beyerdynamic
M90 Microphone
For Studio
Recording

beyerdynamic M90 Microphone For Studio Recording Instruction Manual

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Contents

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Product Usage Instructions

- **Unpacking and Setup**
    - Upon receiving the product, carefully unpack all components and verify that everything is included as per the packing list. Follow the setup instructions provided in the manual to assemble the product correctly.
- **Powering On**
    - Connect the product to a power source using the provided power cord. Press the power button to turn on the device. Follow any initial setup prompts displayed on the screen.
- **Basic Operations**
    - Refer to the user manual for detailed instructions on navigating the product's menu, adjusting settings, and using its various features. Familiarize yourself with the controls and functionalities for seamless operation.
- **Maintenance and Care**
    - Regularly clean the product using a soft, dry cloth to prevent dust buildup. Avoid using harsh chemicals or abrasive materials that may damage the surface. Refer to the manual for specific maintenance guidelines.

Safety instructions

Thank you for choosing a product from Beyerdynamic. This user manual contains important information about using your product. Links with further information on the use of microphones or headphones from Beyerdynamic can be found under "Further information".

Safety instructions

- Please read this user manual and the safety instructions carefully and completely before using the product.
- Do not give the product to anyone else without the user manual.
- Do not use the product if it is damaged.
- Please observe the relevant country-specific regulations before using the product.
- Take care to lay the connection cable in such a way that no one can trip over it and damage the product.
- Repairs must only be carried out by authorized specialist personnel. Under no circumstances should you open the microphone yourself. The warranty is void for devices that have been opened by the customer.
- Do not expose the product to rain, snow, liquids or moisture.
- Only use the product under the conditions specified in the technical data.
- Only use accessories and spare parts approved by the manufacturer.
- Reduce the volume on connected playback devices to prevent hearing damage, acoustic feedback and damage to speakers.

Intended use

Only use the product as described in this product manual. beyerdynamic does not assume any liability for improper use of the product and accessories.

Liability

The company beyerdynamic GmbH & Co. KG accepts no liability for damage to the roduct or injury to persons caused by careless, improper or incorrect use of the product, or by use for purposes not specified by the manufacturer.

- beyerdynamic is not liable for damage to USB devices that do not comply with the USB specifications.

Product descriptions

M 70 PRO X

Scope of delivery

- 1X M 70 PRO X microphone
- Elastic suspension
- Pop filter
- Protective bag

Product overview

Applications

The M 70 PRO X dynamic microphone with extended and balanced frequency response has been designed for high-quality recording of speech, vocals and instruments. Unwanted sound waves are effectively suppressed by the pronounced cardioid characteristic, and the precisely tuned proximity effect guarantees consistent sound clarity. An extended frequency response provides a differentiated and high-resolution sound image. The robust design of the M 70 PRO X ensures durability. The integrated elastic system suspension protects the microphone against structure-borne noise, and the pop filter supplied largely suppresses plosive sounds.

The M 70 PRO X is particularly suitable for the following sources:

- Speech for broadcast applications (radio, podcast, streaming)
- Vocals (rock, pop music)
- Guitar and bass amps

Technical data

- **Converter principle**
  - Dynamic
- **Operating principle**
  - Pressure gradient receiver
- **Polar pattern**
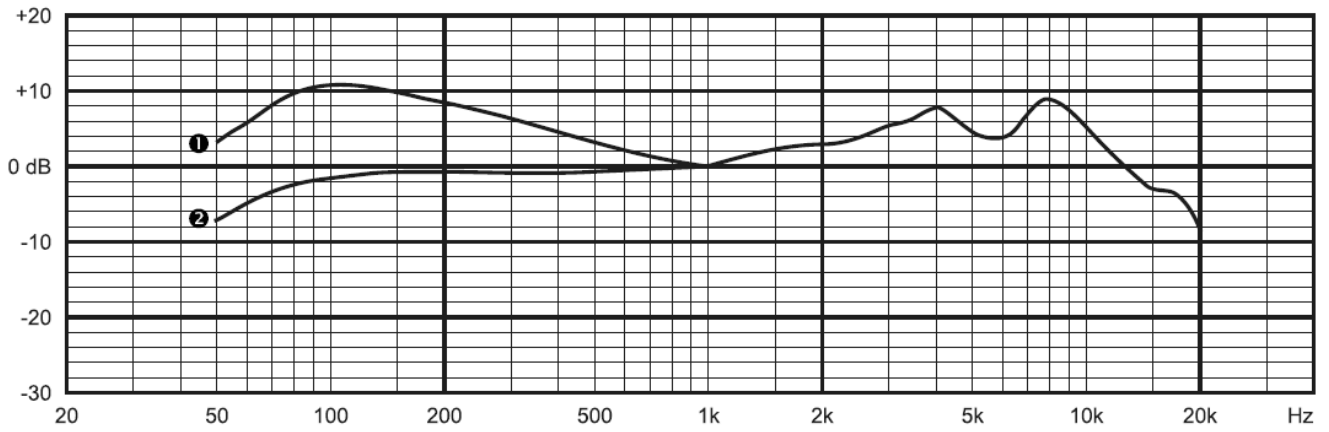 - Cardioid

