

T H E inner ear

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CryoClear Silver-2 Audio AC Power Cable

Source: CryoClear Audio Products

Price: \$395.00 Cdn 6ft/pr
\$325.00 US 6ft/pr

Rating: ♪♪♪♪



Every component reviewed in these pages receives a quick appraisal by the Editor before we agree to evaluate it. He tries it in a familiar set-up and if it qualifies as eligible, we begin our nitpicks. First, a little about this relative newcomer to the industry. The Silver-2 is the brainchild of Steven Huang, designer, owner and operator of CryoClear Audio Products. Steven is an avid audiophile who became “afflicted” about twenty year ago. He holds a bachelor’s degree in chemical engineering, specializing in process control and metallurgy. In addition, he has a Master’s degree in mechanical engineering specializing in robotics. Both degrees are from the University of Waterloo in Ontario, Canada. Steven states that he has been designing cables for the past eight years. He realized that power cables can significantly improve a system so, using his experience, he invested about three years to develop the cable under review. The company was established

about two years ago and its products are now sold in better audio establishments in Ontario. CryoClear products have their foundation in technology—haute technologie, physics and cryogenics. More about this later, but first to the cable’s...

Appearance:

The Silver-2 is a rather plain-looking cable wrapped in a black woven polyester jacket with white tracers. It’s about 15cm thick and comes in six and eight foot lengths. It’s flexible enough for easy handling, sports heatshrinking on the ends for additional strain relief—and that’s it. Nothing in the Silver-2’s appearance reveals the rather sophisticated internal composition, it’s...

Technology:

First, a little about cryogenically treated materials. The word Cryogenics comes from the Greek meaning “producing cold”. It’s the science of low-temperature physics which refers to the

production and maintenance of temperatures much below normal (down to almost absolute zero) and various phenomena that occur only at such temperatures. The scale used in low-temperature physics is the Kelvin scale—the absolute scale, based on the behavior of an idealized gas. Low temperatures are achieved by removing energy from a substance. This may be done in various ways, but the simplest method is to cool a substance by bringing it into contact with another substance that is already at a low temperature. Ordinary ice, dry ice (solid carbon dioxide), and liquid air may be used successively to cool a substance down to about 80° K (about -190° C). The heat is removed by conduction, passing from the substance to be cooled to the colder substance in contact with it. Most processes used to reduce the temperature below this level involve the heat energy that is associated with magnetization. Successive magnetization and demag-

netization under the proper combination of conditions can lower the temperature to about a millionth of a degree above absolute zero. Reaching such low temperatures becomes increasingly difficult and takes many steps to achieve. We'll not get into the complicated science here, but will point out that the methods used to "cool" things down result in a kind of superconductivity and superfluidity phenomena that occur only at temperatures near absolute zero. By the late 1980s several materials that exhibit superconductivity at temperatures exceeding 100° K had been found. Superconductivity is the elimination of all electrical resistance in certain substances when they reach a transition temperature that varies from one substance to another. This effect can be used to produce powerful superconducting magnets as well as super conductors such as the cable under review. It is constructed with considerable care, beginning with military grade 12 AWG silver-plated copper conductors with PTFE Teflon insulation. There are four conductors in a star quad configuration, with an effective rating of 9.5AWG. One 12 AWG silver plated copper conductor is employed for grounding.

The cable is terminated with a Furutech gold audio-grade 3-prong plug and IEC connector. Wire AND connectors are cryogenically treated at minus 300°F. A heavy-gauge braided copper shield provides 100% coverage (grounded at plug end only). Seven discrete layers of Teflon dielectric and two EMI/RFI attenuation layers complete the cable's construction.

All CryoClear cables undergo a computer-controlled vapour cryogenic process which involves an eight hour ramp down from ambient temperature to minus 300°F. They are then "soaked" or held at minus 300°F for ten hours and are returned to ambient temperature for at least 24 hours before they undergo the final manufacturing process. The procedure modifies the molecular structure of the metals and results in, among other things, better conductivity (manufacturers of silicon-based chips already knew this).

We are told that the Silver-2 power cable employs a sophisticated multi-

layer construction technique, which cannot be reproduced by machine. Thus each cable is painstakingly assembled by hand and takes several hours to construct. Now to the most important element...

The Sound:

Testing the sonic make-up of an AC cable seems very easy: unplug existing cable, replace with test cable, listen and nitpick. We did just that, replacing an upscale AC cable with the one under review and appraising its performance by comparing sonic quality, effectiveness and other elements, such as resolution, imaging, texture and timbre.

For our initial auditioning session, we used the Audio Aero Prestige CD player (to be reviewed in the next issue). When we replaced our in-house cable with the CryoClear, the overall tonal transformation expected didn't occur. Instead, we were surprised to discover comparable resolution, texture and clarity. While dimensions and boundaries were well delineated, the spatial effects were somewhat shy of perfection when compared to our more expensive in-house cable. The CryoClear's all-round "signature" is smooth without being subdued, clear without stridency and resolute where it counts, namely in the bass regions. In an upscale CD player such as our Audio Aero, this cable can be considered an upgrade over the AC cord included with the player.

Our second test involved using the CryoClear with our in-house Wyetech Labs Topaz amplifier and a switch from another upscale AC cord. Again, this time, we noticed no sonic differences, but did hear subtle changes in space/time elements. Ideally, each instrument or voice should be located on an invisible sound stage, and the cable did that very well, but didn't allow enough spatial detail to qualify as a top component with which to achieve high-end sound. Nevertheless, it took some very long and involved listening tests to differentiate between the CryoClear and a cable costing almost twice the money. What we are trying to communicate here is that it will take some very keen ears to hear the above mentioned sonic impressions.

To confirm our findings, we attached CryoClear cables to both the amp and

the CD player and conducted another lengthy listening test. This time we had the impression that the system approached the unmistakable level of sonic high-end performance.

Synopsis & Commentary:

Well, the Silver-2 made it quite obvious to us that cryogenically treated conductors and connectors used in systems improve clarity, dynamics and inner detail. There are tons of upscale cables on the market and, while it is not unusual to find a reasonably priced AC cable, it is uncommon to find one that actually performs very much in line with more expensive designs. The CryoClear isn't the absolute conductor to be sure, but it's crystal clear (pun intended) that, in light of price, performance by far exceeds expectations. As there aren't any audible or consequential imperfections anywhere across its frequency reach—that's good tonal balance—this cable is well suited to improve all-round sound. The Silver-2 should not be considered a "band-aid fix" to correct a system's performance; rather it should be employed to enhance its musical attributes. In addition, the CryoClear allows its users to attain improved detail, textures and harmonics, particularly noticeable when it's employed throughout an entire system configuration.

The Silver-2 has what it takes to operate in mid or high-end systems regardless of brand. Price here is no indication of the cable's caliber. It is well suited for use with all source and power components, regardless of their current requirements. Preamplifiers and processors (for home theatre) will also benefit. Try it in your system and smile all the way to the bank, for you will have found a true bargain. :|

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