



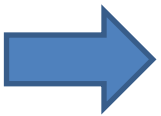
Original

Operation Instruction

Mojonnier Shaker

Type: MSM 4-6-8

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Please read following instructions before using!

Technical Questions:

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1 Introduction

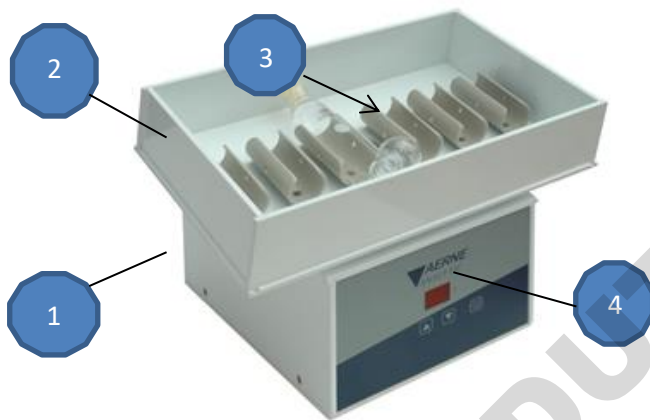
1.1 Intended use

The device is intended to be used for shaking Mojonnier tubes for the intended operation in a dry laboratory environment.

The user must be instructed by a professional.

1.2 Description of the device

Mojonnier Shaker MSM



1. Mains switch (on the back)
2. Wiring space
3. Clips for tubes
4. Membrane keypad

Membrane Keyboard



1. Screen - temperature

ON / OFF:

2. Start

SETTINGS:

3. Time (+)
4. Time (-)

1.3 Ambient conditions in accordance with IEC 61 010-1:

For indoor use only!

Up 2,000 m elevation - sea level.

Ambient temperature: +5 ... +40 °C

Humidity: maximal relative humidity of 80 % at temperatures of up to 31°C, decreasing linearly to 50 % rel. humidity at a temperature of 40°C



1.4 SAFETY NOTES:

Please read this information before you start up the device!

Flawless function and operational safety of the device can be guaranteed only if you comply with the common general safety precautions and the safety instructions outlined in the present Operating Instructions.

- Before you connect the power plug to the mains supply, make sure that the operating voltage specified on the rating plate coincides with the available mains voltage.
(Specification of the voltage supply ranges)
- Flawless function and operational safety of the device can be ensured only if the atmospheric conditions are as specified in the Chapter on "Ambient conditions" of the present Operating Instructions.
- If the device is transferred from a cold to a warm environment, the resulting condensation may interfere with the proper function of the device.
In this case, it is necessary to wait until the device has equilibrated to room temperature before re-starting the device.
- All matching, maintenance and repair work must be performed by authorised professional staff only.
- If you have justified reason to think that the device can no longer be operated safely, you need to take the device out of operation and label it accordingly to prevent further use.
- The safety of the user may be impaired by the device, e.g., if:
 - there is visible damage,
 - the device no longer works properly,
 - the device was stored improperly for an extended period of time,
 - the device was exposed to harsh transport conditions.

If you have any doubts in this regard, return the device to the manufacturer

" **AERNE ANALYTIC, 89264 Weissenhorn** "for repair and/or maintenance, as a matter of principle!

1.5 Warning notice symbol - Standard DIN EN 61010-1



Warning: Attention, high voltage

Reference: IEC 60417-501



Warning: hot surfaces

Reference: IEC 60417-5041



Attention

Reference: ISO 7000-0434B



alternating current

Reference: IEC 60417-5032



earth protected

Reference: IEC 60417-501

You have to check the warning symbols on the equipment minimum every second year!

2 Equipment Identification

2.1 Mojonnier Shaker - Types:

Types:	Quantity of tubes	Art.Nr.:
MSM 4	4	MSM 4
MSM 6	6	MSM 6
MSM 8	8	MSM 8

Optional equipment:



Rack for Mojonnier-tubes

ART.-NR.

ESGM
(for 8 Mojonnier-tubes)

Special - Sizes:

... on inquiry!



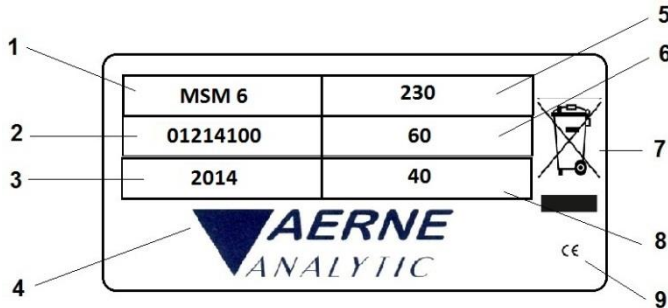
EX- Centrifuge for Mojonnier tubes

ART.-NR.

