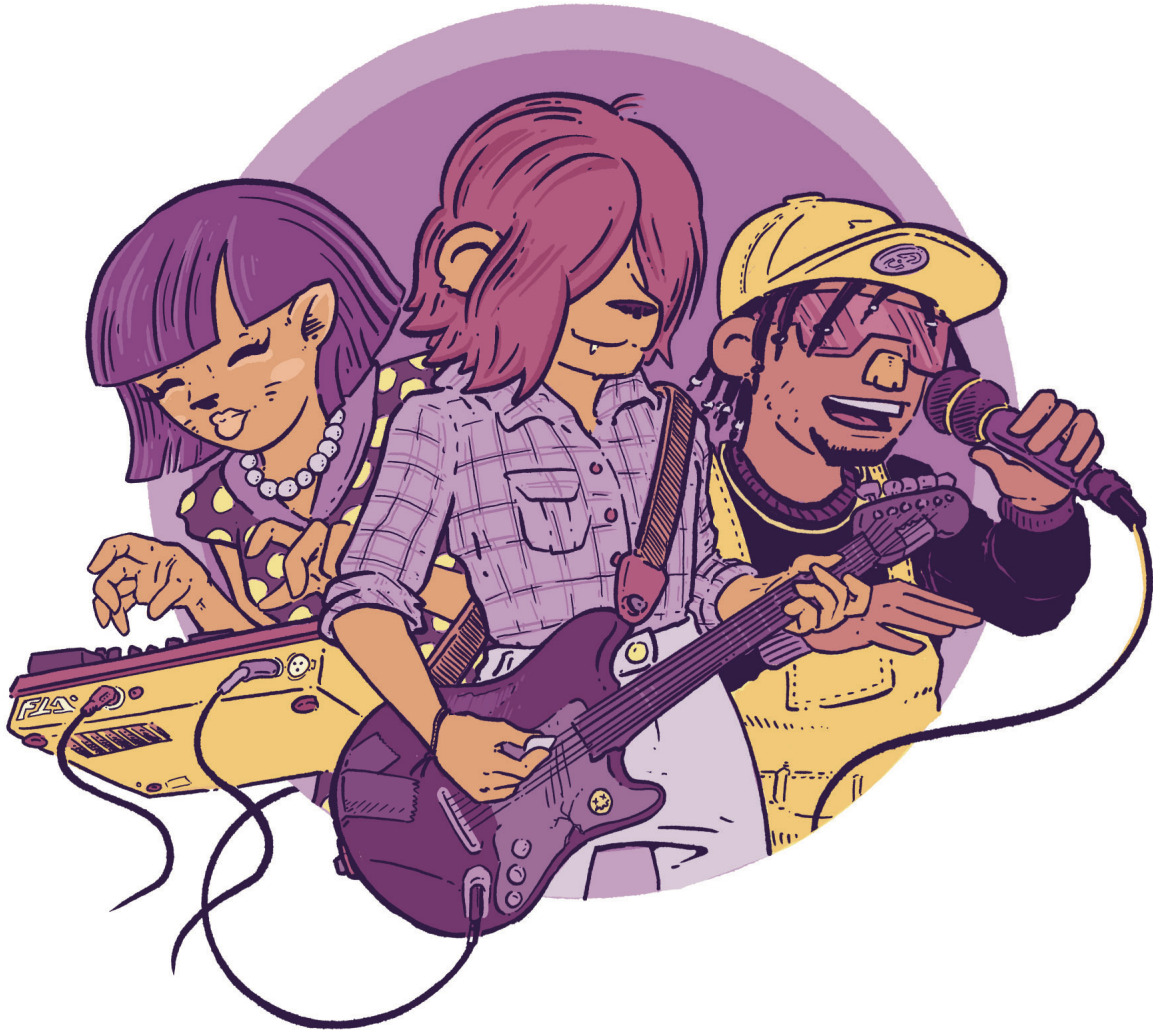


Gig Starters



GIG STARTERS WORKSHEETS



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Thanks to Jodie Freeman
Illustrations by Moskon Review
Layout by Nina Charlton**

TECH WHIZZ QUIZ - GOOGLE QUIZ

TEACHER'S COPY

- What does PA System stand for?
Public Address System.
- What type of lead do you commonly use to connect a microphone?
XLR Cable.
- What type of lead do you commonly use to connect an amplifier to a power source?
Jug Lead.
- What is a stage plot diagram used for?
To show the layout of different ensembles/groups in a performance line up.
- Name the two common types of PA Systems.
Powered and Battery.
- Choose two common types of microphones used in live performance.
Dynamic and Condenser.
- What is the Backline?
The equipment normally supplied by the venue.
- What does Tech Rider / Gear List mean?
Equipment specific to your act.
- What information does a gear list contain?
Quantities and Equipment needed for a live performance.
- Where does the microphone go in relation to the speakers?
Microphones go behind the speakers.



