

What is the Blackbody?

The Ambient Field Conditioner for pristine audio and video

THE BLACKBODY IS A HIGH-TECH AUDIO ACCESSORY which greatly enhances your audio playback experience by addressing the interaction of your audio gear's circuitry with ambient electromagnetic phenomena and modifying this interplay. The Blackbody takes advantage of the quantum nature of particle interaction, and is therefore able to permeate metal, plastic, wood, and other barriers to affect the circuitry inside your components. This altered electromagnetic influence results in profoundly improved sound quality.

What does the Blackbody do that power filters do not?

The LessLoss Blackbody is not a power filtering device. Rather, it complements your power filtering device by addressing the audible imperfections incurred by your gear's direct interaction with ambient electromagnetic phenomena. Where a power filtering device leaves off, the Blackbody, as a field filtering device, takes over.

How does this differ from shielding?

Shielding using a mu-metal screen is effective due to its magnetic permeability, so low frequency hums are addressed well by this method. Other metallic enclosures are used to address higher frequencies. To be effective at the highest frequencies, enclo-

tures must be air tight or soldered closed, or else make use of special gaskets, which is not normally done due to the many switches, connectors, display panels, and drawer slots for data disks. While thick aluminum and other methods (carbon fibre, wood, acrylic materials) are well-known in the high end

“enclosures and other proximate objects cause audible interference effects

audio design world, their affect on the sound is well documented by those who have experimented using the same electronics with different enclosures. There exists an electromagnetic interaction of the signals in the circuitry with the enclosure and other proximate objects which causes an audible interference effect by superposition of multitudinous reflections and inductions of EM waves. These smear the timing and exactitude of the signals and it is exactly this aspect which is addressed by the Blackbody.

What will it do to the sound?

Percussive strikes have never been cleaner and more musically comprehensible. You can feel the muscle power in the bow arm and sense the smile's quality in the voice of the lead singer. There is something about mind before matter which is revealed to the listener, and everything takes on a more genuinely →

human sound quality. Discern age and maturity of tone as never before. In a word: the sound will be improved in a way that has not yet been addressed. Tubes sound less tubey and transistors lose their twinge. A local audiophile who usually speaks only in terms of highs and lows could only put it this way: “When I remove the Blackbody, the attractiveness of the music is gone.”

How does the Blackbody look?

The device is matte black, with elegantly rounded corners forming a square shape somewhat smaller than a compact disc in size. At six and a half pounds, it has a compact, dense footprint that rests heavy in the hand. The surface of the Blackbody which is intended to make contact with your gear, furniture, or floor, is made of a perfectly smooth black sand-blasted alloy.

Let's turn it around

The back side of the Blackbody looks similar to the front side, which faces the equipment whose ambient field it is to condition. This design allows for placement in a variety of ways, so as not to intrude upon the elegance of your system's appearance. To the eye, the Blackbody is like a high tech picture frame which complements the gear it is placed next to. To the equipment, the frame becomes the electromagnetic 'open window' to keep your gear fresh for perfect operation. The Blackbody's interaction with the ambient field surrounding and penetrating your gear results in much higher audio quality, without the slightest hint of undesirable coloration.

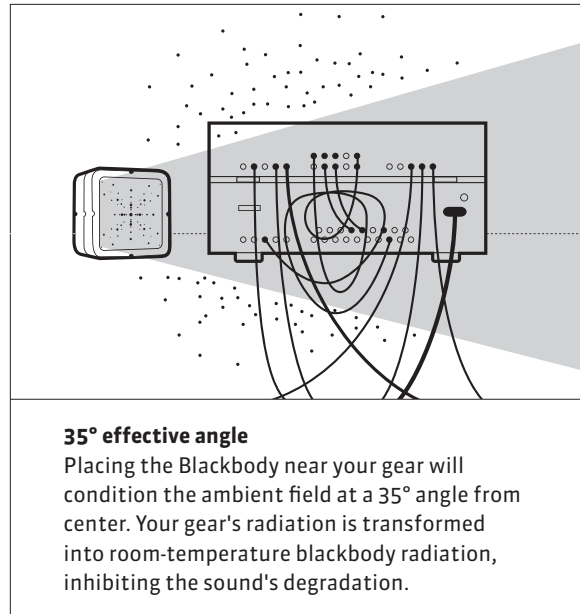
How do I use the Blackbody in a real-world system?

