

User Manual



DUAL DIAPHRAGM CONDENSER MICROPHONE B-2 PRO

Gold-Sputtered Large Dual-Diaphragm Studio
Condenser Microphone

EN

EN Important Safety Instructions

Terminals marked with this symbol carry electrical current of sufficient magnitude to constitute risk of electric shock. Use only high-quality commercially-available speaker cables with ¼" TS plugs pre-installed. All other installation or modification should be performed only by qualified personnel.



This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.



This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read the manual.



Condenser microphones are extremely moisture-sensitive. Never use your microphone in close proximity to water (e.g. bath-tubs, wash-basins, sinks, washing machines, pools, etc.). When doing voice recordings, always use the enclosed popscreen to safely protect the capsule from moisture.



Always use the power supply specified in the operating instructions.



Take care not to drop your microphone as this can lead to severe damage. BEHRINGER assumes no liability for any damage caused by the user.



When the microphone is not in use, please take it out from its elastic suspension, clean it with a soft cloth, and then place it in its case. Place the bag containing moisture-absorbing crystals close to the microphone head.



Never dismount the screen holding the capsule, as this can damage the microphone! Never try to modify the printed circuit board inside your B-2 PRO! This can lead to microphone damage that cannot be repaired. Any such attempt will void the warranty.

Limited Warranty

Please register your new BEHRINGER equipment right after your purchase by visiting behringer.com and read the terms and conditions of our warranty carefully.

1. Power Supply

Your condenser mic B-2 PRO needs a +48 V phantom power supply. Behringer assumes no liability for any damage caused by a defective phantom power supply. Always mute the sound reinforcement system before you switch on the phantom power supply. After power-up, the B-2 PRO needs about 6 seconds to stabilize.

2. Directivity

With the switch on the front, you can set your B-2 PRO to provide a cardioid, omnidirectional or figure eight directivity pattern. If the microphone is used to pick up both the signal source and ambient signals, we recommend to use an omnidirectional directivity (switch position: left). However, to pick up specific instruments or voices, please set the switch to the cardioid position (right). The figure eight directivity pattern (center) is recommended, for example, for choir miking. Thanks to the figure eight directivity pattern, your B-2 PRO picks up more ambient signals than when it is set to the omnidirectional directivity.

3. Low-Cut Filter and Level Attenuation

The low-cut filter can be activated with the left switch on the rear, in order to filter low-frequency interference such as pop sounds, etc. With the low-cut filter on, the B-2 PRO provides an almost linear frequency response with signals picked up at close proximity to the source. The built-in shielding minimizes the microphone's sensitivity to high-frequency interference.

Use the right switch on the rear to activate the -10 dB level attenuator, which should be used with "pulse-type" signal sources producing high sound pressure levels (e.g. kick drum).

4. Mounting Microphone and Elastic Suspension

Attach the enclosed elastic suspension to the microphone stand. Fasten the screw, once the suspension has been positioned properly. Open the elastic suspension by pressing the two circular levers, then insert the B-2 PRO from above.

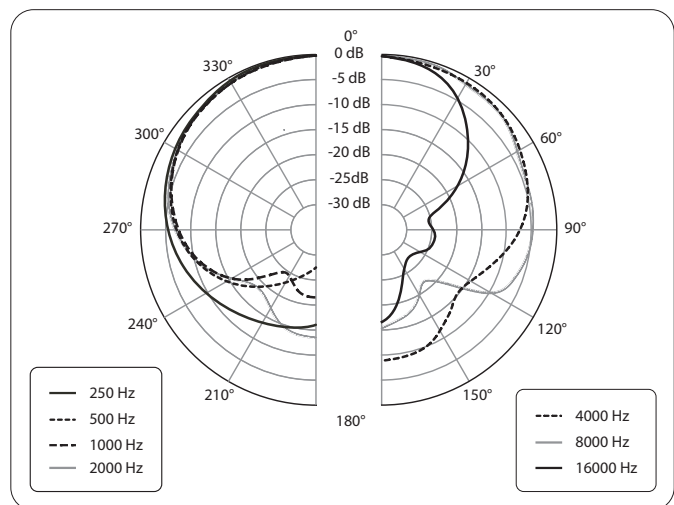
5. Audio Connection

Use a balanced XLR microphone cable with the following pin assignment: pin 1 = shielding; pin 2 = +; pin 3 = -. Since your B-2 PRO features gold-plated contact points throughout, we recommend that you use only microphone cables with gold-plated connectors.

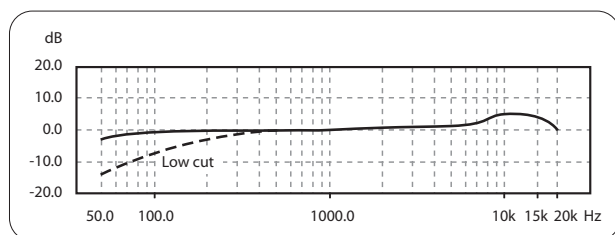
6. Level Setting/Adjusting the Basic Sound

Adjust the gain control in the microphone channel of your mixing console so that the peak LED lights up only occasionally or never at all. The EQ controls in the microphone channel should be set to mid-travel position to start with; low-cut filter and level attenuator should be off. Try to achieve the desired sound by experimenting with the microphone position. Use the omnidirectional, cardioid and figure eight directivity patterns (see chapter 3). Often, it will be useful to set up acoustic barriers ("gobos") at various angles towards the signal source. Only when the desired basic sound has been achieved, should you start to use equalizers and signal processors, if any at all (Remember: less is often more!)

