

DCSOUNDOP

Connector Pinout Reference Card

The wiring standards for every connector you'll actually run into on a gig.

XLR (3-Pin, Balanced)

Mics, balanced line level, DMX (different standard, same shell)

1

Ground / Shield

2

Hot (+)

3

Cold (-)

TRS 1/4" (Balanced Line / Insert)

Balanced line level, headphone stereo, insert cables

Tip

Hot (+)

Ring

Cold (-)

Sleeve

Ground

TS 1/4" (Unbalanced)

Instrument cables: guitar, bass, unbalanced line

Tip

Signal

Sleeve

Ground

RCA (Phono)

Consumer/unbalanced line level: tape decks, playback devices

Center Pin

Signal

Outer Shell

Ground

speakON NL2 / NL4 (2-Pole)

Passive loudspeaker cabling

1+

Signal +

1-

Signal -

NL4 adds 2+/2- for a second circuit (e.g., bi-amped cabs), not used for a single full-range box.

5-Pin XLR (DMX-512)

Lighting control data, not audio: included here because it shares a connector family with mic cable

1

Signal Ground

2

Data -

3

Data +

Pins 4/5 are for a second data universe, rarely used in single-universe rigs.

BALANCED VS. UNBALANCED, AT A GLANCE

TYPE	CONDUCTORS	TYPICAL USE	NOISE REJECTION
Balanced (XLR, TRS)	Hot, Cold, Ground	Mic level, pro line level, long cable runs	Good: common-mode noise cancels out
Unbalanced (TS, RCA)	Signal, Ground	Instrument level, consumer gear, short runs	Poor over long distances or near noise sources

Wire color is not standardized.

Pin/conductor assignments above are fixed by convention, but the actual wire colors inside a cable vary by manufacturer. Always trace or ring out a cable if you're terminating it yourself rather than trusting color alone.