

MF1-X™ Mark III™

Wide Range, High Efficiency
High Frequency
Horn System

SPECIFICATIONS:

Enclosure:

MF1-X™ Mark III™

Frequency Response, 1 Meter on Axis, Swept Sine Averaged Across Operating Bandwidth in Anechoic Environment:

600 Hz-16 kHz

Low Frequency Limit (-3 dB point):

600 Hz

Power Handling:

150 watts continuous (34.6 volts RMS)

300 watts program

Sound Pressure Level, 1 Watt at 1 Meter, Swept Sine Input in Anechoic Environment:

112 dB

Maximum Sound Pressure Level:

131 dB

Radiation Angle Measured at -6 dB Point of Polar Response, Swept Sine Input:

Horizontal Plane:

500-10,000 Hz

110° +/- 5°

Vertical Plane:

500-10,000 Hz

80° +/- 40°

10,000-16,000 Hz

115° +/- 5°

10,000-16,000 Hz

45° +/- 5°

Directivity Factor Q, 500 Hz —16,000 Hz Median:

8.3 (+1.9, -4.6)

Directivity Index D_i, 500—16,000 Hz Median:

9.2 dB (+0.9 dB, -4.1 dB)

Transducer Complement:

One 22A™ compression driver loaded
onto a CH™-1 constant directivity horn
with 90° H × 45° V dispersion

Crossover Frequency:

600 Hz

Crossover Type:

Passive

Crossover Slope:

12 dB/octave high pass

6 dB/octave low pass for biamp low out

Impedance (Nominal):

8 ohms

Impedance (Minimum):

5.6 ohms

Input Connections:

Two full-range female connectors in
parallel, one low out and one biamp high
only, ¼" female connectors

Enclosure Materials and Finish:

High density, 7 ply, ¾" plywood splatter-
painted black

Dimensions:

30¾" (78.4 cm) W × 16¼" (41.3 cm) H ×

23¾" (60.6 cm) D

Net Weight:

63 lbs (28.6 kg)

DESCRIPTION

The MF1-X™ Mark III™ is a high frequency constant directivity horn loaded system, covering a very wide frequency range with efficiency and authority. Optimized as the high frequency section of the Project Two Series, its applications include sound reinforcement, musical playback and public address. The cabinet is constructed of heavy duty 7 ply, ¾" plywood, finished in black splatter paint and then reinforced with steel corners.

The system is comprised of a 22A™ compression driver coupled to a CH™-1 constant directivity (90° H × 45° V) horn, with a premium passive crossover to properly interface the MF1-X into a multi-way component speaker system. The crossover includes a filtered output for the low end of a system, and attenuation and equalization for the highs; an unattenuated input to the driver is included to allow use with an active crossover system. Two ¼" female connectors in parallel are provided for full-range input with a full-range signal in, one ¼" female connector for lows out and one ¼" female connector for biamp highs only.

FREQUENCY RESPONSE

The frequency response of the MF1-X™ Mark III™ is measured in an anechoic environment at a distance of 1 meter while using a 2.82 volt logarithmically swept sine input. This measurement is useful in determining the accuracy in which the enclosure reproduces the input signal. The combination of the 22A™ compression driver on the CH™-1 horn and the premium crossover results in a flat desirable response as shown in Figure 1.

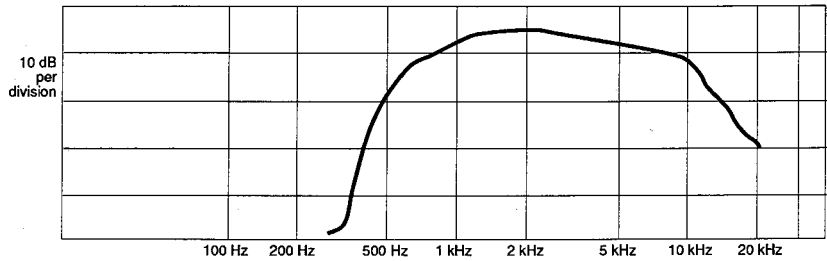


Figure 1. FREQUENCY RESPONSE

DIRECTIVITY

Beamwidth and directivity factors are derived from the -6 dB points from the polar plots (see Figure 3) which are measured in a whole space anechoic environment. These are specifications which provide a reference to the coverage characteristics of the enclosure. These parameters provide insight for proper enclosure placement and installing the chosen environment. The blending of the MF1-X Mark III components exhibit a desirable beamwidth and directivity factor (Figures 4 and 5) suitable for all high level sound reinforcement applications.

