



hi-fi+

# Firm Foundations – The Second Layer...

## Cable Looms From Crystal, Magnan and Atlas

by Roy Gregory

Having discussed mains quality and equipment supports at some length in the last issue, it's time to turn our attention to the third leg of any system's supporting tripod. Of course, in an ideal world the power cords and signal cabling should all be considered as a single coherent entity. However, I chose to split the cable coverage (initially at least) to underline the priorities that pertain to building your system foundation, namely: power supply; equipment supports; signal transfer. Generally speaking, most listeners would place that order in reverse – and the whole question well behind the issue of electronics and speakers. Unfortunately, if you want to hear what your equipment actually sounds like, a firm foundation is essential, just the same as if you want to know how high a person can jump or how fast they can run, first you'd better provide a firm footing!

Less is more is an oft quoted hi-fi mantra – and sometimes it's even true, although generally in the conceptual rather than the physical sense. But when it comes to cables, there's a certain logic in applying the philosophy literally! If cable performance depends on four factors (conductor quality, construction, dielectric material and connectors) then the less of each you have, the less influence it has – up to a point,

at least. The cables here all obey the basic rules of completeness (they provide solutions for each function in the system) and simplicity (despite appearances in some cases!) and all were used as coherent looms to cable the entire test system (as detailed in Issue 59 – same kit, same tracks).

### Crystal Cables Piccolo

You don't get much more minimalist than Piccolo. In common with the other designs in the Crystal range,



every cable in the Piccolo family shares the same conductor, a simple coaxial construction of almost impossibly diminutive dimensions. A bit of a shock when you first glimpse the interconnects, many audiophiles will need resuscitation once they realize they're expected to use the same wires on their speakers and for power cords, although at least in the latter case they are doubled up. Having said that, the cables used in the rest of

the Crystal range are not much bigger, and it's not until you reach the Ultra (reviewed in Issue 55) that you get to a construction that seems sufficiently bulky to adequately serve audio purposes.

But the whole point of the Crystal philosophy is to take minimalism to its logical extreme – whilst executing the end result with the best possible materials and considerable precision. So, Piccolo employs a single, hair-fine solid core conductor in its center, drawn from the same silver/gold alloy employed in the rest of the range.

The theory here is that the gold actually fills the voids that would otherwise exist in the silver's crystal structure, eliminating contaminants or air and leading to higher conductivity and more consistent performance. This is wrapped in an extremely thin layer of tough Kapton insulation, before a pure silver screen is laid over the top. Finally, the coaxial conductors are coated with a thin layer of Teflon. The tiny cross-section of the conductors themselves, combined with the minimal bulk of the dielectrics used is what makes the cables so thin. Yet, as I mentioned above, Crystal employ exactly the same cable for the Piccolo speaker wires and a pair of the coaxial-conductors twisted together for the power cord. ►

## ● EQUIPMENT REVIEW

► Of course, once you take that first, brave step, what you end up with is a set of thin, flexible, unobtrusive and actually very attractive cables that rate very high on the practicality scale and very low in terms of domestic impact, things that might be of secondary sonic significance, but shouldn't be underestimated in the overall scheme of things. Crystal Piccolo is one of the (very) few cables you might actually want on show.



Such minimal construction would be wasted (as well as aesthetically incongruous) unless it was carried over to the connectors, and Crystal have wisely chosen to stick with lightweight plugs and spades throughout the range. Even the packaging is simple, svelte and elegant – which pretty much sums up the whole Crystal thing.

Nor does its practical appeal stop there. The Piccolo shares other important features with the Ultra, not least the elegant, oval six-way distribution block, a significant contributor to its overall performance as well as a useful staging post when it comes to upgrading. Termination options seem almost limitless, with single-ended, balanced, 5-pin tonearm and mini-jack (for iPod) offered as standard on the interconnects, and the same removable tail system on the speaker cables as seen on the Ultra, making swapping from 4mm to spade, or single to bi-wired termination simplicity itself. Finally, the power cords

are available with all the various IEC options as well as UK, Schuko and US mains plugs. Ours arrived with Schuko plugs, allowing simple optimization of mains polarity for each individual item in the system, a really worthwhile contribution to system performance that is all too often neglected.

Let's start with the good news; using the piccolo is an absolute joy. Wiring systems should always be this easy!

Not only is it easy to place and dress, the beautifully engineered

connectors make nice, positive connections without being fiddly or demanding undue force. More importantly, it displays none of the positional sensitivity of

the Ultra, a cable that demands to be left totally undisturbed and isolated from the surrounding surfaces if it's to give of its considerable best. Plug the Piccolo in and tidy it up, leave it for half an hour to settle down and bed-in – preferably with something fairly boisterous running through it – and that's all it takes.

