

MXL[®]
Live Series

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LSC-1N/LSC-1B

**Hand-held Condenser Microphone
for Live/Stage Performance**

Marshall Electronics

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User Manual

Congratulations on your purchase of the MXL LSC-1N/1B condenser microphone for live and stage performance. The MXL LSC-1N/1B is the result of world-class engineering and manufacturing and is designed to provide you with outstanding performance and exceptional value. Before you get started, we encourage you to review this manual to familiarize yourself with the key features of this outstanding microphone.

Unpack Your Microphone

You should have the following components:

- 1 MXL LSC-1N (nickel) or 1 LSC-1B (black)
- 25ft Marshall Microphone cable
- 1 Cardioid capsule (pre-installed)
- 1 Omni capsule
- 1 Hyper-cardioid capsule
- Mic stand adapter
- Cleaning cloth
- Plastic road case

Power Requirements

The MXL LSC-1N/1B requires “phantom power” to operate. Phantom power is DC power, typically in the form of a 48 volt signal. Although phantom power can range from 9V - 52V, the LSC-1N/1B requires 48V (+/-4V) to ensure optimal performance. This power is supplied to condenser microphones from a dedicated power supply, a preamp, an audio mixer, or PA system.

Connecting Your Microphone

The LSC-1N/1B includes a 25ft XLR microphone cable. Before connecting your microphone to a mixer/PA system or preamp, turn off the speakers or mute the channel you are plugging into in order to avoid potential speaker damage.

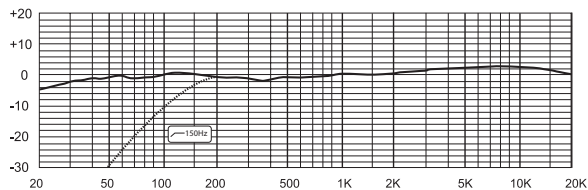
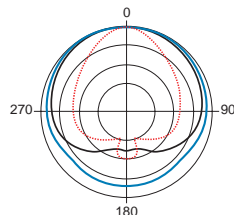
The LSC-1N/1B also comes with a standard thread adapter that will attach to most microphone stands.

Warranty

MXL microphones are guaranteed against defects in material and workmanship for three years from date of purchase. Should you encounter any problem with this unit, promptly contact the company you purchased it from for assistance. The original dated sales receipt will be necessary for any warranty claim. Do not send any unit directly to us without prior authorization from our service department! Warranty coverage is limited to repair or replacement (at our option) of the microphone, and does not cover incidental damages due to use of this unit, nor damage caused by accidental misuse of this product.

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**Frequency Chart
& Polar Patterns**


⋯ **Hyper-Cardioid**
— **Cardioid** — — **Omni**

Specifications:

Type:	Pressure gradient condenser mic
Diaphragm:	Gold-sputtered, 6 micron diaphragm
Frequency Range:	20 Hz-20 kHz
Polar Pattern:	Cardioid/Omni/Hyper-cardioid
Sensitivity:	-45 dB re 1 V/Pa
Impedance:	150 ohms
S/N Ratio:	78 dB
Equivalent Noise Level:	-16 dBA (A-weighted IEC 651)
Max SPL for 0.5% THD:	148 dB SPL
High Pass Filter:	18 dB/octave @ 150Hz
Power Requirements:	Phantom Power 48V ± 4V
Current Consumption:	5.2mA
Size:	7" x 2"
Metal Finish:	LSC-1N Nickel; LSC-1B Black

Using the LSC Microphone

The LSC-1N/1B is a condenser microphone for live/stage use. Condenser microphones generally produce a high-quality audio signal but require some careful handling. By following a few basic handling procedures, you can expect a long and happy relationship with your MXL LSC-1N/1B:


- ALWAYS:** Handle the microphone carefully, avoiding sudden shocks such as dropping or bumping the microphone into other objects.
- ALWAYS:** Maintain a distance of approximately 3 – 6 inches when speaking or singing into the microphone.
- NEVER:** Tap or blow into the microphone to check if it's working.


Finding the sound you want will involve experimentation. There are unique features of the LSC-1N/1B, however, that can help maximize sound quality.

Interchangeable Capsules

Your LSC-1N/1B includes three different capsules with three different polar patterns: cardioid, hyper-cardioid and omni. The capsules can be changed to best suit the performance environment.

A cardioid microphone picks up sound from the front of the microphone, less sound from the sides, and has good rejection of sound to the back of the microphone. Cardioid microphones are recommended for vocal applications, live, recording, and in situations where the acoustics are good but not perfect. The cardioid pattern is also good for vocal and instrument recording in a studio environment.

A hyper-cardioid  microphone picks up sound from the front of the mic and rejects sound from the sides and back. Hyper-cardioid microphones help reduce feedback and are recommended for indoor and outdoor applications where the acoustics are less than ideal. The narrow directional pattern also helps minimize sound bleed.

An omni-directional  microphone picks up sound equally from all sides of the microphone. Omni-directional microphones are recommended for environments with very good acoustics as they tend to pickup ambient noise. Omni-directional mics are less sensitive to plosives, handling noise, and proximity effect. In addition, these mics are well suited for close miking live sound reinforcement. For live applications, however, an experienced live sound engineer may be necessary. We also suggest using the omni-directional capsule for recording vocals and instruments in a studio.

Changing the LSC-1N/1B Capsules

Each capsule is marked with the polar pattern symbol. To change capsules:



1. Unscrew the grill head
2. Unscrew the capsule from the capsule mount
3. Replace capsule and grille head

Bass Roll-off Switch

Your LSC-1N/1B includes a roll-off switch with steep cutoff to reduce handling noise and proximity effect. Proximity effect is distortion that often occurs when a sound source is too close to the mic. Some microphone



Bass Roll-off Switch



patterns boost bass as you get closer to the microphone; cardioid mics, for instance, tend to boost bass. The bass roll-off switch reduces the low frequencies for a more full range sound and is on when the switch is in the up position. The bass roll-off switch is recessed to avoid accidental activation. Use a pen or other small instrument to turn the bass roll-off on or off. Again, experimentation will be key to deciding whether to use the roll-off switch on your LSC-1N/1B.

Remember, finding the sound you want requires experimentation with the interchangeable capsules, the position of the mic and monitors, as well as with the controls on your mixer or PA system. There are no hard and fast rules or the perfect mic position. Experiment and in time you'll find the sound that's right for you.

Care & Handling Tips

Exercise care while handling your microphone. Your microphone's capsules are the "crown jewels" of the instrument. Avoid jarring or dropping the microphone. These vibrations—including tapping on or blowing into the microphone to "test" its operation—can cause damage to the capsules and other electronics.

Condensers are highly susceptible to moisture. Avoid using the microphone in locations with extremely high humidity. Dust and foreign material can also degrade the performance of a microphone over time. Always store the unit in its case when not in use.