# PLRS

## Sound System & Stage Hire

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## Line Arrays
## Vs
## Point Source Speakers
## (Ground Stacked Speakers):

### Choosing the Right Tool for the Job

Ahhhh, the age old debate:

## Which speaker system is better for us to use.

Few topics in live sound stir as much passionate debate, often descending into arguments, based less on acoustic principles and more on personal bias, whatever system was trending when someone first got into the industry, or was being used at the first festival they went to.

Let's open Pandora's box just a smidge and try to explore this with some balance.

### There's No One Size Fits All

When selecting the right PA system for a space, there are countless variables to consider:

- Size and shape of the venue
- Desired volume levels
- How consistent the coverage needs to be
- Budget constraints
- Venue specific quirks (Stadium, Arena, Seating etc)

No single system works best in all scenarios, and both point source and line array systems have their strengths as well as their limitations.

### Understanding Line Arrays

Line arrays are often misunderstood.
While they were modelled as continuous sound sources, back in 1957, and used in large scale events from the 1980's **in practice, they behave more like a line of closely spaced speaker stacks (point sources)**, which couple to a degree.
This coupling smooths out the frequency  response across a wide area, especially in the vertical plane.

Most modern line arrays offer **wide horizontal coverage and tight vertical dispersion**, allowing engineers to tailor the coverage (which is extremely time consuming) by adjusting box angles and array lengths.

This is why line arrays shine in arenas, and extremely large open spaces.
When configured well (and if you have the money, the time, and the staff to do this, as it will take two whole days, and around 4 members of staff (absolute minimum) with proper splay angles and gain shading you can often eliminate the need for delay stacks, and maintaining even volume from front to back of the Performance area.

That said, **line arrays are rarely used alone**. Most deployments also incorporate point source cabinets to cover tricky areas due to the tightly packed customers themselves, to stage fills, under balconies, and so on.

## The Case for Point Source

Point source systems can be much **simpler to deploy**, especially in smaller venues. Fewer cabinets, wider coverage per box, and a more intuitive setup process make them attractive for tight turnarounds and modest budgets.

However, there are trade offs.

Because they often rely on overlapping coverage in the horizontal plane.  The potential for coupling between cabinets is also lower, particularly as you increase the distance between them.

But for certain venues and applications particularly smaller concerts and festivals, in fact most outdoor events held in the UK, if the customer base is under 5000, clubs, bars, or intimate live rooms, point source remains king.

## Final Thought

**So ... Which Should You Use?**

Honestly? **Both. Either. It depends.**

A line array is just another tool in your kit,  not a religion. They don't sound any different from a point source system, The key is understanding the location you're working in, the goals of the event, and the physical and budgetary constraints you're operating within. Instead of fixating on theory or