The Blackbody utilizes particle/wave patterns to work, and therefore does not need to be wired to your gear. It contains no batteries and is not powered by an external power source. It needs only to be placed near your audio system, either on the gear

itself, or on the floor or a nearby shelf. The device can be thought of as a sort of flashlight which shines at a 35 degree angle from its center.

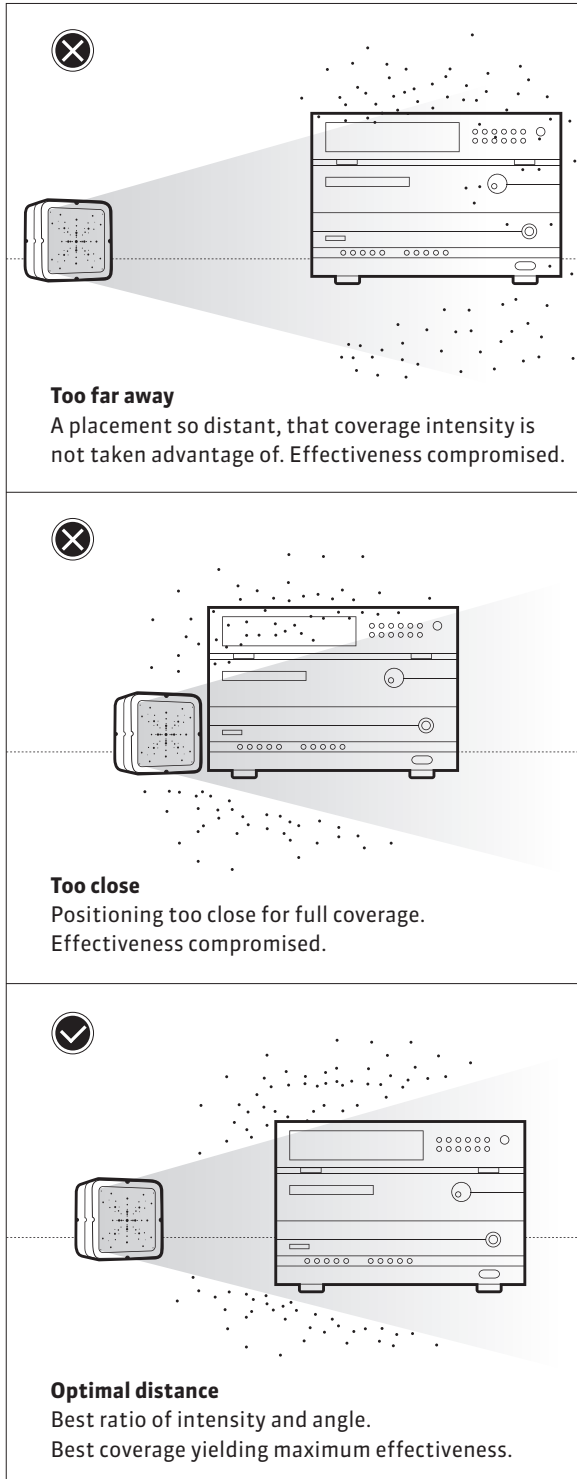
Positioning the unit

Placing the Blackbody too close will not harm your gear, but the resulting effect on the overall sound of the system will be better when the Blackbody is placed further back, so that more of the circuitry will be encompassed by its invisible “beam.”



Where ideally should the Blackbody be placed in the audio system?

With a real flashlight, if you want to illuminate the object you are looking at best, you will stand back from it a certain distance. Holding the flashlight up too close will give you only a small spotlight of high intensity. Going too far away will weaken the effect, but will spread it out. →

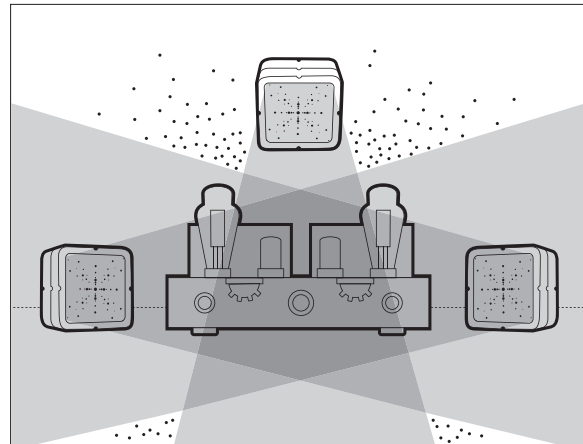


How do I position it for top performance?