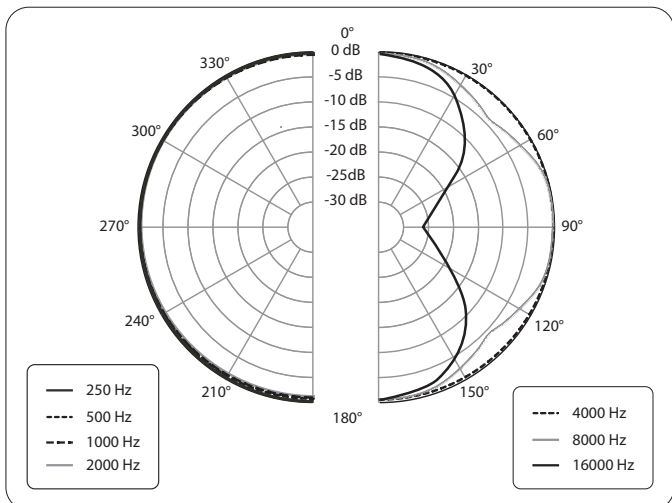
The B-2 PRO provides a level peak around 12 kHz producing some kind of "presence" in this range; so, there is no need for high-frequency EQing which could deteriorate the signal and raise the overall noise floor. On the contrary, the B-2 PRO provides that much-desired transparency which often gets lost during recording and mixing.



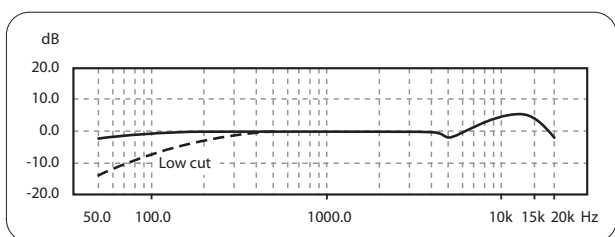
Polar pattern (cardioid)



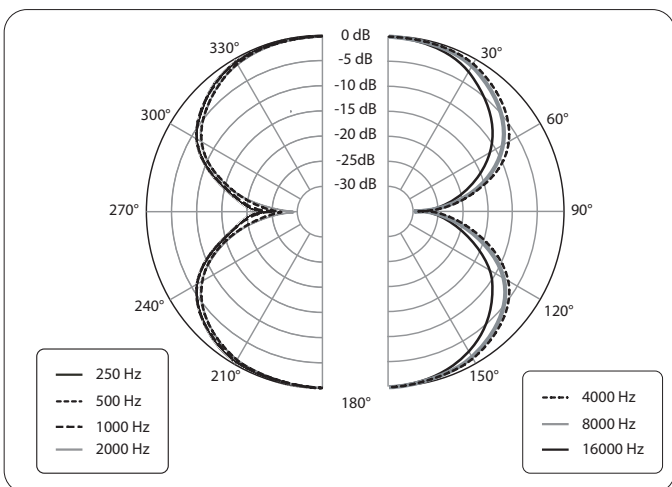
Frequency response (cardioid)



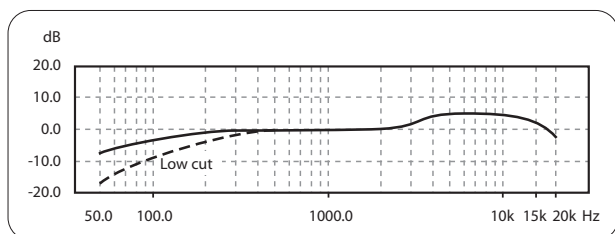
Polar pattern (omnidirectional)



Frequency response (omnidirectional)



Polar pattern (figure eight)



Frequency response (figure eight)

7. Specifications

Transducer type	condenser, 1" dual-diaphragm
Operating principle	pressure gradient
Polar pattern	cardioid, omnidirectional or figure eight
Connection	gold-plated balanced XLR connector

Open Circuit Sensitivity (at 1 kHz)

cardioid	-36 dBV (0 dBV = 1 V/Pa), 16 mV/Pa
omnidirectional	-37 dBV (0 dBV = 1 V/Pa), 14 mV/Pa
figure eight	-35 dBV (0 dBV = 1 V/Pa), 18 mV/Pa
Frequency response	20 Hz - 20 kHz
Level attenuation	-10 dB (switchable)
Low-Cut filter	6 dB/oct. at 150 Hz (switchable)

Max. SPL (1% THD @ 1 kHz)

cardioid	138 dB (0 dB), 148 dB (-10 dB)
omnidirectional	139 dB (0 dB), 149 dB (-10 dB)
figure eight	137 dB (0 dB), 147 dB (-10 dB)

Equivalent SPL (IEC 651)

cardioid	17 dB-A
omnidirectional	18 dB-A
figure eight	16 dB-A

Signal-to-Noise Ratio

cardioid	77 dB, A-weighted
omnidirectional	76 dB, A-weighted
figure eight	78 dB, A-weighted
Nominal impedance	<100 Ω
Load impedance	>1 kΩ

Mains Voltage/Fuse

Supply voltage	+48 V
Supply current	3 mA

Physical/Weight

Dimensions	∅ head: 56 mm, ∅ shaft: 50 mm, length: 210 mm
Weight	approx. 0.55 kg



We Hear You