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## REFERENCE LOUDSPEAKER - MODEL AE1

THE AE1 IS A HIGH POWER, COMPACT, TWO-WAY LOUDSPEAKER FEATURING THE NEW PATENTED "METAL CONE" BASS/MID-RANGE DRIVE UNIT

THE "METAL-CONE" DRIVE UNIT IS A BREAKTHROUGH IN DIAPHRAGM TECHNOLOGY AND PROVIDES UNEQUALLED MID-BAND CLARITY, REMARKABLE TRANSPARENCY AND STEREO IMAGING DUE TO THE ALMOST COMPLETE ELIMINATION OF DISTORTION.

THE SINGLE MOST IMPORTANT ELEMENT OF A SPEAKER IS THE DIAPHRAGM AND THE UNIQUE DESIGN OF THE ACOUSTIC ENERGY "METAL-CONE" ALSO PROVIDES EXCEPTIONAL POWER HANDLING AND DURABILITY.

"METAL-CONE" TECHNOLOGY IS PROTECTED BY EUROPEAN PATENT APPLICATION NO. 87310904.5. UNITED STATES PAT. APP. NO. 133,020. WORLD PATENTS PENDING.

## FREQUENCY RESPONSE 35Hz - 30KHz

1. ON AXIS @ 50 cms:

 $80Hz - 17KHz \pm 1.5dB$ ,  $70Hz - 22KHz \pm 3dB$ ,  $55Hz - 30KHz \pm 4dB$ 

2. OFF AXIS  $\pm$  30° HORIZONTAL @ 50 cms:

 $80Hz - 16KHz \pm 2.5dB$ ,  $70Hz - 17KHz \pm 3.0dB$ ,  $70Hz - 19KHz \pm 4.0dB$ 

3. OFF AXIS + 30° VERTICAL @ 50 cms:

 $80Hz - 16KHz \pm 1.5dB$ ,  $70Hz - 22KHz \pm 3dB$ 

4. OFF AXIS – 30° VERTICAL @ 50 cms:

 $90Hz - 15KHz \pm 2dB$ ,  $75Hz - 20KHz \pm 3dB$ 

SENSITIVITY

2.83 VOLTS RMS PRODUCES 88dB SPL @ 1 METER.

**IMPEDANCE** 

MINIMUM 8 OHMS @ 250Hz

MAX 40 OHMS @ 30Hz

HARMONIC DISTORTION

AT 90dB - 50 cms

2nd HARMONIC 3rd HARMONIC LESS THAN 0.1% LESS THAN 0.01%

AT 98dB – 50 cms

2nd HARMONIC

LESS THAN 0.1%

3rd HARMONIC

LESS THAN 0.02%

**POWER COMPRESSION FACTOR** LESS THAN 1dB AT MINIMUM IMPEDANCE (200Hz) WITH AN INCREASE OF 16dB. (1 WATT : 40 WATTS RATIO). FREQUENCY RESPONSE WITHIN  $\pm$  0.5dB AT 40 WATTS. (REF TO 1 WATT INPUT).

**POWER HANDLING** 

FOR USE WITH AMPLIFIERS UP TO 200 WATTS RMS ON PROGRAM.

**CROSSOVER** 

2 WAY SYSTEM. CROSSOVER FREQUENCY. 3.0KHz 3rd ORDER BUTTERWORTH 18dB PER OCTAVE. 13 ELEMENT ALL COILS LOW DCR (LF IRON DUST CORE, HF AIR CORE)

ALL CAPACITORS LOW LOSS POLYESTER.

LF UNIT 32mm EDGEWOUND RIBBON COPPER VOICE COIL. THERMALLY COUPLED TO TRI-LAYER ULTRA HARD ALLOY 90mm DIAPHRAGM. MAX ELECTRICAL PEAK TO PEAK EXCURSION - 8mm. MAX MECHANICAL PEAK TO PEAK EXCURSION - 20mm.

HF UNIT 25mm EDGEWOUND RIBBON COPPER PLATED ALUMINIUM VOICE COIL THERMALLY COUPLED TO MAGNESIUM ALLOY 25mm DIAPHRAGM. FERROFLUID DAMPED AND COOLED. DAMPED REAR CHAMBER LOADED.

CONNECTORS

2 SETS 4mm BINDING POSTS FOR B1-WIRING

CABINET

PRECISION ENGINEERED ENCLOSURE WITH BONDED HIGH DENSITY LINING SUPPLIED

17Kg

WITH REMOVABLE FRONT GRILLE.

**FINISH** 

TEXTURED BLACK/TEXTURED GREY/PIANO BLACK/ROSEWOOD VENEER

WEIGHT

8Kg (EACH)

**DIMENSIONS** 

180mm W x 255mm D x 295mm H

CARTON

DIMENSIONS (PAIR)  $570 \times 360 \times 330$ 

**CARTON WEIGHT** 

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