



hummingbird

OWNERS MANUAL



Microphones

Blue Microphones
5706 Corsa Avenue, Suite 102
Westlake Village, CA 91362

www.bluemic.com

REV.X2 645-00002

Warranty

This Microphone or related part is warranted under the conditions outlined below to its original, registered owner, provided the purchase was made from an authorized Baltic Latvian Universal Electronics (BLUE) dealer. This Microphone or related part is guaranteed to remain free from operating defects for three years from the date of purchase. In the event that service is required, all necessary parts and labor will be furnished free of charge during this period except for tubes, which are guaranteed for 90 days against defects. This warranty is void if the serial number has been altered, removed or defaced. The warranty is void if the equipment is altered, misused, mishandled, maladjusted, or is serviced by any parties not authorized by Baltic Latvian Universal Electronics (BLUE). The warranty does not include transportation costs incurred because of the need for service unless arranged for in advance. Baltic Latvian Universal Electronics (BLUE) reserves the right to make changes in design and improve upon its products without obligation to install these improvements in any of its products previously manufactured. This warranty is in lieu of any or all expressed or implied.

In keeping with our policy of continued product improvement, Baltic Latvian Universal Electronics (BLUE) reserves the right to alter specifications without prior notice.

©2014 Blue Microphones. All rights reserved. Blue Microphones, Hummingbird, Bluebird, Robbie the Mic Pre, The Pop, Mouse, Dragonfly, and Dual and Quad Cables are trademarks or registered trademarks of Blue Microphones, Inc. All other trademarks contained herein are the property of their respective owners.



Small. Agile. Hovering.

Congratulations! If you're reading this, it means that you've just purchased the Hummingbird—a versatile, precision-engineered recording tool, designed and crafted by Blue. Like its avian counterpart, the Hummingbird is small, able to fit precisely into tight spaces, and can nimbly change positions where others can't. The only thing it won't do is pollinate your garden... we're still working on that technology.

To familiarize yourself with the Hummingbird's specialized features, please take time to read this manual thoroughly. And be sure to try the suggested recording tips towards the back of the manual.

The Hummingbird is a Class A pressure gradient, small-diaphragm cardioid microphone that boasts a premium capsule based on the Blue "B1"—also available for our flagship Blue Bottle microphone. Hummingbird's precisely tuned diaphragm is ultra-responsive and is the perfect choice in the studio and on stage for drum overheads, acoustic guitar, strings, harp, or any instrument with fast transients and rich overtones.

Hummingbird makes it so you can finally get into all the nooks and crannies—it records at all angles, with no tangles. A pivoting head allows for 180 degrees of rotation, so you can set the mic at any angle. The Hummingbird's flexibility allows you to place the mic in exactly the right place—especially in those hard to reach areas—and capture the sound most mics would leave behind. Add in its sleek, thin-framed design, and the Hummingbird becomes the perfect tool for a host of percussion, instrument, vocal and theater applications.

Speaking of percussion, if you're looking for the perfect drum kit sound, turn to a mic duo that's an unlikely zoological pairing, but sounds great in the studio: the Blue Hummingbird and Mouse. Simply place the Mouse in front of the kick, and arrange Hummingbird(s) overhead to capture thundering toms and crystalline cymbals. You'll achieve drum tracks with unparalleled depth, clarity and character.

Inside the solid-state Hummingbird, you'll find a proprietary Class A, fully discrete circuit. With no ICs in the signal path, the Hummingbird exhibits maximum detail and the lowest possible noise floor.

The Hummingbird requires 48-volt phantom power, which is provided by most microphone preamps, mixing consoles or stand-alone power supplies. In the studio, high-performance mic preamps, like Blue's Robbie, and high-quality cables like Blue's Dual or Quad can help you get the most out of Hummingbird. Note that a preamp that supplies insufficient or unstable phantom power can result in distortion and/or degraded performance when used with the Hummingbird or any phantom-powered mic.

To avoid damage to audio components when connecting phantom power, follow this simple procedure:

- 1) Turn down the mic preamp gain, headphones and your studio monitors
- 2) Connect a microphone cable to the Hummingbird and microphone input jack
- 3) Turn on phantom power
- 4) Turn up the mic preamp gain, etc. When adjusting the angle of the pivoting head, remember to mute the input on your mic preamp or mixing console to avoid any potential damage to the components.