POWER HANDLING

There are many different approaches to power handling ratings, the most common being EIA standard RS-426A. The derived shape of this test spectrum was an attempt to simulate the spectral content of contemporary music. Although it does resemble contemporary music, EIA-RS-426A does not contain the same levels of very low frequency material found in live music situations. Very high levels of low frequency material produce distortion and, ultimately, device failure. The presence of the low frequency material will therefore yield lower device ratings than produced by EIA standard RS-426A. Although the Peavey ratings are lower than those produced by the EIA test spectrum, they are far more reliable and will have a direct correlation to real world situations.

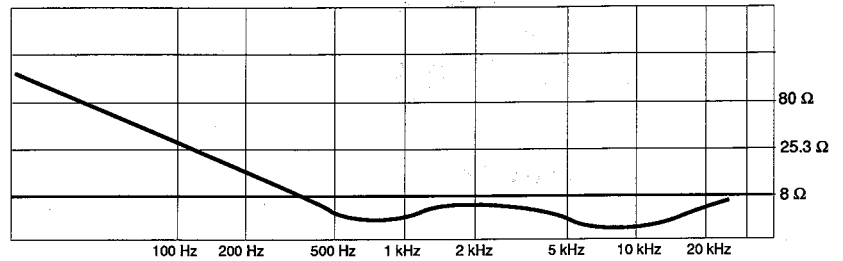


Figure 2. IMPEDANCE

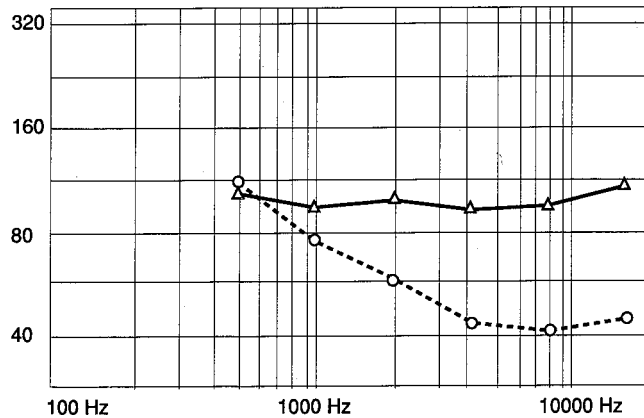


Figure 4. BEAMWIDTH VS. FREQUENCY

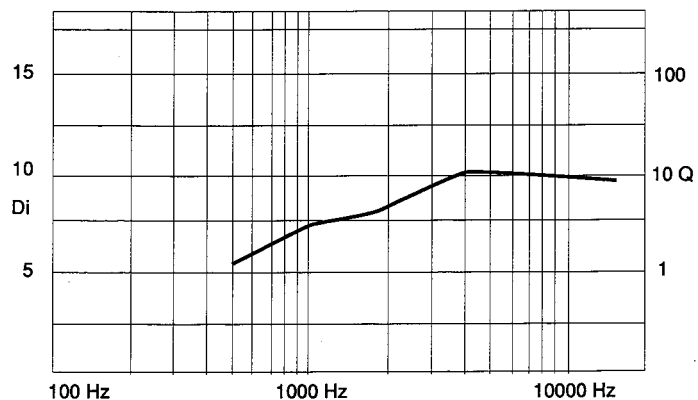
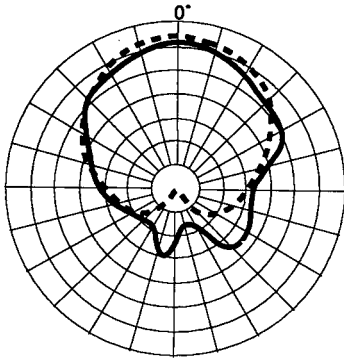


