

The development of the Black Rhodium Phantom



The new Black Rhodium Phantom DCT++ interconnect has a very distinguished pedigree, being a further refinement of based progressive development of two prestigious award winning Black Rhodium cables.

In April 2003 Black Rhodium introduced the Illusion stereo interconnect which won the prestigious 5 Star award in What Hi-Fi?, being described as being “**fresh, wide open and exciting, with a powerful bass and clarity in the midband. .**”.

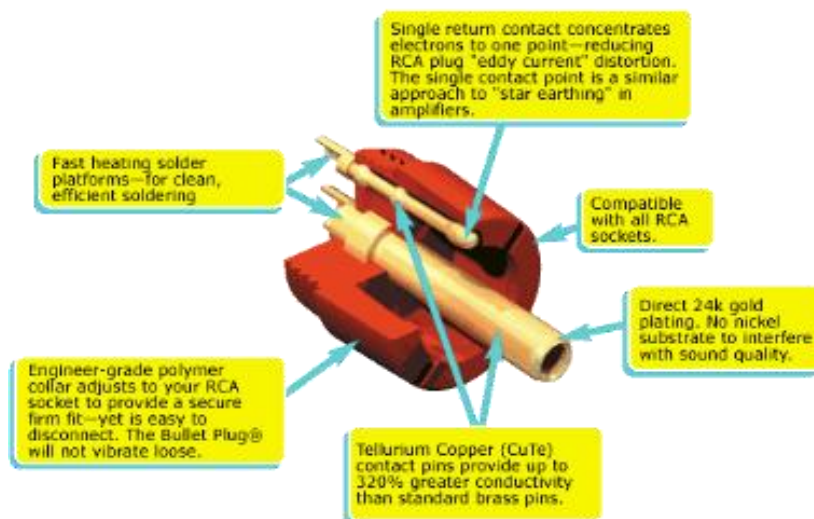
Illusion was followed in July 2004 by Polar Illusion, offering customers the additional benefits of a Deep Cryogenic Treatment. The audible effect could be described as greater Depth and Clarity to the music and an improved sense of Timing to the rhythms.

In September 2010, Black Rhodium launched Phantom stereo interconnect.

But the story goes back further. Earlier Black Rhodium had submitted a stereo interconnect cable for review in What Hi-Fi? Designer Graham Nalty was piqued to see that the Black Rhodium cable was only awarded 4 stars in the review whilst another cable of very basic design that was fitted with Eichmann Bullet plugs had been awarded the coveted 5 stars.

The Eichmann Bullet plug

So to Graham, it was a case of ‘if you can’t beat them, join them’. Immediately Graham decided to design a simple low cost high (audio) quality cable using the Bullet plugs. .



The Eichmann bullet plug employed a revolutionary design in that the return conductor was connected to the socket via a single point socket rather than by a circumferential connection. The effect in terms of sound quality is very similar to the effect achieved when a ‘star’ earth system is applied to an audio amplifier. When the earth system in an amplifier is connected with all circuits sharing the same earth wire, it is possible for the current in the output stage to create a very small voltage in the earth return wire and this ‘noise’ voltage



This cable for Illusion having been untwisted, cut and stripped for assembly to the Eichmann bullet plug.

In order to maintain strict quality control and to avoid the sound quality degradation that would occur if conductor 'direction' was changed, the positive conductor is always chosen as the conductor with the arrows pointing in the direction of the signal (ie from CD to amplifier). The wire shown in the picture, with the longer wire being used in the inner conductor, is to be fitted to the plug to be used at the 'amplifier' end of the cable.

A further improvement was made in the construction of the cables. Because the wires were of small diameter, the two channels of both Illusion and Polar Illusion DCT were twisted together and bound in a heat shrink that identifier the direction of use. This had two advantages.

1. Because the two channels were twisted together, the effect of the two earth return wires in each cables acting as an inductive loop aerial to pick up RFI noise was much reduced. Test carried out by Black Rhodium on all interconnects in its range showed that if the wires in a stereo cable pair were twisted together, the sound quality was audibly better than if the two wires were spread apart. For this reason, most of the stereo interconnect cables in the Black Rhodium range are supplied twisted together and held by directionally marked heat shrinks.
2. By binding the cables together, this ensured that the cables could not be connected in 'opposite' directions. Black Rhodium tests have shown that when the direction of all the wires in a cable are controlled for the designated direction, the sound quality is seriously degraded when one cable only is reversed. Many cable suppliers often state that their cables perform better when connected in the direction shown on the cable. The experience of tests by Black Rhodium is that cables do sound slightly different when connected in reverse direction, but the difference in sound quality when the cables are connected in different directions is considerably greater.



This picture shows the two channels of Illusion bound together with a directionally marked heat shrink. To the left the two channels separate out to the plugs. To the right the two cables are wound around each other.

Hi-Fi Choice Best Buy: Polar Illusion

"There's a beautiful airiness to the soundit's a real pleasure to hear the inner workings of familiar recordings."

The July 2009 issue of Hi-fi Choice chose Polar Illusion DCT for its prestigious "BEST BUY" award.

Hi-Fi Choice Interconnect of the Year Award 2009

"detail positively shines through and imaging is good, depth excellent and tonality neutral."

Polar Illusion DCT was selected as Interconnect cable award winner for 2009.

Development of Phantom

Phantom was developed directly from Illusion DCT.

We had for some time been aware that the more advanced DCT++ process was significantly superior to the DCT process. At a time when we were low in stocks of our Warrior mains cable we took a cable from our more expensive Crusader, which used DCT++ cables as well as rhodium plated connectors, and used that to assemble a Warrior, but without having the plugs processed by DCT. We found that this cable, using the

DCT++ cable with connectors that had not been DCT processed sounded better to our ears than our production Warrior. We then changed the production specification of Warrior to improve the sound.

We were also aware that many customers really liked the sound quality of the Illusion DCT, but also wanted their cable to look expensive. We used a screened tube that we had been using for hand-made high end cables as a screen for the new cable. To give the cable high-end appeal, we covered the cable with a high quality braid and used labelled heat shrinks for identification.



The Phantom has been well received by all who have heard it. During the Xmas show given by Zouch Audio in Ashby de la Zouch in December 2010, we demonstrated the pedigree of Phantom to a small audience of serious enthusiasts and all agreed that the improvements were quite obvious, firstly from Illusion DIVA to Illusion DCT, and then from Illusion DCT to Phantom.

“it has a tighter bottom end and is even clearer than Illusion in the mid and high range.”

A further testimonial to the improvement that Phantom offers over Illusion DCT is given by a customer in Romania.”

“The Phantom interconnect use the very same silver plated solid core copper conductors as Illusion does? I`m asking you that because I tried before the Illusion DCT and the difference is pretty obvious! Phantom is much better, it has a tighter bottom end and is even clearer than Illusion in the mid and high range.”

A. N from Romania

GRAHAM NALTY
MARCH 2011