To disconnect or re-route the Hummingbird:

- 1) Turn down the mic preamp gain, headphones and your studio monitors;
- 2) Turn off phantom power and wait 10 seconds before disconnecting the mic.

Once the Hummingbird is mounted and powered up, make sure that the capsule is facing the desired sound source. Being a cardioid mic, the Hummingbird rejects off-axis sound arriving at the back of the capsule. If necessary, use the pivoting head to achieve ideal placement.

NOW THAT YOU'RE READY TO RECORD, HERE ARE SOME TIPS THAT WILL HELP YOU GET THE MOST OUT OF YOUR HUMMINGBIRD



Drums

The Hummingbird's agility, sonic precision, and ability to handle high sound pressure levels make it an ideal mic for recording drums. With its extended high-frequency response and precise cardioid capsule, you don't have to worry about low-frequency clutter in the recording—Hummingbird will deliver superior sound reproduction every time. Here are some popular miking techniques for overheads, hi-hats and close-miked drums you can experiment with.

XY (Coincident Pair)

Miking in an XY orientation involves positioning two condenser microphones directly above the snare with the capsules angled down and toward each other at a 90° angle. The close proximity of the capsules results in the sound reaching the mics at nearly the same moment, which produces a strong mono stereo image. When using this overhead technique, note how the height of the mics affects the sound: the higher the mics, the more the sound will interact with the room, the lower the mics, the more accentuated the attack will be.

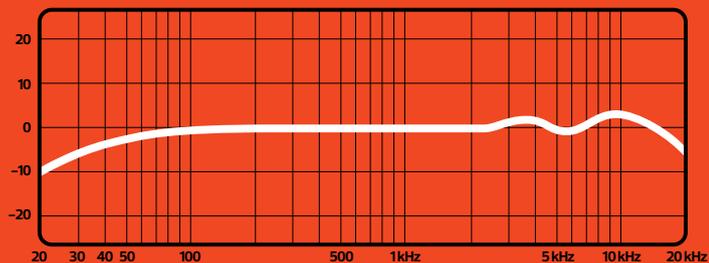
Recorderman

This technique calls for very precise placement of the mics. One mic should be placed 32" above the center of the hi-hat, with the other placed over the drummer's right shoulder facing the snare drum at a distance of 32". Both microphones should be an equal distance away from the kick drum. Because of the low positioning of the mics, this configuration tends to be less 'cymbal heavy'; rather, it represents the toms, kick and snare in a stunning, dry stereo image. When mixing the drums, experiment with panning the mics left and right to see how this changes the stereo image. If, during this process, you notice the middle seems to drop out of the drums, ease the tracks back towards the center until you achieve a full stereo sound.

Close Miking Hi-hats & Drums

To use Hummingbird for close miking, begin by placing it two to four inches above the rim of the drum or hi-hat. Then, adjust the capsule to achieve the desired 'attack': closer to the player's stick means more attack and definition, whereas turning the capsule away will soften the attack.

POLAR PATTERN



125 kHz



250 kHz



2 kHz



8 kHz



16 kHz



Acoustic Guitar

Recording acoustic guitar can be tricky, but the Hummingbird's transparency and superb dynamic range are well suited for the job. For a balanced sound with plenty of sparkling high end, position the microphone facing the guitar neck, right where the neck joins the body (usually around the 12th–14th frets). For starters, keep the mic as close as possible, and tilt the capsule toward the sound hole to capture a blend of low end and pick sound. If you need more lows, move the microphone closer to the sound hole. For more high-end detail, move the Hummingbird farther from the guitar, either at the same neck position, or above the instrument up by the guitarist's head.



Piano

Pop and jazz piano recording is usually accomplished with a pair of microphones placed inside a grand piano, either close to the hammers for a defined, percussive sound, or roughly in the middle of the piano body to get a more resonant and blended tone. When using these methods, it's conventional to employ a coincident stereo pair of microphones, with one microphone capsule oriented to pick up the treble strings, and the other focused on the bass range of the instrument. Another useful technique is to position a stereo pair or single Hummingbird microphone just outside of the piano, either in the curve of a grand, above an upright, or a few feet away from the cabinet. This will give you a classically oriented sound with a significant amount of natural room reverberation to add liveliness.



