

2012 Issue

# WBVT - Magazine



## The new models:

Heavenly light & devilishly good!

All you need to know about the new nextgen™ pole terminals WBT-0703 and WBT-0708 ...

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The nextgen™ WBT-0703 and WBT-0708 pole terminals now also available in white (limited edition)!

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## Dear Audiophiles,

**Technical possibilities are transforming and are offering serious research a range of new opportunities. A tangible and audible result of such developments are the WBT connectors in nextgen™ quality.**



Wolfgang B. Thörner

The road towards experiencing music at home in a way that is faithful to the original is a rocky one. It's not simply the components, in other words the amplifiers, speakers or cables, that influence the sound, the interfaces, the few centimetres between each component, do too. These interfaces are where the signal is transferred from one component to the next. And this is where WBT comes in.

WBT connectors from the classic series have set international standards when it comes to reliability and contact safety. With our nextgen™ models, we are taking this a step further.

nextgen™ connectors are certainly for audiophiles, but the technology is based on strict scientific principles of electrical engineering and material research. In-depth information on this can be found on pages 8 and 9.

In contrast to conventional technology, nextgen™ technology allows pure copper (or fine silver) to be used as signal conductors. Conventional connectors simply use alloys which of course are not 100% copper. By using high-quality materials, we have been able to combine the established robustness of WBT products with improved conductivity and therefore optimum audio fidelity. nextgen™ connectors even save on valuable resources.

WBT products are enjoying increasing popularity all over the world, not least because of these efforts and the legendary reliability.

Test WBT nextgen™ models now. In the future, you won't accept anything less.

Yours,

A handwritten signature in blue ink, appearing to read 'W. Thörner', with a stylized flourish at the end.

Wolfgang B. Thörner





from left to right: Rich Moore (WBT-USA), Klaus-Peter Brinsa and Wolfgang B. Thörner on The Strip in Las Vegas

**Las Vegas – the facts**

The gambler's paradise is growing quicker than any other city in the USA, and it is only home to around half a million people. Despite this, the city in the Mojave Desert welcomes 39 million visitors every single year. The CES and the High-End trade fair in Munich are the most important international trade fairs for manufacturers of high-quality hi-fi products ahead of the IFA in Berlin.





# WBT goes West



There is barely any other trade fair with such great importance for entertainment electronics as the CES (Consumer Electronics Show) in the

gambler's paradise of Las Vegas. But it's not all gambling here, in January of every year the curtain is lifted on the latest trends and product highlights from renowned manufacturers in the audio-visual and computer industries. WBT has a long tradition in exhibiting at this show together with the general agency in the USA.

In contrast to local trade fairs, the CES is only open to manufacturers and retailers, and not to the general public. „Think Big“ is what America – and particularly Las Vegas – is all about and so it probably comes as no surprise to hear about the enormous scale of the trade fair and the huge number of exhibitors. This year, the trade fair attracted over 3,100 exhibitors and more than 150,000 visitors. Together with huge multi-nationals such as Microsoft and Sony, celebrities such as Justin Bieber or professional basketballers also make a splash. CEOs and developers cater for the necessary technical expertise in exclusive specialist forums. The particular focus of this year's CES were ultrabooks, tablet PCs and the latest generation of televisions with OLED (organic LED) technology.

But together with large companies, Las Vegas is traditionally also a place where smaller manufacturers and creative centres from the fascinating world of high-end technology can show off their innovations.

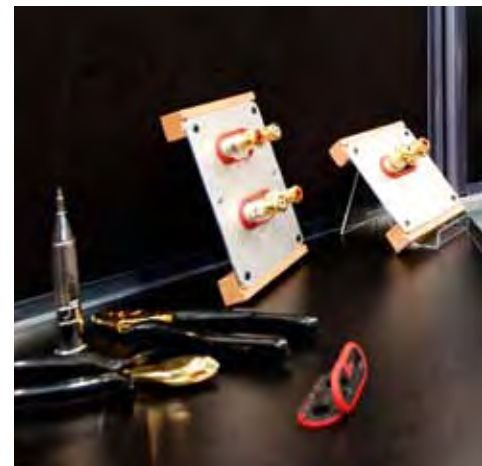
In this context, companies do not see the CES as a competitive arena, rather as a place where the standards of tomorrow can be discussed and strategic alliances and partnerships can be formed – in perfect harmony with the simple marriage laws in Nevada.

For WBT, this trade fair is the ideal opportunity to reach out to international partners, customers and specialist press, together with American visitors, and show them the latest innovations and trends from Essen. The latest products from the nextgen™ series, such as the new pole terminals, the unique WBT-0718 impact sound interrupter and the other high-quality solutions offered by WBT in the installation sector, all attracted a great deal of acclaim. This way, new contacts were able to be made with manufacturers in China, Japan, South Korea and Taiwan.

We are confident that music lovers will soon find leading WBT products in further components, particularly in the music serve sector.

#### WBT-USA

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[www.wbtusa.com](http://www.wbtusa.com)



Silent WIRE | Das Kabel.  
equipped with

**WBT**

**WBT presents:**



**We focus not to standards.  
We set them.**

**Nothing but the best!**

First-class engineering skills and precise workmanship form the basis for the High End products manufactured by Silent WIRE. Produced solely by us in Germany, Silent WIRE cables are assembled according to the wishes of each individual customer.

It is also a fundamental principle during production, and a Silent WIRE philosophy, that the influence of cable on sound characteristics is reduced to an absolute minimum.

It is a top priority of the Silent WIRE team and most important that their work is based on reliable scientific research and development, and in order to achieve this they cooperate with internationally recognised specialists in this field. Nevertheless, it is not just the technical aspect that has made us one of the most successful cable manufacturers. Only as a result of close cooperation and harmonisation between those with technical and musical skills has our cable been able to achieve a vibrancy and dynamic range which sets it apart from the products of competitors. During the development of our High End cable, we searched everywhere for a connector which gave the best possible acoustic result, and after searching worldwide, we found it at WBT. No other symbioses (marriage of connector and our cable) convinced us more than the connector with WBT nextgen™ technology.

Only the WBT nextgen™ connector convinced us both technically an acoustically!

And so began the very successful cooperation between WBT and Silent WIRE.