TECH WHIZZ QUIZ - GOOGLE QUIZ

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- What type of lead do you commonly use to connect a microphone?
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- What information does a gear list contain?
- Where does the microphone go in relation to the speakers?



GIG BUDGET WORKSHEET

It's important to have an idea of budget for the event you are running. See Page 6 of the Gig Starters Booklet for more information.

Here is an example budget. Amounts have been randomly allocated. You will need to do your own research to prepare your budget on the blank table.






EXAMPLE GIG BUDGET		
INCOME	ITEM	EXPENSE
	Venue Hire	\$100
	Tech Gear Hire	
	Sound Technician	\$100
	Doorperson	\$75
	Posters	\$50
50 x \$2.00 = \$100	Merchandise (Lollies)	50 x 50c = \$25.00
50 x \$3.00 = \$150.00	Merchandise (Bottled Water)	50 x \$1.00 = \$50.00
70 x \$10.00 = \$700.00	Ticket Price (based on 70 attendees)	\$10.00 (printing)
\$100	Float (cancels out at the end)	\$100
\$950.00	TOTALS	\$510.00
PROFIT = \$440.00 (split evenly between acts)		

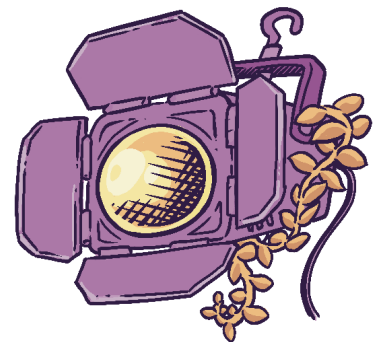
Other expenses to think about include security, a photographer, and any social media ads.

CREATING A STAGE PLOT

- Label each instrument/amp clearly.
- Include names of performers where possible.
- For drum kits – note whether full kit or part kit.
- Make a note of any instruments on risers.

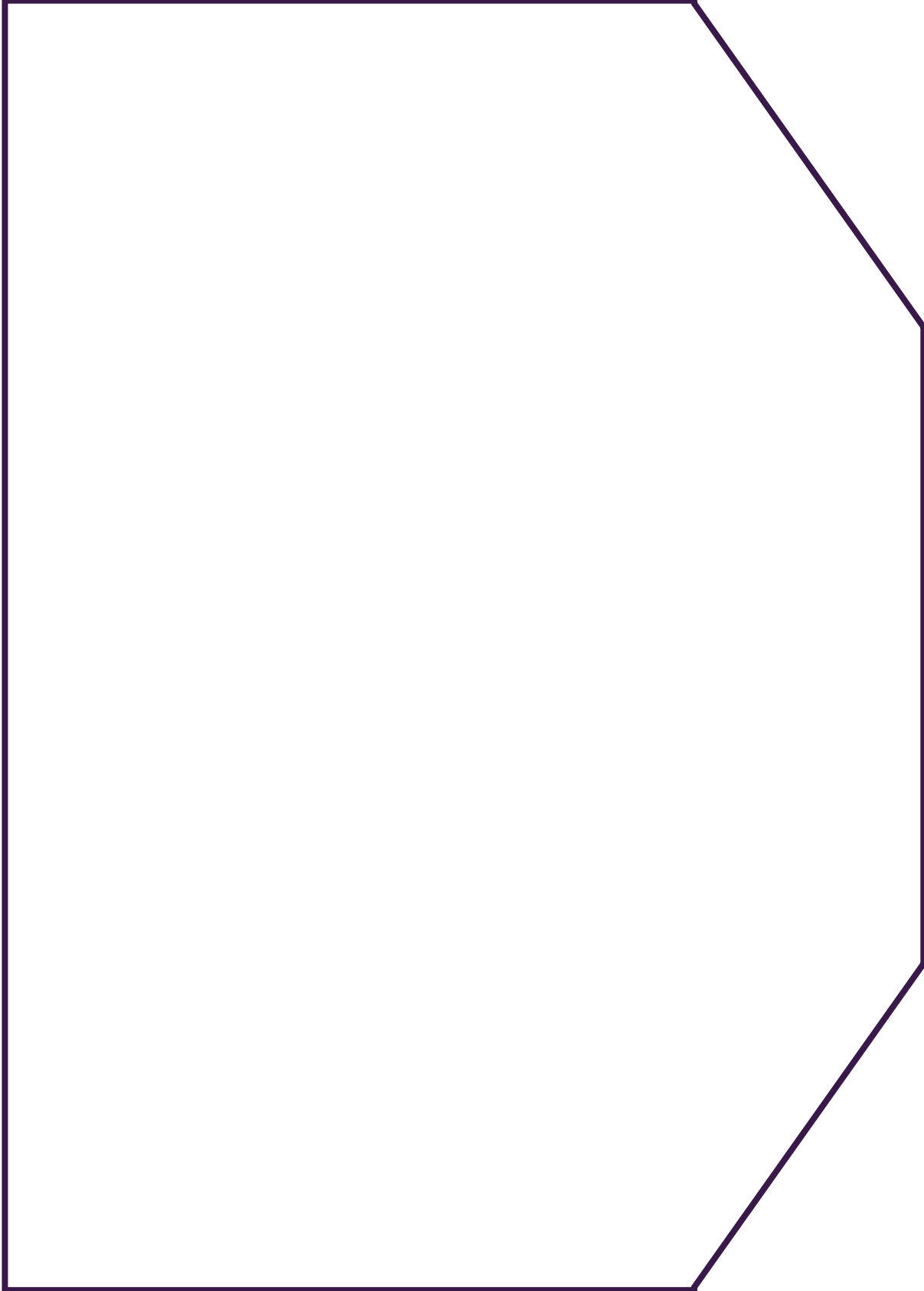
LEGEND OF SYMBOLS TO USE:

