PA System Guide

Oriel College
UNIVERSITY OF OXFORD

Contents

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Introduction

Going to do your first PA set up can be daunting. The pile of cables, big imposing speakers and abundance of buttons and switches can be overwhelming. This guide contains information that will help you to understand and use our equipment.

One metaphor that can help is to think about the sound as water. It will flow from the output, through the cable, into the input and finally come out of your speaker system.

Cables

Here are a few cables you might come across while setting up a PA system. While there are many other types of cable, this should give you an overview of what to expect.

XLR is a common cable, mostly used to connect microphones, speakers and mixing desks.

TRS, or Tip Ring Sleeve, cables Provide a similar connection to XLR cables as they both support stereo.

A TS, or Tip Sleeve, cable works in a similar way to a TRS but only has a mono and not a stereo output. Two TS cables can however be used to connect stereo if there are designated right and left ports

TRS to XLR will allow you to connect between the two different types of plug.

TRS to TS red and white allows you to have a stereo connection between the two different types of plug.

TS red and white to RCA cables are another way to connect stereo devices.
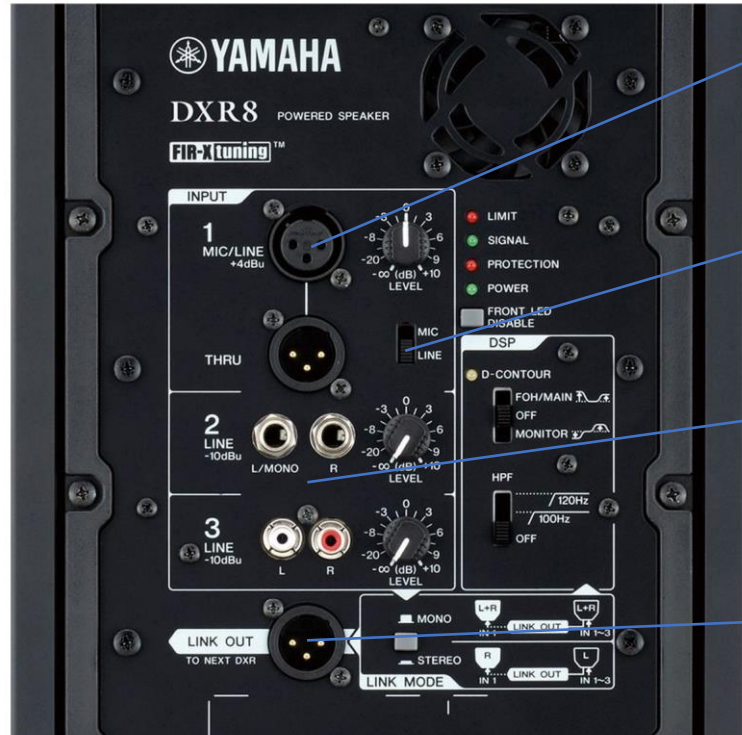
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Mono= same in each speaker effect

Stereo= mixed between each speaker for

Speakers

All speaker systems will have a similar layout to this

To get sound into the speaker you will use an XLR cable in the input 1 port. This will come from the output port of whatever the sound is coming from.

Change between Mic or line depending on whether you are using a microphone or another device like an instrument.

Alternatively, you can use TS cables (either one for mono or two for stereo) shown here in either input 2 or 3 depending on size.

If linking up to a second speaker, simply use another XLR cable in the link out/output port. Use the switch to determine whether the speakers will be in mono or stereo.

Please remember to turn the volume/level/gain all the way down on your equipment to avoid getting loud pops when connecting. Once connected, gradually increase while playing music or saying "test" into the microphone.

Mixing Desks

Like with speaker systems, most mixing desks will work in a similar way to each other.

On the surface, mixing desks can look daunting. When you break it down however you see that most of the buttons do the same thing, just for different inputs. On this example, each input, or channel, is separated by blue lines from the cable plugs from 1 to 12 (7-12 are paired). Make sure to switch between mic or line for microphones or line inputs such as instruments.

After that, your main focus is setting the level of the individual channels and then the level of the overall mix. The mix is everything together that will go out to your speakers or recording device.

The other dials in the channels are mostly personal preference depending on effects you want to add. If you still find something too quiet however you might want to try adjusting the gain.

Finally, you will have your outputs which may include XLR and TS/TRS mono and stereo ports. Usually there will also be a headphone output for monitoring your mix.

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Stands

Fortunately, the stands you will be using, for things such as microphones and speakers, won't be too technical. There are however some things to keep in mind to ensure yours and everyone else's safety.

1. Make sure to tighten all screws and put any safety pins in place.
2. Test the stand, by putting a little bit of your own weight onto it before mounting your equipment. It can be easy to get distracted and miss an important screw that will allow your stand to collapse under weight.
3. Always set up stands on even surfaces.
4. Wrap cables around the stand so that they lay flat on the floor. Drooping cables can cause the stand to fall if stepped or become a trip hazard.
5. If pins are included, insert them into the holes on the stands central pole. This means that if the bolt becomes loose, the weight of the speaker will not come crashing down.

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Still having problems?

If you still require assistance, contact the IT department at it-support@oriel.ox.ac.uk or on 01865 (2)86546

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