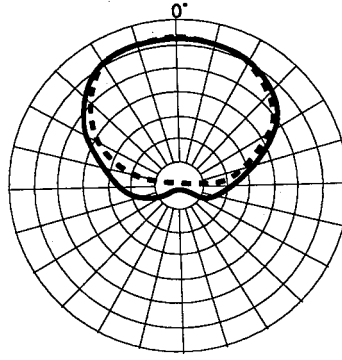
Figure 5. DIRECTIVITY

5 dB per Division

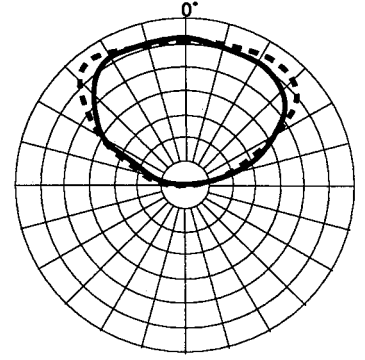
HORIZONTAL



— 500 Hz
 1 kHz



— 2 kHz
 4 kHz



— 8 kHz
 16 kHz

5 dB per Division

VERTICAL

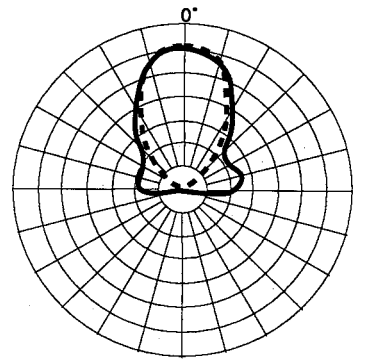
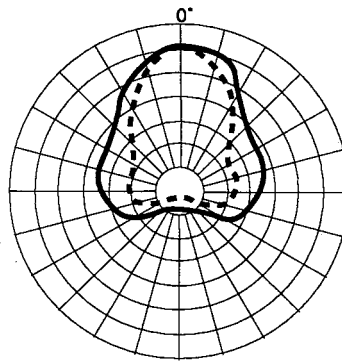
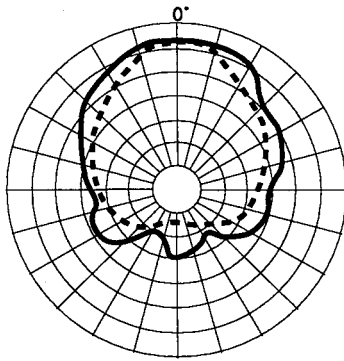


Figure 3. POLAR PATTERNS

MF1-X™

MARK III SERIES™

A Product of Peavey Electronics Corp.
Meridian, Mississippi U.S.A.

MAX POWER: 300W RMS (Program)
150W RMS (34.5V RMS Cont.)

IMPEDANCE: 8 OHMS

CROSSOVER: 600 Hz

EQUIPPED WITH PEAVEY® BLACK WIDOW® LOUDSPEAKER
BUILT UNDER U.S. PATENT NO. 4,421,956

CAUTION
THIS SPEAKER SYSTEM CAN PERMANENTLY DAMAGE HEARING!
USE EXTREME CARE SETTING MAXIMUM LOUDNESS!

NORMAL



FULL RANGE HI

BI-AMP



HI OUT

REAR PANEL DETAIL

ARCHITECTURAL & ENGINEERING SPECIFICATIONS

The loudspeaker system shall have an operating bandwidth of 600 Hz to 16 kHz. The output level shall be 112 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 8 ohms. The continuous power handling shall be 150 watts, maximum program power of 300 watts, with a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 90 degrees in the horizontal plane and 45 in the vertical plane. The outside dimensions shall be 30 $\frac{1}{8}$ inches wide by 16 $\frac{1}{4}$ inches high by 23 $\frac{7}{8}$ inches deep. The weight shall be 63 lbs. The loudspeaker system shall be a Peavey model MF1-X™ Mark III™.

ONE YEAR LIMITED WARRANTY --

Note: For details, refer to the warranty statement. Copies of this statement may be obtained by contacting Peavey Electronics Corporation, P. O. Box 2898, Meridian, Mississippi 39302-2898.



Features and specifications subject to change without notice.