When using only a single Blackbody unit, the most effective placement will depend on the configuration of the circuitry within your system (i.e. transformers, sensitive parts such as quartz oscillators, DAC chips, signal paths, etc.), and will require some trial-and-error before the perfect ratio between distance and angle of coverage is found. That said, in most practical situations this best ratio can be found between 15 and 40 cm from the circuitry at which it is aimed.

Finding the ultimate balance

From the front side of the Blackbody, the coverage angle is 35 degrees going outwards from the middle of the star pattern. The more proximate the Blackbody's coverage area is to your gear's inner circuitry, the more effective it will be: proximity and →



The more the merrier

Because the Blackbody provides a non-coloring tweak to your sound system, the more Blackbodies are used, the more effective their cumulative result. No shielding method can offer this capability, for all shielding methods color the audio in one way or another, and cannot be taken to extremes unless different methods are combined in careful amounts. Hence the tricky art of creating neutral sounding enclosures.

angle of coverage should coincide with as much inner circuitry as possible. A quick look inside your gear can help you get an idea of where the circuits are located within your gear. If possible, several Blackbodies should be used in tandem to maximize coverage and effectiveness.

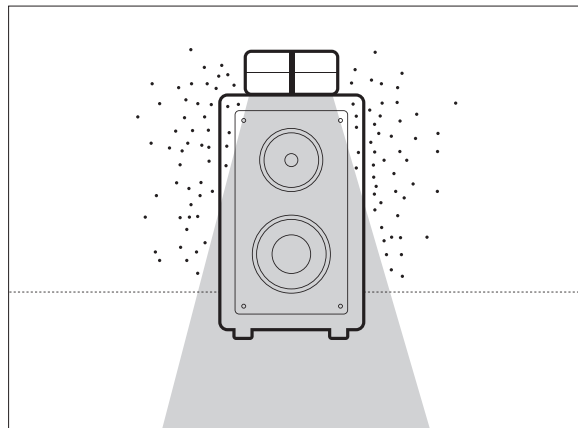
Is there really an invisible beam coming from the Blackbody? What is it?

The “beam of light from a flashlight” analogy is easy to grasp, but the truth is that the opposite is happening. The Blackbody is more akin to an “anti-projector” – in the sense that it is actually the gear which is “shining the light,” and the Blackbody’s 35 degree angle “line of sight” modifies the gear’s “shining” so that it ceases to affect the audio.

This is not sci-fi. The Blackbody does not set up a “force-field.” It alters the ambient reflections of actual EM fields originating from and affecting the gear. The Blackbody interacts with these fields, creating a different reflection pattern. Consider the Blackbody a narrow angle conditioner for electromagnetic ambient conditions. The completely neutral “projector-like” functionality of the Blackbody causes audible changes in sound when one person holds it in two hands (for it is heavy) and pans it slowly in proximity to and across the gear. The listener can sit and report sometimes drastic, sometimes less drastic, changes in the sound’s neutrality as the Blackbody travels, affecting key areas of the circuitry in the gear. The Blackbody’s effects easily traverse equipment cases, furniture, and other obstacles, for photon energy is pure energy that can go directly through all these substances. This might seem somewhat uncanny at first, but think of a toy magnet under the table moving another magnet on top of the table: what is happening here is similar, only instead of drag or lift, we get cleaner sound.

Can you give an example of how to test the effectiveness of this device?

Of course. Here is but one test: the assistant holds a Blackbody up behind the tweeter of the audiophile’s left speaker. The audiophile then chooses which speaker draws his interest more. (He will report that the left speaker has cleaner highs and draws his attention more than the right speaker, which sounds uninteresting in comparison.) Then, the assistant moves to the right speaker, pretending that he is still holding the Blackbody, but in reality he has left it behind the tweeter of the other speaker, where it was before. The audiophile is asked once again to choose which speaker sounds more interesting, more believable. (He is still drawn to the sound of the left speaker, even though he believes that the Blackbody is now behind the right speaker.) →



On loudspeakers

When two or more Blackbodies are used, stereophonic effects can be enhanced by positioning them next to loudspeaker circuitry. Much information is contained in the highest frequencies, which is revealed by the Blackbody in a natural way.

A modification of this test is to attempt to remain interested in the sound coming from the left speaker, while the assistant indeed moves the Blackbody behind the right speaker. The listener will have a very hard time concentrating on the sound of the left speaker and will give up the attempt after a short while, preferring the sound now coming from the right speaker. It is very difficult to remain satisfied with the blurry sound of electronic equipment which is completely susceptible to ambient conditions. As all experienced audiophiles know, shielding methods introduce their own coloration and set of compromises.

