

# Affordable\$\$Audio

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## Audio Magic Mini-Reference Power Conditioner

By John Hoffman

The use of power conditioners in home audio is a fascinating subject. On several occasions I have spoken with audio enthusiasts who own various brands of power conditioners, yet cannot identify any positive audible effects from their use. The majority of these individuals cannot give a reason why they own a conditioner, except that “at least it offers surge protection for my equipment”. While surge protection is a necessary requirement, there should be an audible improvement in sound quality to accompany it.

My first adventure into the world of power conditioning is an example of how difficult it can be to find the appropriate conditioner for a system. In the mid 1990's I acquired one of the original Tice Power Blocks. From a logical standpoint, I knew that power conditioning was needed to create a high-resolution system, and the Tice conditioner appeared to be a rational choice. The Power Block was designed around a massive isolation transformer, which was used to filter RF and EMI. During this time period the Tice Power Block was the accepted solution to power conditioning issues, and should have brought a significant improvement to my system. However, the best-laid plans of audio enthusiasts often go awry, and what I experienced was a loss of detail and dynamic range. This was quite a step backwards, and I was quite confused how this had come about. The Power Block never worked well within my system, so I eventually sold it and began looking for an alternative.

The next candidate for my system was the Tara Labs AD/6 Power Screen. While this unit was an improvement over the Tice, the end result was still an overall degradation of audio quality. Once again the Tara Labs unit went up for sale, and from that point on I relied strictly on high quality power cords to meet the electrical needs of my system. Earlier this year I decide to explore this subject again, and I spent some time listening to the AC Regenerator from Monarchy Audio. The AC Regenerator removed noticeable amounts of noise and grunge from my system, and made a positive contribution to its overall sound quality. However, due to its limited power output capabilities, the Monarchy unit is a good match for front-end components, but cannot supply enough electricity for a complete system. I was interested in finding a conditioner capable of running a whole system, including a pair of mono-block power amplifiers.



I knew the Stealth series of power conditioners have been high esteem by the audio community for several years now. I decided to give Jerry Ramsey at Audio Magic a phone call; I wanted to find out if any of the less expensive Stealth conditioners would perform well in a moderately priced high-end system. After examining the various candidates, I decided on auditioning the Stealth Mini-Reference conditioner. It is the first step up in the Stealth line up, and is designed to provide power management functions to a whole system. The Mini-Reference is not insanely expensive, and is within reach of most audio enthusiasts.



Jerry Ramsey has always been a bit of a “free thinker” when it comes to his solutions of audio problems. Audio Magic is known for making high quality audio cables, and his work with silver ribbon wire has pushed the envelope of this type of cable geometry. Jerry tackled the sonic problems found in traditional power conditioners in a somewhat unorthodox manner. Several different types of transformers were evaluated at the beginning of the design process, but in the end they all had sonic limitations. Jerry concluded that a power conditioner based on conventional transformer technology was quite effective in filtering RF and EMI.

Unfortunately, the transformers also created phase shift issues, which were far more difficult to deal with. Also, transformers have the potential of limiting current to high demand components, such as an amplifier. Clearly, a different path needed to be taken to solve the sonic issues; so Jerry began to explore alternative solutions to these problems. Jerry has incorporated some unusual elements into the circuit design of the Stealth conditioners, and I need to take a moment to describe the function of these elements.

The AC current coming into the Stealth Mini-Reference conditioner must first pass through the IPF module. This module is a combination of caps and coils that are designed to filter RF and EMI. This is the only section of the Stealth that resembles a conventional power conditioner. At the core of the Mini-Reference conditioner is the Pulse Generator and Activator assembly. This unit is not in the “signal path” of the conditioner, but instead accomplishes its task by being in close proximity of the current flow. As it’s name implies, the pulse generator creates a signal pulse that cancels RF and EMI from the passing current flow. Finally, the conditioner contains quantum physics disruptors, which are another passive weapon against electrical noise. These objects absorb RF and EMI, and then convert them to heat, which is dissipated from the unit. While it is true that these components have unusual names, I would have to say that my listening experiences indicate that the Audio Magic conditioner is quite adept at stripping noise from the household current.

Audio Magic uses a somewhat plain looking chassis for the Mini-Reference. No one can accuse the Audio Magic of being a piece of “eye candy”, but it is reasonably attractive. Actually, I appreciate Jerry’s choice of a sensible enclosure; it keeps the price of the unit within reason. Quite often manufacturers use elaborate cabinets to house mediocre designs, and justify the exorbitant price tags that come with these units based on their impressive build quality. The Mini-Reference uses proprietary 10 & 12 gauge silver conductors for it’s internal wiring. All internal wiring is subjected to cryogenic and MST treatments which enhance the crystalline structure of the wire. Actually, all metal components

within the Mini-Reference are cryogenically enhanced. This conditioner uses 3 hospital grade duplex outlets, so it can accommodate six components. The wiring to one duplex bypasses the IPF Filter module because it is designed to feed a pair power amplifiers. Jerry wanted to ensure that that his conditioner would not limit the current being supplied to an amplifier, so he decided to rely on the Pulse Generator and the Quantum Physics Disruptors to provide the necessary noise filtering. A 20-amp breaker is used to provide surge protection to all associated components. All in all, the Mini Reference is a reasonably attractive unit, although it is difficult to discern it's true worth by just a visual inspection.