» SILENT WIRE LS 32 MK<sup>2</sup> »  
AMPLIFIER

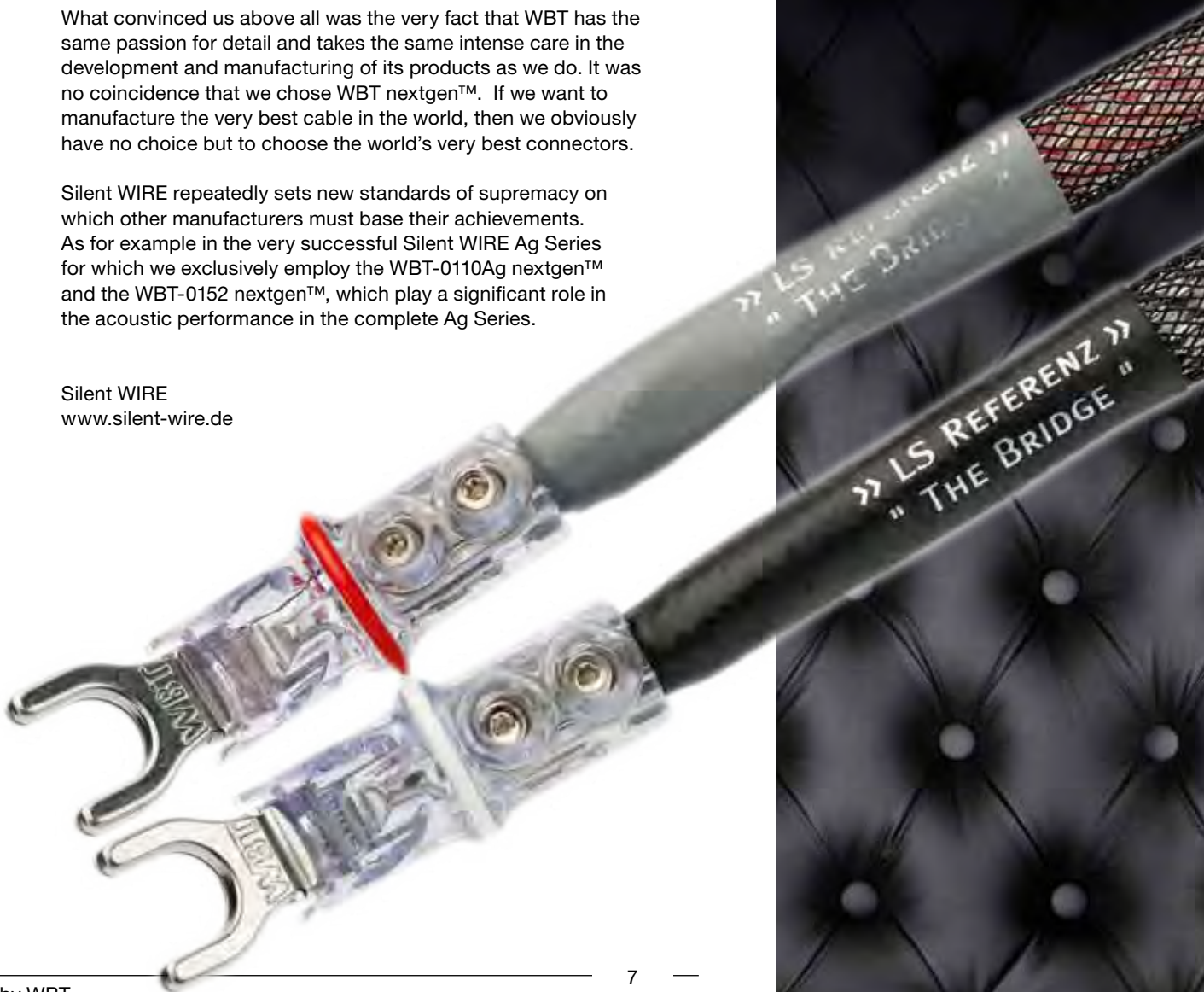




What convinced us above all was the very fact that WBT has the same passion for detail and takes the same intense care in the development and manufacturing of its products as we do. It was no coincidence that we chose WBT nextgen™. If we want to manufacture the very best cable in the world, then we obviously have no choice but to choose the world's very best connectors.

Silent WIRE repeatedly sets new standards of supremacy on which other manufacturers must base their achievements. As for example in the very successful Silent WIRE Ag Series for which we exclusively employ the WBT-0110Ag nextgen™ and the WBT-0152 nextgen™, which play a significant role in the acoustic performance in the complete Ag Series.

Silent WIRE  
[www.silent-wire.de](http://www.silent-wire.de)



# nextgen.™



## nextgen™ – the ultimate benchmark

**nextgen™ connectors define the technological boundaries for A/V connectors**

Nowadays, what has always been the driving force behind WBT is common knowledge: Connectors are far more than simply electrical contacts. We know about the importance of mass storage effects or the influence of materials used, and even the shape of these materials, on signal transfer.

WBT has been carrying out fundamental research for over 20 years now and, with nextgen™, has conceived a product range that, and it is no exaggeration to say, defines what is currently possible in technological terms.

There are fundamental differences between connectors from the WBT nextgen™ series and conventional connectors; starting from the materials used and moving on to the manufacturing process.



**The nextgen™ principle is the first technique which allows pure copper or fine silver to be used as signal conductors without compromising on robustness and the long-term behaviour of the connectors.**

Conventional connectors are turned parts, meaning that copper is actually relatively unsuitable as a material as it is too soft. That is why stronger alloys are used in the manufacturing process. The electrical conductivity of these alloys is poorer than that of pure copper or fine silver. As the connectors are usually made solely from metal, there is also a danger that mass storage effects and eddy currents occur which affect the signal transfer and therefore represent a further reduction in quality.

WBT nextgen™ connectors do not have to deal with this problem. They are the only connectors which take the latest findings from the fields of electrical





■ The central contact unit of the WBT-0110 nextgen™ RCA connector.

## Benefits of nextgen™ at a glance

### Unhindered signal transfer through mass optimisation

- Around 90% reduction in metal mass, so no mass storage effects. This improves audio spatiality considerably.

### Purer signal transfer

- Losses as a result of eddy currents are practically eliminated thanks to the new geometry. So the signal is clearer, like it has been removed of any extra baggage.

### Stronger foundations

- Through pure, soft copper (optionally also fine silver), the internal resistance of the contact materials is optimised significantly. The sound is given much more substance.

### Real, standard-compliant RCA connectors with 75 ohms

- nextgen™ RCA connectors consist of connectors and sockets and are future-proof. Thanks to the 75-ohm line impedance, they are also finally able to carry digital signals with a bandwidth of up to 1GHz. Analogue signal transfer also benefits considerably from the enormous bandwidth.

### Contemporary & green

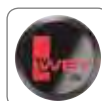
- The modern, hybrid manufacturing process saves 90% of valuable non-ferrous metals (copper and brass) whilst increasing the technical and sound performances at the same time. This makes it unique.

and mechanical engineering into consideration. Losses resulting from eddy currents and the mass storage effect are eliminated by the reduction of metal and the use of modern materials. The actual signal conductor consists of pure copper or fine silver (no alloys!). Thanks to the nextgen™ composite technology, the mechanical robustness is in no way inferior to that of our globally-established classic series. nextgen™ provides audible and measurable quality and has exhausted the potential of what is technically possible.

Using nextgen™ connectors has clear advantages whatever the application. RCA connectors and sockets have a line impedance of 75 ohms in accordance with the latest standards – the perfect basis for perfect digital signal transfer. With a bandwidth of one gigahertz (conventional connector bandwidth is a mere fraction of this), the models are also state of the art when it comes to analogue signal transfer.

Speaker connectors also benefit to a significant extent from the technological progression made possible by nextgen™ technology. In addition, our pole terminals have unique optimised conductor geometry which has been determined over the course of countless testing and measurement processes. For the first time, this allows the highest possible transfer safety in consideration of the disruptive influence of structure-borne sound. More information about this important subject is available on the following pages.

Alongside these invaluable advantages, nextgen™ also conserves important resources and are – just like all other WBT products – manufactured exclusively in Germany using modern and environmentally-friendly methods. nextgen™ connectors define the ultimate state of the art.



nextgen™ is a WBT development line and internationally patented. WBT® and nextgen™ are registered trademarks of WBT Germany. WBT-signet™ is an internationally protected symbol of quality and originality. Forgery-proof!

AVANCE INTERNATIONAL A/S  
equipped with

**WBT**



## WBT presents:



### AVANCE HISTORY AND CULTURE

AVANCE was set up in ancient Kingdom of Denmark in year of 1973 by Mr. Poul Rossing, and with a following nearly 40 years' construction, AVANCE has been developed to one worldwide recognized HIFI brand with rich experience of audio manufacture and striving for highest live sound reproduction quality.

“The essence of audio is to reproduce the origin of the sound performance”, and this represents AVANCE philosophy of audio manufacture and design after nearly 40 years development. In 70's last century, AVANCE experienced a truly great sales success by developing and manufacturing the world first asymmetrical AVANCE CONCRETE high end speakers with virtually non-resonant enclosures made of a mixture of cast fiber concrete and glass fibers. In the following years, AVANCE has continued its great commercial achievements by introducing classical products of Alpha, Omega, Beta, Dana, Signature, Epsilon, Sigma and Century line-up (all using custom made top quality drive units from the Danish high end brand Scan-Speak), together with best sellers of K, Viking, Stylish and other life-style series loudspeakers. In the early of 21st century, AVANCE introduced the first aluminum cabinet loudspeakers of S series, which brought audio into a new era and opened one complete stylish and fashionable world to audio customers.

Today AVANCE loudspeakers feature heavy and rigid enclosures and top quality drive units that always brings AVANCE among the best in tests. The cabinets are manufactured from high density fiberboard and are all extendedly braced and assembled using non-hardening glues. Inside you'll find high quality crossover networks dependent on the drive units used and the particular needs for target sensitivity, sound dispersion and frequency response.





## AVANCE SMALL FLAGSHIP LOUDSPEAKER – CENTURY 6

In 2011, AVANCE has developed new Flagship Sound of Century line-up: Super Century, Century 8 and Century 6. They adopt the famous Scan-speak top driver units, non resonant multiple-chamber with low compression design, Italian craftwork rosewood amber piano paint finish, 24K golden plated AVANCE logo and top WBT pole terminals.

AVANCE CENTURY 6 uses Scan-speak Revelator tweeters feature many revolutionary designs of ring radiator, patented symmetrical drive (SD-2) motor, patented phase plug and non resonant alu rear chamber, and all these offer unrivalled performance: frequency high up to 40kHz, distortion reducing, high sensitivity and power compression. And the midrange and woofer also uses highly praised patented symmetric drive (SD-1) concept with copper in the magnet system invented by Scan-speak. The models adopt WBT top nextgen™ pole terminals, which are made of pure copper with 24 carat direct gold-plating (nickel-free) and feature low tolerance contact element and fully insulated construction.

Through all perfect details from top to toe, AVANCE new Sound of Century aims to carve every single note for music and to pursue live music performance. Just like a classical piano set elegantly there – any single item of the traditional rarefied craftworks, every meticulous exquisite step, all these are meant to be realized for the most refined art and live audio performance as we target at.

