

Rivers Series

Perfect-Surface Metals • Cold-Welded OCC Plugs • Air-Tubes

audioquest.

The River Series

What in the world would inspire us to replace the highly successful “Big Cats”? The restless desire for improved performance. The result is a new family of high performance interconnects.



AudioQuest founder and chief designer, Bill Low, has been busy pushing the envelope of cable design. After testing new construction processes and materials, it is time to unveil a new generation of analog audio cables reflecting the results of this exhaustive effort. These new developments have been incorporated into the River series, while extensions of established design elements have been taken to a new level.

Key design elements of the **River Series**:

Dielectric-Bias System (US patent 7,126,055)

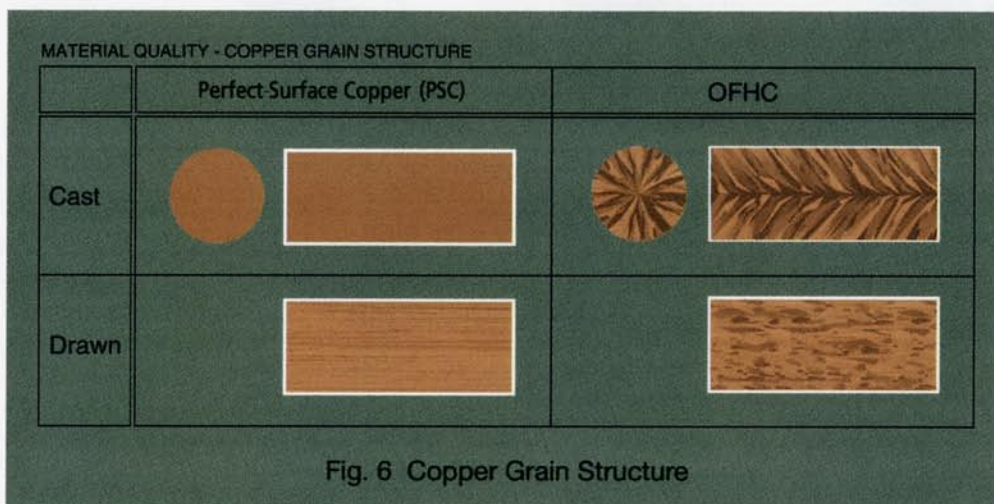
Greatly improved performance is made possible by a constant 48 or 72V charge on all Rivers' insulation. DBS puts a continuous DC voltage potential (DC bias) between a DBS-only conductor in the cable's center and an outer shield-like conductor. This keeps a cable's insulation fully polarized all the time, something no level of signal can come close to accomplishing. The result is considerably more transparency and dynamics than possible even from a cable in continuous use, with equipment that is never turned off. Because DBS battery packs are attached when the cables are assembled, they do not require an additional run-in period. Because there is no “load” on the batteries, they will last for years. A test button and LED allow for occasional verification of battery charge.

Air-Tubes

Air is the best insulation because it does not absorb and later release energy. Air-tubes have an inner diameter much larger than the outer diameter of the metal inside. Air becomes the primary insulation!

Perfect-Surface Metals

The quality of the metals used in cable construction makes a huge difference in sound. Because the surface of a conductor has 100% current density at all frequencies, the surface most defines the sound quality of the whole conductor. Our unique drawing process preserves the integrity of the metal surface. Extreme high-purity solid Perfect-Surface Copper and Silver (PSC/PSC+/PSS) minimizes distortion caused by grain boundaries that exist within any metal conductor, eliminating harshness and greatly increasing clarity compared to all other conducting materials.



Noise-Dissipation System

Noise, in the form of RF energy, is the mortal enemy of good sound. Our environment is more contaminated with RF than ever before due to the huge proliferation of RF radiating devices like computers and cell phones.

Traditionally, RF energy is routed to ground in an interconnect cable through the use of a shield, consisting of either a braided metal and/or a wrapped foil. This shield acts as an antenna to attract unwanted RF noise. This “draining” of RF to ground causes a modulation of the equipment’s ground reference. This in turn causes a form of signal modulation, a distortion of the signal.

