

## The Star Quad Story

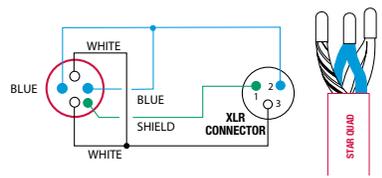
Canare Star Quad obtains its name from the 4-conductor style construction that minimizes the "loop area" between twists of the conductors. This "double balanced" pairing, reduces susceptibility to electromagnetically induced noise. The improvement in noise rejection is so noticeable that even SCR dimmer noise (stage lighting consoles) is reduced to less than 1/10 the level found in other 2-conductor microphone cables.

Canare Star Quad is designed for use with microphones but is also excellent for all line-level signals (e.g. mixer to power amps). The 4-conductor Star Quad arrangement cancels electromagnetically induced noise from

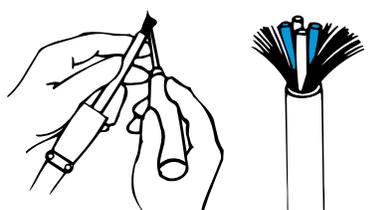
SCR dimmer packs, fluorescent lighting ballasts and AC power transformers. Handling noise is prevented by use of cotton filler material. Excellent frequency response is maintained due to special irradiated polyethylene insulation which provides a low capacitance dielectric.

Canare Star Quad cable is super flexible. We use large numbers of thin wire strands in the copper conductors and overall braided shield. We extrude a special compound PVC outer jacket that remains pliant at extremely low temperatures with no wait between cold shipping and installation.

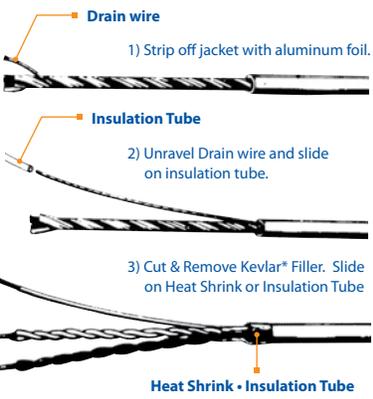
**In order to maximize noise rejection, Star Quad must be properly wired to the XLR-3 connector (or terminal block).**



Because the shield density on Canare Cable is very high, it is somewhat difficult to push back the braid and pull the inner conductors through. Instead, we strongly recommend unbraiding the shield by "combing" it out with a pointed tool, beginning at the end of the cable.



### Terminating L-4E6S and L-435C (Braid Shield)



\* To remove Kevlar, grasp it together with the other filler, then cut with a sharp scissors in one clean motion.

### Terminating L-4E5AT and L-4E6AT (Foil Shield)

## Conductors

All Canare microphone cables utilize high-conductivity, annealed copper wires, stranded to form flexible conductors and shields.

### Filler

Canare selects cotton, jute and/or exotic polyester fibers for packing. These fillers prevent stretching and twisting of the inner conductors which can cause noise. Additionally, paper, Mylar and/or cloth tape, bind conductors so cables hold their shape.

### Jacket

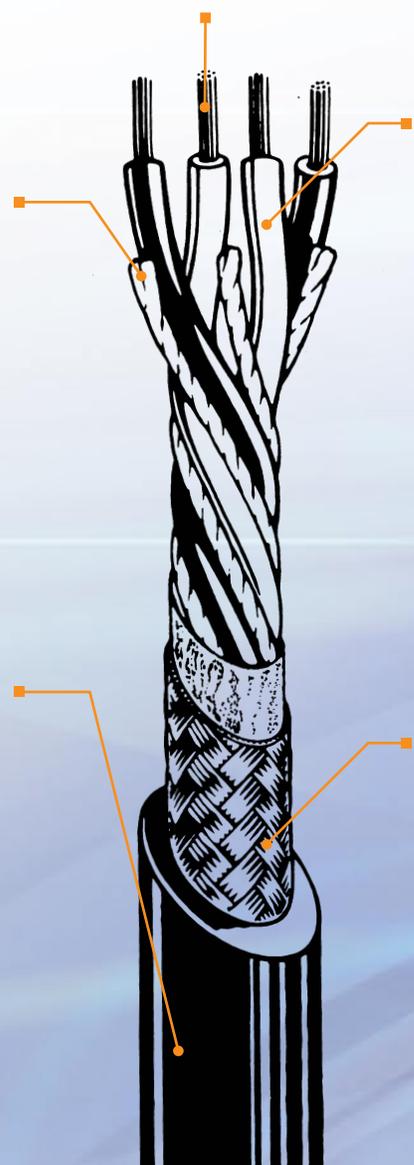
Canare uses specially formulated PVC compounds that combine to make a tough, strong and durable outer jacket with excellent flexibility. These qualities are retained even at very low temperatures, so Canare Cables will not stiffen or crack. Available in 10 attractive colors.

### Insulation

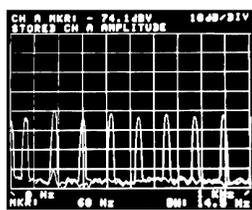
Canare Cables utilize special polymer compounds that reduce capacitive "R-C" filter roll off within the cable and prevent high voltage breakdown. By irradiating the material, the polymer becomes extensively cross-linked, chemically inert, water resistant, and remains flexible at very low temperatures. Irradiated PE is superior to ordinary polyethylene because it is heat resistant. Canare insulation will not shrink back, flow or char when soldering, so you save initial and rework time, and achieve more reliable connections.

### Shield

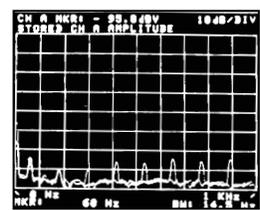
Canare does not use spiral (serve) shields because they can spread apart with use. Our shields are more difficult to manufacture because we use many thin copper strands in a densely woven braid. The shields are super flexible and offer outstanding noise rejection.



## Technical Note



Typical 3 Conductor Mic Cable



Canare Star Quad Cable

The signal generated by a microphone during quiet periods can be very low in level, -70dB to -120dB (0.3 millivolts to 1 microvolt). The cable that must carry this signal to the mixer is very sensitive to Electromagnetic Interference (EMI), Radio Frequency Interference (RFI) and electrostatic coupling of hum and noise. Mechanical vibration, bending, flexing (handling noise) and ambient temperature fluctuations can cause detrimental capacitance changes within the microphone cable. Canare Cables are carefully designed and manufactured to very close tolerances using the highest quality materials available so that low level microphone circuits will not be affected by these outside disturbances. The difference is clearly measurable and audible.

For a more detailed illustration, please request our Technical White Paper:

"Evaluating Microphone Cable Performance and Specifications."