SPL Loudspeaker Systems

From Fender Pro Audio

Owner's Manual for SPL 1225 Mark Two & 1226 Mark Two



The SPL 1225 Mk.II and SPL 1226 Mk.II models are full-range loudspeaker systems designed for professional service. These systems boast efficiency, wide response, low distortion, and controlled directivity.

Product Features

Only the finest components have been utilized to provide years of trouble-free performance. Quality features for the 1225 Mk.II include a woofer with a die-cast alloy frame, FOURTEEN and ONE HALF POUND motor structure, and a 3-inch voice coil employing a polyimide KAPTON coil form.

The 1226 Mk,ll uses two of the 15" specially designed cast-frame woofers to achieve low frequency extention to below 40Hz. Since the lower woofer is a significant distance from the horn, it is rolled off above 300Hz. to prevent interaction and phase cancellation with the horn near the crossover frequency of 2200Hz.

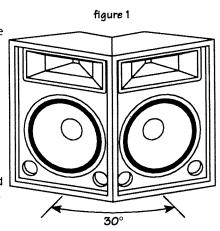
The high frequency compression driver has been constructed using a polyimide KAPTON voice coil former coupled to a titanium diaphragm, employing a circumferential ring "phasing plug". Our custom-designed horn with its special "vertically aligned" airfoils has been optimized to provide the best possible performance, while providing accurately controlled dispersion.

The crossover network is a precision fourth order "LINKWITZ - RILEY" design that has been optimized through literally hundreds of hours of MLS testing, group delay measurments and empirical listening tests. It features both standard 1/4" jacks and Neutrik Speakon™ connectors.

Cabinet construction is trapezoidal to minimize internal reflections which can cause colorization of the low frequency driver. Additionally, sound absorptive insulation is used to further suppress internal reflections. The rugged carpet covering over 3/4-inch plywood will withstand the rigors of "tour" service and maintain its good looks.

Setup Procedure

For best performance, placement is important. If the system is placed near a flat wall, bass performance will be reinforced by about six decibels. This means that for applications where feedback will not be a concern (keyboard or drum synth service), place the



speaker systems near the rear wall of the stage, elevated above equipment that may be on stage. Where feedback is a problem, (vocal microphones and the like) place the speakers in front of the microphones, near the front of the stage.

For multiple system operation, keep the high frequency sections near one another, and angle the systems so that their flat sides are in contact (see figure 1). In this way, two systems can provide nearly 150 degrees of horizontal coverage.

Connect the amplifier to the loudspeaker with minimum 14 gauge wire. The length of the speaker cable should be no more than 100 feet. Where multiple systems are to be "DAISY CHAINED" together (see figure 2 and figure 3), or where longer cable runs will be encountered, consider using a

larger gauge

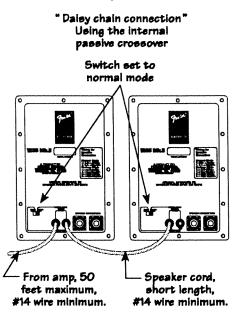


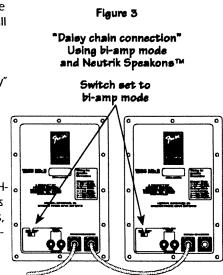
Figure 2

wire (smaller number). A rule of thumb is to subtract 3 from the wire gauge each time the number of systems doubles or where the cable length doubles.

As an example, for a 200 foot run, use 11 gauge wire. For a 100 foot run to a pair of speakers, also use 11 gauge wire. For a 200 foot run to two systems, use two

separate 11 gauge cables. If too small a gauge of wire is used, no harm or hazard will result, but "sound quality" and level may be degraded, due to the wire's internal resistance.

We suggest the use of the SWITCH-CRAFT Z15P plugs on the cable ends, if the wire is heavier (smaller number) than 14



gauge. For quick hookup of bi-amplified systems and to minimize the chance of connection error, use the Neutrik Speakon™ connectors.

Connection chart for Neutrik Speakon™ connectors

Normal Mode

1+ & 2+ = Positive

1- & 2- = Negative

Bi-Amp Mode

1+ = Low Positive

1- = Low Negative

2+ = High Positive

2- = High Negative

*Important: always check to be sure that the internal/external crossover switch that selects passive or bi-amp operation is in the correct position prior to use. Failure to do this may damage the speaker.

For bi-amplified operation, the recommended crossover frequency is about 2200Hz. The high frequency level should be about 8 dB lower than the low frequency level to correctly match the response of the two drivers when bi-amplifying. You should always adjust the levels to your own personal taste.

SPECIFICATIONS

System Type

- Two way, vented baffle low frequency section.
- Horn loaded high frequency section.

Woofer

SPL1225 Mk.II

- Single 15-inch driver with 3-inch voice coil, employing polyimide KAPTON voice coil bobbin.
- Cast alloy frame.

SPL1226 Mk.II

- Dual 15-inch drivers with 3-inch voice coils, employing polyimide KAPTON voice coil bobbin.
- Cast alloy frames.

High Frequency

- Fender designed and manufactured horn with 90 x 40 degree radiation angle.
- Special Fender Designed 1-inch exit driver with a 2inch voice coil, featuring a TITANIUM diaphragm and circumferential ring phasing plug.

Crossover

- Passive, fourth order "Linkwitz-Riley" design.
- Parallel 1/4-inch input jacks.
- 4-pole Neutrik speakon™ jacks.
- BI-AMP ready switching capacity.

Cabinet

- All Birch plywood construction with multiple angle shape, sturdy DADO joinery.
- Rugged carpet covering.

Performance Specifications

Model	Frequency Response	Rated Impedance	Sensitivity	Vertical Radiation Angle	Horizontal Radiation Angle	Crossover Frequency	Power Rating (passive crossover)		
1225 Mk.II	50Hz - 15kHz ±3dB (half space)	80	100dB @ 1 Meter 1 Watt	90 Degree 9 5kHz	40 Degree 2 5kHz	2200Hz	200 Watts per E.I.A. RS426	400 Watts program	800 Watts peak
1226 Mk.II	38Hz 15kHz ±3dB (half space)	4₽	100dB @ 1 Meter 1 Watt	90 Degree @ 5kHz	40 Degree © 5kHz	2200Hz	400 Watts per E.I.A. R\$426	800 Watts program	1600 Watts peak

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