PERFECT-SURFACE COPPER+: Volcano uses extremely high purity Perfect-Surface Copper+ (PSC+) conductors. All conductors are solid, which prevents strand interaction, a major source of distortion. Surface quality is critical because a conductor can be considered as a rail-guide for both the electric fields within a conductor, and for the magnetic fields outside the conductor. The astonishingly smooth and pure Perfect-Surface eliminates harshness and greatly increases clarity compared to OFHC, OCC, 8N and other coppers. The superior purity of PSC+ further minimizes distortion caused by grain boundaries, which exist within any metal conductor.

DIELECTRIC-BIAS SYSTEM (patent pending): Unfortunately, because insulation stores and releases energy, it is also a “dielectric.” In a cable application, all released energy is distortion. The misnomer “break-in” is often used to describe the pronounced improvement in performance as the dielectric adapts to a charged state as the cable is used. Whenever a cable does not have a charge on it, it is re-adapting to an uncharged state; it is becoming new again.

By maintaining a 72 volt dielectric-bias, far above the voltage of delicate audio signals, the DBS system provides considerably better transparency and dynamics than is possible even from a cable in continuous use. It takes a couple of weeks for the DBS system to reach maximum performance. Since DBS battery packs are attached when Volcano cables are first terminated, Volcano will be approaching or at peak performance by the time it is installed in your system. Since there is no “load” on the two standard hardware-store batteries, they will last for years. A test button and LED allow for occasional verification of battery performance.

COUNTER-SPIRALING “EARTH FEATURE” GEOMETRY: Volcano and the other AQ “Earth Feature” cables have an inner circular array of positive conductors spiraling in one direction. Around this inner group, are the negative conductors, spiraling in the opposite direction. Even while the positive and negative conductors are crossing each other instead of being parallel, the relationship between the positive and negative groups is fixed and non-changing, adhering to one of AudioQuest’s most basic design tenets: consistency. The result is an astonishing clarity, like focusing a camera lens you had no idea was so far out of focus.

SST (Spread Spectrum Technology): Any single size or shape of conductor has a specific distortion profile. Even though radially symmetrical conductors (solid round or tubular) have the fewest discontinuities, any particular size does have a sonic signature. SST uses a precise combination of different size conductors in order to significantly reduce the audiibility of these character flaws. The four different SST-determined conductor sizes used in Volcano allow an exceptionally clear, clean and dynamic sound.

CONDUCTIVE INSULATION: The eight negative conductors in Volcano are insulated with partially conductive carbon-loaded polyethylene. This remarkable material damps radio-frequency garbage from being fed back into the amplifier. The sonic benefit is exactly the same reduction in “hash” and better dimensionality that comes whenever RF garbage is reduced in an audio circuit.

TERMINATIONS: AudioQuest offers a wide range of high quality connectors that allow Volcano to be securely attached to any type of equipment. AQ ends are dull looking because the silver (or gold) is plated directly over the connector. There is no harsh sounding shiny nickel layer underneath. AQ spade lugs are plain looking and soft because pure copper is soft. Also, compressibility facilitates a higher quality connection. AQ spade lugs are available in several sizes. AQ PSC Benda-Pins fit all equipment, except components accepting only a banana plug or BFA connector, in which case the AQ Crimp BFA/Banana provides unprecedented performance at a fraction the cost of those not-so-good sounding big “eye-candy” versions.