

**The Ball**





## Congratulations.

You have just purchased the world's most unique and innovative dynamic microphone – *The Ball*. Here at Blue, we're known for designing and building the finest microphones available for studio, stage, film and broadcast use. Our microphones unite the heritage of the world's most respected classics with leading-edge technology, innovative engineering and inimitable styling. The Ball is the product of our unrestrained imagination and our years of microphone and capsule manufacturing experience. There is simply nothing else like it. But don't just take our word for it — read what audiophiles around the world have been saying:

*"This thing rocks...and it rolls! I think they're really onto something here."*

—Socrates, Philosopher/Slacker, Ancient Greece

*"Sounds great. I think."*

—L. V. Beethoven, Composer, Germany

*"When I first saw The Ball, I nearly spit out my latte. The lines are remarkable, the presentation startling, the concept marvelous and the shape is simply inspiring. I can only shake my head in disbelief and wonder, 'why, why did I not think of this first?'"*

—Leonardo Da Vinci, Freelance Renaissance Man, Italy

*"You'll be hearing from our attorneys . . ."*

—Sergi Korolev, Director of the Sputnik Project, USSR



We know you hate to read manuals. So do we! But because The Ball is such a unique recording and sound-reinforcement tool, we really hope you take the time to familiarize yourself with its features. And be sure to try the suggested application tips that are designed to help you get the most out of The Ball. You might just learn something too. With proper care and feeding, the Ball will reward you with many years of recording and performance enjoyment. Now, let's get The Ball rolling, shall we?

## Phantom-powered what?

The Ball is the world's first phantom-powered dynamic microphone. No, that is not a typo! You probably already know that as an electromagnetic transducer, the traditional dynamic mic induces its own output voltage and does not require phantom power (pay attention — there will be a test on this at the end of class). While this principal has been used for years in everything from guitar pickups to generators, and of course microphones, it exhibits some problems when it comes to accurate sound reproduction.

When you plug your dynamic microphone into a fixed-impedance console input or onboard mic preamp, you create a resistive load in the transducer that varies with frequency. That would be fine if we wanted a tone control on our microphone, but in a recent very unscientific poll conducted by the AAK (Association of Arcane Knowledge), most respondents indicated that they did not want such a device — particularly one over which they had no control! Being the creative thinkers that we are, we solved this problem to give you the finest dynamic microphone ever made. But how?

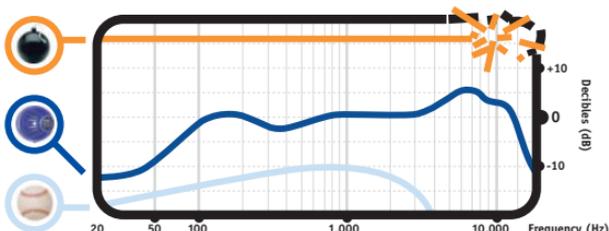
We locked our engineers in a small, windowless chamber. Armed with only a notebook, a calculator, a loaf of bread and two quarts of *Balzam* (the national beverage of Latvia and highly flammable), we charged them with the responsibility of eliminating *frequency-dependent variable resistance* in a dynamic microphone. Their reply: “Nekadu problemu!”

Days later they emerged with what could only be described as an eleven o'clock shadow, two empty *Balzam* bottles, and a singed notebook containing sketches and pages of formulas and calculations. When we leafed through it, we knew immediately what we held in our hands: The design for an efficient, rugged Class-A discrete amplifier circuit that would once and for all ensure a consistent pure-resistive 50-ohm load across the entire useable frequency spectrum — a dynamic microphone of unsurpassed sound quality that is as comfortable on the road as it is in the studio.



## Ball Frequency Response

This frequency chart is only a start. It gives the recordist a basis of the sound provided. How the microphone reacts in a particular application will differ greatly because of many variables. Room acoustics, distance from sound source (proximity), tuning of the instrument, mic cabling, fuse length and bat weight are only a few of the interacting issues. For an artist or an engineer, how the microphones are used creates the basis of the sound.



The Ball delivers an acoustic balance far superior to conventional dynamic microphones. It is open and detailed with unique presence, particularly at low frequencies, yielding an extremely smooth performance that pleases even the most discerning listener. Yet, unlike its electrostatic counterparts, the ball can withstand extremely high sound pressure levels that would send even the toughest condensers packing. Plus, it looks really, really cool.

