

## Which cable do I need?

If you visit your local musical instrument shop you will probably find a lot of different cables on display, all with different connectors on the ends. How do you tell which cable will be the right one for your application? Here are some simple guidelines:

If you are connecting an electric instrument (electric guitar, bass, keyboard etc) to an instrument amplifier (guitar, bass or keyboard amp) you will need a **“jack” cable**. This has a mono 6.3mm “jack” connector on each end of a two core (wire) cable. Jack plugs can also be in stereo format, using a three core cable. These are usually used for insert leads on audio mixers for connecting effects (reverb, delay etc) in a professional audio system.

**XLR cables** are generally used for microphone connections. In a professional balanced system, the microphone cable will have a “male” XLR (the one with the pins sticking out) on one end of the cable and a “female” XLR (the one with the holes) on the other end. This gives the cable good rejection of unwanted “interference” from RF signals (two way radios etc). You will also find unbalanced microphone cables with a female XLR plug on one end (where it attaches to the microphone) and a 6.3mm jack plug on the other end. These work well in most cases but can be subject to interference in some conditions.

**RCA cables** are generally used with home stereo equipment, but also most DJ products (turntables, mixers etc). These are the little red, black or white plugs you find on cassette recorders, CD players and most hi-fi equipment. They are generally quite inexpensive and do their job well when connecting hi-fi equipment or DJ gear.

**Speaker cables** come in many types. Some are just 2 strands of wire with bare ends – you plug the bare ends (+/-) of the wire straight into the little clip-lock terminal or screw terminal on the back of the speaker, usually in hifi speakers. Others use 6.5mm jack plugs – very common with DJ speakers and Public Address system speakers. Still others have “speakon” connectors which are larger and have a locking pin on the connector. These are heavy duty connectors found in professional speaker systems. Many speaker cables are “mix & match” with speakon connectors on one end and jack connectors on the other – this is to suit the amplifier end and the speaker end if they have different connections. Check which connectors your amplifier and speakers have before you go to the store, so that the staff can give you the right cable!

Many keyboard players will require a **MIDI cable** to connect their various keyboards, sequencers, samplers and other electronic items together. MIDI cables come already assembled; you just have to decide what length of cable you will need.

**Patch cables** also come in many varieties, depending on what types of equipment you want to “patch” together, which simply means connect to each other. Again, check what

connections are on each piece of equipment before you go to the store, so that you can explain what type of cable you need. If you don't know the name of the connector, a little drawing will help!

There are also many types of **adaptors** available to change one type of connection to another type: jack to XLR adaptors, RCA to jack adaptors etc. These are always handy to have in your tool box if you work with musical equipment on a regular basis. They will get you out of trouble and can be "worth their weight in gold" if you have the right adaptor at the right time, especially when it's five minutes before the band are due to go on stage and they are still not "plugged in" properly.

Hope this makes your next gig a little easier!

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