



Power cord measurements...

...there's more to performance than wire gauge.

The *Shunyata Research* DTCD Analyzer is the first and only power analyzer designed specifically to measure the differences between AC power cables, wires and connections. Previously published DTCD measurements revealed dramatic peak-current and voltage delivery advantages when substituting a quality 12-gauge power cord (*Shunyata's* Venom-3) for any stock power cord. Some might assume these differences are related only to the wire gauge. Years of testing at *Shunyata Research* have confirmed that wire gauge influences measured performance, but is far from the only design parameter that affects impulse current delivery to AV, Recording and Mastering systems. The tests that follow illustrate just some of the many parameters that affect power cord performance.

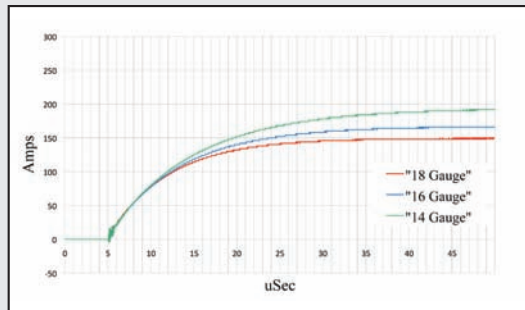
Some observers may be surprised or confounded by the following graphs, which show that wire gauge is far from the only contributing factor in achieving optimal impulse current delivery between the wall and AV components.



a final analysis...

These tests and others to follow using DTCD measurement clearly define the importance not only of quality-made power cords, but every aspect of their design. It is not just gauge that matters, but also the quality of the terminations, connectors and wire geometry. The measurements prove that combining quality design elements can objectively improve current-delivery performance to electronics.

Better peak current and voltage delivery means AV electronics have improved access to current and voltage. In lab and listening tests, the correlation to AV system performance is easy to hear and see. *We suggest you take the time, gain the experience and discover the obvious benefit better quality power cords can offer.*



WIRE GAUGE COMPARISON

This graph plots the differences between power cables of different wire gauge size. These measurements were generated by the DTCD Analyzer from actual stock power cords. Notice the progressive improvement in instantaneous power delivery as the wire gauge is increased from 18 to 16 to 14 gauge*.

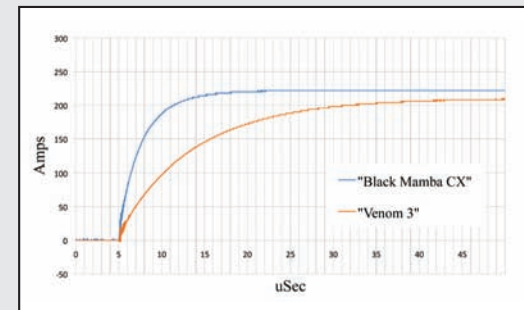
*(Wire gauge is inversely proportional to the number — 18 is smallest and 14 is largest)



CONNECTOR COMPARISON

DTCD measurements also reveal differences between connectors and connection methods. The first cable labeled "Molded" is a standard cable with crimped and molded connectors. The second cable is identical except the molded connectors have been cut off and replaced with high quality Hubbell connectors. Notice that the DTCD Analyzer clearly shows a significant increase in current delivery.

(NOTE: Both cables measure identically using conventional volt/current meters)



GEOMETRY COMPARISON

The DTCD Analyzer is the only device that measurably demonstrates the difference between cable geometries. The Venom-3 and Black Mamba CX are both 12-gauge power cables. The Venom-3 cable uses a simple 3-wire twisted geometry while the Black Mamba CX uses 140 conductors in a complex Helix geometry. Notice the Black Mamba's dramatic improvement in current response! Then, consider that this difference in current response is repeated 120 times per second in a typical AV power supply.