Stereo miking

Recording artists want depth, complexity, and ambience in their recordings, and when stereo miking with Hummingbird, you can deliver it all. Thanks to the pivoting head, a set of Hummingbirds can be placed in any stereo-miking configuration you desire, with unmatched precision and ease. Experiment with different mic placements, such as "XY" and "Decca Tree" when recording piano, acoustic guitar, drums and percussion, or even your favorite amplifier. With Hummingbird's sonic precision and clarity, you can capture the rich detail of any instrument—from the delicate quiver of a harp, to the frenetic arcs of a violin.



String Instruments

When recording bowed instruments, especially the violin, room conditions become even more important. Since violins tend to be very bright, recording them in a lively room can leave you with a harsh-sounding recording. For starters, try hanging a blanket or two on the surrounding walls to slightly dampen the room's natural reverb. Once you've taken control of the sound of the room, place the Hummingbird about one or two feet in front of the bridge of the instrument. If you are recording a violin or viola, this means you will need to place the Hummingbird above the person playing, pointed down toward the bridge of the violin or viola. If the instrument sounds harsh (too much high end), try moving the microphone slightly toward the side of the instrument and away from the "f" holes. If you are recording multiple string or bowed instruments, simply place the Hummingbird about 3–6 feet above and in front of

the instruments, pointed toward the players. Try and arrange the players evenly in front of the mic to avoid picking up one instrument more than all of the others. And there you have it (voila!)



Percussion

On tambourine, shaker, bells, clave and orchestral percussion, the Hummingbird offers astounding clarity and realism. Start by placing the microphone about a foot from percussive instruments. Moving the mic closer will emphasize detail and tone, as well as decrease the proportion of ambient room sound on a track. More distant placement will yield a natural, roomy sound that blends easily with other rhythm instruments.



Vocals

Here's a little-known secret—vocalists love singing into unique and impressive mics. And in addition to its good looks, the Hummingbird was specifically developed to provide crisp, transparent sound during any vocal performance. Put Hummingbird in front of any singer and you're guaranteed to capture truly inspired vocals. For a "big" vocal sound, position the vocalist within one to four inches of the capsule (be sure to use a quality pop filter like Blue's The Pop). Tilt the capsule up (towards the forehead) for more projection and head tone, straight on at the mouth for maximum brightness and intelligibility, or down towards the chest for more robust full lows and smoother highs.



Choir Vocals

Getting that illusive "perfect" vocal track is tricky when recording only one voice, let alone a group of voices. When recording choirs or background vocals, the size of the singing group dictates what type of mic should be used, how many mics should be used, and where the mics should be placed. Cardioid condenser microphones like the Hummingbird are often used to record groups of singers because they offer focused, balanced sound and eliminate unwanted ambient noise. Space the microphones 6 to 9 feet apart, with the capsule of each microphone pointing at the back row of the choir. Make sure not to use too many microphones—if multiple mics pick up the same audio source, it may result in unrealistic sound reproduction. This process may take some practice, but with the Hummingbird on your side, it just got much easier.





Technical specifications:

- **Transducer Type:** Condenser, Pressure Gradient
- **Polar Pattern:** Cardioid
- **Frequency Response:** 20Hz - 20kHz
- **Sensitivity:** 15mV/Pa @ 1kHz (1Pa = 94dB SPL)
- **Output Impedance:** 50 Ω
- **Rated Load Impedance:** Not less than 1k Ω
- **Maximum SPL:** 130 dB SPL
- **S/N Ratio:** 85.5 dB-A (IEC 651)
- **Noise Level A-Weighted:** 8.5 dB-A (IEC 651)
- **Dynamic Range:** 129.5 dB (2.5k Ω)
- **Power Requirement:** +48V DC Phantom Power (IEC 268-15)
- **Weight:** 212g (7.5oz)
- **Dimensions:** 170mm x 27mm x 27mm (6.7" x 1.1" x 1.1")

Included Accessories

- Rigid carry case with foam lining
- Mic clip
- Foam wind-screen

Recommended Accessories

- The Pop (brass mesh pop filter)
- Dual or Quad high-definition mic cable
- Robbie the Mic Pre—Class-A vacuum tube mic preamplifier