

STUDIO CONDENSER MICROPHONE B-2 PRO

User's Manual

Version 1.0 September 2002

ENGLISH



www.behringer.com

1. SAFETY PRECAUTIONS

Detailed safety precautions:

Please read all safety precautions and operating instructions before you attempt to operate the unit. Keep all safety precautions and operating instructions for future reference.

Water and moisture:

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.

Power supply:

Always use the power supply specified in the operating instructions.

Damage:

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.

Maintenance and care:

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.

Caution:

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.

2. 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.

3. 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.

4. 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).

5. 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.

6. 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.

7. 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!)

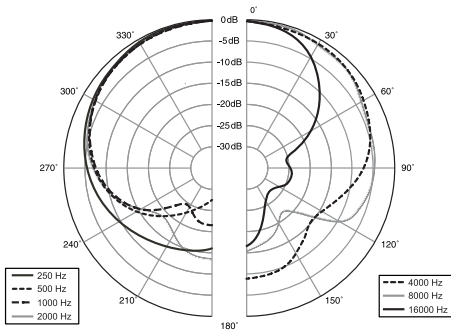
The B-2 PRO provides a level peak around 12 kHz producing some kind of "presence" in this range; so, there is no need for high-frequency EQing which could deteriorate the signal and raise the overall noise floor. On the contrary, the B-2 PRO provides that much-desired transparency which often gets lost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

8. WARRANTY

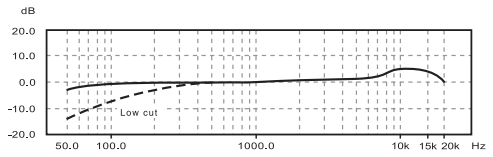
 Please find our current warranty terms on our web site under <http://www.behringer.com> or send us a request by e-mail (support@behringer.de), fax (+49 (0) 2154 920665), or telephone (+49 (0) 2154 920666).

9. SPECIFICATIONS

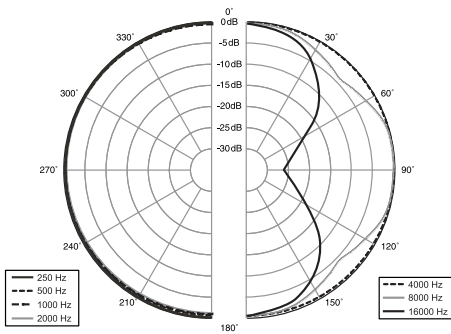
Transducer type:	condenser, 1" dual-diaphragm
Operating principle:	pressure gradient
Polar pattern:	cardioid, omnidirectional or figure eight
Connection:	gold-plated balanced XLR connector
Open circuit sensitivity (at 1 kHz):	cardioid: -36 dBV (0 dBV = 1 V/Pa), 16 mV/Pa omnidirectional: -37 dBV (0 dBV = 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):	17 dB-A (cardioid) / 18 dB-A (omnidirectional) / 16 dB-A (figure eight)
Signal-to-noise ratio:	77 dB, A-weighted (cardioid) / 76 dB, A-weighted (omnidirectional) / 78 dB, A-weighted (figure eight)
Nominal impedance:	<100 Ω
Load impedance:	>1 kΩ
Supply voltage:	+48 V
Supply current:	3 mA
Dimensions:	∅ head: 56 mm, ∅ shaft: 50 mm, length: 210 mm
Weight:	approx. 0.55 kg



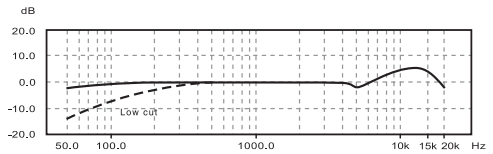
Polar pattern (cardioid)



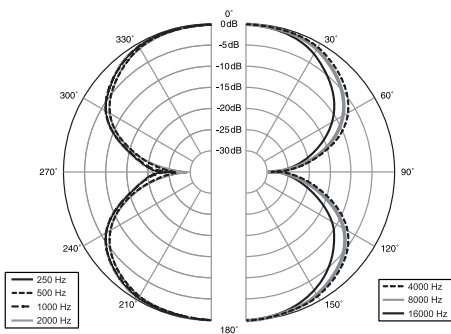
Frequency response (cardioid)



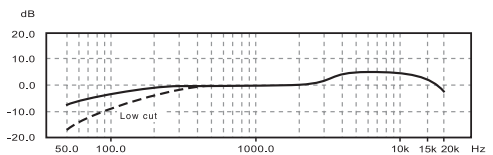
Polar pattern (omnidirectional)



Frequency response (omnidirectional)



Polar pattern (figure eight)



Frequency response (figure eight)

BEHRINGER is constantly striving to maintain the highest professional standards. As a result of these efforts, modifications may be made from time to time to existing products without prior notice. Specifications and appearance may differ from those listed or illustrated.