	Instrument Name / Amp Type
	Instrument Microphone
	Vocal Microphone + Stand
	DI Box
	Monitor (Foldback)



STAGE PLOT

EVENT _____ **BAND:** _____ **DATE:** _____



AUDIENCE

PERFORMER BIOGRAPHY

PROGRAMME AND PROGRAMME NOTES

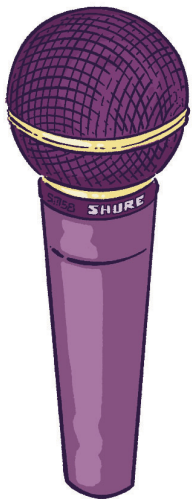
MICROPHONES IN A NUTSHELL

There are many different types of microphones. Each one is used in different settings depending on where the performance takes place and which instruments are being used.

HOW MICROPHONES WORK

At their most basic, microphones are transducers. A transducer is an electrical device that converts energy from one form to another. In this case, the transducer is turning sound — acoustical energy — into an audio signal — electrical energy.

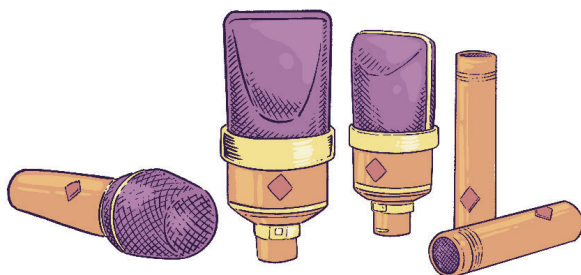
Most of you would know that sound is essentially fluctuations in air pressure. The component all microphones have in common is called the diaphragm. When sound waves hit the diaphragm, it vibrates, and the vibrations (which represent the fluctuations in air pressure) are turned into electrical energy (current). At the other end of the mic lead, that current is turned into the audio signal.



Dynamic Microphone

Dynamic mics are one of the most common types of microphone. That's because they're cheaper, they can be used in both live and studio situations, and quite a bit harder than most other microphones — for instance, put a condenser and a dynamic in front of the same number of spitty singers or tuba players and you'll find the dynamic lasts longer due to its resistance to moisture.

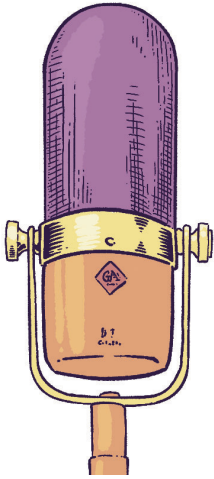
Generally, dynamics don't pick up as much detail as a condenser, so they're not used in the studio as much as they are live, but they do come in handy on loud instruments such as electric guitar where condensers are only useful a few feet away. They're also used by bands who want to get "that live sound" in the studio.