One easy analogy is to think of the electrical ground as “earth”. The routing of RF energy to ground causes various degrees of seismic activity in the “earth”, otherwise known as earthquakes. These earthquakes in turn wreak havoc on whatever is sitting (or moving) on the earth/ground. Electrically, we have signal riding on the ground. When the ground gets modulated, the signal also gets modulated.

The Noise-Dissipation System greatly reduces the effect of this modulation. How? A combination of different “shield strategies” are used to reduce RF energy BEFORE that RF energy is dumped to ground.

A combination of metal and carbon-loaded synthetics prevents most RFI from ever reaching the equipment's ground plane. The carbon-loaded synthetics have the ability to turn some of this RF energy to heat, to very effectively "lose" this energy. Metal, used in a passive manner, is used to act as another method of dissipating and reducing the incoming RF.



By the time whatever RF is left actually is drained to ground (via an inner foil which IS attached to ground) the RF "enemy" has been greatly reduced. The result? Dramatically less modulation of the signal, less distortion and better sound.

Cold-Weld System

One of most challenging problems we face when attaching a single conductor or multiple conductors to a connector is how to ensure a perfect electrical connection between conductor and connector.

There are three accepted ways to make the connection between a cable and an RCA or XLR plug. Solder is by far the most common method of connection. (By the way, all solder is not created equal.) Resistance Welding is clearly superior to even the best solder. However, just as solder introduces an inferior layer of differing material, causing distortion and reflections, so does welding. The alloy created at the interface of cable and plug is far superior to solder, but it is still an undesirable intermediary layer. After so much attention to the quality of the cable and plug, the contact system deserves just as much consideration.

