

TELEFUNKEN M81-SH

TELEFUNKEN M81-SH Low Profile Dynamic Cardioid Microphone User Manual

Model: M81-SH

1. INTRODUCTION

The TELEFUNKEN M81-SH is a low-profile dynamic cardioid microphone engineered for a wide range of applications. It is designed to offer a balanced frequency response, making it suitable for instruments such as toms, percussion, horns, and for taming brighter vocals and guitar tones. This manual provides essential information for the proper setup, operation, and maintenance of your M81-SH microphone.

2. SETUP

2.1 Unpacking

Carefully remove the M81-SH microphone from its packaging. Ensure all components, including the microphone itself, are present and undamaged. The standard package includes the M81-SH microphone.

2.2 Connecting the Microphone

The M81-SH utilizes a standard 3-pin XLR connector for audio output. Connect a high-quality XLR cable from the microphone to your mixer, audio interface, or preamplifier. Ensure the cable is securely connected at both ends.

2.3 Mounting

The M81-SH is designed for versatile mounting. It can be attached to a standard microphone stand using the included clip or integrated into drum mounting systems for close-miking applications.



Image: The TELEFUNKEN M81-SH microphone positioned on a stand, ready to capture sound from a guitar amplifier. This illustrates a typical setup for instrument recording.



Image: Two TELEFUNKEN M81-SH microphones attached to drum rims using specialized clips. This demonstrates the low-profile design and suitability for close-miking drums and percussion.

3. OPERATING

3.1 Polar Pattern

The M81-SH features a Super Cardioid polar pattern. This pattern provides excellent off-axis rejection, minimizing pickup from the sides and rear of the microphone. This characteristic is beneficial for isolating sound sources and reducing feedback in live sound environments.

3.2 Frequency Response

The M81-SH offers a flatter overall frequency response compared to some other dynamic microphones, with a slightly pulled-back top end. This design contributes to a rich body and clarity, making it effective for sources that might otherwise sound too bright or thin.

3.3 Gain Staging

Adjust the gain on your mixer or preamplifier to achieve an optimal signal level without clipping. Start with the gain low and gradually increase it while monitoring the input level. The M81-SH is a dynamic microphone and does not require phantom power.

3.4 Placement Recommendations

- **Toms & Percussion:** Position the microphone close to the drum head, aiming towards the center for attack or towards the rim for more body. The low-profile design facilitates easy placement in tight spaces.
- **Guitar Amplifiers:** Place the microphone a few inches from the speaker cone, experimenting with positions between the center and the edge to find the desired tonal balance.
- **Vocals:** For brighter vocalists, the M81-SH can provide a smoother, warmer tone. Maintain a consistent distance from the microphone to manage proximity effect.
- **Horns:** Position the microphone to capture the desired blend of bell and body, typically a few inches from the bell.

4. MAINTENANCE

4.1 Cleaning

To clean the microphone body, use a soft, dry cloth. For the grille, a soft brush can be used to gently remove dust or debris. Do not use liquid cleaners directly on the microphone, as this can damage internal components.

4.2 Storage

When not in use, store the M81-SH in its protective case or a clean, dry environment. Avoid exposing the microphone to extreme temperatures, high humidity, or direct sunlight.

4.3 Handling

Handle the microphone with care. Avoid dropping it or subjecting it to strong impacts, as this can affect its performance and durability.

5. TROUBLESHOOTING

5.1 No Sound Output

- **Check Cables:** Ensure all XLR cables are securely connected and are not damaged. Try a different cable if possible.
- **Input Selection:** Verify that the correct input channel is selected on your mixer or audio interface.
- **Gain Settings:** Confirm that the gain knob for the input channel is turned up sufficiently.
- **Phantom Power:** The M81-SH is a dynamic microphone and does not require phantom power. Ensure phantom power is OFF for the connected input to prevent potential issues, although it typically will not harm dynamic microphones.

5.2 Distorted Sound

- **Input Gain Too High:** Reduce the input gain on your mixer or preamplifier.
- **Source Too Loud:** If the sound source is extremely loud, try increasing the distance between the microphone and the source.
- **Damaged Cable:** Test with a different XLR cable.

5.3 Feedback Issues

- **Microphone Placement:** Reposition the microphone further away from loudspeakers or monitors.
- **Monitor Angle:** Adjust the angle of stage monitors so they are not directly facing the microphone's front.
- **Gain Reduction:** Lower the overall gain of the microphone channel.
- **EQ Adjustments:** Use an equalizer to cut frequencies that are causing feedback.

6. SPECIFICATIONS

Manufacturer	TELEFUNKEN Elektroakustik
Model Number	M81-SH
Polar Pattern	Super Cardioid
Frequency Response	18 KHz (Upper Limit)
Connectivity Technology	XLR
Connector Type	XLR
Audio Sensitivity	3 Decibels
Microphone Form Factor	Microphone Only
Power Source	Corded Electric (No Phantom Power Required)
Included Components	Microphone
Item Weight	2 pounds
UPC	755746257903

7. WARRANTY & SUPPORT

7.1 Manufacturer's Warranty

TELEFUNKEN Elektroakustik products are typically covered by a limited warranty against defects in materials and workmanship. Please refer to the warranty card included with your product or visit the official TELEFUNKEN Elektroakustik website for detailed warranty terms and conditions specific to the M81-SH microphone.

7.2 Technical Support

For technical assistance, troubleshooting beyond this manual, or service inquiries, please contact TELEFUNKEN Elektroakustik customer support. Contact information can usually be found on their official website or in the product packaging.