

Operating instructions



WM-44

link



Milab

Milab Microphones AB
Norra Strandgatan 4
P.O. Box 1342
S-251 13 Helsingborg
SWEDEN

Phone: +46 42 381620
Fax: +46 42 136350
www.milabmic.com

Milab Microphones is a trademark of Milab Microphones, Sweden.
Trademarks of other companies mentioned in this documentation, appear for identification purposes only
and are the property of their respective companies.

Copyright © 1997-2005 Milab Microphones, Sweden. All rights reserved.



Errors excepted, subject to changes.

Table of Contents

1. Welcome
2. Included in the delivery
3. VM-44 Link Cond. Microphone
4. Guidelines
5. Connection
6. Specifications VM-44 Link
7. Polar diagram
8. Frequency response
9. VM-44 Link Head holder
10. Declaration of Conformity (CE)
11. Service & Cleaning
12. Lifetime Warranty

1. Welcome to Milab Microphones

Thank You for choosing a Milab Microphone!

Milab Microphones has more than 60 years of experience of developing and manufacturing professional microphones for studio and stage. The microphones are well-known and frequently used by conscious and accurate audio professionals all over the world. Milab Microphones are known for the unique sound and design. All microphones are handmade and individually tested with full documentation before shipping. We put an extra effort in high quality and best performance! All microphones are delivered with a lifetime warranty.

2. The following items will be included in the delivery:

- 1 pcs of Milab VM-44 Link including XLR-Amplifier with individually plotted frequency curve
- 1 pcs of stand holder
- 1 pcs of windscreen
- 1 pcs of manual

3. VM-44 Link Condenser Microphone Art.No 1128

The VM-44 microphone system is designed for professional vocal and instrumental work, both on stage, in studio and in installation. The microphone has the circular miniature capsule, which has made these microphones easy to fit in many various applications. It has a cardioid polar pattern. The capsule is interchangeable, it can easily be replaced by an omni capsule (option). The body and the amplifier are made of solid brass and it is connected with a standard XLR-contact. The XLR-contact on the amplifier can be connected directly to the mixing console. The microphones is designed to yield maximum clarity, dealing with fast transients and abundant high frequency content.

Features:

- Cardioid (standard)
- Interchangeable capsules
- Transformerless
- -12 dB pre-attenuation
- 12-52 V phantom

4. Guidelines for Microphone use

- The VM-44 Link microphone must be placed in the enclosed holder. The holder fits to any 3/8" or 5/8" thread clamp or stand. This microphone is not intended to be used as a handheld. When using, do not cover the microphone grill with your hand.
- The VM-44 system is equipped with a pre-attenuation switch. When risk for more than 128 dB SPL. (Sound pressure level) set the switch on the amplifier in the -12 dB position. It then will take about a few minutes to stabilize its settings.
- All VM-44 microphones have interchangeable capsules. The cardioid capsule (std) can be exchanged to an omni capsule (option). Simply unscrew the mounted capsule and firmly fit the new one and turn it clockwise until stop. Do not tighten.
- The VM-44 microphone should be aimed with the top grill towards the sound source. See polar pattern.
- When using the microphone close to vocals or other sound source, the proximity effect appear. Proximity effect is experienced like a more powerful bass.
- The microphone should be placed as close to the sound source as possible. Used in vocal applications, unwanted "pop" –sounds can appear. If so, use the windscreen (enclosed) as an external pop-filter.
- When the microphone is used outdoors, it may be advisable to use the windscreen to minimize wind noise.
- Protect the microphone from water, extreme heat, humidity, dust and dirt which may affect the membrane.

5. Connection

The VM-44 can be connected to any mic input, mixer/amplifier, or mic preamp using a standard microphone cable.

The microphone is designed for phantom powering at 12-52 V (P12, P24, P48, IEC 1938) with positive voltage on the audio lines versus the cable shield.

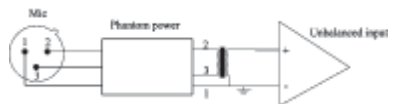
Microphone connection:

- 1 Ground (shield)
- 2 Hot (+ phase)
- 3 Cold (- phase)

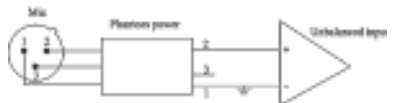


When the input device do not have phantom powering, an external power supply has to be connected between the microphone and the input. Be sure that the extra phantom power has a dc-free output against the mixer (like Milab phantom power supply

Art No: 1300), otherwise a RC network has to be incorporated to block the 48 Vdc.



Connecting the microphone to an unbalanced input.

