

Comfort & Enjoyment

Author:Olaf Sturm | Date: 08.05.2025

WBT reinvents the RCA plug and stays true to its ironclad rule of no compromises. The innovative WBT-0120 offers even more than just convenience when plugging and unplugging.



The man who visited hi-fi shops in the Ruhr region in the mid-1980s probably seemed strange to some retailers. Armed with a caliper, he examined and noted down the diameter of cinch sockets on amplifiers, CD players, tape decks and even tuners. The man was Wolfgang B. Thörner, and many may have wondered why he was doing this work forty years ago. The answer is simple: as a hi-fi enthusiast, he had noticed that there was no suitable standard for the sockets used by Radio Corporation of America, or RCA for short. As a result, some plugs were very tight in the socket, while others made a loose mechanical contact. Thörner solved the problem in 1985 with a lockable plug, the WBT-0100. This not only improved the mechanical quality of the connection, but also resulted in noticeable sound benefits in various system configurations.

In the following development stages, the RCA plugs from WBT became increasingly better in terms of electrical and mechanical properties. The Nextgen generation was then launched in 2003, marking a major success. The connectors in this category are characterised by high conductivity, high current capacity and broadband transmission. At the same time, eddy current effects and vibration tendencies have been reduced. This is audible. Manufacturers and retailers who value the highest sound quality are on the safe side with WBT products. For laypeople, it is sometimes difficult to understand how such a big deal can be made about this topic, but professionals have been gratefully and respectfully acknowledging the developments of the Essen-based specialist for decades.

After achieving the highest level of design, WBT replaced the electroplating process used to coat the connectors with the PVD (Physical Vapor Deposition) process in 2019. This process

involves gold plating in a high vacuum to create a flawless, denser surface structure, which is reflected in higher phase stability and an even wider bandwidth. A decisive side effect of this process, known as Plasma Protect, is its significantly lower environmental impact, a sustainability aspect that has always been important to WBT and is often overlooked elsewhere. Given the effort put in at Essen, it is sometimes surprising that not all manufacturers focus on maximum quality at the contact points of their often high-priced devices or cables.



The HMS Duetto was originally equipped with WBT-0144 RCA plugs (right in the picture). However, the new WBT-0120 plugs offer higher quality. Trained dealers can convert cables for their customers and thus upgrade them. When purchasing new cables, check whether the WBT-0120 is already available as an installation option. The included adapter pieces allow different cable diameters to be adapted to the plug.

Speaking of maximum quality: anyone who wants this for their transmission is prepared to make compromises. In our everyday editorial work in particular, we frequently have to change cables. If the RCA sockets are close together, it is difficult to turn the outer shell of an RCA plug with two fingers, for example with the HMS RCA cable Duetto equipped with WBT-0144. This is where the brand new WBT-0120 comes into play. It has an eccentric lever that tensions or releases the built-in spring clamp mechanism. This mechanism ensures optimum contact

pressure and, of course, makes the plug more comfortable to use. The angled design provides strain relief and, when looking behind the system, also ensures a tidier appearance.



The signal conductor of the WBT-0120, in the Cu version, is made of copper that is gold-plated using the Plasma Protect process. Alternatively, there is also an Ag version, in which the conductor is made of silver.

Making connections

The housing of the WBT-0120 is made of high-quality, deep black plastic, and the copper contact unit complies with the Nextgen standard and is gold-plated with Plasma Protect. To adapt to different cable diameters, the plug comes with adapter sleeves in four different inner diameters, allowing diameters between five and nine millimetres to be processed. However, experience or someone who can provide expert guidance is required to assemble the WBT-0120. First, you need to decide whether the connection should be made using a cable lug or soldering. Once this process is complete, the cable is ready for use. The eccentric lever is either white or red to ensure correct channel assignment.