Frequency response:

- **Near field**
  - 25-18,000 Hz
- **Far-field (distance 1 m)**
  - 40-18,000 Hz

Open-circuit

- **sensitivity**
  - 1.8 mV/Pa (-55.0 dBV) +3 dB
- **Nominal impedance**
  - 350 Q
- **Nominal terminating impedance**
  - ≥ 1.5 KQ
- **Connection**
  - XLR, 3-pin, male
- **Length**
  - 185 mm
- **Diameter**
  - 52 mm
- **Weight**
  - 320 g

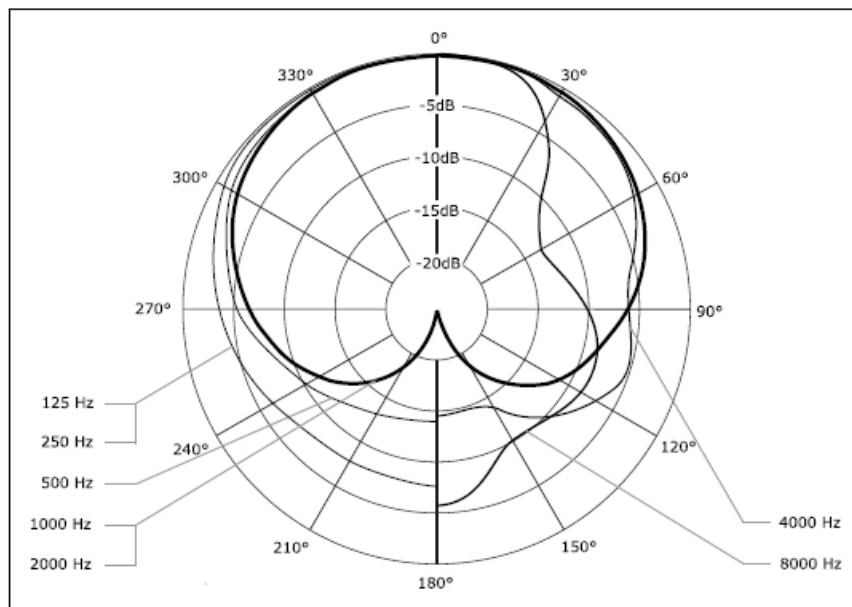**Target frequency response curve ($3 dB)**

0 dB = 1,8 mV/Pa

Curves for distance ❶ = 2 cm and ❷ = 1 m

Polar pattern

M 90 PRO X

Scope of delivery

- 1X M 90 PRO X microphone
- Elastic suspension
- Pop filter
- Protective bag

Product Overview

Microphone in the spider with mounting nut

Speech direction

Pop filter

M 90 PRO X

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Elastic suspension (spider)

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XLR (M) connector

Applications

With its 34-mm true condenser capsule, the M 90 PRO X condenser microphone has been specially developed for high-quality recording of vocals and instruments but is also suitable for the natural-sounding recording of speech during broadcasts. While unwanted sound waves are suppressed effectively by the pronounced cardioid characteristic, the low- noise circuit specially developed by beyerdynamic ensures that the electrical signals are processed to the highest standard. The integrated elastic system suspension protects the microphone against structure-borne noise, and the pop filter supplied largely suppresses plosive sounds.