There was only one thing left to do: come up with a name for it. After countless rejections — *The Spheroid*, *Rollo*, *The Un-Cube*, *Balzam* (see above), *Moonie*, or *The Orbmaster 2000* — we decided that it should be a direct reflection of the beautiful simplicity and symmetry of its shape. Hence, *The Ball*. Besides, *Moby Grape* was taken.

### Ok, so how do I use The Ball?

The Ball was designed for both stage and studio use. Because of its rugged construction, cardioid pickup pattern and high-spl specification, you can use the ball anywhere you'd use a traditional dynamic mic: kick drum, snare drum, tom toms, electric guitars, bass cabinets, vocals, and anywhere else you need a rugged mic that sounds unlike anything you've ever heard before.

The Ball features a unique swivel mount located on the bottom center of the mic body. Be sure to mount The Ball on a standard-thread counter-weighted mic stand. Though The Ball is extremely durable, we would hate to see it fall due to an inadequate stand (it doesn't bounce well). Once mounted, you can gently pivot The Ball back and forth for optimum positioning in front of the sound source.





***HEADS UP!:*** Forceful positioning of the swivel mount can result in damage not covered by the warranty, so there.

The Ball requires +48 volt phantom power which most FOH consoles, recording consoles and outboard mic preamps supply. If your preamp does not have a phantom power facility, several external power units are available from various manufacturers. It is important to note that some units, though rated at +48 volts, may supply insufficient or unstable power which can result in distortion or degraded performance when used with The Ball.

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

1. Set mic preamp gain to its nominal position (“off”).
2. Mute console master, stage monitor and mains feeds, headphones or foldback sends, and studio monitors.
3. Connect the female end of your balanced XLR microphone cable to The Ball’s output jack located on the back of the mic body directly opposite the Blue logo. Connect the male end to your balanced console input or balanced mic preamp input.
4. Switch on phantom power.
5. Un-mute all previously muted signal paths and adjust mic preamp gain as necessary.

To disconnect or reroute The Ball, be sure to mute all audio signal paths before you disengage phantom power. Wait 30 seconds to allow all components in the signal path to discharge before disconnecting the mic.

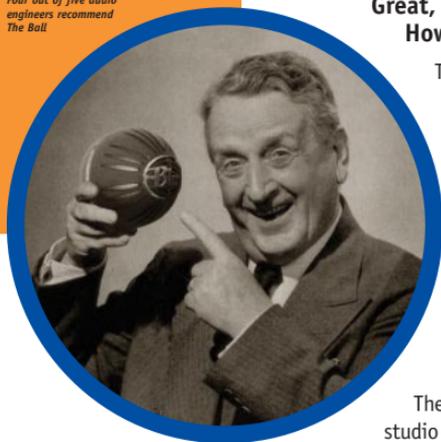
Once the Ball is on the stand and powered up, make sure that the active, on-axis side of the diaphragm (the side with the BLUE logo) is facing the desired source, unless you’re recording your cousin Lenny’s accordion recital, in which case turn the logo away and cover your ears.





*The Ball has proven to be popular even in some of the more obscure reaches of the galaxy*

Four out of five audio engineers recommend The Ball



## Great, so now I'm ready to go! How do I get the most out of my Ball?

The following application hints are intended to give you a good starting point to get the most out of this unique audio tool both in the studio and on stage. As with all applications however, there are no rules, only guidelines. Trust your gear and trust your ears. If it *sounds* good, it is good!

*Safety note: make sure to remove all tennis rackets, baseball bats and croquet mallets from the ball's immediate area of use.*

### On Stage:

These mic placement recommendations apply to the studio as well as the stage but with one caveat. Due to the lack of acoustic isolation in the live environment, it is generally desirable to employ “close-miking” techniques to achieve better separation between instruments and to avoid monitor bleed which can cause feedback problems. However, you may want to experiment with The Ball on stage as well. Due to its anti-resonant ABS shell and spherical shape, The Ball exhibits excellent off-axis rejection and feedback suppression characteristics, opening up a whole new world of sound reinforcement miking possibilities.

### Vocals

Here's a little-known secret: vocalists love singing into unique and impressive mics like the Ball. Put it in front of any singer and you're sure to get an inspired performance. For a “big” vocal sound, position the vocalist within one to four inches of the diaphragm. There is no need to worry about overloading the microphone. If you are working in a studio environment, you have the option to use a high-quality sonically neutral pop filter to control plosives and protect the diaphragm.



Tilt the microphone slightly upward (toward the forehead) for more projection and head tone, straight on at the mouth for maximum brightness and intelligibility, or down toward the chest for more robust full lows and smoother highs.