EXZM.8

2.2 Type Label:

Example:



1. Type of device
2. Serial number
3. Year of manufacture
4. Manufacturer
5. Mains supply 230V
6. Power
7. Note on disposal
8. Protection class: IP40
9. CE mark

2.2.1 Type Identification:

Example:

MSM 6
Mojonnier Shaker Machine - for 6 tubes

2.2.2 Explanation of Serial Number

Example:

01 - 214 - 100

Month – Year – Sequential production number
January – 2014 – Equipment Nr. 100

2.3 protection class / type of protection :

Protection class: SK I



IP – Type of protection: IP 40

4 = protected against solid objects with a diameter from 1.0 mm
0 = no protected against water

3	<h2>Unpacking / Checking the device</h2> <ul style="list-style-type: none"> - Make sure that the packaging is undamaged! - Make sure that the content is undamaged! If there is any damage, contact the mail service, freight or shipping company and notify the supplier. Keep the damaged packaging until clarification of all facts! - Check the delivery for completeness based on the bills of delivery and your order, i.e. check for: <ul style="list-style-type: none"> ➔ Mojonnier-Shaker MSM ➔ Operating Instructions ➔ Optional accessories
4	<h2>Operation</h2> <h3><u>4.1 Operating staff</u></h3> <ul style="list-style-type: none"> ➔ The equipment must be operated by authorised staff and must be serviced and repaired by trained professionals only. ➔ The device must not be operated by individuals who are experiencing the effects of illness or are under the influence of medications, drugs, alcohol or fatigue. ➔ The operating staff must be familiar with the contents of the Operating Instructions. For this purpose, one of the things to make sure is that the Operating Instructions are kept near the device. <h3><u>4.2 Commissioning</u></h3> <ol style="list-style-type: none"> 1. The device should be set-up on a level and dry surface. 2. Connect the mains plug to the mains supply. The device must be connected to a socket with a customer-site residual current protective device (RCD) only. 3. With the mains switch at the back of the case you turn it on. After turning the device on it displays the last stored timer time. 4. By activating the „START-STOP“-button the timer starts and the shaking activity begins. 5. If the timer is on the decimal point of the display is flashing in second intervals. The last minute of the timer is shown without flashing decimal point as seconds on the display.



4.3 Safety instructions and precautionary measures for use of the device:

- Attention of the shaking platform
- Wear protective gloves when you work with dangerous liquid.
- Never put your hands into the rotation.
- Allow the device to stop running before you take any objects out of the clips

→ The Shaker just stops when the setting time runs up.

Caution:

Hazards related to samples

Many substances can potentially be:

- flammable, combustible or explosive
- harmful to health
- hazardous to the environment
- hazardous
- .

The user is solely responsible for the handling of such substances!

If you add sulphuric acid or similar substances to the water bath, you must replace the water in order to prevent destruction of the chrome-nickel steel components.

We urgently recommend not to using the device unattended!

5 Setting the time

Timer setting up:



The timer only can be adjusted in the idle mode. By pushing ▲ or ▼ the setting program is activated.


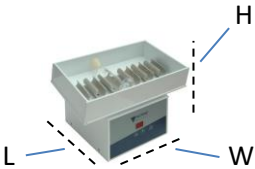
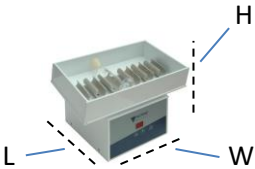
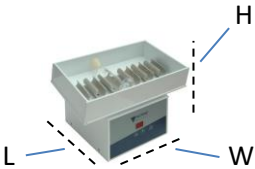
This is shown by a blipping decimal point.

By pushing or holding another timer time can be adjusted.

If you don't actuate ▲ or ▼ for more than 4 seconds or you push the „START-STOP“-button the adjusted value gets stored.

Factory setting of the timer at delivery: 5 minutes.

