WEST PENN WIRE Since 1971
AV, SECURITY & NETWORKING SOLUTIONS

CN-CSM2XMF-xx

Stage Grade Ultra Quiet and Ultra Durable Mic Cable

3Pin XLR M to 3Pin XLR F
Lengths: 2, 3, 5, 6, 10, 15, 20, 25, 50

CABLE CONSTRUCTION

The CSM2 cable is designed from the inside out to be the finest stage and tour grade cable available. Every component of the cable itself is carefully chosen with the end goal of creating a tough, flexible, and dead-quiet microphone cable. It's not an ordinary cable. Here's a closer look:

Inner Conductors:

The two primary stranded inner conductors each have 20 strands of 0.12 bare copper. While many cable companies will lower cost by using inferior materials here (like aluminum with a copper coating), Elite Core CSM is pure, from the inside out. And you can hear the difference.

Inner Conductor Insulators

The insulator that was chosen to separate the two inner conductor cores is Polyethylene, or PE. This insulator is a part of a class of polymers known as polyolefins. We chose PE over the less expensive old-fashioned PVC because it has the lowest dielectric loss and highest initial dielectric strength of all thermoplastic insulators. PVC would have been cheaper. We weren't trying to build the world's cheapest cable, we set out to build the best. XLPE, while it is more resistant to high heat, has more dielectric loss than PE. With careful attention to our selection of soldering equipment and the temperature and methods used to solder, the PE was the obvious choice because of its extremely low dielectric loss characteristic. The PE is firm, strips well, and maintains a constant diameter with ease. We selected a red and a white color for the two insulators.

Conductive PE Layer:

The magic of the CSM2 cable is found on the outside of the red and black inner cores. It's a refined thin layer of conductive PE. Yes, that's right, it's a layer of thermoplastic polyethylene that has been precisely blended with carbon fiber to create a conductive layer that is perfectly snug around the red and white inner cores. This layer is key to the CSM2 cable. These days, there is an extreme amount wireless noise (from wireless mics, IEM transmitters, wireless DMX devices), electromagnetic noise (from power cables, lighting ballasts and moving light motors), and just plain abuse (from people and casters!) in the world of entertainment sound, lighting and video. The CSM2 cable provides an extra layer of shielding with the conductive PE. This layer serves three purposes. When selecting your cable, it's important to consider whether these three issues are some that you deal with.

(1) Immunity from outside EMI and RF interference. Since the PE is conductive, it provides an additional layer of shielding from RF and EMI noise that is being emitted from many sources on all stages. If your stage has wireless sources or electricity, this is critical.
(2) Containment of any EMI transmission that your signal may emit. The days of microphone cables only carrying natural voices or analog instruments are long since over and gone. Today's production stages are full of tracks, clicks, loops, and many other loud and potentially troublesome signals. It's important to keep those signals to themselves. The conductive PE on our CSM2 cable does just that. If you're anything but an all-natural bluegrass band, this is critical.
(3) Discharge of piezoelectric static and noise. When a mic cable gets knocked around by an active vocalist, or stepped on by an active stage hand, something troubling happens. There is a triboelectric effect that occurs when the insulators are pressed and misshaped, that causes a slapping, or thumping noise. This causes a piezoelectric discharge that ultimately functions as a crude transducer. Granted, the signal level is very low and the resulting noise is very minute, but this noise can still cause problems because it is intensely amplified once it reaches the preamp in the mixer. The layer of conductive PE we have added serves to drain off this static and eliminate the potential of handling noise. The net result is a dead quiet cable. If you have humans using your mics and cables, this is critical for your application.

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The Conductive PE layer is black. When initially stripping back the cable, it appears that both conductors are black. The red and white PE insulators are under the black layer of conductive PE. Please note that since it's conductive, it must be stripped back a bit prior to soldering. Finally, it's important to note that while PVC is cheaper than PE, we chose PE because it is the best choice. There are plenty of cheap cables on the market. We wanted to build the best.

Soft Cotton Stranded Filler:
To create the soft, pleasing feel of the CSM2 cable, we chose a natural cotton filler to round out the interior of the cable. It feels right, coils the way you want it to, and is pleasant to handle.

Helical Bare Copper Shield

The primary helical shield is provided by 80 strands of 0.1 the highest quality bare copper. It's soft, flexible, and effective in shielding from EMI and RF noise. With the combination of this quality spiraled shield plus the two conductive PE coatings on the inner conductors, the CSM2 is the perfect cable for today's active and noisy stages. The sounds and signals you want to stay inside are contained, and the noise and interference that you want to keep out is reflected away from your precious audio.

Outer Jacket:

The outer jacket of the CSM2 cable is opaque black PVC with an outside diameter of 6.5mm. PVC is the perfect material for this application because it holds its shape well and has great abrasion resistance. It's easy to clean and comfortable to coil.

CONNECTORS
CSM2 cables are hand terminated on our Custom Shop with Genuine Neutrik XX series connectors. Our standard is the black connectors with silver contacts. The XX series is the next generation of the worldwide accepted standard of XLR cable connectors. The successor of the X series offers several new features which make it more reliable, easier to assemble and improves contact integrity as well cable strain relief.

Features & Benefits
Male connector with improved locking recess without "window", more stringent housing increases durability
Improved chuck type strain relief provides higher pull-out force and makes assembly easier and faster
Boot with polyurethane gland gives high protection to cable bending stresses
Colored rings and boots available for coding or identification
Sleek and ergonomic design - valuable and handy
Rugged zinc die cast shell, long lasting and dependable
Internal thread on shell is well protected against any damage
Branded with unique hologram - guarantees genuine and authentic Neutrik product