AVANCE INTERNATIONAL A/S  
[www.avance-audio.dk](http://www.avance-audio.dk)  
[www.avance.com.cn](http://www.avance.com.cn)



The essence  
of audio is to revert  
the origin sound.



AVANCE, Royal coronation  
for  
your life



# The new models: Heavenly light & devilishly good!

Less is more - WBT nextgen™ products are convincing proof of this.  
The new WBT-0703 and WBT-0708 nextgen™ pole terminals  
preserve valuable resources of non-ferrous metals and conduct signals and sounds –  
not however, rather exactly for this reason - better than any other before them.



nextgen™ WBT-0708 (left) and WBT-0703 (top) pole terminals  
now also available in white (limited edition)!

**With the new WBT-0703 and WBT-0708 nextgen™ pole terminals, we have succeeded in offering the standard-bearing nextgen™ technology at an extremely attractive price. The new models are nextgen™ through and through and therefore provide faithful signal transfer and an authentic sound experience.**

The signal conductors of the WBT-0703 and WBT-0708 nextgen™ pole terminals are restricted to as low metal mass as possible consisting of pure copper or of fine silver.

In comparison with classic pole terminals, nextgen™ pole terminals reduce the amount of metal by a factor of 10.

This does not simply preserve valuable resources, but also eliminates losses in sound quality owing to the mass storage effect. This effect is unavoidable with larger metal masses and has a measurable influence on signal flow.

The innovative geometry of the conductors in the nextgen™ pole terminals also prevents eddy currents effectively which can affect the purity of the signal. Eddy currents occur in the form of nonlinear distortion and cannot be corrected.

But the innovations by no means stop here. The form of the signal conductor doesn't just act against the mass storage effect and eddy currents, it has also been optimised over the course of complex tests and calculations so that the new nextgen™ pole terminals are

significantly more resistant than conventional models to micro-vibrations through structure-borne sound. This means that nextgen™ pole terminals offer an unrivalled level of transfer safety and, in conjunction with the WBT-0718 nextgen™ impact sound interrupter, define the boundaries of what is technically possible.

Another innovation is the moment of force indicator integrated into the pole terminals. This provides an acoustic signal when there is sufficient contact pressure to the sandwich spades. It is a popular misconception that signal transfer is only at its optimum level if the maximum possible contact pressure is exerted on the contact surfaces.

If these surfaces are pressed against each other too tightly, parts of the surfaces can be damaged beyond repair. The problem is that the contact surfaces are not completely flat and, when damaged, the surface structure can quickly oxidise – find out more on pages 26 – 27.

That being said, nextgen™ pole terminals give you a free choice as to contact pressure.

Alongside the signal conductor, another decisive factor for the quality and long lifespan of the nextgen™ pole terminals is the interaction between the different materials. The images provide an insight into the complex and sophisticated form of each of the components made from high-quality materials.

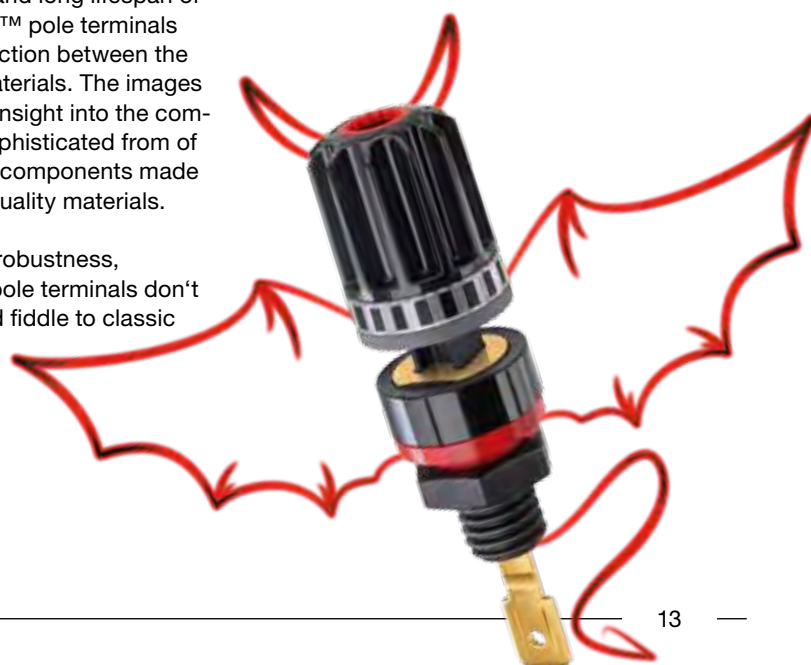
In terms of robustness, nextgen™ pole terminals don't play second fiddle to classic

metal models – in fact, they are far superior.

WBT-0703 and WBT-0708 nextgen™ pole terminals are different in terms of form and size, but the technology remains the same. Both are compatible with speaker cables with banana plugs (4mm) or sandwich spades as well as crimped cable ends (up to 6mm<sup>2</sup>). For connection to high-performance cables, the WBT-0703 is an ideal companion.

**For design-conscious owners of speakers with white housing or with an elegant white inlay, WBT offers WBT-0703 and WBT-0708 in the particularly attractive „White Edition“.**

With these elegant pole terminals, your speakers are best equipped in every regard. Of course, it goes without saying that nextgen™ pole terminals are completely insulated, IEC- and CE-compliant and are manufactured exclusively in Germany according to environmentally-friendly standards.



KEF  
equipped with

**WBT**



**WBT presents:**

**KEF**®

INNOVATORS IN SOUND

## **KEF Muon, Blade and Reference-Series**

**Your star sign is Leo and your blood group is adrenaline +**

Before you've even heard the first note the speakers make it unequivocally clear what they are made for, they just want to play ...

The pulse drivers by the exclusive British engineering company KEF are revered by audiophiles around the world.

The company, which has stood for unconventional solutions for more than 50 years, is well established in all sectors where top performance matters.

KEF allows itself the luxury of a manufacturing base in Maidstone in Great Britain for its state of the art products.

KEF, long established as a global player in the modern world, has always had its development department in England and moved production to China to also be able to serve the lower price categories in accordance with the KEF credo „top performance at a moderate price“ and therefore delight a wider audience with the KEF DNA.

However, for people with music in their blood, for whom the best is just about good enough, KEF takes up a slower pace.

For British manufacturing products, such as Muon, Blade and the Reference Series, developers are allowed to work without taking into account costs and market conformity.

Internationally famous designers have been acquired for their design, who adopt unconventional approaches together with our audio engineers.





Manufacturing methods from the automotive and shipbuilding industries are applied in the production process to overcome the classic loudspeaker design.

But always under the premise that it helps the speakers to produce a better sound, that no detail is ignored and current approaches are questioned.

The speakers are assembled by trained specialist in our own factory, where the principle always applies that an engineer takes responsibility for one pair of speakers from start to finish (i.e. until measuring and shipping) and vouches for this with their signature.

No machine can replace the specialist knowledge of a good engineer, who breathes life into the speakers with their trained eye. Only they know how to skilfully blend each part into a sound sculpture.

It is almost self-evident that with this quality claim you must inevitably come across WBT.

As this degree of dedication to development and love of detail is positively reflected at WBT. After all, speaker connectors are the only contact to the output system and insiders have known for a long time how important these connections are.

We are all the more proud that our factory products are fully equipped with WBT technology and play a part in our creations.

KEF  
[www.kef.com](http://www.kef.com)



Blade – equipped with nextgen™ pole terminal WBT-0710 Ag

## Feel what you hear

The WBT-0718 impact sound interrupter is unique and cutting-edge technology – a true nextgen™ product.



Often the smallest things can have major, unexpected consequences. This certainly applies to the WBT-0718 impact sound interrupter, as the small component about the size of your thumb made from modern functional materials is ideally placed in a speaker terminal. Just as all other WBT developments, the benefits of the impact sound interrupter lies in the technical finesse and unwavering spirit of innovation behind the product.

Music generates sound and therefore energy. In principle, this is a good thing but if you look more closely, there are also problems, particularly when it comes down to authentic music rendering. When music is played over a speaker system, then the membranes in each of the chassis move in time with the music. This stimulates the air around the speakers, causing vibrations and generating the desired tones for us to hear.

However, what we don't want when it comes to perfect rendering is for the chassis to stimulate the air inside the speakers and to generate energy there. Speaker manufacturers usually restrict this effect by using insulation materials inside the speakers. But no-one has yet been able to completely eliminate it. A proportion of the energy generated in this manner indirectly encroaches upon the speaker housing and causes tiny vibrations. You can experience this effect for yourself by simply placing your hand on top of the speaker when music is playing. However, these vibrations are not just caused by the sound dispersed inwards by the membranes. The chassis are mechanically bonded with the speaker body and therefore

transfer energy to the housing directly – what is known as structure-borne sound.