In practice, plugging and unplugging is as easy as expected. Open the lever, plug in, close the lever, and the plug sits firmly in the socket. But WBT wouldn't be WBT if there wasn't something to hear. Want to compare plugs on RCA cables in a listening test? Of course, but it's quite a lot of work. So we took two identical stereo sets of the HMS Duetto, a parallel symmetrical cable from the lower price range. It was delivered over many years with WBT 0144 plugs. The second set is now equipped with WBT-0120. Of course, the expected differences in

playback quality are not associated with the highest expectations, but anyone with experience in this area knows that such 'small details' can sometimes tip the musical scales.



Applying PVD technology to gold-plate surfaces requires considerable effort. WBT manufactures all connectors and terminals in Essen to ensure high quality standards in series production.



Audio Physics Development Manager Manfred Diestertich comments: »WBT products are not cheap, but they offer a cost-effective way to enhance our loudspeakers. If I don't want to compromise on connection contacts, I go for WBT's Nextgen connectors.«

There are indeed audible differences. What initially seems like subtle nuances become increasingly apparent as the comparisons progress. The Duetto equipped with the new WBT-0120 sounds more confident, a touch more precise in the low frequencies and more focused overall. But is that enough for a final assessment? We call Manfred Diestertich, an experienced designer who has been using WBT terminals in many of his high-end loudspeakers for years and therefore knows how sound-relevant differences become noticeable. His suggestion is as simple as it is ingenious: since the Duetto has a wave resistance of 75 ohms, it also works as a coaxial digital connection. If you first transfer the music digitally using the standard cable and save it as a file, then repeat the process using the cable with the 0120 plug, you will end up with a second file. You can then listen to the differences in sound from your listening position, if available, without having to switch cables each time.

The song 'Liberty' by Norwegian singer Anette Askvik is ideal for comparison, which is now carried out in the first step using the Audirvana player software, the Lehmannaudio Linear USB II headphone amplifier and the Quad ERA-1 headphones. The quick switch between the files reveals and confirms the differences previously perceived: The WBT-0120 is more focused, fine details in the background are brought to light, the cello in the chorus sounds more sonorous, and the saxophone, at the latest, underlines that the plug offers not only comfort but also tonal advantages. In the next example, 'April,' the differences are so clear that there can be no mistake. The piano gains clarity and the vocals are also more precise in the reproduction.

The sound image breathes

Switching to a Lumin streamer, whose signal is delivered symmetrically to the Burmester 232 integrated amplifier and then reproduced by a Magnepan 2.7i, adds another aspect: The precision in the spatiality, which is easy to sense in the standard version, becomes conclusive with the WBT-0120 because there is more air between the voice and the instruments and the depth of the room is also illuminated more carefully – it's amazing. Some may find it excessive to compare plugs for their sound characteristics, but these are subtle differences that add up when you look at the entire system and then make a small but decisive difference.



»The use of WBT connection terminals is primarily a technical decision that offers contact reliability and sound improvements. We appreciate WBT's commitment to sound quality,« explains Canton Development Manager Frank Göbl.

Features

Manufacturer: WBT, Essen

Product: WBT-0120

Category: RCA plug

Price: WBT-0120 Cu 53 Euro (each) / WBT-0120 Ag 76 Euro (each)

Warranty: 2 years

Fixing: Spring clamp mechanism via eccentric lever

Cable diameter: 5 - 9 millimetres

Connection: Soldering, flat cable lug

Wave resistance: 75 ohms

Bandwidth: < 800 MHz

Housing colour: Black (channel assignment white, red)

Contact

WBT-Industrie Elektromechanische Produkte GmbH

Im Teelbruch 103

45219 Essen / Germany



Internet: www.wbt.de

E-mail: info@wbt.de

Telephone: +49 (0) 2054 - 87552-0

»WBT Nextgen combines specialised functional materials in a hybrid design. Instead of brass or alloys, we use pure copper or fine silver for signal transmission and plastics for stability and mechanics,« explains Marketing Manager Melanie Fritsch-Schuster.