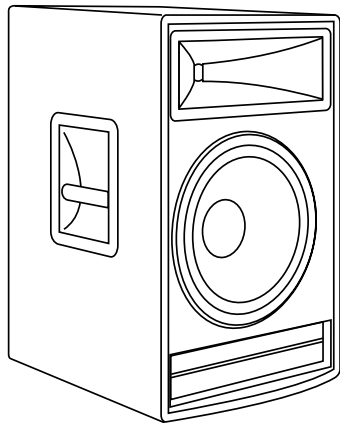


SPL 12

INTEGRATED SELF POWERED
LOUDSPEAKER SYSTEM



Applications:

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

Features:

- Fully integrated active 2 way amplifier/speaker combination
- High power and low distortion provide true sonic accuracy
- ISC system protection and *CoolPort™* technology
- Easy, flexible setup - just connect a signal and AC power

ABOUT THE SPL12

The ARX SPL12 is an integrated active (bi-amped) 2 way speaker and amplifier combination. Low frequencies are handled by a new 12" (305mm) driver, and high frequencies by a *Ferro-Cooled** 50mm voice coil driver mounted on our new 90° x 40° consistent beamwidth horn flare.

The cabinet is built throughout from premium grade void free plywood, with a catalysed polyurethane finish and a steel mesh protective grille.

Reinforced mounting plates allow flying hardware to be factory fitted as standard.

INSIDE INFORMATION

The all new amplifier design inside the SPL12 uses existing proven analog amplifier technology for predictable operation in all professional applications.

Its transformer based power supply and Mosfet drive circuitry both enable a reduced parts count for long term reliability. Plus, with their inherent self regulation, Mosfets are accepted as being the most thermally reliable and predictable amplifier output stage available.

The SPL12's oversized amplifier heat exchanger was originally designed for safe heat transference of 1200w RMS in our ZX3200 amplifier. Even at maximum SPL it is only working at 30% of its operating capacity; leaving a 70% safety margin unmatched by any other speaker system

With the exception of a rear panel switch to modify the response curve depending on whether or not the

cabinet is being used with a Sub, there are deliberately no user adjustable controls for the SPL12. The system provides a flat response, since all equalising is intended to be done from the source - typically a mixer and /or graphic EQ. The drivers and the output of the amplifier section form a perfectly matched composite unit that is designed to do only one thing, and do it extremely well.

BENEFITS

The acoustic and practical benefits of this amplifier/speaker combination are many:

- Improved speaker response. The close-coupled design delivers greater actual power at the speaker and improves the damping factor. Both frequency and phase response are optimised, with no potential for mis-adjustment
- Thermal reliability. Thanks to our unique heat exchange/cooling design, the harder the system is driven, the more efficiently the heat exchanger operates.
- There is no power loss caused by long runs of loudspeaker cable which can typically be 30 metres (100') or more. All the amplifier power is delivered to the speaker.
- An elegant all in one solution - amp, processor, speaker are combined in the one cabinet. There are no amp racks to store and cool, no heavy speaker cabling to run.
- Reduced number of connections contributes to inherent low noise, and greatly reduces the possibility of ground loops.

OTHER FEATURES

- Locking AC power connectors. By using the Neutrik PowerCon design, the power connector locks to the cabinet, avoiding the problem of a connector vibrating loose during a performance.
- Noiseless turn on/turn off.

As well, an extra auxiliary AC power output is fitted as standard, so that systems can be powered in a serial/daisy chain layout rather than radially from a central point, thus reducing the cabling required.

At ARX we have designed the SPL series to be a true 'building block' audio system.

- It is truly cost effective, with no need for speaker cabling, extra amplifiers or amp racks.
- Ease of installation - simply connect AC power and a signal.
- The modular concept means total flexibility, with system inventory kept at the most efficient level. To increase or decrease the size of the system, simply add or remove cabinets as required.
- With a lower parts count than standard systems, and under-stressed components used throughout, mechanical and electrical reliability is consistent with world's best practice.

To sum up, the SPL series successfully combines state of the art design with practical, proven technology to deliver an integrated speaker/amplifier solution with all the dynamic impact and transparent audio that today's audiences expect.

*FerroCooled is a Trademark of the Ferrofluidics Corporation, Inc

Every ARX speaker system provides innovative solutions designed to deliver ultimate audio reproduction.

Our integrated self powered speaker systems, like every audio product we make, have been engineered for flawless performance day after day, night after night.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

The speaker system shall be an active two way reflex system powered by dual internal power amplifiers integrated by an onboard 24dB Linkwitz Riley crossover at 1500 KHz.

The frequency response of the system shall be 50Hz – 20KHz +/- 4dB. The loudspeakers shall be a Low Frequency 12" 305mm 8 ohm driver and a High Frequency 50mm voice coil 16 ohm compression driver on a flat front Consistent Beamwidth horn flare. Dispersion shall be a nominal 90° Horizontal x 40° Vertical.

The amplifier power shall be LF 300 Watts RMS 8 ohms, and HF 150 Watts RMS 16 ohms. The amplifier type shall be a Lateral Mosfet design. THD shall be <.01%.

The Highpass filter shall be –3dB down @ 55Hz, and shall also be 24dB Linkwitz Riley type. There shall also be switchable response curves for use with or without a sub woofer cabinet.