The major problem here is that, as the housing vibrates, however minute these movements may be, the connector field with the pole terminals for the speaker cable vibrates too. These are interfaces with an influence on sound quality between the pole terminals and the connected cables with their sandwich spades or banana plugs. In physical terms, this results in an unstable contact surface. As the contact surfaces are far from completely flat (see article on pages 26 - 27), the various contact points between the pole terminals and the speaker connectors are in constant contact with one another which results in a kind of stress situation at a molecular level.

This is where the WBT-0718 impact sound interrupter comes into play. Its heterogeneous construction consisting of a variety of cushioning functional materials isolates the connector field from the actual speaker housing and therefore prevents any direct energy transfer between speaker body and contacts. The WBT-0718 impact sound interrupter does indeed „absorb“ this energy, but therefore also allows the system to render sound quicker and more directly. Fine details become clearer, the overall structure of the music becomes more stable and the spatial arrange is easier to locate. The impact sound interrupter does not represent an extra component through which the signal is processed rather it ensures that a significantly-less amount is lost at interfaces in the transfer chain.

With this development, WBT has once again shown that

interfaces play a decisive role in sound quality and that they have been neglected up until now.

The WBT-0718 impact sound interrupter is unique and a pioneering technological development – a true nextgen™ product. Never listen to music again without one.

In many cases, the impact sound interrupter can be retrofitted. Simply ask your WBT specialist retailer.



Impact sound interrupter WBT-0718 (Fig. similar)



Mounting plate equipped with WBT-0718 impact sound interrupter in black and WBT-0703 nextgen™ pole terminals.



## WBT and Audio Physic – On the hunt for the sound killers –

**WBT is setting new standards in the faithful rendering of music in the form of the WBT-0718 impact sound interrupter. The mechanical effects of impact sound (more on pages 16-17) affect the purity of the electrical transfer and therefore the signal integrity in the form of nonlinear distortion.**



One manufacturer who has tackled this problem intensively is the internationally renowned speaker manufacturer Audio Physic. „In mechanical terms, there’s still a long way to go when it comes to speaker technology,“ says Head of Development Manfred Diestertich. „We must eliminate the potential of vibrations to disrupt all elements.“

Diestertich already went down this path many years ago by finding another solution rather than screwing the speaker chassis directly to the speaker housing as is the case with many other speaker manufacturers. Diestertich isolates the speaker systems from the body of the speaker using small neoprene cushions, which allow a significant increase in the precision of the signal reproduction. He has gone even further by isolating the connection terminals on the chassis from the load-bearing cage using neoprene.

However, all this was merely the first step. Fighting impact sound is a Herculean task in a vibrating system. It is important to differentiate between the places where the most impact sound occurs in quantitative terms and those where the impact sound is at its strongest and therefore the most damaging to the sound quality.

Audio Physic  
Avantero Cross Section with  
impact sound interrupter



Places where the energy is at its highest are also where the load is high – in the bass range. But the human ear is becoming more and more insensitive to nonlinear distortion at low frequencies. We cannot even differentiate harmonic distortion from a pure signal in the bass range.

But the picture is completely different in the fundamental and mid-tone range where the human ear is enormously sensitive and as precise as the best measuring devices. Millions of years of evolution have given us this gift which saved our lives in ancient times when we needed to identify and act on dangerous sounds.

the tweeters are even isolated using a clever string suspension concept (SSC).

This way of thinking quickly makes sense when you realise that mid-range and high frequencies only require a very low membrane hub, even at higher volumes. If the baffle board vibrates even a little, this can cause disappearances or increases which can affect the signal. A snapshot of the situation can serve to clarify this point: If the baffle board moves a tenth of a millimetre backwards stimulated by impact sound, whilst the mid-range unit moves forward at the same time, some of the mid-range energy is missing. This results in distortion which, depending on

One box is placed inside the box so that only the outer box is connected to the baffle board, using neoprene cushioning in this case too. The inner box and therefore the actual oscillation system is flush-mounted to the front of the speaker but is not in contact with it. This wonderfully clever trick means that vibrations have to pass through several interfaces to have a disruptive effect on the system. This means that they lose a great degree of energy and barely have a chance of influencing the precision of the music rendering – even if extremely loud bass tones predominate and the speaker housing is visibly vibrating. The process is complicated and the modern chassis are costly. But that's not stopping the manufacturer from offering the pioneering chassis technology in both of its high-end product ranges.



Audio Physic  
Hyper Holographic Cone Midrange dual basket

Ultimately, Audio Physic will be using the new nextgen™ pole terminals from WBT, whose clever conductor geometry also represents a difficult obstacle for impact sound, in all product ranges in the future. All Audio Physic speakers in the high-end and reference ranges are fitted with the WBT-0718 impact sound interrupter as standard.

This is exactly why Diestertich's attention was drawn to these frequencies. In a speaker, the mid-range unit and the tweeter are responsible for rendering. Engineering pioneer Diestertich developed a brand new chassis architecture which allows almost complete mechanical isolation from the assembly plate – an area where impact sound is particularly dangerous. In top of the range models,

the power, can most probably be clearly audible.

Diestertich found a way of effectively isolating the actual chassis from the front of the speaker. His „Hyper Holographic Cone“ mid-range units and tweeters consist of two boxes. In turn, he manufactures the individual chassis boxes from a variety of materials: metal and modern functional materials.



## Completely made in Germany!

**Made in Germany – that's not simply some kind of empty promise for WBT, rather a mission statement that the company has lived for over 25 years and an asset that is worth protecting.**

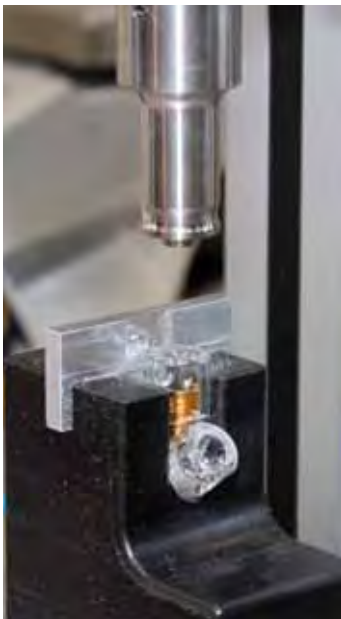
The reasons are simple. Right from the start with the introduction of the legendary WBT-0100 RCA connector in 1985, the goal was always oriented towards manufacturing technically-innovative but also simple and high-quality connectors. This requires an extraordinarily high level of series stability and processing quality. We still believe the only way to guarantee this is with in-house WBT manufacturing.





nextgen™ connectors are so-called compound assemblies, which consist of several very different functional materials, which only form a unit that works perfectly once combined. This is where precise manufacturing and the craftsmanship of our employees are a guarantee for consistent, first-class quality.

How a WBT banana plug is made.  
Two plastic parts and a signal conductor are being welded here using ultrasound.



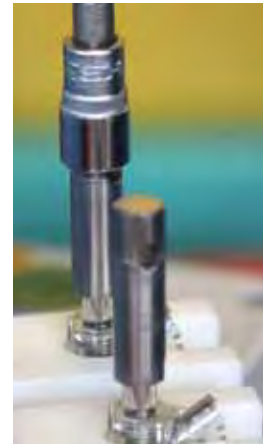
Even if high-quality classic connectors are able to be produced in low-wage countries nowadays – many of which are oriented towards WBT – production in Germany has always been a decisive factor for us. The standards are extremely high in terms of production and manufacture. Each of the tools essential for the production process is a masterpiece. They must work to an accuracy of 1/1000th of a millimetre, otherwise they simply aren't good enough for WBT.

Dozens of tools are required to produce the range of WBT products and this alone explains why this expertise is unique.

Modern connectors in the nextgen™ series consist of very different functional materials, which only complement each other perfectly when combined.

This is where precise manufacture and the craftsmanship of our employees are a guarantee for constant, first-class quality.

Pure copper or fine silver is used as a signal conductor in nextgen™ connectors. The surrounding body consists of modern functional materials. Directly around the soldering joint, for example, the base body must cope with high temperatures and may not deform. Conventional PVC is unsuitable here. This also applies to production. After the signal conductors have been manufactured using the specialised tool, they are deburred, cleaned and then gold-plated (Cu parts)



Pure copper or fine silver is used as a signal conductor in nextgen™ connectors. You can see the production process for the CE-compliant banana plugs with fine silver signal conductors above. The surrounding body consists of modern functional materials. This is crucial for production and durability.

A modern plastics injection moulding machine, specially set up for WBT tools.





