

# AUDIO CABLES



Tributaries complete line of audio, speaker and power cables were developed exclusively for Tributaries by celebrated cable designer Jay Victor. Using some of the same design principles from Clarus Audiophile cables, it took 3 years to complete the engineering and cosmetic design to offer this comprehensive family of cables to the market.

Tributaries cables incorporate a host of patented technologies. Beginning with copper made specifically for audio applications; conductors are multi-gauge in design with individually insulated strands and precision impedances. The Tributaries collection is complemented by painstakingly meticulous hand-craftsmanship.

#### Copper

One of the most important considerations in developing audio cables is the grade of copper. Typical high quality electrical grade copper has a purity level of 2N and approximately 1500 crystal per foot. Signals crossing thru these crystal boundaries result in loss and distortion. The next level above this is oxygen-free copper (OFC), the purity of OFC varies. Tributaries uses 2 grades: 3N OFC and a high-conductivity oxygen-free copper (HC-OFC) with 4N of purity. Both are extruded in an oxygen free environment resulting in only 400 crystals per foot. Series 8 cables use copper with purity of 5N called "linear-crystal" copper (LC-OFC). LC-OFC is carefully drawn to produce only 70 crystals per foot, a vast improvement resulting in less loss and distortion.



### The Expert in Cable Design

Jay Victor, The engineer behind the development of the Tributaries Audio, Power and Speaker Cables, is a holder of approximately 50 patents for cable geometry. "I am a musician and a life-long music fanatic. Being a technically-minded person, and an Engineer, it is inevitable that Hi-Fi equipment would become a major preoccupation. If music is a major value in your life, then the realistic reproduction of it becomes an obsession. This is what goes into the cables that I design; a relentless pursuit of perfection in reproducing the sound of real music."

#### **Insulated Multi-Gauge Conductors**

Tributaries uses solid conductors in its audio cable design. Although stranded cables are valued for their flexibility, the signal can jump from strand to strand in an undesirable manner causing distortion. Another undesirable effect is oxidation which can quickly spread between strands and cause a diode effect impeding signal flow. Conductor size also has an influence on sound. Large conductors transmit signals with less resistance than smaller ones and will also more accurately reproduce the lower frequencies; medium gauge conductors, the midfrequencies; and fine gauge conductors the high frequencies. Most theories cite skin effect and flux density as reasons for this phenomenon. Further, insulating gauges from one another result in greater clarity.

#### **Cable Geometry**

Tributaries audio cables use a twinaxial design. Twinaxial cables have two equally balanced conductors precision twisted and surrounded by a shield. Conductors are insulated using Polyethylene. Polyethylene is chosen because its transparency is similar to Teflon but without the harshness in the high frequencies. Polyethylene is flexible and has a sound quality that is warm and balanced. The shields have 360° coverage to keep noise from entering the signal path. Series 6 and 8 cables include copper braided shields with lower resistance for trapping induced noise current. In this design the signal and return have dedicated separate conductors and the shield is free to be connected at the source end only eliminating EMI & RFI induced noise from entering the receiver. The best balanced cables are triple balanced with three equally balanced twisted conductors surrounded by a shield. In a balanced system using dedicated conductors for the positive, negative and ground with an additional shield connected only at the source end delivers audible improvements by lowering the noise allowing you will hear more of the recorded music



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S/PDIF (Sony/Philips Digital Interface) is a type of digital audio transmitted over 75 Ohm coaxial cable terminated with RCA connectors. S/PDIF can carry two channels of uncompressed PCM audio or compressed 5.1/7.1 surround sound but cannot support lossless formats that require greater bandwidth. For maximum performance, Tributaries digital audio cables are built to maintain consistent 75 Ohm impedance for accurate signal transfer of the digital data. Silver plating of the conductor will support higher frequency performance. Shielding is chosen for its immunity to noise and electromagnetic interference. Tributaries digital audio coaxial cables are sold in each







## SERIES 4 S/PDIF COAXIAL DIGITAL AUDIO CABLE

# MODEL: 4AD

High Performance Audio cable

All Series 4 audio cables are meticulously assembled by hand in Orlando, Florida. The Series 4 begin with ultra-pure highly conductive oxygen-free copper (HC-OFC) developed specifically for digital audio applications. To maintain a consistant 75 Ohm impedance, the coaxial Series 4 S/PDIF Digital Audio cable's 22AWG center conductor is surrounded by a perfectly concentric layer of foamed PE dielectric. Dual shielding blocks noise from entering the singal path. Tributaries Series 4 precision 75 Ohm engineering provides accurate digital audio performance

The Series 4 Coaxial Digital Audio cable is stocked in each in lengths from  $\frac{1}{2}$  meter to 4 meter lengths with custom lengths available.

### Model 4AD Highlights

Hand crafted by skilled artisans in Orlando Florida, USA

22AWG HC-OFC conductor for advanced signal transfer

Improved foamed PE dieclectric

Dual shielding prevents noise from entering the signal path

Decorative woven jacket over highly flexible black PVC jacket

Gold-plated solid-brass RCA connectors

Available in custom lengths