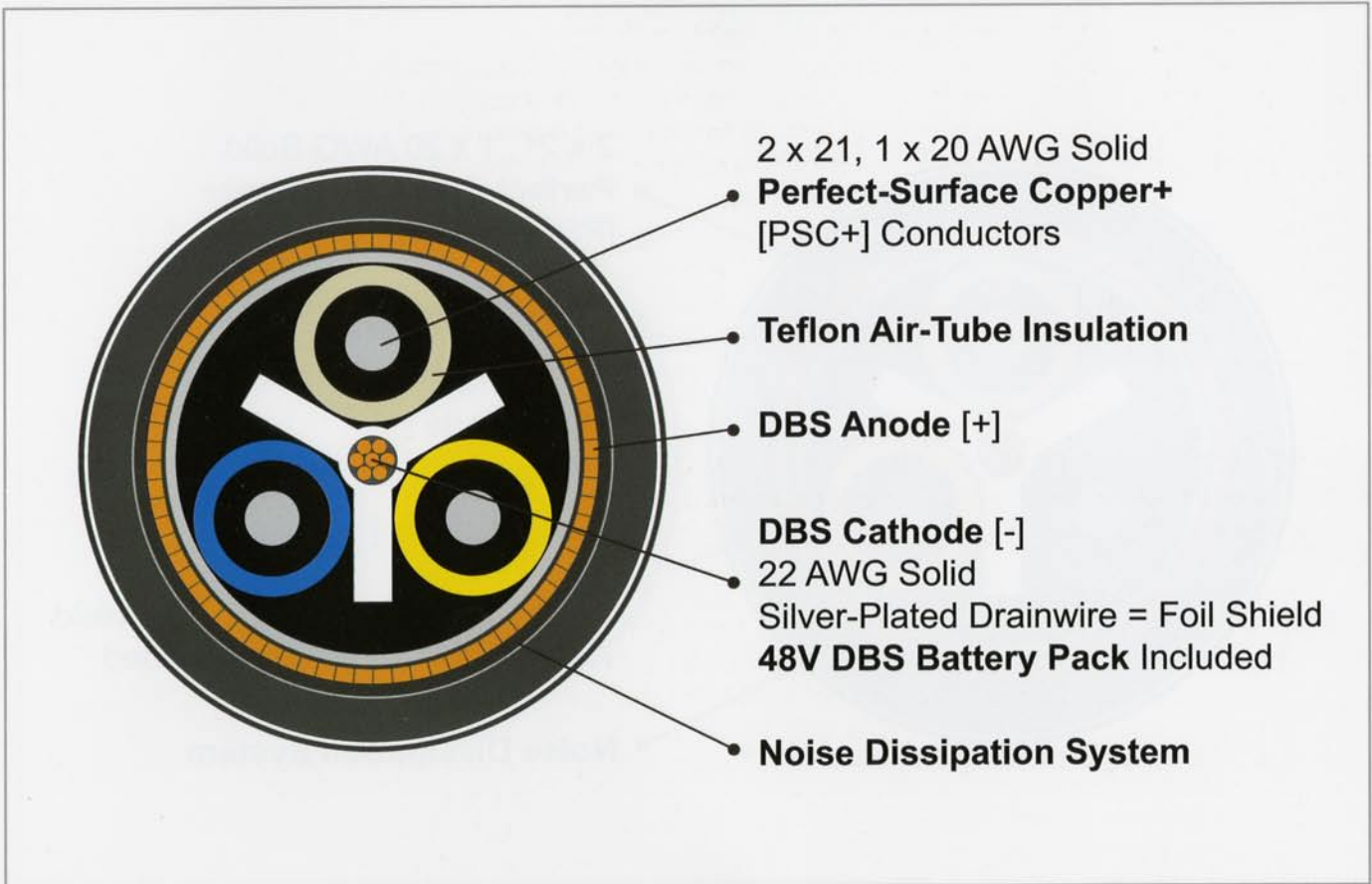
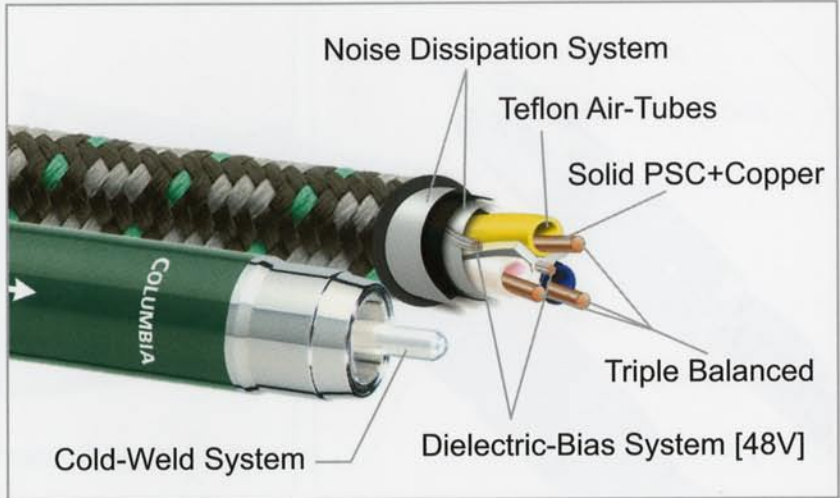


AQ's new Cold-Weld system solves this problem with a superior connection that insures that the structural integrity of the conductor is kept completely intact. The Cold-Weld system refers to a combination of high pressure at the point of contact and the use of copper or silver impregnated paste. (Silver conductors get silver paste, copper conductors get copper paste.) A controlled amount of pressure is used to essentially make the conductor and connector mechanically "as one" without the use of heat. The metal bearing paste acts as either a copper oxide or silver sulfide retardant, as well as a very effective contact enhancer. AQ's Cold-Weld system ensures a practically perfect connection.