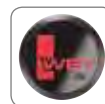
You can see the plastic body for the WBT-0610 banana plug being made here. You can only see one half of the tool in the image. The special feature is the plastic body's internal thread: after the injection moulding the mould core that forms the thread must be screwed out through two hydraulic cylinders.

directly without any nickel (!) being used. Subsequently, the conductors are put through a complex coating process using a functional material. Only when the temperature and pressure conditions are in perfect harmony does the base part comply with the high standards we set of nextgen™ connectors. With nextgen™, what was previously a simple turned part has been transformed into a qualified interface.

The conventional plastic parts such as the clamping nut and the plastic ring are also manufactured by a high-precision extruder. This is no place for standard plastics, as they wouldn't be able to withstand the mechanical loads on parts such as the thread. The modern nextgen™ connectors are also superior to their metal-based contemporaries in terms of long-term robustness and contact safety. In this respect, it's just like the situation in the automotive sector – namely that modern, functional materials are replacing heavy metal components on an increasing basis, without having to compromise on safety or quality. On the contrary: nextgen™ connectors set technological standards in every respect and also preserve valuable resources of non-ferrous metals.

You see, decades of knowledge and experience are invested in WBT products. Such sophisticated products also attract the envy of others who want to save enormous development costs and plagiarise our models, albeit with negligible success. Products, which definitely do not meet WBT standards and are certainly not manufactured in an environmentally-friendly manner.

Today we define cutting-edge technology with nextgen™. We dedicate all our expertise to nextgen™. Which is one good reason to protect ourselves against counterfeit and imitation products. This is the only way to guarantee that our customers receive what they are entitled to, the best connectors in the world. Therefore look out for the WBT signet®. This small sticker, which is also made of several functional materials to secure against forgery, guarantees that you have a genuine „Made in Germany“ WBT original in front of you. Quality that you and your hi-fi components deserve.



nextgen™ is a WBT development line and internationally patented. WBT® and nextgen™ are registered trademarks of WBT Germany. WBT-signet™ is an internationally protected symbol of quality and originality. Forgery-proof!



Tannoy  
equipped with

**WBT**



**WBT presents:**

**TANNOY®**

## **World renowned loudspeakers for musical perfection**

Tannoy is one of the oldest and most prestigious audio brands in the world. Founded in 1926 in the UK, cutting edge innovation throughout its history has seen Tannoy loudspeakers define whole generations of music reproduction in the home.

From 1920's swing jazz recorded on rotating wax-discs to contemporary 192kHz / 24bit high resolution digital recordings, Tannoy loudspeakers have been used by discerning audiophiles around the world for over eight decades.

The company's main factory and headquarters are located in Coatbridge, near Glasgow in Scotland where all Tannoy products are still conceived, designed and developed to this day. Tannoy's key technology for residential loudspeakers is the world-renowned Dual Concentric™ driver. Placing the high-frequency tweeter at the centre of the mid/bass cone delivers point source imaging, outstanding time coherence and class-leading musical involvement.

Tannoy's reputation for audiophile music reproduction is born from the unerring pursuit of excellence, from holistic overall design to the smallest of details. Across Tannoy's premium contemporary loudspeaker ranges and its traditional high-end Prestige series, every component is meticulously hand selected. From giant Alnico magnets to the connection terminals, each part in the music reproduction system must deliver truly unparalleled performance.

To this day, discerning music and movie lovers all over the world choose Tannoy's technically advanced home theatre and hi-fi loudspeakers for their accuracy, dynamics and expansive imaging. From compact AV systems to stylish, premium performance home theatre and audiophile stereo speakers to custom install. Tannoy leads the way.



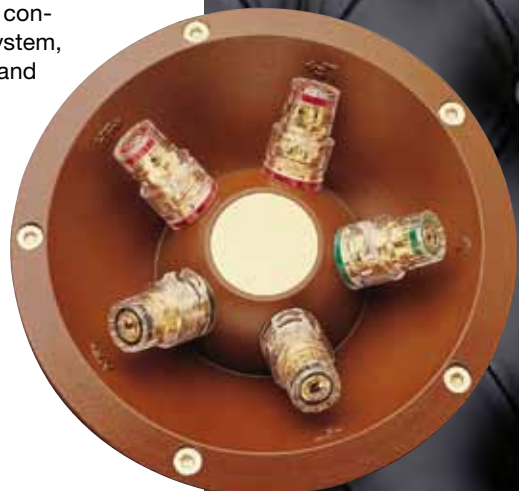
Tannoy has exclusively used WBT binding post terminals for its high-end and flagship residential loudspeakers for over 10 years. Having auditioned a huge variety of terminal options from leading suppliers over the past eight decades, WBT terminals are consistently selected for their ability to deliver unsurpassed signal integrity and outstanding mechanical security.

WBT-0780 terminals were first used by Tannoy on the formidable Dimension series loudspeakers from 2001. This purist range of audiophile loudspeakers featured art-deco inspired design and class-leading articulation. The same terminals are used on the current ultra-contemporary and multiple award winning Tannoy Definition range.

WBT-0766 terminals are used on Tannoy's unique Prestige range and Tannoy's flagship loudspeaker, the stunning Kingdom Royal. Prestige models are very large loudspeakers featuring traditional fine-wood cabinets and highest specification Dual Concentric drivers. The range is famed for its breath-taking vocal accuracy, startling dynamics and very wide image projection.

New for 2012, Tannoy is set to launch the Definition DC10A. This fusion of Tannoy's audiophile acoustic engineering and contemporary design features a massive Alnico magnet drive system, pure silver wiring, Deep Cryogenically Treated components and WBT-0703 nextgen™ terminals.

Tannoy  
[www.tannoy.com](http://www.tannoy.com)



## Nothing it what it seems.

### The true importance of surfaces at an interface.

We tend not to think about interfaces at all in our daily lives. But our daily lives are determined by interfaces to a significant extent and now more than ever. But what exactly are interfaces?

One example from our day-to-day lives explains why we barely ever think about this subject. It's getting dark – so we turn on the light switch. This is an interface. Even if we don't exactly use force when turning on the light switch, this process has worked so reliably and correctly over decades that we have come to take it for granted. In the aforementioned example, there are only really two comprehensible possibilities. Electricity is transferred and the light turns on, or no electricity is transferred and the room stays dark. There is no „in-between“ – well, almost. One exception to this rule which sheds light on the key elements and problems of contact surfaces is the state

known colloquially as „loose contact“.

Although contact surfaces should be in permanent contact with one another, the truth is that contact is never permanent. Using the light switch as an example, the consequence would be that the light bulb flickers as no stable electricity supply can be provided at the surfaces of the interfaces. The example is too simplistic, as our electricity network is special and has largely-fixed parameters. Within the system, comparatively high levels of current and voltages are transferred at a frequency of 50 hertz. In applications where electrical current is a million times smaller but still has a massive frequency range, things get significantly more complicated. In order to understand this subject, it is better to observe contact surfaces at a microscopic, or better still a „molecular“ level.

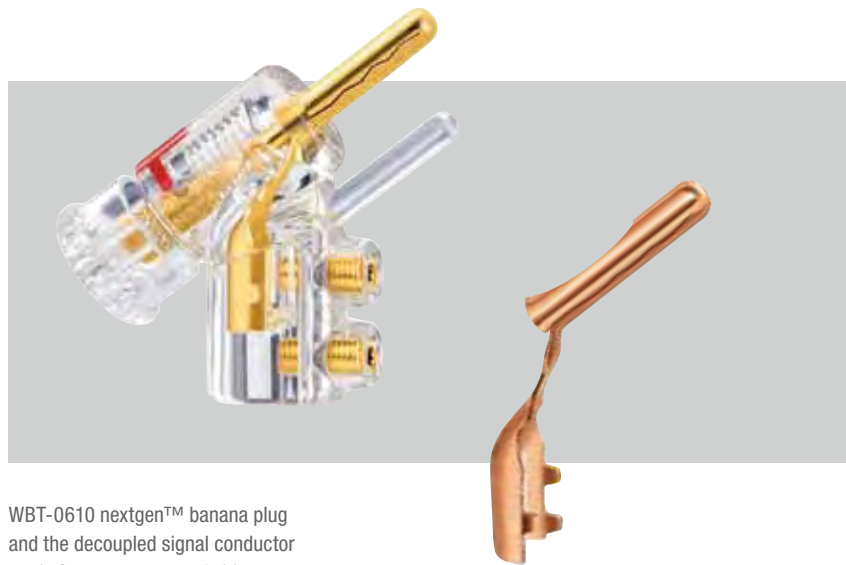
The pins on a power supply plug appear flat to the naked eye. If a WBT sandwich spade is placed next to them, the contacts appear even flatter, as though they've been polished. So flat, in fact, that the surfaces even reflect light. Even if we touch the contacts, they still feel flat. Fact is though, our sensual perception is far too imprecise to identify the true surface characteristics. The surfaces of

contacts are actually rough and similar to a cratered landscape or to the bark of a tree (fig. 1).

