Coaxial Crimping Plug WBT-0108
The RCA plug for crimping

WBT-0108 E please open here product specifications overleaf

Made in Germany

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Made in Germany **for cables up to 9 mm dia.** **Int. Patent. 0460145**

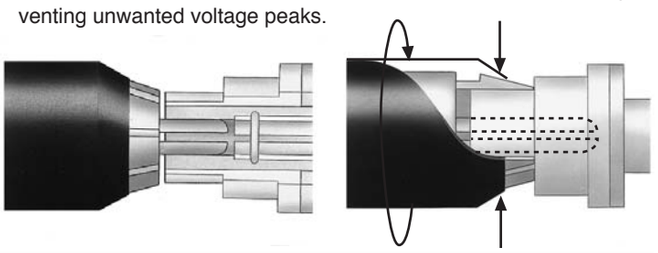
To achieve the best possible results from the individual components of your HiFi system, you need optimum connections. It's not so much the cable you use which is decisive but the connectors, since it is at the contact points between cable and system that most transmission loss occurs.

For this reason, WBT has developed plugs and sockets for audio systems far superior to the standard types available. WBT quality connectors are made from a special **OFC copper alloy** and ideally protected against corrosion by **24-carat gold plating. Teflon*** insulation additionally ensures constant dielectric properties. WBT-0108 connectors are non-magnetic.

Even more important than the material used are the mechanical properties of a connector. The decisive factor is a high and reliable contact pressure, created for example by clamping or spring mechanisms: A precisely manufactured connector alone can fulfill these requirements. A connector made of **solid material** (tolerance < 2/100 mm) additionally guarantees **extremely low** and **reliably reproducible contact resistances.**

The contact quality of many conventional RCA pin-plug connectors is undeniably poor. The reason for it is an IEC 60603-14 (1998) non-compliant performance, whereas WBT RCA connectors meet this standard. WBT trial measurements have shown, for example, that the diameter of these conventional the outside contacts of RCA sockets varies from 7.95 to 8.55 mm! An ideal pin-plug connector can therefore never be a perfect fit but must be **adaptable.** This problem was solved by WBT long ago:

- due to the (patented) **collet chucking device,** which works in the same way as the chuck of a power drill, WBT coaxial plugs can be adjusted **to fit phono sockets of all kinds.** The lamellas of the outer plug contact can be narrowed down to fit any socket by turning the plug sleeve. This not only ensures uniformly high contact pressure but also clamps the plug firmly to the socket.
- The spring path of **the slotted inside contact** is such that the necessary contact pressure is reliably created even in the widest of sockets.
- **Intelligent contact arrangement:** when WBT plugs are used in conjunction with WBT coaxial sockets, this ensures that the outside conductors are activated b e f o r e the inside conductors, thus preventing unwanted voltage peaks.



*Teflon is a registered trademark of Du Pont.
**Torx is a registered trademark of Camcar Textron, USA

The crimping process

WBT's research did not lead to the invention of the crimping technique, but what it did do was to discover possibilities for using this technique in the audio sector. This cable connection technique is the **cold welding process,** which has long taken the place of soldering in measuring and control technology, the aerospace industry and in many other areas.

The advantages of this process have more to do with what has been left out rather than with any additional features: everything which might impair the contact point, such as foreign materials and temperature, is dispensable and has been left out.

Solder is mainly made up of poorly conductive material, such as lead, tin and (partly halogen-containing) flux. Moreover, the temperature required for the soldering process releases components contained in the cable insulation (halogens from e.g. PVC). These "ingredients" have an aggressive effect on both cable and plugs.

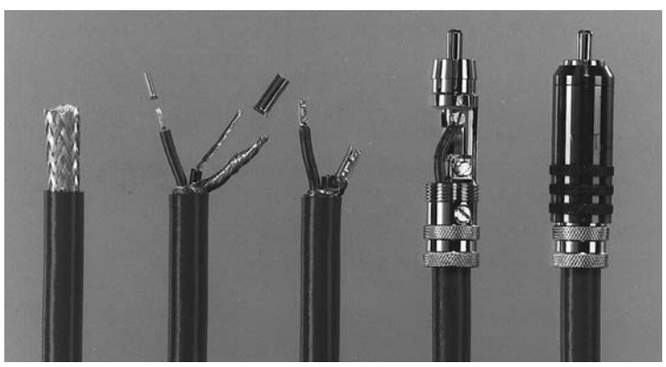
The transitional material used in crimping, however, is highly pure electrolytic copper resp. fine silver. The pure copper or fine silver end sleeves are pulled over the strand ends of the cable and pressed together using a pair of crimping pliers (e.g. WBT-0403). This crimping pressure causes the metal surfaces to "flow" into one another, thus creating an homogeneous connecting piece. This is reliably protected against corrosion by 24-carat gold plating resp. direct platinum plating of the sleeve. There's no better, more direct or more reliable process.

Important notes:

- The sleeves used must always correspond to the conductor cross-section; in other words, they should be selected with minimum tolerance.
- The crimping tool used must generate a surface pressure which ensures that the cable end is crimped in a single crimping operation.

Assembly:

- Strip the cable and twist slightly, as shown in the picture.
- Push on the sleeves (which the hooded part towards the back) up to the point where the conductor insulation begins and press together using a pair of special crimping pliers.
- Remove the plug sleeve and unscrew the front screws. Insert the cable into the plug, push the crimped connection pieces into the screw cages and fix to the body of the plug by tightening the screws.
- Tighten the rear headless screw for cable strain relief. Twist the plug sleeve back on to the plug applying only slight pressure – and the job's finished.



Handling

The precision-machined WBT chuck mechanism enables you to fasten your WBT-0108 connector on any RCA socket simply by turning the sleeve in a backward direction, thus ensuring maximum contact pressure. When plugging the connector into the socket, make sure that the chuck is not activated by turning the sleeve in a forward direction until it touches the edge of the lamella ring. When disconnecting the plug, the chuck mechanism is to be released in the same way.

Important:

WBT coaxial plugs are designed exclusively for use in signal connections of the audio and video range. WBT GmbH assumes no liability for incorrect use.

Mechanical sizes (in mm)

- external contact dia.	8.4
range of spring of eight-fold slotted part	7.8-8.8
- internal contact dia.	3.3
range of spring of fourfold slotted part	3.0-3.4

Recommended tools:
- WBT-0403 crimping pliers
- WBT-0481 torque controlled dyna key
- WBT-0499 cable cutter

Excerpt from the WBT delivery programm

WBT-0403 crimping pliers	for crimping cable end sleeves, for sleeves from 0.5-16 mm² (22-5 AWG)
WBT cable end sleeves	cable end sleeves made of pure copper resp. fine silver, available in standard sizes from 0.5-16 mm² (22-5 AWG)
WBT-0411 crimping set	crimping pliers and assorted cable end sleeves from 0.5-10 mm² (22-8 AWG)
WBT adaptation sleeves	

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Detailed product information available.
Design and specifications subject to change without notice.

© WBT-Distribution GmbH · Im Teelbruch 103 · 45219 Essen · Germany
Tel.: +49 (0) 2054 87 552–0 · Fax: +49 (0) 2054 87 552–22
e-mail: info@wbt.de · Internet: www.wbt.de