The M 90 PRO X is particularly suitable for the following sources:

- Vocals
- Acoustic guitar
- Piano
- Strings
- Speech for broadcast applications
- Universal use (percussion, room miking, choir and orchestra)

Technical data

- **Converter principle**
  - Condenser
- **Operating principle**
  - Pressure gradient
- **Frequency response receiver**
  - 20-20,000 Hz
- **Polar pattern**
  - Cardioid

Open-circuit sensitivity

- **at 1 kHz (0 dB = 1 V/Pa)**
  - 36.3 mV/Pa =
  - -28.8 dBV +2 dB
- **Nominal impedance**
  - < 180 Q
- **Nominal terminating impedance**
  - ≥ 1,000 Q

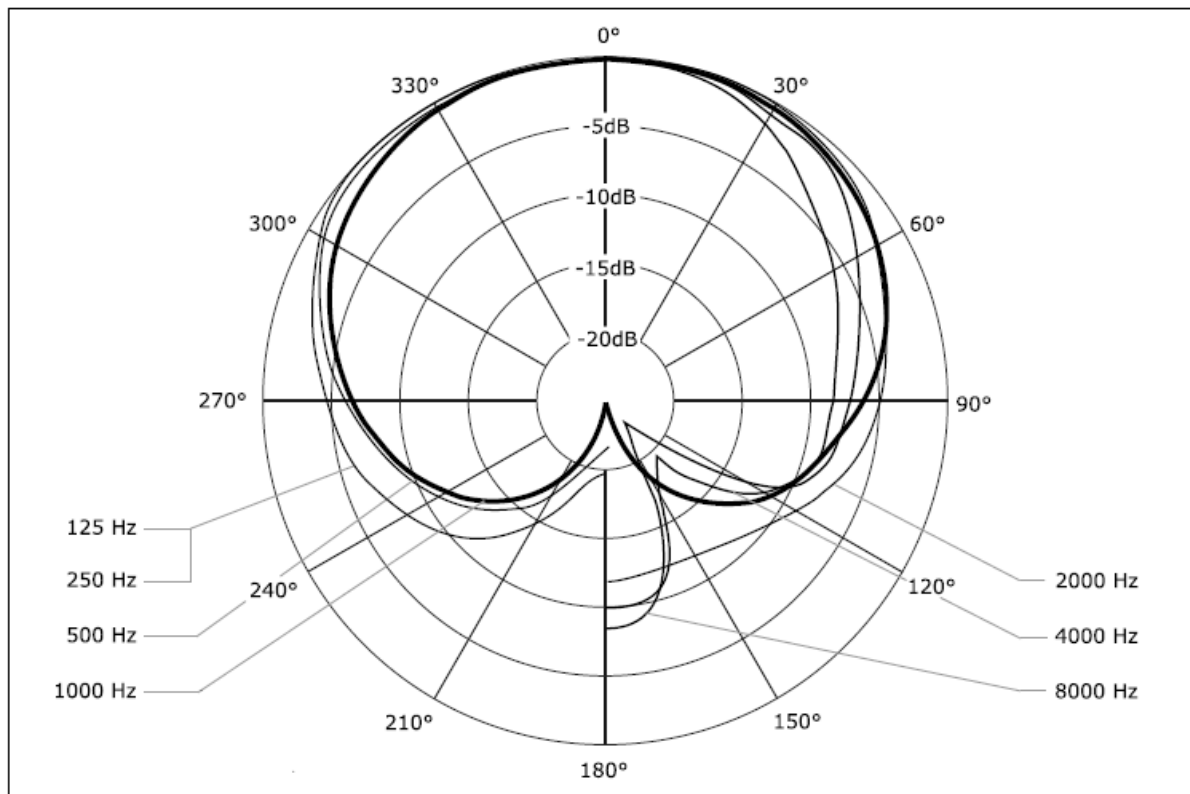**Maximum sound pressure level**

- **(at 1 kHz)**
  - 133 dB
- **S/N ratio (referenced to 1 Pa)**
  - 88.4 dBA

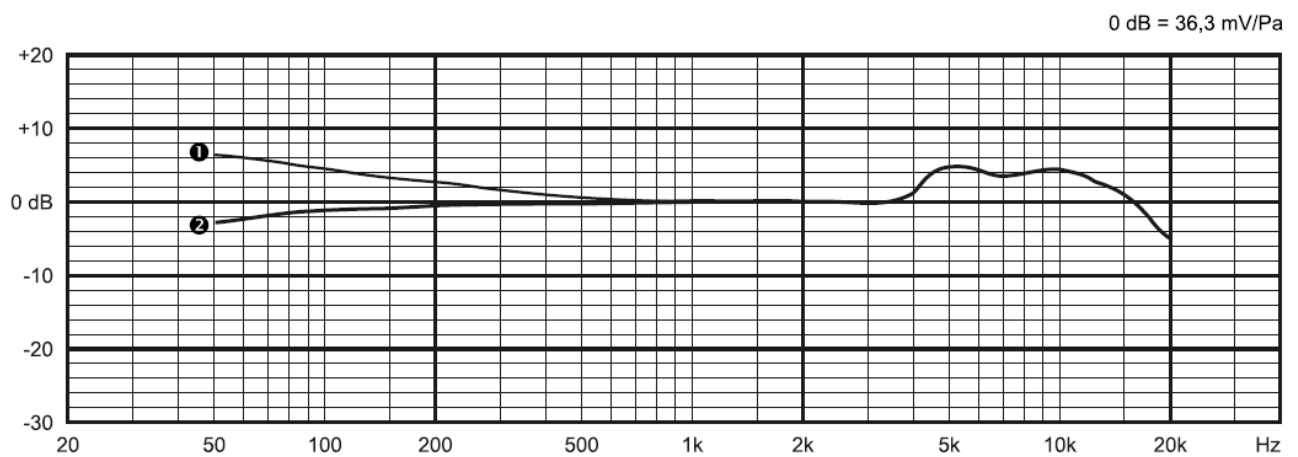**Equivalent sound pressure level**

- **(A-weighted)**
  - 5,6 dB
- **Power supply**
  - 20-52 V (phantom)
- **Current consumption**
  - < 6.2 mA
- **Connection**
  - XLR, 3-pin, male
- **Length**
  - 197 mm
- **Diameter**
  - 52 mm
- **Weight**

- ∘ 296 g

Polar pattern

Target frequency response curve ($2 dB)

Curves for distance ❶ = 2 cm and ❷ = 1 m

Installation and commissioning

CAUTION

- **Cable trip hazard**
  - ∘ Carelessly laid cables pose a trip hazard. This can injure people and damage the microphone.
- Always lay cables so that no one can trip over them.

Attaching the microphone

1. Unscrew the mounting nut from the microphone thread.
2. Insert the microphone into the spider with the bottom side first.
3. Tighten the mounting nut on the thread.
4. Attach the microphone to the stand with the stand connector.
5. Attach the microphone to the stand with the stand connector.

Connecting the microphone

- The M 70 PRO X has a 3-pin XLR connector. It can be connected to any microphone input with a suitable microphone cable.
- The M 90 PRO X has a 3-pin XLR connector. It can be connected to any microphone input with phantom power (24-52V) with a suitable microphone cable. You therefore need to activate the phantom power.

WARNING

Unstable stand

An unstable stand can fall and damage the microphone mounted on it.

- Make sure that the stand used and the microphone mounted on it are stable. Aligning the microphone
- Position the microphone so that the speech direction is opposite that of the source of terference to achieve the best possible noise suppression.

Disposal