If we remember that two such surfaces have to meet one another in order to generate a contact, it becomes clear that a large majority of the surface does not actually come into contact with anything. What complicates this further is that the profile is random and there are also non-conductive areas. Even if mechanical contact takes place, the electricity does not flow.

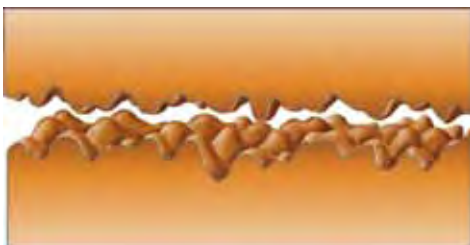
The signal is only transferred at the tips of the craters which are in occasional contact with one another. In the case of high voltage applications, this doesn't represent a problem – in these cases, depending on the strength, an electrical connection can be made even if two contacts aren't actually physically touching each other. However, with low currents such as those transferred with electronic components, the contact safety and therefore the signal integrity is affected. This is a physical fact.

Things become more critical if the contacts are not static – in other words not in a state of absolute rest. In the world of high fidelity, all components are subjected to micro-vibrations such as those caused by

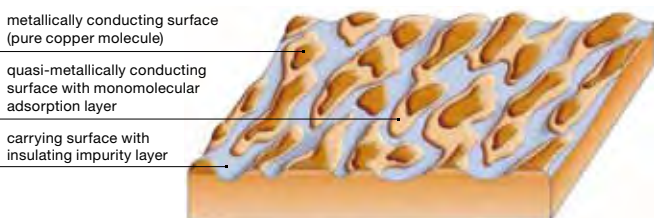


WBT-0610 nextgen™ banana plug and the decoupled signal conductor made from pure copper (with no surface gold-plating).

Microscopic picture of the surface roughness in the molecular area – „crater landscape“

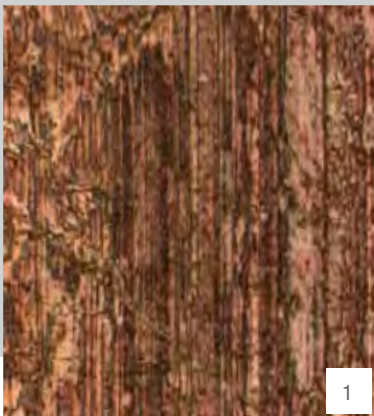


Microscopic picture of the real structure of contact surfaces

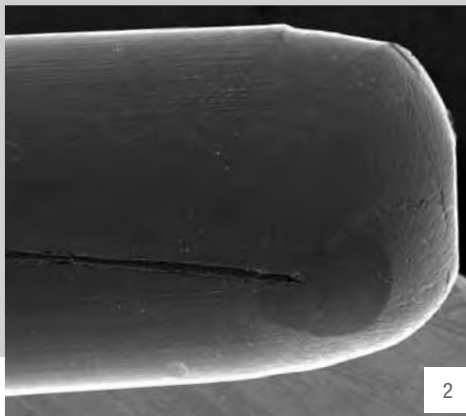


Source: model presentation by Prof. W. Rieder, VDE, Berlin, Germany  
Graphical presentation by WBT

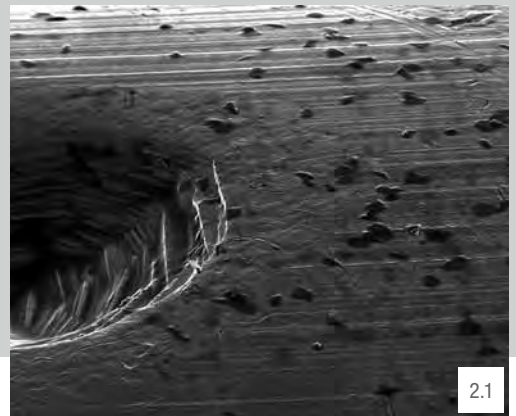




1



2



2.1

- 111 Surface structure of a round copper contact in a 150x magnification
- 121 SEM- (scanning electron microscope) image of the contact pin of a banana plug
- 12.11 Extract of a SEM-image of the banana plug surface with clearly visible "crater landscapes"

network hub of a transformer or by vibrations transferred through the speaker housing when music is being played. These vibrations are propagated like parasites via housing and structural elements as so-called „impact sound“ and affect the interfaces.

This means that all contacts, irrespective of whether they're RCA connectors or sockets or speaker connectors and pole terminals, are in constant movement. This includes the contacts that are responsible for signal transfer. The movement is not stable either. Fluctuations occur in the quality of the signal as a result of impact sound. Figuratively speaking, this is a constant loose contact which does not lead to total failure, but does affect the quality of the signal.

Physicists and engineers are aware of this phenomenon. In the hi-fi world, however, this problem is only just starting to be recognised by manufacturers. As a pioneer in the industry, WBT sees guaranteeing perfect signal transfer using innovative products as a challenge to be overcome. Physically bonding the contacts with each ultra-tightly, in other words welding them together, is not the right solution. On the

contrary, in fact: If the contact surfaces, which are raw rather than flat and even, are pressed together with force, then they become damaged at a molecular level and oxidation can quickly occur. Oxidised surfaces are no longer conductive. This is the reason why the contact pressure can be adapted with our RCA connectors using the adapter sleeves and with our banana plugs by means of the adjustable pins.

The new nextgen™ pole terminals also contain innovative technology to take these physical findings into consideration. Our new nextgen™ pole terminals are equipped with a moment of force indicator which provides an audible signal when sufficient contact pressure has been achieved. This way, WBT nextgen™ pole terminals prevent damage to the surface. For the first time ever, the signal conductors have been optimised and are significantly less-susceptible to impact sound than conventional pole terminals. nextgen™ pole terminals ensure a permanently-stable connection and therefore exact signal transfer. They are the only pole terminals in the world to do so and underline the innovativeness of our company.

The WBT-0718 impact sound interrupter, which isolates the connection terminals in a speaker from the speaker body, is just as innovative. With this component in place, micro-vibrations have barely any chance of being able to propagate themselves to the contact surfaces and affect the transfer of the fine signals (more information on pages 16 - 17).



With the pioneering WBT-nextgen™ products, high-quality components are always one step ahead. More and more manufacturers are recognising this too and turning to WBT nextgen™. As an example, the renowned speaker manufacturer Audio Physic uses nextgen™ pole terminals in all of its product ranges.

More in-depth information on the functions of the WBT-0718 impact sound interrupter on pages 16 - 17. (Fig. similar)

# nextgen.™

## The innovative product series by WBT.

**It all started with a vision.** The vision to travel to the moon, the vision of authentic sound. Research leads to unforeseeable possibilities. And development allows us to visit new worlds. Rockets are sent into space, man walks on the moon, probes are sent to Mars – and WBT nextgen™ defines new standards for true high-end quality worldwide.

- 1961 The first human being travels into space
- 1969 The first humans land on the moon
- 1981 Space Shuttle Columbia is sent on its debut mission
- 1985 WBT is founded and the classic series is born
- 1986 WBT brings the first WBT-0200 RCA connector onto the market.  
The base module of the MIR space station is sent into Earth orbit
- 1988 WBT develops the first RCA connector with crimping technology  
The first Discovery mission starts
- 1989 WBT develops the WBT-0730 pole terminal  
From 5th September, at least 1 person is in space for the next 3,644 days
- 1995 A space shuttle docks at the MIR space station for the first time
- 1996 WBT presents the WBT-0147 RCA connector
- 1998 WBT presents the first sandwich spade  
The construction for the ISS begins with the Russian Sarja module
  
- ★ ■ 2003 **WBT launches the nextgen™ series with the WBT-0110 RCA connector and the WBT-0210 RCA socket**  
The first Chinese space travel starts with the Shenzhou 5 mission
- 2005 WBT expands its nextgen™ series with the WBT-0710 pole terminal
- 2007 China launches its first lunar probe
- 2008 WBT presents the WBT-0610 nextgen™ banana plug  
India launches its first lunar mission
- 2010 The ISS replaces the MIR space station as the spacecraft with the longest period of human occupation
- 2011 WBT presents the new WBT-0703 and WBT-0708 pole terminals – Pure, unadulterated nextgen™!  
The ISS is expanded with the AMS project
  
- 2012 WBT launches the WBT-0114 nextgen™ RCA connector as the successor to the classic WBT-0144 model.  
**Presentation of the WBT-0703 and WBT-0708 nextgen™ pole terminals in white (limited edition!)**

An overview of all current WBT products can be found on the following pages.



nextgen™ is a WBT development line and internationally patented.  
WBT® and nextgen™ are registered trademarks of WBT Germany.  
WBT-signet™ is an internationally protected symbol of quality and originality.  
Forgery-proof!



