

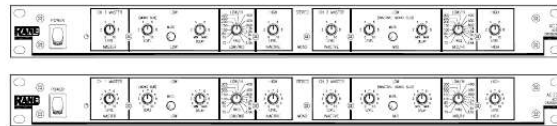


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You can read the recommendations in the user guide, the technical guide or the installation guide for RANE AC 22. You'll find the answers to all your questions on the RANE AC 22 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual RANE AC 22  
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## RANE DATA SHEET AC 22 & AC 22B ACTIVE CROSSOVERS



### General Description

The Rane AC 22 and AC 22B Active Crossovers are Stereo 2-Way with mono subwoofer option, or can be used as a Mono 3-Way. They employ state-variable 4th-order Linkwitz-Riley filter alignments to minimize phase difficulties in the critical crossover region. The model AC 22 utilizes 1/4" TRS connectors with balanced/unbalanced inputs and unbalanced outputs. The new AC 22B uses XLR connectors with active balanced inputs and outputs. Simply put, a Linkwitz-Riley alignment is two cascaded 2nd-order Butterworth filters exhibiting identical phase characteristics on their Low pass and High pass Outputs. This characteristic guarantees in-phase outputs at all frequencies. In-phase outputs are mandatory for proper acoustic summing of common signals from adjacent drivers in the crossover region. An added benefit of this topology is steep 24 dB per octave rolloff slopes. A slope of this magnitude guarantees

drivers designed to produce a specific range of frequencies, and no more, will not be driven past their limits, thereby minimizing distortion and driver fatigue.

To further guarantee the transparent operation of the AC 22 and AC 22B, adjustable Delay circuits appear on the Low (& Mid when used in 3-Way mode) Outputs of each Channel to compensate for any physical misalignment of the drivers. Time correction ensures the mechanical phase alignment of adjacent drivers will be acoustically correct, thus maintaining the integrity of the electrical phase alignment of the crossover's filters. The Low Delay circuit may be internally transplanted to the High Output when necessary. CD horn equalization is also possible with an internal modification. See: RaneNote 107 for more information regarding Linkwitz-Riley designs.

### Features

- Stereo 2-Way or Mono 3-Way
- Linkwitz-Riley Alignment with 24 dB per Octave Slopes
- Adjustable Delays
- Mono Subwoofer Switch and Output
- Infrasonic, Ultrasonic, and RFI Filters
- Low Output Muting (2-Way)
- Input & Output Level Controls
- UL/CSA/CE and 100/120/230 VAC Remote Power Supplies

### AC 22 Features

- 1/4" TRS Inputs & 1/4" TS Outputs
- Active Balanced/Unbalanced Inputs & Unbalanced Outputs

### AC 22B Features

- XLR Inputs & Outputs
- Fully Active Balanced Inputs & Outputs

Data Sheet-1



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design terminated with XLR connectors for the AC 22B. RFI filters shall be provided. Infrasonic and ultrasonic filters shall be built-in. The active crossover shall afford an input level range of off to +6 dB. @@The crossover shall supply two independent channels. @@@The unit shall be a Rane Corporation AC 22 or AC 22B Active Crossover. Available Accessories - SC 1.

7 Security Cover References 1. S.H. Linkwitz, "Active Crossover Networks for Noncoincident Drivers," J. Audio Eng. Soc., vol. 24, pp. 2-8 (Jan/Feb 1976). 2. D. @9-12, 1983, preprint no. 2011. 3. D.

Bohn, "Linkwitz-Riley Crossovers," Rane Note 107, (1983). 4. D. Bohn, "Why Not Wye?" Rane Note 109, (1984). 5.

D. Bohn, "Overload Characteristics of State-Variable Crossovers," Rane Note 112, (1985). 6. D. @@@@DOC 103033 PN 07531 9-98 .



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