WEEE At the end of its life, this product should not be disposed of with normal household waste but should be taken to a recycling facility for electric and electronic devices. This symbol on the product, instructions for use or packaging indicates this.

Troubleshooting

If you have technical problems while using the microphones or need further guidance, please visit our FAQ website at **support.beyerdynamic.com**.

Service

- If service is required, please contact an authorised specialist. Never open the
- microphone yourself. You could lose all warranty claims otherwise. Please refer to our website www.beyerdynamic.de for information about service and spare parts.

Further information

- you require further information, please visit our website at **www.beyerdynamic.com/microphones.html**.
- For tutorials and instructions on using your microphone, please visit our YouTube channel at **www.youtube.com/beyerdynamic**.

Cleaning

- Use a soft cloth moistened with water to clean the surface.
- Make sure that no water enters the microphone.
- Do not use cleaning agents containing solvents.

Warranty

- Beyerdynamic provides a limited warranty of 2 years on the purchased Beyerdynamic product. The exact warranty conditions can be found on our website at **www.beyerdynamic.de/service/garantie**.

Compliance

- Information about the product's compliance can be found on our website at **www.beyerdynamic.com/downloads**.

FAQs

- **Q: What should I do if the product malfunctions?**
  - A: If you encounter any issues with the product, refer to the troubleshooting section in the user manual for solutions. If problems persist, contact customer support for further assistance.
- **Q: Can I use third-party accessories with this product?**
  - A: It is recommended to use accessories approved by the manufacturer to ensure compatibility and avoid potential damage to the product. Using unauthorized accessories may void the warranty.
- **Q: How do I update the product's software?**
  - A: Check the manufacturer's website for software updates and follow the instructions provided to download and install the latest firmware for optimal performance.

Documents / Resources

M Series PRO X Wired Microphones M 70 PRO X M 90 PRO X Operating Manual beyerdynamic	**beyerdynamic M90 Microphone For Studio Recording** [pdf] Instruction Manual M90 Microphone For Studio Recording, M90, Microphone For Studio Recording, For Studio Recording, Studio Recording

References

- 📣 **Your Ultimate Resource for Millions of User Manuals**
- **User Manual**