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White Paper: XLO Signature2™ Audio Cables

Signature2™ is the successor line to the Signature Series, which, for almost a full decade (from 1992 to 2001), upheld XLO's reputation as "The Best in the World". Signature2™ is now the very best of XLO's generally available product lines, and its performance and quality are exceeded only by XLO's own "Limited Edition" and "UnLimited Edition" cables, both of which are of very limited production and very much more expensive. Other than Limited Edition and the UnLimited Edition, which are available to only very small numbers of truly privileged audiophiles, no other cable of any other brand can even come close!

Every wire of every Signature2™ interconnect or speaker cable is made of 99.99997% pure Laboratory Grade copper (so expensive it's sold by the gram!) custom-drawn to XLO's specific requirements. After receiving XLO's two proprietary treatments, each wire is insulated with a very thin (as little as .076 mm) layer of DuPont® Teflon®, and wound, using machinery specially adapted for that purpose, over either (for interconnects¹;) a single ultra-flexible DuPont EPTFE Teflon-variant core, or (for speaker cables) a composite core formed from five separate DuPont EPTFE Teflon-variant elements. EPTFE is a special sintered Teflon-variant material originally developed for human artery replacement during cardiovascular surgery, and, in the form used for XLO line-level cables, can be fabricated by only one company in the entire world. After the winding of the cores, the completed sub-assemblies are jacketed with another (or, for speaker cables, *TWO* more) Teflon-variant materials and given a third and final XLO proprietary treatment.

XLO Electric's world-class design engineering also extends to the proprietary connectors used to terminate all Signature2™ cables. Every connector used as standard on every Signature2™ speaker cable or interconnect is of XLO's own design and is built to XLO's own high standards. Every connector is non-magnetic, to avoid hysteresis effects, and each is designed for minimum self-inductance. Every part in the signal path of any XLO Signature2™ connector is precision manufactured from either .9999+ pure copper or an ASTM designated copper alloy selected to be best for its particular application. RCA connector contact pins, for example, and those of XLO's proprietary male XLR connectors are machined from solid billets of Tellurium copper, while the pin receptacles of female XLR connectors are formed from special Brush-Wellman Alloy 174 Beryllium copper. Where gold plating is used, it is applied directly, with *NO* nickel substrate, just thickly enough to prevent connector tarnishing, *WITHOUT* affecting sound quality². XLO Signature XLR connectors use dielectrics made of a special General Electric thermoplastic polyester resin. The dielectrics of all other Signature2™ connectors are made of DuPont Teflon.

¹Specially modified Wardwell braiders allow the positive and negative conductor sets of Signature2™ interconnects to be wound simultaneously in an interwoven pattern so that both sets are of exactly the same length. This is different from Ultra and Reference2, where the two sets of windings are applied sequentially, and the outer set, which is wound over the inner set, must always be somewhat longer.

²Perhaps surprisingly, gold is neither particularly good-sounding nor a particularly good conductor. It's only about 40% as conductive as copper and is extremely self-inductive at very high frequencies. For these and other reasons, most well-designed connectors use gold *ONLY* for cosmetic purposes or to prevent contact corrosion.

- **Signature2™ Type 1.2 unbalanced interconnect:** Ultra-high resolution line level interconnects for the very finest systems. Also available as Type 1.2s, with XLO's exclusive full-floating "Faraday Cage" external shielding, for use where extra-long lengths are required or where unusually high levels of hum, noise or RFI may preclude the use of Type 1.2.
- **Signature2™ Type 2.2 balanced interconnect:** Superb performer for balanced line-level operation. Features XLO' own proprietary Signature Series XLR connectors for even better resolution. Normally wired Pin#2 "hot". Available Pin #3 "hot" on request.
- **Signature2™ Type 3.2 dedicated analog phono cable:** Very simply the best there is. This is the latest version of the phono cable that is used as an absolute reference standard by more reviewers for more major audio magazines around the world than all others combined, and it's SO good that it has no Limited- or UnLimited Edition upgrade. We simply couldn't think of any way to make it better! Available RCA to RCA, "straight" DIN to RCA, RCA to XLR, or "straight" DIN to XLR as standard. Please specify. SME right-angle DIN also available on request at special pricing. Contact XLO for details.
- **Signature2™ Type 4.2 dedicated digital interconnect:** Analog-like performance, with astonishing layer-upon-layer imaging and a degree of timbral accuracy and harmonic richness never before thought possible from digital recording. Available with RCA or BNC connectors or with XLRs, for AES/EBU.
- **Signature2™ Type 5.2 speaker cable:** Everything you'd expect from the company with a reputation for making "The Best in the World." Type 5.2 features 8 gauge (AWG) construction, from 100% Laboratory Grade copper insulated and cored entirely with DuPont Teflon and Teflon-variant materials. Type 5.2 has only two conductors, and is NOT internally bi-wireable. If bi-wired operation is desired, use two pairs of Type 5.2, *or* one pair of 5.2 and one pair of Ultra 12 (with the 5.2 wired to the Mid-Top drivers), *or* use one pair of 5.2 and one pair of 5.2 jumpers (attach the 5.2 to the Mid-Top terminals, and run the jumpers between the Mid-Top and woofer terminals.)
- **Signature2™ Type S2/I0 AC Power Cord:** This spectacular new power cord is sure to get rave reviews and start audiophiles talking! Sharing an entirely new approach to power transmission technology with XLO's phenomenal UnLimited Edition power cord, it's an entirely hand-made 14 AWG, multi-conductor, Teflon-dielectric, HTPE-jacketed masterpiece that will clearly and obviously outperform any other AC power cord – other than XLO's own UnLimited Edition – now or ever likely to be made. Absolutely amazing high frequency detail, coupled with greater image width and depth and astounding bass "slam", make this all-new power cable a worthy addition to any serious High-End system, especially for use with digital devices and power amplifiers. It also makes a clearly visible improvement to the performance of any Video Projector or other video electronics device and XLO highly recommends it for any video application. Signature2™ Type I0.2 AC power cords are white with grey trim and purple markings, and each is fitted with custom-made premium U.S.-style plugs, and delivered in its own laser-engraved wood presentation case. European-style or 20 Amp connectors are also available at slight additional cost. Because of this cable's genuinely radical design and construction, UL listing, which is currently being sought, may not be available. ***XLO certifies, however, that all connectors used on Signature2™ Type S2/I0 power cords are UL approved, and that the cables, themselves, will exceed all performance and fire safety standards known to XLO by no less than 100 percent and, depending on the specific standard and the specific performance or safety characteristic, may exceed it by as much as thirty TIMES!***