Versatility of the Blackbody

If only one Blackbody is available, we recommended its use in proximity to the gear, not the speakers. Try to position the imaginary “beam” of 35 degrees from center of the Blackbody such that most of the signal path is covered. Transformers and cables also benefit when placed in the Blackbody’s coverage area. The Blackbody can be placed on top and underneath gear. It can be rotated, placed rightside up, or upside down.

Getting the most out of the Blackbody

Tweaking the position of the Blackbody is much like focusing binoculars or a microscope. Sometimes only a few centimeters’ difference can drastically alter the sound because you have hit a “sensitive nerve” in the circuitry’s layout. Finding these prize points is a great joy, and I wish you a lot of fun finding your own perfect placements.

Attention to detail

In collaboration with the cutting-edge design studio Fonografika, we designed the LessLoss Blackbody as a stylish, meticulously-crafted accessory fit for any lifestyle. Crafted from precision milled high-grade alloy with special treated glass and a durable coating, the Blackbody features a refined, subtle, European-style design.

“ The Blackbodies are extremely good. I’ve now got the best sound I’ve ever heard. Listening has become a pure pleasure and joy. I insist on setting up with the Blackbodies at all future audio shows.”

RAINER WEBER / TECHNICAL DIRECTOR, KAISER ACOUSTICS, GERMANY

How the Blackbody works

The Art and Science of Ambient Field Interaction and Conditioning

THERE EXISTS AN ELECTROMAGNETIC interaction of signals in the circuitry with the enclosure and other proximate objects which causes an audible interference effect by superposition of multitudinous reflections and inductions of EM waves. These smear the timing and focus of the signals and it is exactly this aspect which is addressed by the Blackbody.

So what does this have to do with high end audio?

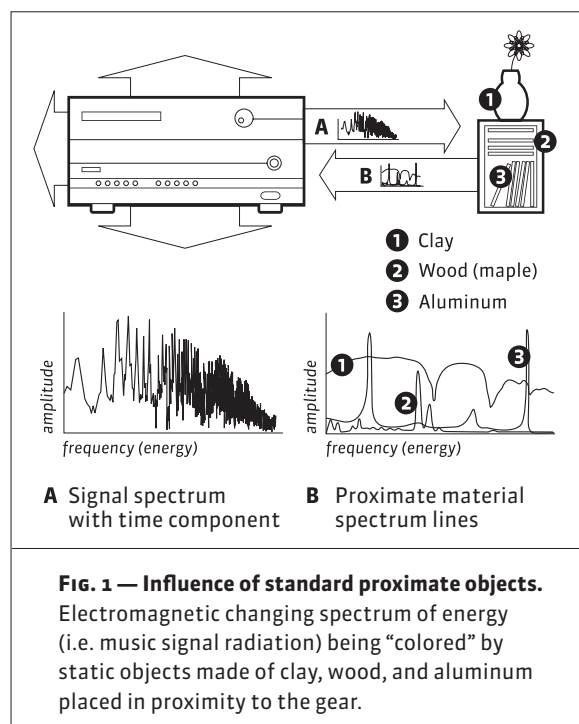
For audiophiles, one major underlying principle of energy interaction which influences sound quality is the absorption and emission spectra of proximate material. All materials exhibit unique fingerprint emission spectra when exposed to electromagnetic radiation. For example, in this way, satellite technologies, hundreds of kilometers from the Earth, can be used to accurately differentiate fields of alfalfa from cannabis as well as bedrock of granite from that of quartz, even underneath the earth's surface.

This is done by analyzing the spectrum of reflected electromagnetic radiation from the material in question. Another term for this is the emission spectrum. It is an innate property of matter that all materials exhibit a specific emission spectrum when exposed to EM radiation. This is why we see different colors.

The difference for spectrum analysis is that, where our eyes see only the surface radiation, there are

other bandwidths which we cannot see but which are just as present and interacting. All EM radiation, visible to us or not, partakes in the energy transfer between objects.