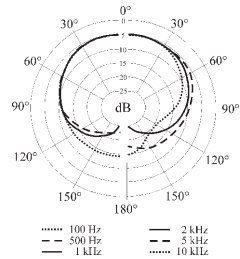


Connecting the microphone to an unbalanced input without any transformer. Pin 2 is the "hot phase" and should be connected to the input, and pin 3 should be left open.

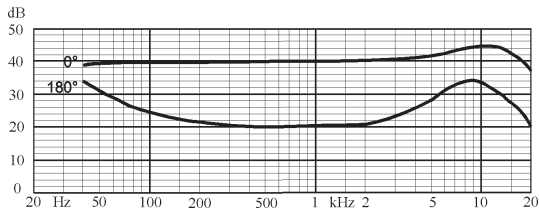
6. Specifications VM-44 Link

Frequency response (see graph)	20 - 20 000 Hz	
Polar pattern	Cardioid	
Pre-attenuation (switchable)	-12 dB	
Max. SPL (1 % THD at 1 kHz)	128 /140 dB	
Sensitivity at 1kHz	14,5 mV / Pa \pm 1 dB	
A-weighted noise level	21 dB	
Power supply (DIN 45 596)	12 - 52 V	
Current consumption	4 mA	
Output impedance	< 200 Ω	
Minimum load impedance	1 k Ω	
Connection	3-pin XLR	
	pin 1: ground	(Shield)
	pin 2: plus	(Hot)
	pin 3: minus	(Cold)
		XLR-amp.
Net weight	50 g	85g
Length	50 mm	105mm
Diameter	21 mm	19mm

7. Polar diagram



8. Frequency response at 1m distance



The frequency response may vary within $\pm 2,5$ dB of the published graph. Before delivery, each microphone is measured and accompanied with it's own graph.

9. VM-44 Link Head holder

How to mount the included microphone stand holder, and not loose the built in shock absorber function:

1. Be sure that the holder is pressed between the two rubber rings.
2. By slightly turning the head back and forth, the holder will easier fit in to the bottom position.



10. Declaration of Conformity CE

Milab Microphones AB, declares as it's sole responsibility that the above named product is in compliance with the EMC Directive 89/336/EEC, 92/31/EOF and conform to the requirements of the Harmonized Products Standards EN 55013, EN 55020, IEC 803-1.

The aforementioned products may only be used for audio purposes, and in configurations approved by Milab Microphones AB

11. Service & Cleaning

All service and repair of the microphone should be performed by authorized service personnel.

After frequent use in different environments and by different hands, all metal surfaces may be safely cleaned from time to time with alcohol or methylated spirits.

CAUTION!

Protect the membrane when cleaning.

12. Lifetime Warranty

Milab introduced a lifetime warranty for all microphones manufactured in 1997 and later.

Your microphone is covered by our lifetime warranty. If your microphone breaks down, contact the place where you purchased it, either they will repair it or send it to our service department in Sweden. We will immediately start a fault detecting and a guarantee inspection. Not valid for 2:nd hand purchased products.

The warranty does not cover carelessness as physical negligence or electrical overload etc.

Users of this product must accept the following disclaimer of warranty.

This product is supplied "as is." Milab Microphones disclaims all warranties, expressed or implied, including --without limitation-- the warranties of merchantability and of fitness for any purpose.

Milab Microphones and the user are aware that functional defects in the products cannot be totally ruled out, in the present state of technical knowledge, even if the very greatest care is taken.

Milab Microphones assumes no liability for damages, direct or consequential, which may result from the use of the supplied product.

Under no circumstances and under no legal theory, tort, contract, or otherwise, shall Milab Microphones be held liable to you or any other person for any indirect, special, incidental, or consequential damages of any kind, including, without limitation, damages for loss of goodwill, work stoppage, computer or equipment failure or malfunction, or any and all other commercial damages or losses. This limitation of liability shall not apply to liability for death or personal injury to the extent applicable law prohibits such limitation. Furthermore, some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so this limitation and exclusion may not apply to you.

This User Agreement shall be exclusively subject to the laws of Sweden.

This is the entire agreement between you and Milab Microphones, which supersedes any prior agreement or understanding, whether written or oral, relating to the subject matter of this product.

If a fault of the microphone is referred to the Lifetime Warranty, please fill in the form below and send it with the microphone to your service- or repair shop.

Type of microphone:

Serial number:

Date of purchase:

Purchased from:
(Shop/Dealer/Distributor)

Fault description:

Your Name:

Company (i.e.):

Address:

City:

Country:

Telephone:

Fax:

Mail address:



Windscreen
art.no: 3406



Omni capsule
art.no: 1145



Pop shield
art.no: 3500



Mahogany case
art.no: 1004



Phantom Power
Supply
art.no: 1300



Miniature Table
Stand
art.no: 3344