



SPL Series Q and A

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About this new system

Imagine a speaker system where all you had to do was connect up a signal and power, and start mixing. No racks of amplifiers to connect, no crossovers/processors to wire up and adjust, no large amounts of heavy, power absorbing speaker cable to run out.

Just simply a compact, powerful speaker system with integrated speaker processing and power amplifiers in the cabinet.

We call it the SPL (Self Powered Loudspeaker) Series.

The SPL 12, for example, consists of a rugged all plywood trapezoidal speaker cabinet, with flying and stand mounting options, a 12" (305 mm) reflex loaded bass driver with its own amplifier, and a state-of-the-art compression driver with its own amplifier, loaded onto our newly developed 90 x 40 flare.

A 24 dB per octave crossover with Linkwitz-Riley filters and ARX ISC speaker processing smoothly integrates the two amplifiers with the drivers to form a compact speaker system that delivers transparent, crystal clear high spl output throughout its range.

The SPL SUB18 Sub-bass consists of a rugged all plywood reflex loaded speaker cabinet, with a long throw 18" (460 mm) bass driver with its own amplifier

A 24 dB per octave crossover at 100 Hz with Linkwitz-Riley filters and ARX ISC speaker processing smoothly integrates the SPL 18 with the SPL 12 to form a powerful, compact speaker system that delivers transparent, crystal clear high spl output throughout the audible audio spectrum.

Other models include the SPL 8H compact installation model, ; the SPL SUB15 reflexed active Low Frequency cabinet; and the SPL SUB18 reflexed active Sub Bass cabinet.

What applications can they be used in?

The SPL series are designed to be used in any application where accurate high level sound reproduction is required, ie:

- Concert Sound Reinforcement
- Auditorium Installations
- Dance Clubs
- Houses of Worship
- Theatre and Film
- Corporate A/V

The SPL 12 has a clearly defined 90 x 40 coverage pattern with excellent array capabilities. The SPL SUB18 provides complementary extended sub bass when required to enhance any performance. The SPL 8H is an excellent installation choice with well defined pattern coverage, easy mounting and low profile giving improved sightlines

What speakers do they use?

The SPL 12 uses our new 25mm extended range compression driver, loaded onto our newly developed 90 x 40 horn flare. This flare is made from an acoustically inert material to avoid interaction with the low

frequencies in the cabinet. The 12" driver is our own proprietary design that has been specifically engineered to work with the amplifier section to form an integrated self correcting unit.

The SPL SUB15 and SUB18 drivers have also been developed in conjunction with the amplifier section to provide maximum low frequency sound pressure level without the risk of overdriving.

Similarly, the other models in the SPL range also use drivers specifically designed to complement the amplifier power and deliver the coverage required. been specifically engineered to work with the amplifier section to form an integrated self correcting unit.

What sort of amplifier is inside?

The amplifier design in the SPL series uses existing ARX proven analog amplifier technology for predictable operation in all professional applications.

It uses a transformer based power supply and the latest generation Linear Mosfet output devices. Mosfets do not exhibit the thermal runaway characteristics of traditional bi-polar output transistors. With this inherent self regulation, Mosfets are accepted as being the most thermally reliable and predictable amplifier output stage available. This power supply/drive circuitry combination enables a much reduced parts count when compared to standard systems. Combining this with the under-stressed components used throughout assures long term reliability.

How should they be wired up?

All the system needs to operate is a signal and an AC feed. There are loop through connectors for audio AND power to daisy chain to other cabinets in a serial manner. This is much neater, and reduces cable duplication and setup time compared to having everything radiate from a central point.

The Audio connectors are standard 3 pin XLR Male and Female

The AC connectors are the locking Neutrik Powercon type. This avoids the risk of an AC cable vibrating out during a performance, which can be a nuisance if the system is ground stacked, and a disaster if it is being flown! (See also SPL Wiring Info Technical Note)

AC power requirements

The system is supplied ready-to-use in the AC rating of the country of use: 100 - 120, 220 - 240 v AC, 50/60 Hz. The SPL 12 uses 550 VA (550 Watts) max, while the SPL SUB18 uses 600 VA (600 Watts) power consumption

Using multiple units

Our aim with the SPL series was to create true audio building blocks. Each component in the system can be used singly or in multiples without creating unwanted holes or peaks in the system response. So, if you need extended low frequency, simply connect an SPL SUB18 with the SPL 12. If you need more, connect another. If you need a greater coverage pattern than one SPL 12 provides, it is an easy matter to add another.

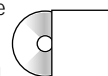
And so on.

In installations this provides the benefits of consistent coverage patterns providing high quality audio at every audience point, consistent cabinet size, and consistent rigging requirements.

In a rental situation, this building block method provides significant savings in inventory and labour. The client can easily rent the amount of speakers required for a given area and required spl, without the labour intensive need to reconfigure drive racks and cabling every time a client has a different application. Simply load the truck with the appropriate number of cabinets and power leads.

Audition the SPL Series today. We think you'll agree with audio professionals around the world that they represent a major step forward in pro audio loudspeaker systems.

Specifications available
on CD ROM. Latest
updates available at:
www.arx.com.au



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