6	<h2>Cleaning</h2> <p>Allow the device to stop running before you begin to clean the device!</p> <ul style="list-style-type: none"> • Disconnect the device from the power supply. • For the protective facilities to work properly, the device must be kept free of lime scale and other deposits. • Clean the surface with a soft cloth and a commercial neutral cleaning agent. • Do not use aggressive media or solvents for cleaning. <div style="text-align: center;">  </div> <p>Caution:</p> <p>Electric shock or damage to the device due to incorrect maintenance / repair. Switch off the device and disconnect the connection to the mains supply before you perform any cleaning work. Make sure that no liquid enters into the device. Do not use any alcohol- or solvent-based cleaning agents. All service and repair work must be performed by professional staff only.</p>
7	<h2>Maintenance</h2> <h3><u>7.1 Periodical checks</u></h3> <p>Make sure that the Mojonniier Shaker is checked for its orderly condition in periodical and frequency of use-related intervals.</p> <p><u>Annual checks:</u></p> <p>The manufacturer recommends to carries out a safety check.</p> <p>The proper condition of the warning and safety indicators must be checked at least every 2 years.</p> <div style="text-align: center;">  </div> <p>→The device should be opened and repaired by a trained electrical engineer only.</p> <p>Beware! Pull the mains plug before you open the wiring space!</p> <p>We recommend keeping a safety log book in which all work on the device (maintenance, repairs, etc.) must be recorded.</p>

8	<h2>Note for disposal</h2> <p>Note for disposal:</p> <p>Separation of materials, marking as waste electronic device, and recyclable housing parts (PP)</p>  <p>Range of validity: EU countries</p> <p>Directive 2002/96/EC of the European parliament and council of 27th of January 2003 on waste electrical and electronic equipment. This directive sets out that electrical and electronic equipment marked with the crossed-out wheeled bin must be disposed of by separate collection in an environmentally sound way. Please contact an authorised recycling company in your country of residence. Disposal as domestic waste (unsorted waste) or through similar facilities for municipal waste collection is not permissible!</p>										
9	<h2>Technical Data</h2> <table border="0"> <tr> <td>Case</td> <td>PVC white</td> </tr> <tr> <td>Aktuator</td> <td>Induction motor/ Shaking 100 UPM ball-bearing articulation</td> </tr> <tr> <td>Size / cm</td> <td>  <p>L x W x H in cm</p> <p>Device without Shaking attachment = 28 x 20,6 x 22</p> <p>MSM 4 = 28 x 20,6 x 27</p> <p>MSM 6 = 28 x 33,5 x 27</p> <p>MSM 8 = 28 x 43,5 x 27</p> <p>(Sizes without cable)</p> </td> </tr> <tr> <td>Controller</td> <td>Electronic with digital display</td> </tr> <tr> <td>Input supply</td> <td>230 VAC / 60 watt</td> </tr> </table>	Case	PVC white	Aktuator	Induction motor/ Shaking 100 UPM ball-bearing articulation	Size / cm	 <p>L x W x H in cm</p> <p>Device without Shaking attachment = 28 x 20,6 x 22</p> <p>MSM 4 = 28 x 20,6 x 27</p> <p>MSM 6 = 28 x 33,5 x 27</p> <p>MSM 8 = 28 x 43,5 x 27</p> <p>(Sizes without cable)</p>	Controller	Electronic with digital display	Input supply	230 VAC / 60 watt
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Controller	Electronic with digital display										
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9.1 Warranty

The period of warranty is: 1 year

AERNE ANALYTIC shall not accept any liability for damage:

- caused by selection of an inappropriate bath liquid.
- caused by unauthorised repair and modification.
- arising from incorrect operation or from a purpose other than intended.
- arising from misuse.
- arising from operation in inappropriate ambient conditions.

All actions listed above effect a loss of the conformity, as declared by AERNE ANALYTIC, with European directives and loss of guarantee claims.

Whenever you contact us with any further questions you may have, please state the serial number embossed in the rating plate.

Manufacturer:

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12 Declaration of conformity

MSM 4 / 6 / 8

Declaration of conformity

CE

im Sinne der EG-Richtlinie Maschinen 2006/42/EG, Anhang I

EG-Richtlinie „Niederspannung“ 2006/95/EG - 2006/95/EEC Low Voltage Directive

We declare under our sole responsibility that the product meets all the requirements of the directives, that are applicable to the norm on top.

Description of the device and type	Shaker for Mojonier tubes
Project	MSM 4 / 6 / 8
Identification	Label behind the cable gland
Serial number	Month / year / equipment number
Production date	2013

Manufacturer	Aerne Analytic Dekan-Schmid-Str. 11 89264 Weißenhorn Deutschland
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Authorized representative	Alexander Thalhofer
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Used harmonic standards:	Safety: EN 61010-1 - Laboratory Equipments
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Weißenhorn Place	27.06.2014 Date
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Subject to change