

# Why NOT Ground Control?

**G**ROUND CONTROL. The phrase harkens back to thoughts of space exploration, maybe even science fiction. However, AudioPrism's revolutionary Ground Control is absolutely science fact! Once you incorporate Ground Control into your system, you will find the improvements to your sound shockingly real—anything but fiction! Here's a short explanation of how these quite simple devices work the magic they do.

Seventy five years ago—when valves were new, when speakers were magnetized by coils of wire, and stereo was a distant concept explored by the most advanced audio thinkers—radio amplifier circuits were paired with a solid copper plate—a ground plane. These amplifier circuits were constructed with point-to-point wiring and were carefully, symmetrically laid out with particular attention to maintaining consistent spacing from this copper sheet.

This ground plane served several functions: it provided shielding from external electrical fields, it established a local reference point for “zero signal” (the dividing line between the positive and negative swing of the impulse for push-pull, or positive to zero for single-ended amplifiers) and a proximate storage for electrons representing the negative half of all signal activity, significant because these local electrons composed a mirror image of the circuit components for every electrostatic moment. These electrostatic moments occur in electrical fields when there is a vector change in that field, i.e., from positive to negative. When an audio device reproduces even the simplest musical instrument there are many of these moments—up to thousands per second—so many in fact that the electrostatic field seems continuous.

These ancestors of modern day electronics were and still are, revered for their tonal completeness. The richness of information that expressed a musical event was of paramount importance for a population

that in some form or another still played live music in family groups, among friends, for entertainment. These classic amplifiers and speakers were not modern-day low distortion devices and their bandwidth was barely wide enough to encompass the musical instruments they were reproducing. Yet these devices were cherished for their ability to reproduce those elements of musicianship that musically competent people could immediately appreciate.

It's ironic that modern audio equipment, though vastly more capable of reproducing all of the signal elements that earlier equipment could provide, so often seems to be lacking the richness and subtlety that was so well portrayed by that earlier generation of measurably inferior equipment. Today, we strain to get a glimpse of what a master of cello provides to a live audience. We are continually presented with brass instruments that sound more like the buzzing of tissue paper wrapped over a comb. And drum heads sound as if they are coated in lard.

How can this be?

One explanation is that, instead of being positioned intimately inside our amplifiers, preamps, etcetera, like those copper plates of yesterday, our ground planes are now located under the street in utility conduits, or down at the local power station. The local support of the negative half of all of our audio signals is a thing of the past. Thus, half of all musical information is being compromised by unknown dielectric materials interacting with those electrostatic moments in random, uncontrolled fashion, on the ground side of our circuits.

But it doesn't have to be that way: the AudioPrism Ground Control provides a self-contained local ground storage mechanism for all of the electrostatic moments that occur in music being reproduced via a given circuit or component. They help to maintain the coherence of electrons involved in signal transfer—i.e., making music—through CD players, preamplifiers, amplifiers and, of all surprising things, speakers.

And why not speakers? If you look at those antique speakers, you will see a wire that connects the negative terminal lug of the voice coil connection to the tin coated metal basket that supports the active components of the speaker so that the metal basket acts as, guess what? Yep, a ground plane.

The AudioPrism Ground Control provides only a portion of all of the benefits a full ground plane provides, but what an important portion it is. Ground Control offers those very benefits which deal directly with the intelligibility and information richness of the musical events being reproduced. They do not add anything to the music, they simply help maintain what is already there.

Try a pair in your speakers and you will be astounded at how much information was previously being lost just because there was no ground plane. Music takes on unbelievable palpability and definition. The AudioPrism Ground Control will allow your gear to perform as intended, and that, of course, is their magic: making music sound more like music.

Launch your system to a new level of performance!

**GROUND  
CONTROL™**  
by EnABL

**AudioPrism**

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