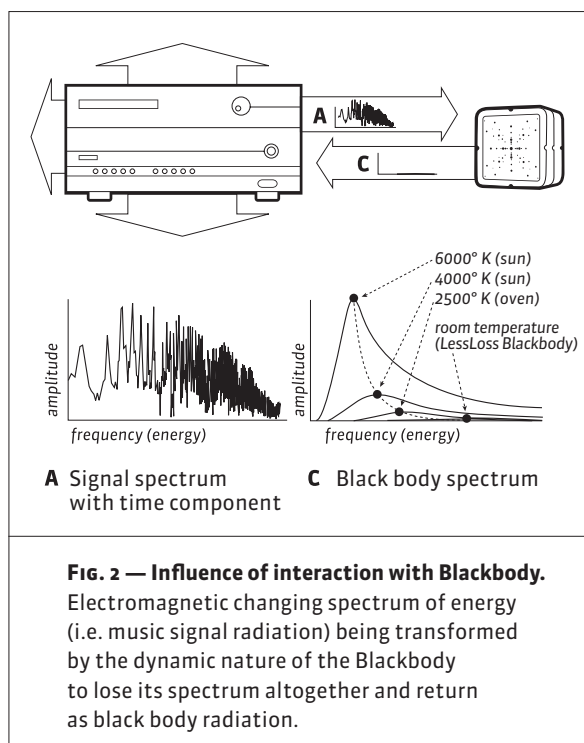
In the following drawing (FIG. 1), electromagnetic energy radiates from the gear's electronics. The EM reflection returning to the gear is modified by the



“ I find the concept fascinating, since it may explain certain phenomena which I have observed for years but had no satisfactory explanation for! I congratulate you on this extraordinary development.”

PETER BIZLEWICZ / FOUNDER, SYMPOSIUM ACOUSTICS, USA

static absorption / emissivity spectrum of proximate material, slightly modifying its original spectrum. This is the fundamental reason why audiophiles report hearing the effects of repositioning proximate objects around their sensitive audio systems. In this sense, one can say that color does affect sound, but to be accurate, this statement's scope must be expanded: all electromagnetic interaction affects the sound quality produced by hi-fi gear.



So what is novel about the LessLoss Blackbody?

The LessLoss Blackbody addresses this issue in a novel way. Black body radiation at room temperature has no significant spectrum, so the reflection the gear sees is not similar to the original in any way except for the amount of energy. The proximate Blackbody device provides an absorption / emissivity spectrum which, in contrast to other materials, is not static in nature. Rather, its absorption / emissivity spectrum can be said to change along with the signal. In other words, anything goes in; and always only the same black body radiation comes out. (FIG. 2)

Electromagnetic energy radiating from the gear is composed of a rapidly changing highly prized spectrum. The spectrum changes in real time along with the signal being played back. The slightest coloration of this sensitive signal is audible; coloration in this sense meaning a static function of influence acting constantly upon the otherwise unpredictably changing spectrum of the desired signal. When the Blackbody is placed next to the gear, the EM reflection the gear sees is modified to become a transformed form of the original spectrum of energy.

The transformation process undergone in real time changes the spectrum of energy radiated from the gear into that of a spectrumless room-temperature radiation pattern known as black body radiation, whose total energy is the same as that of the original.

“ The Blackbody does not add anything to the sound or system. It effectively removes something that's intrinsically connected to electronic sound reproduction (the cleaned-up TV image is a nice bonus). ”

So how is this better than, say, my favorite mahogany, tourmaline, smoky quartz, or other electromagnetically influential talisman?

The absorption / emissivity spectrum of all materials must be considered in terms of a closed system, and because of the first law of thermodynamics, they must add up to zero (with the exception of some loss to heat). There is therefore nothing mystical about the fact that the energy spectrum transferred between a high end audio device and a proximate object will always be related. This holds true for the LessLoss Blackbody as well. In sharp contrast, the novel aspect here is that, for the first time, the audiophile is presented with the possibility of having a related energy exchange without a related spectrum exchange.

	Energy	Spectrum of energy
Proximate Material	YES related (always)	BAD related / colored
LessLoss Blackbody	YES related (always)	GOOD not related! / not colored!

This means that the resulting sound of the audio remains uncolored, because the informational content of the reflection is in no way related to that of the emission originally brought forth by the audio gear playing the desired data on the recording.

Remember that in electronics there is no emission without supplementary induction. The two go together, and take part in the same continuous electromagnetic field. But if we can divorce the emission from the inevitable induction in terms of spectral quality, we have made true fundamental progress instead of having, as is customary, colored the audio this way or that through a filtering of the reflected EM energy via choice proximate materials and their individual static spectra.

Ok, then. Name the principle of operation in one sentence. What is the core idea?

In summary, because the energy association between two electromagnetically interacting proximate objects must always, through nature's design, be related, it is the objective of the LessLoss Blackbody to divorce completely the spectral aspect from this mandatory interaction to provide an elegant solution to the problem of spectral interaction of proximate materials and their associated coloration of the resulting sound quality in high fidelity sound systems.

LOUIS MOTEK / SENIOR DESIGNER