Condenser Microphone

Condenser microphones are incredibly popular, but they're expensive and aren't easy to use in a live situation unless they've been specifically designed for that — they generate feedback very easily. Condensers generally pick up a lot more detail than dynamic microphones and are better for quieter, subtler sounds. They also require 48V phantom power, where their dynamic cousins just need to be plugged into whatever's available to receive the sound.

Condensers are great for picking up loud sounds without losing detail, though if you don't have a wide breadth of condensers available to you, you may end up using a dynamic for those. Condensers are fragile and anything from air moisture to a bit of a bang can ruin them in no time.



Ribbon Microphone

Ribbon microphones are quite expensive, particularly fragile, and much less common than dynamic and condenser microphones. In the studio, they're used frequently. Like dynamic microphones, they don't require 48V power. However unlike dynamic microphones, they can be damaged if that much power is fed into them. Just to prove to you that they are really fragile things, there are some ribbon mics being produced now so that they won't be damaged if you forget to turn the phantom power off.

Ribbon microphones get their name from the thin metal ribbon suspended in a magnetic field that picks up the vibration and turns it into a signal by magnetic induction. They're good for a number of purposes including stereo recording and isolating an instrument in a noisy room (think drum kits).

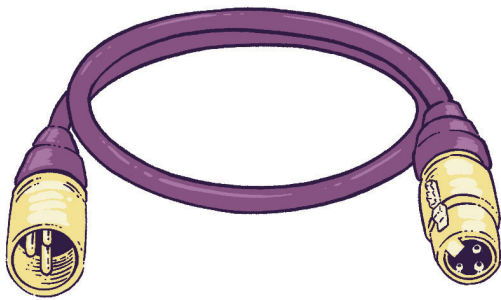
POLAR PATTERNS

The polar pattern of a microphone determines from which direction it picks up sound — or more accurately, how sensitive they are to sounds arriving from different angles.

- **Omnidirectional:** an omnidirectional microphone picks up sound equally from every angle. Omnidirectionals are great for recording choirs, a bunch of string players standing in a circle, and so on.
- **Cardioid:** cardioids are the most popular polar pattern, and pick up mostly noise from a wide front area with about bit of sensitivity around the sides of the back, and almost no sensitivity at dead-centre rear. They're named cardioid because the polar pattern is heart-shaped when demonstrated in diagram format.
- **Hyper-cardioid:** like a cardioid, but picks up a thinner area at the front and is less sensitive at the back.
- **Super-cardioid:** has about as much as front sensitivity as the cardioid but even less rear sensitivity than the hyper-cardioid.
- **Bi-directional:** these microphones pick up sound from the front and the back, but not so much the sides. Good for duets or other situations where you want to record two sound sources but exclude any others.
- **Shotgun:** shotgun microphones are named so because you point them at a sound source and they won't pickup anything but that sound source. Technically, that's not quite true — they have some sensitivity on the sides and at the back — but it's far less than any other microphone. They're often used in field recording and on television, but they come in handy when you're recording drum kits and the like where you want isolation.

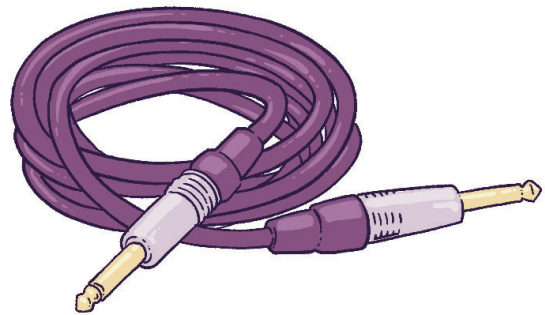
CABLES & LEADS FOR LIVE PERFORMANCE & RECORDING

There are many different types of leads used to connect instruments or devices in live performance and also in recording. Below are some of the most common leads you will be using.



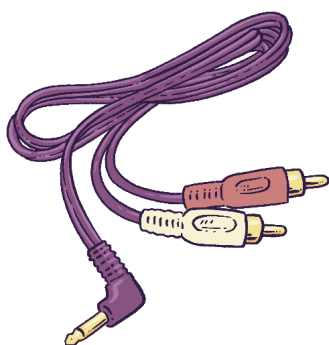
XLR Cable

XLR Cables are used to connect most microphones to either a PA or an interface for recording. They have very distinctive connectors which are different on each end making them easily recognisable.