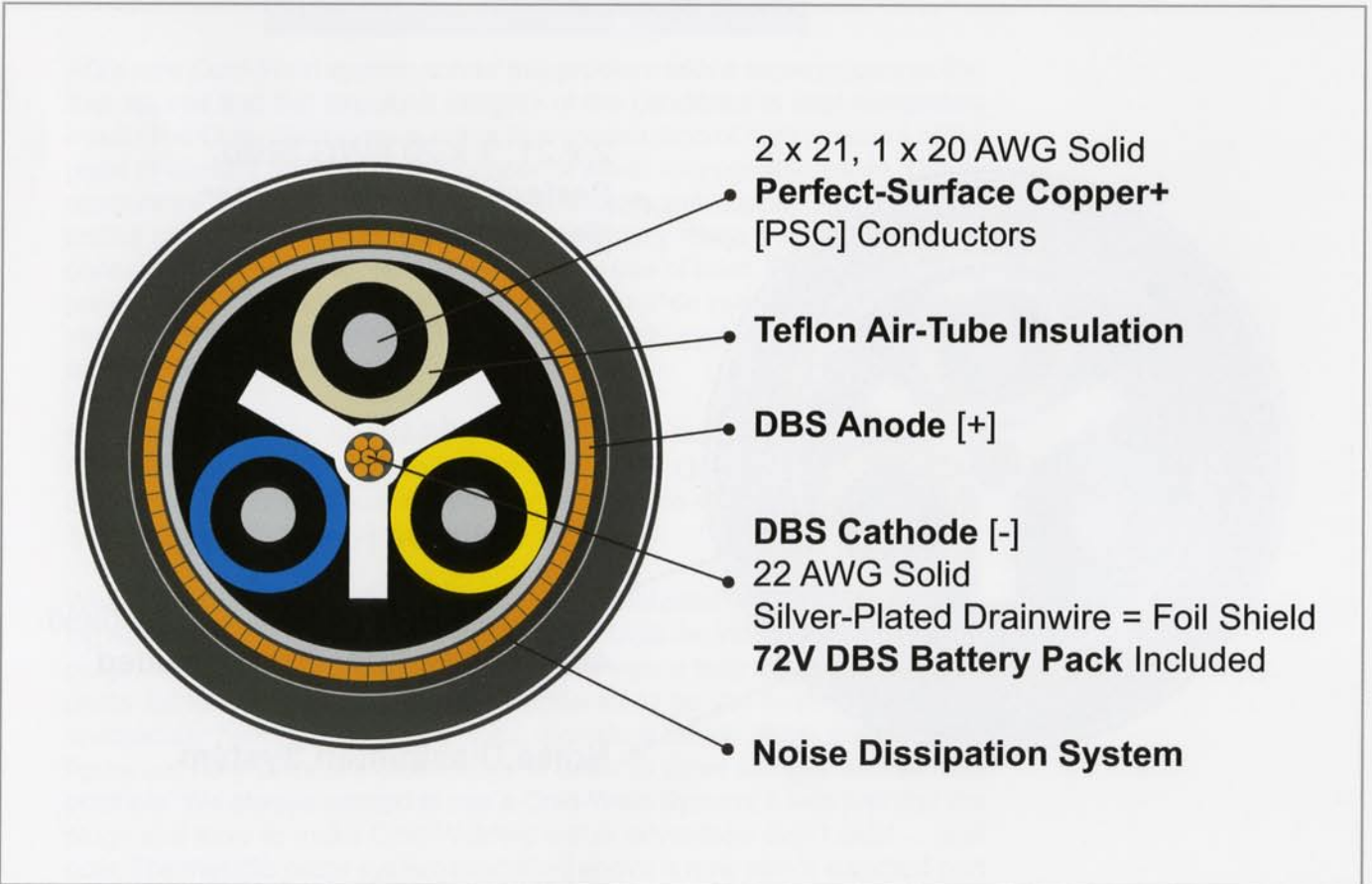
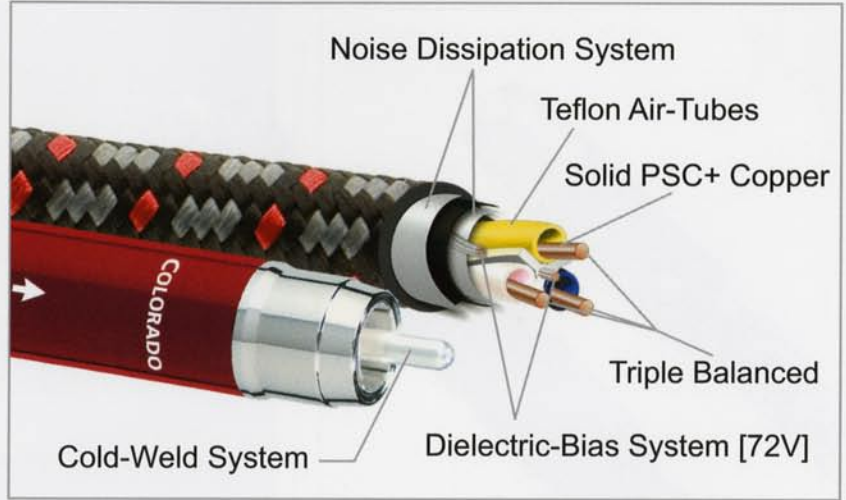
Columbia, Colorado, Niagara and Sky all use the Cold-Weld System, as do the limited line of WEL Signature Series products. One listen to a Cold-Weld System connection versus a soldered or resistance-welded connection is all it takes.

