

# 8 CX CO-AXIAL LOUDSPEAKER

## DESCRIPTION

This co-axial loudspeaker combines a 8" bass transducer with a 1" dome tweeter concentrically mounted into a true point source. In order to achieve maximum efficiency and optimum parameters, two separate magnet systems are employed.

The careful design of each component provides smooth and extended frequency response, low harmonic distortion and high power handling capacity.

This unit is an excellent choice in high quality full range compact bass-reflex or close box enclosures.

## SPECIFICATIONS

### BASS DRIVER

|                            |                                      |
|----------------------------|--------------------------------------|
| Nominal diameter           | 200 mm. 8 in.                        |
| Rated impedance            | 8 ohms.                              |
| Power capacity             | 80 w                                 |
| Sensitivity                | 93 dB 1w @ 1m                        |
| Frequency range            | 40 - 5000 Hz                         |
| Recommended enclosure vol. | 15 - 40 l 0.5 - 1.4 ft. <sup>3</sup> |
| Voice coil diameter        | 38.5 mm. 1.5 in.                     |
| Magnetic assembly weight   | 2 kg. 4.4 lb.                        |
| BL Factor                  | 7.67 N/A                             |
| Moving mass                | 0.015 kg.                            |

Positive voltage on red terminal moves diaphragm forward

### THIELE-SMALL PARAMETERS

|          |                                            |
|----------|--------------------------------------------|
| Fs       | 50 Hz                                      |
| Re       | 7 ohms.                                    |
| Qms      | 9.83                                       |
| Qes      | 0.46                                       |
| Qts      | 0.38                                       |
| Vas      | 45 l 1.4 ft. <sup>3</sup>                  |
| $\eta_0$ | 1.3 %                                      |
| Sd       | 0.022 m <sup>2</sup> . 34 in. <sup>2</sup> |
| Xmax     | 3 mm. 0.12 in.                             |
| Vd       | 68 cm <sup>3</sup> . 4.15 in. <sup>3</sup> |
| Le       | 0.7 mH                                     |

### H.F. DRIVER

|                          |                  |
|--------------------------|------------------|
| Rated impedance          | 8 ohms           |
| Power capacity           | 15 w             |
| Frequency range          | 3-20 kHz         |
| Sensitivity              | 96 dB 1w @ 1m    |
| Magnetic assembly weight | 0.525 Kg 1.16 lb |
| Voice coil diameter      | 25.8 mm. 1 in    |
| Voice coil inductance    | 0.15 mH          |
| BL Factor                | 4.4 N/A          |
| Dispersion               | 60°              |

Positive voltage on red terminal moves diaphragm toward the phase plug

### MOUNTING INFORMATION

|                            |                             |
|----------------------------|-----------------------------|
| Overall diameter           | 215 mm. 8.46 in.            |
| Bolt circle diameter       | 200 mm. 7.87 in.            |
| Baffle cutout diameter :   |                             |
| -Front mount               | 185 mm. 7.28 in.            |
| -Rear mount                | 185 mm. 7.28 in.            |
| Depth                      | 120 mm. 4.72 in             |
| Volume displaced by driver | 1.5 l 0.05 ft. <sup>3</sup> |
| Net weight                 | 2.9 kg. 6.4 lb.             |
| Shipping weight            | 3.1 kg. 6.8 lb.             |

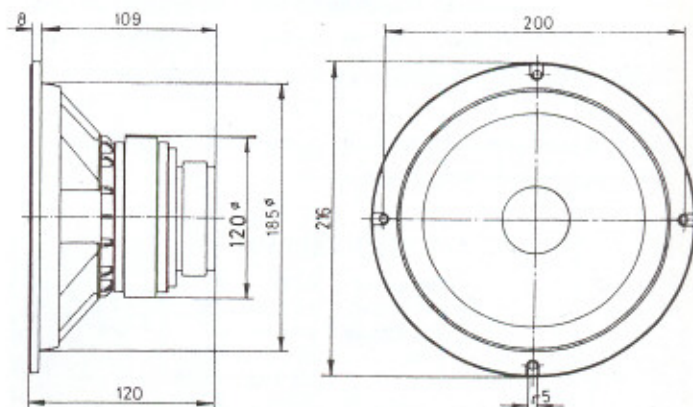
### MATERIALS

#### L.F. Unit

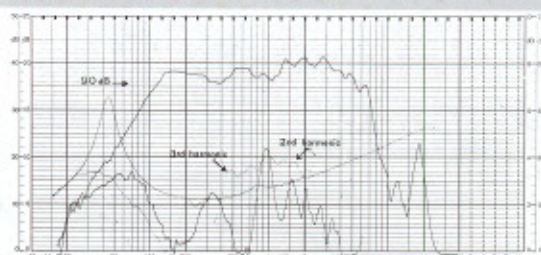
|                     |                    |
|---------------------|--------------------|
| Basket              | Die cast aluminium |
| Cone                | Paper              |
| Surround            | Rubber             |
| Voice coil material | Copper             |

#### H.F. Unit

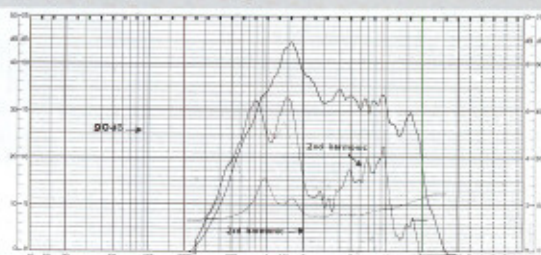
|                     |          |
|---------------------|----------|
| Diaphragm           | Titanium |
| Voice coil material | Copper   |



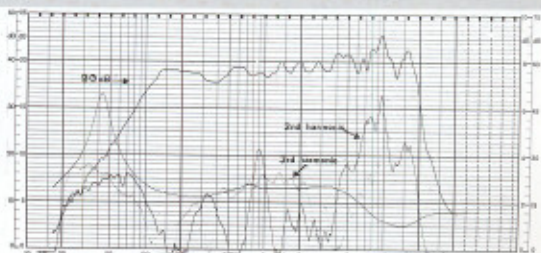
Frequency response, Distortion \* & Impedance curves • L.F. unit. On axis, 1w @ 1m



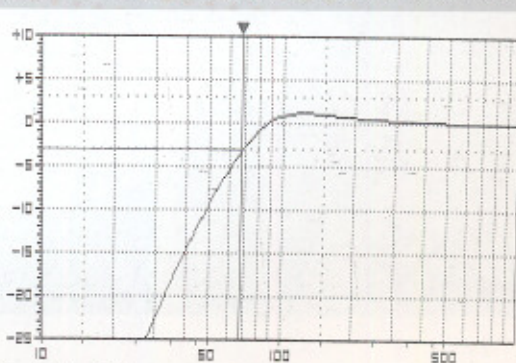
Frequency response, Distortion \* & Impedance curves • H.F. unit. On axis, 1w @ 1m



Frequency response measured with the F-CX2 frequency dividing network. On axis, 1w @ 1m



PREDICTED LOW FREQUENCY RESPONSE • Bass-reflex cabinet, Vb=20 l, fb=45 Hz



(\* ) 2nd & 3rd harmonic level raised 20 dB