Loudspeaker protection shall include anti-clipping circuitry, relay muted input, relay switched output sensing DC and RF error.

The Input connector shall be 3 pin Female XLR, polarity Pin 2 +, Pin 3 –, Pin 1 Ground, and the Input Impedance shall be 44K Balanced (electronic), with a nominal input level of 0dB for nominal rated amplifier outputs.

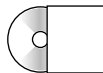
There shall also be a 3 pin Male XLR Input Loop Connector, polarity Pin 2 +, Pin 3 –, Pin 1 Ground.

AC Power input shall be preset at either 110V/220V/240V 50/60Hz. The AC Power Input shall be the Neutrik PowerCon type NAC 3 FCA, and the AC auxiliary output shall be the Neutrik PowerCon type NAC 3 FCB. AC Power protection shall be provided by a user resettable external circuit breaker. Maximum AC Wattage shall be 550 VA (550 Watts).

The transformer type shall be Toroidal.

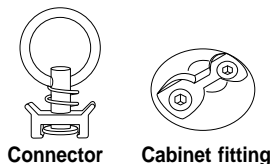
The integrated self powered speaker system shall be the ARX SPL12

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



FLYING POINT DETAILS

The recessed flying points on the SPL 12 are designed to receive a single stud spring-loaded track connector (see below).



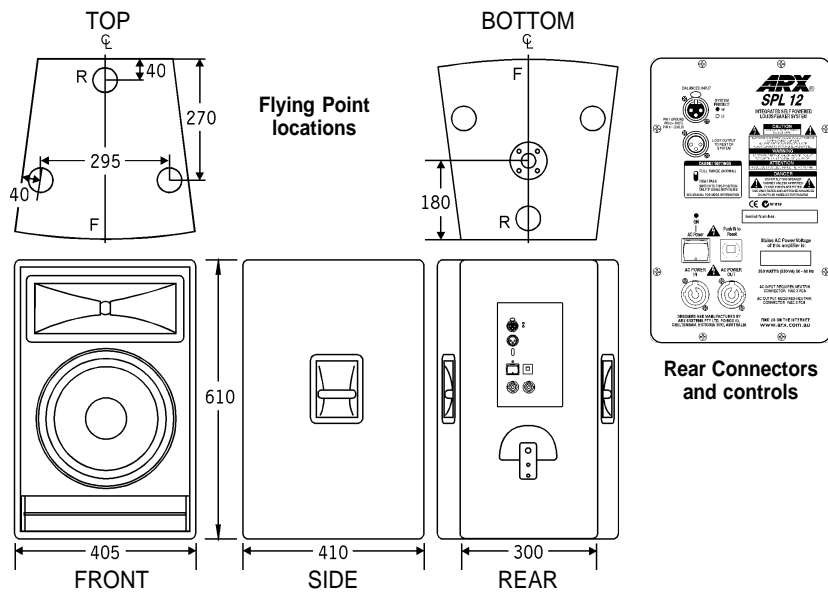
Our policy is one of continuous improvement, and therefore designs may change without notice. However, unless otherwise stated, specifications will always equal or exceed those previously given.



SPL 12 SPECIFICATIONS

Frequency response	50Hz - 20KHz ± 4dB
Loudspeaker type	Low Frequency 12" 305mm 8 Ohm High Frequency 50mm voice coil 16 Ohm; FerroCooled
HF Flare type	Flat front Consistent Beamwidth
Size	610H x 405W x 410D, 7.5° taper to back
Weight	35Kg (80 lbs)
Dispersion	Nominal 90° H x 40° V
Input Connector	3 pin Female XLR, polarity Pin 2 +, Pin 3 –, Pin 1 Ground
Input Impedance	44K Balanced (electronic)
Nominal input level	0dB for nominal rated amplifier outputs
Input Loop Connector	3 pin Male XLR, polarity Pin 2 +, Pin 3 –, Pin 1 Ground
Crossover Frequency	1500Hz
Crossover Type	24dB Linkwitz Riley Filter type
Highpass Filters	–3dB @ 55Hz 24dB Linkwitz Riley plus switchable Sub/Full range response curves
Maximum SPL	130 peak, 127 continuous
Amplifier power	LF 300 Watts RMS 8 ohms, 525 peak HF 150 Watts RMS 16 ohms, 300 peak
Amplifier type	Lateral Mosfet
THD	<.01%
Loudspeaker protection	ISC amplifier anti-clipping circuitry Relay muted input Relay switched output sensing DC and RF error
Status LEDs	AC power, HF Protect, LF Protect
AC Power	110V / 220V / 240V 50 / 60Hz
AC Power Input	Neutrik PowerCon type NAC 3 FCA
AC Power Loop	Neutrik PowerCon type NAC 3 FCB
AC Power protection	User resettable external circuit breaker
AC Wattage Max	550 VA (550 Watts)
Transformer type	Toroidal
Construction	All premium grade void free multi-laminate plywood, with acid catalysed texture finish, steel mesh grille, top and bottom reinforced flying points and cable strain relief point

CABINET DIMENSIONS AND LAYOUT



ARX Systems Pty Ltd; PO Box 15, Moorabbin, Victoria 3189, Australia
Phone: 03 9555 7859 Fax: 03 9555 6747 International Fax +61 3 9555 6747
Email: info@arx.com.au Internet: www.arx.com.au