

# **STUDIO CONDENSER MICROPHONE**

## **B-5**

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## **User's Manual**

Version 1.0 June 2003

**ENGLISH**



[www.behringer.com](http://www.behringer.com)

### 1. SAFETY PRECAUTIONS

#### Detailed safety precautions:

Please read all safety precautions and operating instructions before attempting 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 popscreens 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.



#### Service and care:

After each use, remove the microphone from its mount and wipe it down with a soft cloth and place it back into its protective casing (included with the microphone). Then, lay the small bag containing the moisture-absorbing crystals on top of the microphone head.

### 2. POWER SUPPLY

Phantom power (+48 V) is required to operate your microphone. We assume no liability for damage caused to your B-5 through defective phantom power. Before activating phantom power, mute your playback system and connect the B-5 to the microphone input of your mixing console. After activating phantom power, the B-5 requires several seconds to stabilize itself.

### 3. PICKUP PATTERNS

Your B-5 was delivered with two capsules allowing different pickup patterns: cardioid (  ) and omnidirectional (  ).

If you use the cardioid pattern capsule, the pickup pattern is such that the sound produced by sources located in front of the mic is strongly picked up, while sound sources to the side are picked up less pronouncedly. Therefore, the cardioid pattern capsule is ideal for directional pickup of acoustic instruments. It is often used in recording situations in which several sound sources are present. Since this capsule selectively tones down the pickup of sounds located to the side of the microphone, this way you can achieve good separation of sound sources, thus easily avoiding feedback.

The so-called proximity effect is typical for microphones with the cardioid pickup pattern. Depending on the distance between the microphone and the sound source, a slight increase in the lower frequency range occurs. The shorter the distance, the more pronounced this effect. By cleverly selecting the position and the angle of your microphone, you can effectively manipulate the proximity effect and thus affect how your recording sounds. Experiment with various positions in order to gain more experience.

The proximity effect does not occur with the capsule featuring the omnidirectional pickup pattern; its strength is its ultra-linear frequency response. With this pickup pattern, your B-5 picks up a large portion of diffuse ambience sound and is therefore particularly well suited for atmospherical, natural-sounding recordings. Similarly, you can also use the omnidirectional pickup pattern capsule in situations in which several sound sources (e. g. a group of singers) need to be picked up together.

#### **4. LOW CUT-FILTER AND LEVEL ATTENUATION (-10 dB)**

The B-5 features a switchable low-cut filter that eliminates low-frequency noise such as floor rumble. Set the switch to its middle position to activate the low-cut filter.

For situations in which the microphone is exposed to extremely high sound pressure levels, the B-5 features a switchable level attenuation ("pad"). When the switch is in its "-10 dB" position, the level attenuation is activated.

When the switch is in its top-most position, the signal is not influenced in any way.

### 5. MICROPHONE INSTALLATION

To properly attach your microphone to a microphone stand, a clamp is included. First screw this clamp onto your stand before attaching the microphone itself.

### 6. CHANGING MICROPHONE CAPSULES

When your B-5 leaves the assembly plant, it has the cardioid pickup pattern capsule screwed onto its shaft. To loosen the capsule, hold the shaft firmly and unscrew the capsule turning it counter-clockwise.



**When installing a capsule, please make sure to handle both the capsule and the microphone shaft with attention and care to avoid damaging the screw thread. In no situation should you ever apply excessive force.**

### 7. AUDIO CONNECTION

To connect the B-5 to your equipment, use a balanced XLR microphone cable with the following pin assignment: Pin 1 = shielding, pin 2 = +, pin 3 = -. Since all contact points of the B-5 are gold-plated, your microphone cable too should feature gold-plated connectors, if possible.

### 8. 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 attenuation should be off. Try to achieve the desired sound by experimenting with the microphone position. Often, it will be useful to set up acoustic barriers ("baffles") at various angles towards the signal source. Only when the desired basic sound has been achieved, should you start using equalizers and signal processors, if any at all. Remember: less is often more!

### 9. WARRANTY



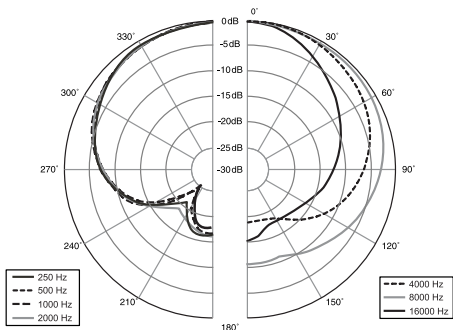
**For our current warranty terms and conditions, please visit our website at <http://www.behringer.com> or send us a request by e-mail ([support@behringer.de](mailto:support@behringer.de)), fax (+49 2154 9206 4199), or telephone (+49 2154 9206 4166).**

**10. SPECIFICATIONS**

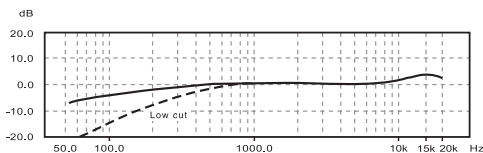
Transducer type:	true condenser, 18 mm (0.71") single diaphragm
Operating principle:	
cardioid:	pressure gradient
omnidirectional:	pressure operated
Polar pattern:	1 x cardioid 1 x omnidirectional, exchangeable
Connection:	gold-plated balanced XLR connector
Open circuit sensitivity (at 1 kHz):	
cardioid:	-38 dBV (0 dBV = 1 V/Pa), 12.6 mV/Pa
omnidirectional:	-40 dBV (0 dBV = 1 V/Pa), 10 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):	140 dB (0 dB) 150 dB (-10 dB)
Equivalent SPL (IEC 651):	16 dB-A (cardioid) 18 dB-A (omnidir.)
Signal-to-noise ratio:	
cardioid:	78 dB A-weighted
omnidirectional:	76 dB A-weighted
Nominal impedance:	70 $\Omega$
Load impedance:	>1 k $\Omega$
Supply voltage:	+48 V
Supply current:	3 mA
Dimensions:	$\varnothing$ shaft: 20 mm, length: 120 mm
Weight:	approx. 0.09 kg (0.21 lbs.)

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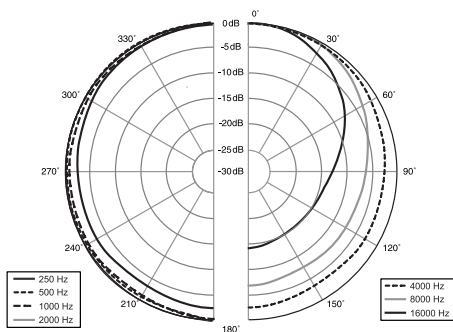
# STUDIO CONDENSER MICROPHONE B-5



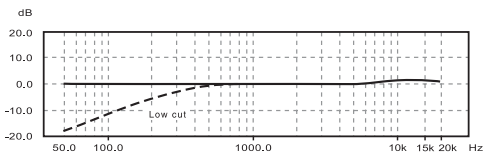
*Polar pattern (cardioid)*



*Frequency response (cardioid)*



*Polar pattern (omnidirectional)*



*Frequency response (omnidirectional)*

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