 40 are maintenance-free.

If error reports, malfunctions or damage to the units occur, the units must no longer be used.
Check with the manufacturer:

BANDELIN electronic GmbH & Co. KG
Heinrichstraße 3-4
12207 Berlin

Service reception:	Technical advice:
Tel.: +49-30-768 80 - 13	Tel.: +49-30-768 80 - 19
Fax: +49-30-773 46 99	Fax: +49-30-773 46 99

The general terms of delivery of BANDELIN electronic GmbH & Co. KG shall apply.

Attention!

Repairs may only be done by authorized technicians or by the manufacturer.

8 Technical data

SONOREX TECHNIK units are RFI-proofed and marked C E.

In conformity with DIN EN 60204-1, the limits as per EN 61000-6-1 and EN 61000-6-3.

	MO 16.2	MO 40
Mains supply:	230 V~ (± 10 %) 50/60 Hz, cable length 2 m	
Housing:	stainless steel 1.4301 (AISI 304), drip-proof (IP 32)	
Guide tube:	aluminium, anodized	
Exterior dimensions (l × w × h):	365 × 500 × 560 mm	560 × 450 × 665 mm
Current consumption:	0,2 A	0,6 A
Weight (net):	13 kg	19 kg
Maximum load (basket included):	8 kg	10 kg
Code No.:	8306	8303

Oscillation:

- Lifting frequency: 10/min
- Lifting: 40 mm

Environmental conditions according to EN 61 010-1

Excess voltage category:	II
Degree of soiling:	1
Permissible relative humidity at 31 °C:	80 %
Permissible relative humidity at 40 °C:	50 %
Permissible temperature of surroundings:	5 to 40 °C
Dew formation not allowed	

If service is required, please contact your supplier.

BANDELIN

www.bandelin.com
info@bandelin.com

65 years of experience in ultrasound

Certification
EN ISO 9001:2008 • EN ISO 13485:2012

BANDELIN electronic GmbH & Co. KG

Heinrichstraße 3 – 4 • 12207 Berlin
GERMANY
Tel.: +49 30 768 80-0 • Fax: +49 30 773 46 99