

XLR Connectors

XLR's are what can be described as the public address, and PA sound system industry standard microphone connectors, robust and relatively simple to install - there are a number of ways in which these 3 pin connectors can be wired

For BALANCED operation

- Pin 1 connects to screen (signal earth)
- Pin 2 connects to signal + (signal live usually red)
- Pin 3 connects to signal - (signal return usually blue black or white)

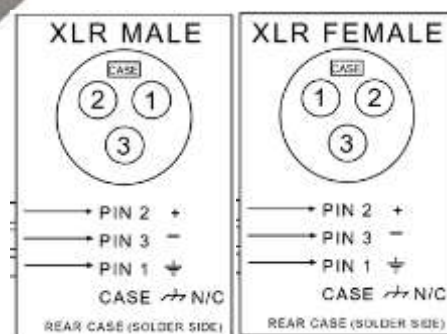
A balanced microphone will allow cable runs of up to 100m without any significant loss of performance.

For balanced operation use twin core screened microphone cable



For UNBALANCED operation

- Pins 1 & 3 connect to the screen (signal earth)
- Pin 2 connects to signal + (signal live)



An unbalanced microphone can only be used up to about 10 meters away from the amplifier. Any more than this and noise problems become apparent, cable 'noise' can be apparent (from movement or tapping)

For unbalanced operation use single core screened microphone cable (low noise high quality cable is best)

To UNBALANCE a BALANCED XLR lead

- Connect pin 1 to pin 3 in the male XLR plug that is on the amplifier or mixer end of the lead

The 3 pin numbers are identified on the XLR plug and an easy way to remember how they should be wired is:

- X = Earth - Pin 1
- L = Live - Pin 2
- R = Return - Pin 3

Speakon Connectors

Neutrik Speakons and similar speaker connectors are probably now the public address and PA sound system industry standard loudspeaker connectors, robust and relatively simple to install - there are a number of ways in which these 2 and 4 pin connectors can be wired and used

For LOW IMPEDANCE operation

- Pin 1- connects to loudspeaker - or common
- Pin 1+ connects to loudspeaker +
- Pin 2- is not used
- Pin 2+ is not used



For 100v LINE operation

- Pin 1- is not used
- Pin 1+ is not used
- Pin 2- connects to loudspeaker - or common
- Pin 2+ connects to loudspeaker +

For BI-AMPED LOW IMPEDANCE operation

- Pin 1- connects to bass loudspeaker - or common
- Pin 1+ connects to bass loudspeaker +
- Pin 2- connects to treble loudspeaker - or common
- Pin 2+ connects to treble loudspeaker +

When using or wiring these cables it is important to check equipment manufacturers configurations