

FR-350-R

Professional Horn-Loaded Sound Reinforcement Loud Speaker System



Application

The FR-350-R fulfills the need for a house sound system capable of producing the levels required to carry vocals and un-amplified instruments above the band, while being clearly intelligible at high SPLs. It is physically capable of withstanding the rigors of on-the-road abuse. The FR-350-R provides in a small self-contained package the high-output capability associated with large, complex component PA. systems.

Description

The FR-350-R is a three-way loudspeaker system incorporating horn loading over the entire bandwidth for maximum efficiency. The exceptionally wide bandwidth of 45 Hz to 20,000 Hz enables the FR-350-R to reproduce everything from the lowest fundamentals of the bass guitar to the highest harmonic of a cymbal crash. The audible performance of the FR-350-R benefits from EAW's engineering advancements, including complex third-order passive crossover, true exponential horn design, and complete system acoustical integration, enabling smooth extended response for maximum articulation and gain before feedback. Construction is the same as EAW's touring concert equipment, with thoroughly-braced crossgrain laminated birch material and black polyurethane finish for roadability. This system will audibly out-perform competitive units while providing better durability than any other system available. All aspects of the system have been optimized for long term reliability. From the quality drivers to the catalyzed polyurethane finish, this unit represents "state of the art" in road packaging.

Low Frequency Performance

Bass is provided by a 380 mm (15") LF-381 R driver mounted in a vented exponential bass horn providing unsurpassed low frequency performance. The cast-frame driver has a large magnet providing 11,500 Gauss in the gap for low distortion and high efficiency. The rigid cone is coupled to a long, 3" diameter voice coil that exhibits high power handling capability. The horn is made with the same painstaking attention to detail that has made EAW the leader in professional bass horn design.

Mid Frequency Performance

Mid frequencies are handled by a precision CD-2544 compression driver with an 18,000 Gauss flux density magnetic structure mated to an 800 Hz flush mount exponential horn. The driver uses a diaphragm made of a complex super alloy for excellent power handling and smooth, extended response. This driver combines low distortion with excellent transient response.



High Frequency Performance

The EAW CD-2060 horn/driver extends the response to well beyond the limits of audibility. These units use a super Duralmin diaphragm which is 18 microns thin and precision heat treated for maximum durability and bandwidth. The edge wound aluminum alloy voice coil is centered in a 16,000 Gauss flux density magnetic circuit. The high frequency crossover in the FR-350-R provides an 18 dB per octave slope below the 9,000 Hz crossover frequency. This combination makes driver failures virtually impossible when the system is operated within specifications.



FR-350 Specifications

Operating range 45 to 22,000 Hz
 Frequency response
 On axis - 3 dB points 90 and 17,000 Hz
 On axis - 10dB points 45 Hz and 22,000 Hz
 Sensitivity with 1w input at 1 meter 107 dB SPL
Power handling
 Maximum 300 W RMS
 Nominal 200 W RMS
 Maximum output with 200 w input at 1 meter 130 dB SPL
 Nominal impedance 8 ohms
 Nominal dispersion 90° horizontal
 40° vertical

Enclosure type True exponential bass horn with vent loading
 Material All exterior surfaces cross-grain laminated birch hardwood

Crossover network
 Slope Third order, 18 dB per octave
 Frequencies 900 Hz, and 9,000 Hz

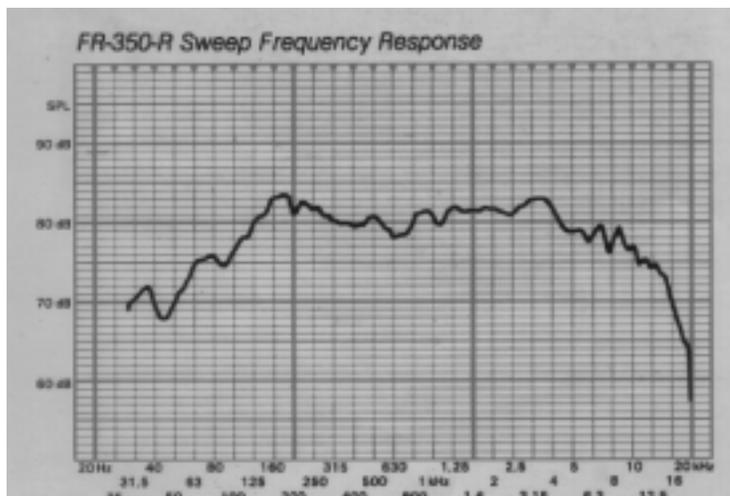
Driver Data	LF Driver	MF Driver	HF Driver
EAW model:	LF-381 -R	CD-2544	CD-2060
Diaphragm size/ material	380 mm paper (15")	44 mm alloy (1.75")	15 mm aluminum (0.6")
Type	Dynamic, cone	Dynamic, compression driver	Dynamic, compression driver with horn

Flux density	11,000 Gauss	18,000 Gauss	17,000 Gauss
Voice coil diameter	75 mm (3.0")	44 mm (1.75")	15 mm (0.77")
Cabinet dimensions	60.3 cm x 75.60 cm x 94.0 cm		

(23 3/4" D x 29 3/4" W x 37" H)

Net weight 72.3 kg (159 lbs)
 Cabinet finish Catalyzed black polyurethane
 Driver mechanical protection Perforated steel with vinyl covering
 Driver electrical protection Individual driver fuses 4 amp; 1.5 amps: 1 amp
 Standard hardware Recessed bar handle, steel ball corners, metal feet

Input terminals Dual 1/4 " phone jacks, and banana connectors



Specifications subject to change without notice.