And now, the even better news; Piccolo is a stunningly capable all-rounder with a poise and balanced performance that belies its affordable pricing. Given its svelte elegance and stylish presentation, it would be easy to assume you are paying a sonic penalty for the pleasure, but nothing could be further from the truth. Just like Ultra, Piccolo presents a complete, holistic musical picture, balanced and natural in every aspect. But the really impressive thing is the way it's dialed that performance back without disturbing the inherent structure and sense of the music. So, Piccolo can't match the weight, transparency and acoustic scope of the Ultra, its range of colours and textures – but it matches

### The Ultra Upgrade

Having a range of Ultra cables on hand too, allowed me to investigate the issue of cable priorities within the loom, swapping the superior leads in and out in various positions. The results completely confirmed our theory, the biggest upgrade coming with a single length of Ultra power cord between the wall and the distribution block. Improvements included increased dimensionality, tonal range and presence and a significant increase in dynamic and expressive range. Performers were more planted, stable and solidly believable, their musical technique and odd slips or incidental noises more apparent, making for a much more immediate and direct musical experience. Which is great news for Piccolo users looking to upgrade, especially with four more expensive models to choose from...

it for musical integrity, and gets much closer in those other regards than you might expect.

The key here is the natural sense of scale and overall balance. Although the Piccolo does diminish and smooth musical dynamics and accents, certainly compared to the like of the Vacuum State cables or its big brother, the Ultra, it does so without disturbing the music's shape or proportion. Timing and structure are kept clear and intact, and are remarkably coherent and involving. So, while the impromptu comments on the TvZ track lose a little of their twang, they lose none of their conversational timing or playful interaction. Likewise, the slight clumsiness that penetrates a few of the chord shifts is smoothed over and less obvious – adding to the feeling of musical flow at the expense of intimacy and also absolute insight. But all these negatives need to be viewed in an absolute sense, relative to what's possible irrespective of price. At the relatively modest cost involved in a complete Piccolo loom, this sort of musically complete and engaging performance is frankly unheard of. Switch to the Art Pepper ►

► and the sure-footed insistence of the smoochy groove is compulsive, the steady repetition of the piano part and bass underpinning the meandering horn lines, keeping them anchored and purposeful.

What you get with Piccolo is the Crystal trademark, a cable that really lets your music breathe. Lively and agile with excellent dynamic scaling and contrasts, transparency and clarity (especially at the price), these things you might well expect from its simple coaxial construction and solid-core central conductors. But what will take you by surprise is its easy, unforced sense of instrumental weight and musical power, studied poise when required, headlong momentum on demand. It's so holistically coherent that you simply don't question what isn't there. Instead you simply revel in its ability to let you ignore the system and enjoy your music. What it actually sounds like is a cable that's really enjoying its job!

Weird I know, but it's the only way I can explain its ability to cherish and caress one minute and drive things on the next – and the way that puts a smile on your face

when you hear it: although, in point of fact, what you hear is the music – and the expressive input of the players – finally let off the leash that too many systems impose.

### Cables And The Credibility Gap

One of the enduring problems facing cable companies and frustrating audiophiles is the sheer cost of top-quality cable looms, especially given the apparent physical disparity between the cable itself and the price demanded. It's not helped by

the presence of so many “off the shelf” conductors, dressed up to look good and rake in a healthy profit. Existing cable technology can deliver astonishingly good results but should benefit from the cost savings that industrial scale production of the principal elements entails. The Chord Company are an excellent example of a brand that uses careful selection and obsessive attention to detail when it comes to construction and termination, to deliver excellent results at reasonable prices.

But what if you want to extend the envelope beyond that? In fact, the really high-end cable companies find themselves in a difficult situation simply because few people really understand the cost and complexity of what they do. The genuinely top-flight cables are nearly all purpose designed solely for audio applications. That means that they have to be

assemblies and even casework actually manufactured by third parties; it's a completely different cost structure. The trouble is, understanding that doesn't make the products any cheaper or more accessible.

A cable system like the Crystals accommodates every eventuality and matches the conceptual simplicity and performance benefits of the DIY solutions – while also applying more sophisticated metallurgy and insulation materials. If you are using cables that haven't kept pace with current thinking, or a mix and match loom constructed from various expensive options, a switch to something like the AntiCables could come as quite a shock – and a salutary financial lesson into the bargain. But the real lesson to learn here is theoretical. It's not about one cable as opposed to another; it's about understanding what allows cable systems to work and then selecting accordingly from those products that take those things seriously. The key words here are “simplicity” and “coherence”. What you have to decide is how far to take things within those concepts. ►+



specifically manufactured in (what are in industrial terms) very small quantities. Add to that the increasing number of companies working on their own terminations and you are looking at an actual manufacturing industry, as opposed to a simple assembly task. That means that all the manufacturing and development costs land lock, stock and both smoking barrels, firmly at their feet. Contrast that to amplifier manufacturers who generally build their products from components,

CrystalConnect Piccolo  
(1m RCA-RCA): \$260  
CrystalSpeak Piccolo  
(3m Single-wired): \$1044  
CrystalPower (1m IEC): \$217

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