

Cordial Road

Rugged Cable Series for Live Performances, Stage Use, and Heavy-Duty Applications

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Reviews and presentations of cables for professional use are a rare sight in the media landscape. This is certainly always a challenge for authors: no screenshots, no knobs or buttons, and no operating procedures. So what is there to write about cables? From the user's perspective, cables are typically chosen based on required length, connectors, and price - yet the differences in design and quality among cables can be quite significant. That's why we will be featuring several cable series soon to highlight their specific qualities and applications.

In this review, we're featuring the Road cable series from the German manufacturer

Cordial. This series is part of the Peak product line. The name “Road” wasn’t chosen at random. These cables are particularly rugged and designed for rough use - for example, on stages around the world.

Instrument Cables



First, let’s take a closer look at the instrument cables in the Road series, which are available with a wide variety of connectors.



The CGK ROAD 75 cable type is used for unbalanced instrument cables. In the picture above, you can see here how dense the shielding braid is. This is important for preventing interference in today's world of wireless devices. Beneath the copper braid is an electrically conductive plastic sheath that further enhances the shielding. This plastic sheath also adds to the cable's overall durability.



The internal construction is interesting. The inner conductor consists of 42 individual strands of bare copper, each with a diameter of 0.15mm. This results in a cross-sectional area of 0.75mm² and thus a conductor resistance of less than 25.5 Ohms per kilometer of cable length. The insulation layer between the inner conductor and the shielding is made of TPE (thermoplastic elastomers), a modern plastic with high elasticity and good recyclability. The cable has a diameter of 7.0mm, and the outer jacket is made of PVC (polyvinyl chloride - a thermoplastic

polymer). It features particularly high notch toughness, thereby protecting the internal structure from localized stresses that frequently occur during stage and live performances.



Neutrik NP2 6.3-mm jack plugs with gold-plated contacts are used. They are available in straight or angled versions.



The designations used by Cordial for the pre-assembled cables in the Road Series and Peak product line are:

- “CRI PP” for straight connectors on both ends,
- “CRI PR” for angled and straight connectors, and
- “CRI RR” for angled connectors on both ends.

The cables are available in lengths of 3, 6, or 9 meters. For example, the product designation for straight connectors on both ends and a 3-meter length is: “CRI 3 PP”



Of particular interest to electric guitarists is the version with the Neutrik NP2-SILENT jack, which allows for noise-free plugging of the cable on the guitar side (see the jack with the red sleeve above). On the instrument side, this cable is available with a straight (CRI PP-SILENT) or angled plug (CRI RP-SILENT).

Microphone Cables



Eight lengths ranging from one to 20 meters are available. Again, Neutrik connectors are used - specifically those from the XX-HE series with a black KTL housing coating.



Instead of a coaxial design, a twin-conductor configuration is used here for balanced operation, consisting of 28 individual strands of bare copper, each with a diameter of 0.15mm and a conductor cross-sectional area of 0.5 mm². The conductor resistance is 38 ohms per kilometer.



The outer jacket is also made of PVC to achieve the necessary durability, with an outer diameter of 6.8mm. Transparent PU (polyurethane) cable grommets at the

connector cable exits serve to reduce mechanical stress in this section of the cable. It should also be noted that the CRM MV cable is available with TRS plugs and male XLR connectors for balanced connection via jack sockets in lengths of 2.5 and 5 meters.

Speaker Cables



Speaker cables are also available by the meter or pre-terminated with Neutrik speakON connectors, featuring Quick-Lock twist-lock mechanisms (4-pin connectors, two pins active) under the product name “CRL LL,” in lengths of 2.5, 5, 10, 15, and 20 meters.



The CLS ROAD 225 cable has an outer diameter of 8.0mm and weighs 115 grams per meter. The outer jacket is, again, made of durable PVC. The inner conductors, made of low-oxygen copper, each have a cross-sectional area of 2.5mm² and a conductor resistance of eight Ohms per kilometer; the manufacturer specifies a test voltage of 2,000 volts rms.

In Practice



Here are a few practical considerations. The electrical resistance of a cable is

essentially determined by the resistivity of the conductor material, its diameter, the temperature, and, of course, its length. However, differences in cable capacitance arise due to the cable's construction, diameter, conductor spacing, and the material of the insulation. Cable capacitance can, under certain circumstances, significantly influence the attenuation of high-frequency components - for example, when connecting a guitar with a high-impedance pickup. Therefore, the cable capacitance should be as low as possible.

For the CGK 75 instrument cable, Cordial specifies a capacitance of 88pF per meter $\pm 8\%$. For the test cables sold by the meter, we measured a capacitance of 85.6pF per meter - which is below the manufacturer's specified average value. This places it in the range of very high-quality cables. We also took measurements with the CMK RAOD 250 microphone cables. The manufacturer specifies a conductor-to-conductor capacitance of 80pF/m. For our test cables, it was only 71.6pF/m. The manufacturer's specification for conductor-to-shield capacitance is 139pF/m. Here, we measured 122pF/m - which is actually significantly lower.

We had various authors of proaudio.tech test this cable series to gather feedback during microphone tests and on stage. Christian Boche wrote to us about the speaker cables, saying: "The cables are excellent. They feature the latest generation of Neutrik Speakon connectors, come with a generous length of cable tie, and have transparent heat-shrink tubing at both ends, allowing you to easily and securely attach your company logo or similar to the cable. The cable itself feels very high-quality, has a professional-grade wire gauge, and is also very flexible, making it easy to route around corners."

Conclusion

We hope we've raised your awareness about the importance of durable cables for live and stage use. I can only repeat this aspect: Not all cables are created equal, and you should always take a closer look at the characteristics of the cables - or cable series - you're using. The Cordial Road Series offers the exact durability needed for live use. It all comes down to using the right materials, a robust cable construction, and high-quality connectors - and this series fulfills all of these requirements perfectly. Furthermore, the technical specifications we measured - such as cable resistance and capacitance - are exactly what you'd expect from a very high-quality cable. It should be clear to everyone that with an inexpensive cable, you have to make significant compromises in quality. Furthermore, we find the pricing of Cordial's Road Series cables to be very attractive for the quality they offer, especially for professional users who appreciate this level of quality.

www.cordial-cables.com/en/road