# WBT products



nextgen™  
RCA CONNECTORS Pages 30 - 31



nextgen™  
SPEAKER CONNECTORS Pages 32 - 33

classic  
CONNECTORS Pages 34 - 36

FINISHING TOUCHES Pages 37 - 38





nextgen.

nextgen™ is completely different.

The nextgen™ principle is the first technique which allows pure copper or fine silver to be used as signal conductors without compromising on robustness and the long-term behaviour of the connectors.

**nextgen™ characteristics**

- hybrid construction of functional materials
- production tooling from own development
- fully-automatic production by WBT special tooling
- (thereby) perfect workmanship and series constancy
- made in Germany
- signal conductors well adapted to the cable cross section made of pure Cu / Ag
- defined contact surface by pressure achieved through moderate force
- no eddy current distortion
- free from mass storage effects
- new electrical and mechanical vibration control
- resource-saving conception
- environmentally friendly production
- IEC and CE compliant

**RCA plugs in nextgen™ quality**

The core of the WBT-development is a central contact unit which consists of pure copper signal conductor the mass of which has been reduced to the minimum. The direct 24 carat gold-plating is nickel-free, therefore non-magnetic. Signal conductors made from silver are passivated for the purpose of oxidation protection. The contact pressure is assured by means of WBT collet chucking device, and the cable strain relief guaranteed in form of the well-proven Torx screws.

**Characteristics nextgen™ RCA plugs:**

- ultimate conductivity through pure copper or fine silver conductors
- 24 carat direct gold-plated (or passivated), nickel-free
- with patented WBT clamping device
- reliable cable strain relief



nextgen™  
WBT-0110 Cu



nextgen™  
WBT-0114 Cu



nextgen™  
WBT-0102 Cu



nextgen™  
WBT-0152 Cu

**WBT-0110**

The WBT-0110 RCA connector is particularly recommended for digital connection (DACs, CD players, etc.) as it provides a continuously-adjusted connection thanks to its 75 ohms and up to 1GHz impedance. (RCA plugs generally have a characteristic impedance of 15–20 ohm!)

**WBT-0114**

The RCA connector for digital and analogue connections (75 ohms up to 400MHz). The brass sleeve connected to the minus contact provides optimum shielding.

**WBT-0102 | WBT-0152**

For phono outputs (record players, microphones, etc.) good shielding against interference fields is particularly important. This is provided by the WBT-0102 that features the brass sleeve of higher conductivity connected to the minus pole – but otherwise is all nextgen™. (75 ohms up to 200MHz)



nextgen™  
WBT-0210 Cu

### WBT-0210

The changeover to the nextgen™ principle enables the RCA sockets (as with WBT-0110!) to be set to an impedance of 75 ohm (typ.), as required for digital connections in particular.

Yet also analog data benefit from the enormous bandwidth.

Int. Pat. 0460145

#### Tip:

- The nextgen™ RCA connectors are also able to be fitted with the WBT-0718 impact sound interrupter.

#### Characteristics nextgen™ RCA sockets:

- maximum conductivity thanks to pure copper or fine silver conductors for + and -
- transmission bandwidth of 1 GHz (!)
- inner contact designed as tulip contact with spring ring
- outer contact in the form of a patented double wave contact
- 75 ohm (typ.) characteristic impedance
- delivered with a set of insulating washers
- applicable for every wall thickness



#### Impact sound interrupter WBT-0718<sup>11)</sup> (Fig. similar)

- for decoupling of impact sound in loudspeakers and electronic equipment (line frequency)
- for all WBT pole terminals and RCA sockets

11) Int. Pat. pend. 202010002

## OVERVIEW

### nextgen™ RCA plugs

Product	Signal conductor material	Soldering	For cable up to (mm <sup>2</sup> )	With nextgen™ technology	Nickel-free	Direct gold-plating	Passivated	Sleeve material
WBT-0110 Ag	Ag	x	9	x	x		x	Alu
WBT-0110 Cu	Cu	x	9	x	x	x		Alu
WBT-0114 Ag	Ag	x	9	x	x		x	Ms
WBT-0114 Cu	Cu	x	9	x	x	x		Ms
WBT-0102 Ag	Ag	x	9	x	x		x	Ms
WBT-0102 Cu	Cu	x	9	x	x	x		Ms
WBT-0152 Ag	Ag	x	10,8	x	x		x	Ms
WBT-0152 Cu	Cu	x	10,8	x	x	x		Ms

### nextgen™ RCA connectors

Product	Signal conductor material	75 Ω impedance	Soldering	Chassis assembly	Board assembly (horizontal)	Nickel-free	Goldplated	Platinated / Passivated	Direct gold-plating
WBT-0210 Ag	Ag	x	x	x		x		x	
WBT-0210 Cu	Cu	x	x	x		x			x

Signal conductor material: Ag = fine silver, Cu = pure copper | Sleeve material: Alu = aluminium, Ms = brass

## Speaker connectors in nextgen™ quality

### Characteristics

#### nextgen™ banana plugs and sandwich spades:

- signal conductor made from pure copper or fine silver
- mass-reduced nextgen™ principle
- 24 carat direct gold-plating (nickel-free)
- contacts through crimping
- IEC and CE compliant
- smart cable guiding through the angled design



nextgen™  
WBT-0610 Cu



nextgen™  
WBT-0661 Cu

#### WBT-0610

- secured with a central pin

#### WBT-0661 / 0681

- contact fork with integrated vibration absorber
- **WBT-0661** with 6 mm fork width
- **WBT-0681** with 8 mm fork width

#### WBT-0610

The nextgen™ banana plug WBT-0610 feature high conductivity and is free of magnetic interference. The contact pin “bellies” when the spindle is screwed in – for a constantly high contact pressure with constant low transition resistances.

Int. Pat. 09707444

#### WBT-0661 / 0681

The key to quality inherent in these sandwich spades is the patented design of their contact forks. An elastomer between the signal conductor and non-magnetic steel cap provides a constantly high contact pressure. Transition resistances are minimized and vibrations successfully absorbed.

Int. Pat. 1066660 | US Pat. 6319.078

## nextgen™ pole terminals for excellent signal and contact quality

nextgen™ pole terminals provide a great potential for connecting your loudspeaker cables and accept banana plugs, spades, and crimped cable ends. Inside, cables can be soldered, crimped, or even screwed directly to the crossover. The assembly is always insulated and secured perfectly against twisting.

Where sound quality is concerned, nextgen™ pole terminals will satisfy even the most fastidious of audiophiles (see fig. on right-hand side).

A perfectly-formed signal conductor is placed in fibreglass- and mineral-reinforced plastic housing. Naturally made of pure copper in a minimalistic design.



The minimized metal masses are one of the basic principles of nextgen™: Only signal conductors that are as thin as possible help to eliminate eddy currents\* and mass storage effects\*.

\* More basic and background details on eddy currents and mass storage effects can be found in the WBT technical articles at [www.wbt.de](http://www.wbt.de).



#### Impact sound interrupter WBT-0718<sup>11)</sup> (Fig. similar)

- for decoupling of impact sound in loudspeakers and electronic equipment (line frequency)
- for all WBT pole terminals and RCA sockets

<sup>11)</sup> Int. Pat. pend. 202010002



## The nextgen™ pole terminals in 4 versions

All-metal look and haptics:



nextgen™  
WBT-0705 Cu



nextgen™  
WBT-0710 Cu

Piano lacquer appearance:



nextgen™  
WBT-0703 Cu



nextgen™  
WBT-0708 Cu

The signal/contact quality is exactly the same in case of all 4 terminal types. The pole terminals differ only in their design.