The past few months I have evaluated some components that have found a home within my main system. For the evaluation of the Audio Magic power conditioner, I chose to install these new pieces. A pair of Electra-Print 300DRD mono-blocks is still handling amplification duties. The Electra-Print PVA is a passive pre-amplifier that is designed to work with the above-mentioned amplifiers. In the digital arena, an Audio Magic Kukama DAC has taken up residence. This is a superb Digital to Analog converter, and will be reviewed later this year. A JVC XL-Z1050TN CD player is being used as a transport for the DAC. I recently assembled a pair of Audio Nirvana Super 12 speakers, which are housed in a pair of Lovecraft Designs cabinets. The system is wired with Audio Magic's Illusion 4D interconnects and speaker wire. Finally, Audio Magic Extreme power cords are used between the various components and the Mini-Reference power conditioner.

When electrical noise is present in a system, it makes its presence known by smearing vocals and instruments. Actually the whole piece can sound a bit out of focus, almost like viewing a scene through a window with condensation, or frost on it. When I installed the Mini-Reference in my system, it led to a significant improvement to the resolution of my system. One particular song that showcased the effect of this conditioner is "Painters" [*Pieces of You*; Atlantic 82700-2] by Jewel. This disc was her effort at reinventing herself as a folk singer, and has some interesting pieces on it. This particular track has a significant amount of hall reflection that can overwhelm the subtle nuances of Jewels vocals. When the Mini-Reference is placed in the system there becomes a distinct separation between the ambient reflection of the room and the performers voice. Words and phrases are easier to follow since they are no longer lost in the hall echo. The room reflections are not diminished by the Mini-Reference, it just becomes easier to hear the separation of the vocalist and the venue. The addition of the Audio Magic conditioner led to a significant improvement in the presentation of subtle detail from my system.

Since the amplifiers are being routed through the Mini-Reference, I needed to determine if there were any limitations to the dynamic range of my system. The Electra Print amplifiers draw approximately 150 watts apiece, so they are not the largest of current hogs. I loaded up the GRP All-Star Big band disc in order to put some stress on the system. "Blue Train" [*GRP All-Star Big Band*; GRP Records GRD 9672] is an up-tempo cut that requires the Electra-Print amplifiers to employ every watt they have at their disposal. If the Mini-Reference limited current, this track would readily highlight this issue. This track has it all, from soaring trumpet crescendos to quiet piano solos. During my listening sessions the music seemed to get louder in an effortless manner. The horn section sounded brassy and powerful, just like they should be. A trombone solo was exquisitely smooth, and yet it was easy to hear the metallic overtones of the instrument. Somewhere in the middle of the piece, there is a piano solo that sounds vibrant and full-bodied. Even though the Mini-Reference amplifier outlets bypass the IPF Module, it still capable of providing the necessary RF and EMI filtering. I could not identify any instances of current limiting with the Audio Magic conditioner.

One evening I decided to engage in some recreational music listening, and I grabbed a live recording of Bryan Adams. While I enjoy Bryan's music, I have never regarding this disc as an exceptional re-

ording. I decided to start with a vintage Adams song "The Only Thing That Looks Good On You Is Me" [MTV Unplugged; ACM Records Inc 31454 0831 2]. Within the first few seconds of this track, I knew that the Audio Magic unit was making a significant improvement to my listening session. The venue of this recording now sounded cavernous, just like you would expect from a performance on a stage to be. The cymbals on the drum kit literally shimmered, and I could pick out individual drumstick strikes. Even the percussive sound of the kick drum showed significant improvement. What was really surprised me is how the Mini-Reference improved the presentation of the sound of the crowd in this recording. With this power conditioner in the system, the crowd became spread out, and occupied a defined space within the recording. Without a doubt, this is the best reproduction of this disc that I have experienced.

I would not argue that the Mini Reference conditioner is an unconventional design. Based upon my listening experiences, I will say that this unit is quite effective in removing RF and EMI from the current path. I heard improvements across the entire audio spectrum. When I look back at my listening notes, I cannot find one instance where the Mini-Reference failed to make an audible improvement in the performance of my system. With a price tag of \$990, the Audio Magic Mini-Reference is not a budget priced conditioner. It truly is a high performance line conditioner, and the large number of outlets ensures that it will accommodate the vast majority of audio systems. From my experiences, the Mini-Reference will make an improvement to a system that cannot be obtained in any other manner. If you do not use a power conditioner at this time, or have a unit you are considering replacing, then take the time to audition an Audio Magic Stealth series power conditioner.



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