## Electric Guitar

Because of its full and solid bottom end, the Ball is an excellent mic for any clean or distorted guitar amp. Position the diaphragm toward the center of the speaker or dust cap to capture more highs, or toward the edge of the speaker cone for a fuller sound with more low end. For overdriven or distorted tones, move the mic towards the outer edge of the speaker cone, or back it away from the amp a foot or more to blend room tone with direct pickup and soften high frequencies. Give The Ball a try on electric bass, blues harmonica, and organ too!

## Acoustic Guitar

Large diaphragm mics require careful placement when used on acoustic guitar, but The Ball's rich tone and high output are well-suited to this task. For a balanced and pure sound, position the diaphragm facing the neck where it joins the body (usually between the 12th and 14th frets.)

Initially, keep the mic as close to the instrument as possible, tilting the diaphragm toward the soundhole to capture a blend of low frequencies and pick sound. If you need more low frequencies, move The Ball closer to the soundhole. For more high frequency detail, move The Ball farther away from the guitar, either at the same neck position, or above the instrument near the guitarist's head.

## Strings

Because of its high output and natural highs, The Ball is an excellent choice for miking upright bass and cello. In general, the diaphragm should be angled toward the instrument's bridge to pick up a blend of body resonance and bow sound. Placement from 3 to 6 inches in front of the bridge is usually ideal. If you would like to try The Ball with violin and viola, it is preferable to position the microphone 1 to 2 feet above the instrument. Angle the diaphragm toward the bridge for more bow sound and low tones, or toward the tuning pegs to capture a more diffuse, brighter sound.



## **Drums**

The Ball's high SPL capability and excellent transient response offer numerous advantages when miking drums. For kit and hand drums, begin by placing the microphone two to four inches above the rim or hoop (where the head is secured to the shell). Angle the mic toward the player's stick or hand to pick up more attack and definition. Orienting the diaphragm toward the shell will soften the sharp attack of a hand drum, or pick up more of the bright, crackling buzz from a snare drum. Moving the microphone closer to a drum generally increases the low end, shell resonance, and separation from other sound sources, while more distant placement emphasizes the interaction of the drum and the environment, producing a blended, clearer sound. And don't be afraid to stuff The Ball right inside your kick drum for that classic "thump!" We're sure you'll be delighted with the results.

## **Saxophones, Flutes, and Reeds**

The smooth, natural high frequency response of the Ball makes it an ideal choice for miking saxophones and other wind instruments. For soprano sax, clarinet, oboe and related instruments, position the mic directly above and in front of the keys between the middle of the horn and the lowest pads. Try moving the mic up or down along the length of the body to adjust the balance of airy highs (toward the mouthpiece) and cutting midrange (toward the bell). On flute, start by placing The Ball above the middle of the instrument, and move the diaphragm closer to the mouthpiece if more high frequencies and breath sounds are desired. For other members of the saxophone family, start by placing the Ball two to six inches in front of the lip of the bell. Angle the mic upward toward the mouthpiece to capture more air, brightness, and high notes. For a mellower sound, orienting the diaphragm toward the floor will emphasize the low range of the sax, and will tame the biting upper midrange that projects straight out of the bell.

## **The Ball's in your court**

We're sure that you'll be delighted with the results you get from The Ball, whether it's in the studio or on stage. At Blue we're committed to bringing you the finest in technology and craftsmanship, along with an attention to detail that runs throughout our entire line of award-winning mics.

Now, go get The Ball connected and be ready to hear how well-rounded it really is. It'll even make cousin Lenny sound good.



### Specifications:

Operating Principal:

Dynamic transducer with active  
"Class-A" phantom-powered solid-state circuitry

Polar Pattern: cardioid

Frequency Response: 35Hz – 16kHz

Sensitivity: 3.5mV/Pa at 1kHz, 1 Pa = 94dB SPL

Output Impedance: 50Ω

Recommended Load Impedance: 2kΩ

Maximum SPL: 162 dB SPL (2kΩ load at 1% THD)

Output Noise: 17 dB "A" weighted

Power Requirement: +48V DC phantom-power

Current Draw: 2.5 mA

Optimum Inflation Pressure: 28psi

**Optional Accessories:** Blueberry, Cranberry or Kiwi high definition mic cable

For more information on Blue Microphones and our complete line of award-winning mics, visit us on the web at [www.bluemic.com](http://www.bluemic.com)



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

Any resemblance between The Ball and any other ball, living or dead, is purely coincidental.

Made in Latvia.



Microphones

Think you can't afford the best? Think again.<sup>TM</sup>