### Characteristics nextgen™ pole terminals:

- signal conductors well adapted to the cable cross section made of pure Cu / Ag
- defined contact surface by pressure achieved through moderate force
- free from mass storage effects
- wideband capable
- new electrical and mechanical vibration control
- resource-saving conception
- environmentally friendly production
- IEC and CE compliant
- 24 carat direct gold-plating (nickel-free)
- accepts banana plugs, spades, crimped cable ends (6 mm<sup>2</sup>/11 AWG)
- for soldering or flat push-on cable shoes
- twist-proof mounting

Int. Pat. 1470620 | Int. Pat. pend. 102011007940

## OVERVIEW

### nextgen™ Banana plugs, Sandwich spades

Product	Signal conductor material	IEC/CE compliant (insulated)	Crimping	For cable up to (mm <sup>2</sup> )	Nickel-free	Direct gold-plating	Platinated
WBT-0610 Ag	Ag	x	x	10	x		x
WBT-0610 Cu	Cu	x	x	10	x	x	
WBT-0661 Ag	Ag	x	x	10	x		x
WBT-0661 Cu	Cu	x	x	10	x	x	
WBT-0681 Ag	Ag	x	x	10	x		x
WBT-0681 Cu	Cu	x	x	10	x	x	

### nextgen™ Pole terminals

Product	Signal conductor material	IEC/CE compliant (insulated)	Nickel-free	Direct gold-plating	Platinated
WBT-0705 Ag	Ag	x	x		x
WBT-0705 Cu	Cu	x	x	x	
WBT-0710 Ag	Ag	x	x		x
WBT-0710 Cu	Cu	x	x	x	
WBT-0710 Cu mC	Cu	x	x	x	
WBT-0703 Ag	Ag	x	x		x
WBT-0703 Cu	Cu	x	x	x	
WBT-0708 Ag	Ag	x	x		x
WBT-0708 Cu	Cu	x	x	x	

Signal conductor material: Ag = fine silver, Cu = pure copper  
 IEC = touch-proof insulation and approved for currents > 34.5 V | CE = suitable for use in A/V systems  
 CE = suitable for use in A/V systems; safety pin for child protection (preventing unintended connection to a mains socket)

## WBT classic

The classic series stands out because of its solid mechanics, maximum clamping force, particularly-convenient installation and the highest processing quality.

The solid, one-piece signal conductors are precision turned parts made in Germany. They consist of a brass material with a high copper content with high conductivity.

Established clamping and spring mechanisms in the classic series guarantee the best possible contact quality.

Thanks to the gold-plated surfaces on all contact elements, there is sufficient protection against corrosion.

### Characteristics classic RCA sockets

- delivered with a set of insulating washers
- applicable for every wall thickness

classic Board versions:



classic  
WBT-0234

classic Board versions  
WBT-0234

classic Housing versions:



classic  
WBT-0201

classic Housing versions  
WBT-0201 | WBT-0244

- active spring internal socket for secure contact
- 24 carat gold-plating
- insulated, twist-proof installation
- adjustable mounting distance to the board
- heat-resistant Teflon dielectric



classic  
WBT-0244



**Characteristics  
classic banana plugs**

- locking bananas with expandable contact pin
- WBT double Torx screw system
- 24 carat gold-plating
- perfect strain relief



classic  
WBT-0600\*



classic  
WBT-0644\*

**WBT-0600 | WBT-0644**

- for crimping or soldering
- easy to assemble
- WBT-0644 has less copper proportion, but otherwise is identical to WBT-0600



classic  
WBT-0645\*

**WBT-0645**

- for crimping
- space-saving and cable-friendly
- stackable
- IEC and CE compliant

**OVERVIEW**

**classic RCA sockets**

Product	Signal conductor material	Soldering	Chassis assembly	Board assembly (horizontal)	Nickel-free	Gold-plated
WBT-0234	Cu Zn	x		x	x	x
WBT-0201	Cu Zn	x	x		x	x
WBT-0244	Cu Zn	x	x			x

**classic Banana plugs**

Product	Signal conductor material	IEC/CE compliant (insulated)	Suitable for Bi-Wiring	Soldering	Crimping	For cable up to (mm <sup>2</sup> )	Nickel-free	Gold-plated
WBT-0600*	Cu Zn			x	x	10	x	x
WBT-0644*	Cu Zn			x	x	10		x
WBT-0645*	Cu Zn	x	x		x	10		x

\* Discontinued model

Signal conductor material: Cu Zn = copper / zinc

IEC = touch-proof insulation and approved for currents > 34.5 V | CE = suitable for use in A/V systems

CE = suitable for use in A/V systems; safety pin for child protection (preventing unintended connection to a mains socket)



**Characteristics  
classic pole terminals**

- puzzle plate system
- twist-proof mounting



classic  
WBT-0763



classic  
WBT-0765



classic  
WBT-0766

**WBT-0763 | WBT-0765  
WBT-0766**

- extremely high contact pressure through fine pitch thread and cross-milled surface
- soldering or crimping, screw-on pcb connection in case of WBT-0766
- made from brass, gold-plated

**WBT-0702**

- soldering or crimping (with a Torx screw) connection
- high conductive copper alloy
- 24 carat direct gold-plating (nickel-free)



classic  
WBT-0702.12



classic  
WBT-0730.12



classic  
WBT-0735

**WBT-0730 | WBT-0735**

- extremely high contact pressure through fine pitch thread and cross-milled surface
- soldering or crimping (with a Torx screw) connection
- high conductive copper alloy
- 24 carat direct gold-plating (nickel-free)

**OVERVIEW**

**classic Pole terminals**

Product	Signal conductor material	CE compliant (insulated)	Nickel-free	Gold-plated	Direct gold-plating	Direct Platinum-plating	Polished surface
WBT-0763	Cu Zn			x			
WBT-0765	Cu Zn	x		x			
WBT-0766	Cu Zn	x		x			
WBT-0702.01	Cu Zn		x	x			
WBT-0702.11	Cu Zn		x		x		x
WBT-0702.12	Cu Zn		x			x	x
WBT-0730.01	Cu Zn		x		x		
WBT-0730.11	Cu Zn		x		x		x
WBT-0730.12	Cu Zn		x			x	x
WBT-0735	Cu Zn	x	x	x			

Signal conductor material: Cu Zn = copper / zinc  
CE = suitable for use in A/V systems

## Finishing touches

The range of accessories rounds off the WBT connector range. Each individual tool is carefully designed and makes the assembly and installation of WBT connectors as pleasant and effortless as possible.

The use of high-quality tools and the processing materials ensures that the full potential of WBT products is exhausted.



### Crimping set WBT-0411

- includes the crimping pliers WBT-0403 and cable end sleeves from 0.5-10 mm<sup>2</sup> (20-7 AWG)
- delivered in a handy plastic case



### Crimping pliers WBT-0403

- ideal for crimping of cable end sleeves from 0.5-16 mm<sup>2</sup> (20-5 AWG) for WBT crimping plugs
- comfortable grip zones
- gold-plated



### Cable end sleeves with and without insulation collar

- made from pure copper, 24 carat gold-plated, nickel-free
- with and without insulation collar, available in the standard sizes from 0.5-16 mm<sup>2</sup> (20-5 AWG)
- also available in fine silver, passivated



### Dynakey set WBT-0490

- includes the torque controlled Dynakey WBT-0481 and the bit assortment WBT-0484 with 18 top-grade 4 mm bits
- delivered in a handy plastic case



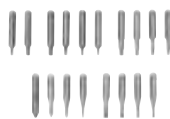
### Torque controlled Dynakey WBT-0481

- high-precision tool
- factory-set to 5 dNm for perfect mounting of all WBT plugs
- fitted as standard with a Torx T.6
- bit for WBT mounting



### Angled Torx WBT-0488

- small Torx T.6 screw driver



### Bit set WBT-0484

- 18 pieces set with top-grade 4 mm bits made from hardened chrome vanadium steel for WBT-0481



### Silver solder WBT-0800/0805

- high quality solder with 4% fine silver content
- WBT-0800 melting temperature 178°/180° C
- WBT-0805 (lead-free!) melting temperature 216°/219° C

WBT mounting plates have been designed for a professional installation of all WBT pole terminals. They can be installed on the panel front or countersunk.

Their stability is good enough to accept the crossover to be mounted directly on the rear side of the plates.

The power bridges have been designed quite in the sense of the nextgen™ technology for bridging of bi-wiring terminals. The conductor material is pure copper or fine silver which provides these power bridges the highest degree of conductivity. In addition, they feature an intermediate elastomer for absorbing vibrations.

... and of course all mounting plates are available with a slot hole for the impact sound interrupter.

**Characteristics**

All WBT mounting plates are of course equipped with the necessary accessory parts:

- screws
- wood press-in nuts (brass)
- cellular rubber seal
- cabinet production drawing
- assembly drawing
- available also with slot hole



for single-wiring  
**WBT-0530**  
■ 110 x 110 mm



for bi-wiring  
**WBT-0531**  
■ 110 x 150 mm



for bi-wiring XL  
**WBT-0532**  
■ 127 x 178 mm



**Power bridge WBT-0725**

- in nextgen™ style
- made from pure copper or fine silver
- equipped with elastomer as vibration damper
- fully insulated, IEC and CE conformable
- easy handling



for single-wiring  
**WBT-0530** (Fig. similar)  
■ 110 x 110 mm  
■ with elongated press cut and WBT-0718 impact sound interrupter



**Impact sound interrupter WBT-0718** <sup>111</sup> (Fig. similar)

- for decoupling of impact sound in loudspeakers and electronic equipment (line frequency)
- for all WBT pole terminals and RCA sockets



WBT provides special slot hole punches for retrofits.

<sup>111</sup> Int. Pat. pend. 202010002  
IEC = touch-proof insulation and approved for currents > 34.5 V  
CE = suitable for use in A/V systems



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