What about speaker cables? Not to worry, AudioQuest has been Cold-Welding AudioQuest speaker cables for decades. Until the WEL Signature Series plugs, we had never seen an RCA or XLR with a truly adequate crimp or press system. Resistance Welding appeared to be the best solution. The spectacular performance of the WEL Signature Series plugs pushed us to figure out how to modify other plugs in order to close the gap as much as possible. We always wanted to use a Cold-Weld System; it was just that the plugs and tools to make Cold-Welding a true advantage didn't exist ... until now. The metallic paste system described above is now also a standard part of how AudioQuest terminates speaker cables.

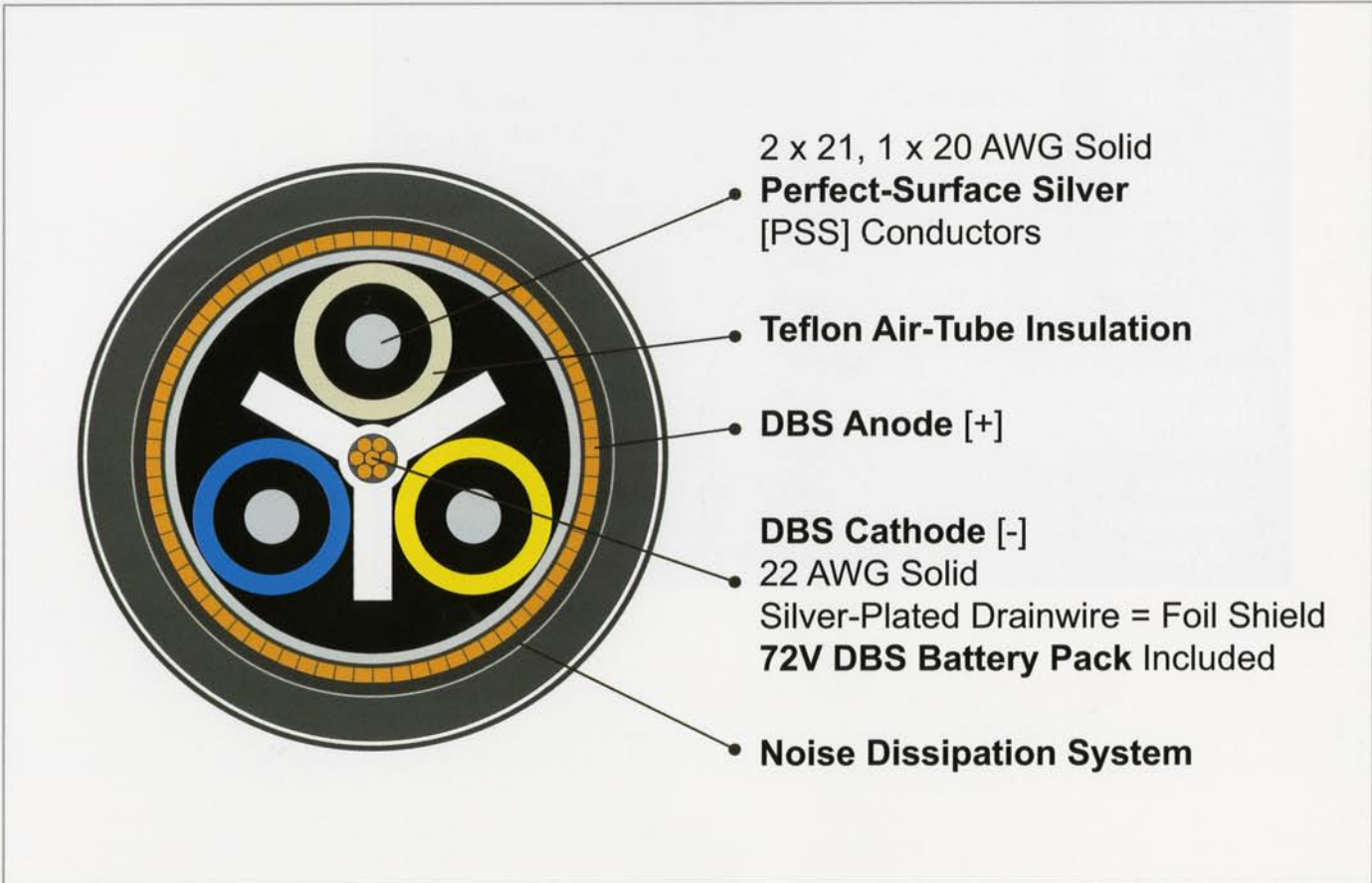
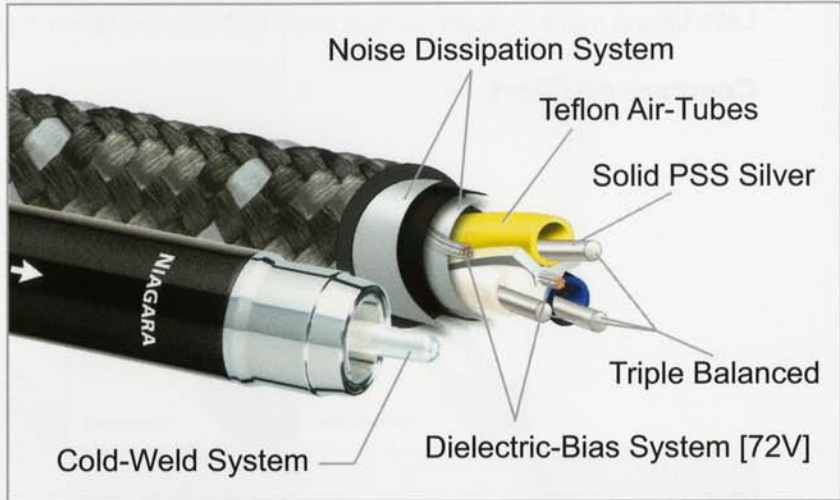
COLUMBIA



COLORADO






NIAGARA



Let's take a more in-depth look at each cable in the **River Series**.

Comparison Chart

	 Columbia	 Colorado	 Niagara
Triple Balanced (optimized for RCA & XLR)	Yes	Yes	Yes
Metals	Solid PSC+	Solid PSC+	Solid PSS
Cold-Weld System	Yes	Yes	Yes
Air-Tubes	PE	Teflon	Teflon
Dielectric Bias-System	48V	72V	72V
Noise Dissipation System	3-Layer	3-Layer	3-Layer