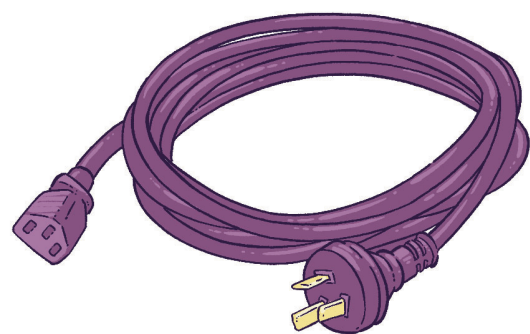
Guitar Lead

Probably the most versatile lead used in music. They have the same pin at each end and are used to connect guitars to amplifiers or interfaces. They can also be used to connect keyboards and pedal boards to either PA or guitar. The connector on the end is called TRS and goes into both input and output ports.



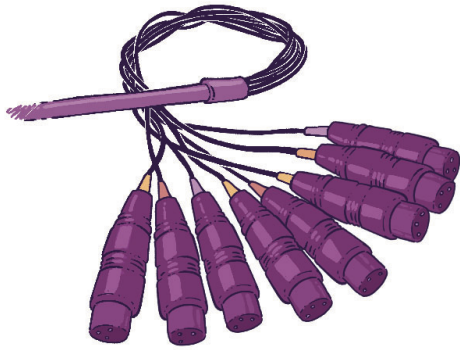
AUX Cord

The lead you are probably most familiar with. It is used to connect phones, iPads or tablets to a sound system. They have 3mm connector at one end which goes into the device and then two pins at the other which go into Left and Right ports on a mixing desk or PA system.



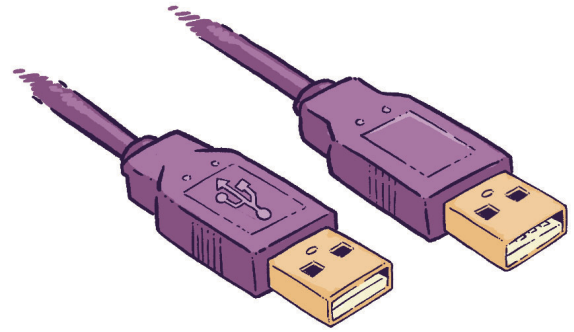
Jug Cord

Jug cords are very common leads used to connect amps, keyboards and such like to a power supply.



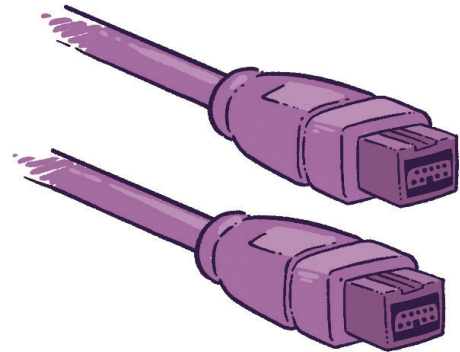
Snake

A snake is one big cable that has various different XLR connectors coming out of one end. These are used to connect multiple devices to a mixing desk without running a separate lead for each device. One connection goes into each channel on the desk.



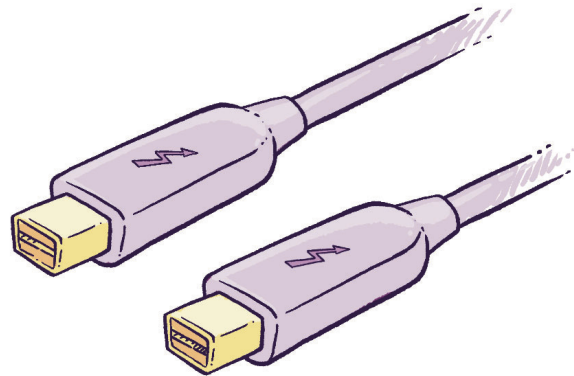
USB

This is a very common cable. It can be used to connect interfaces to a computer but it has the slowest transfer speed of the three cables.



Firewire

Typically found on more expensive interfaces and offers a faster transfer speed than USB.



Thunderbolt

This cable is only found on newer high end recording interfaces. It has high speed connection and data transfer.