

Powerful 25cm woofer with low "fo" & distortion

Corrugated cone paper by CORAL's own hardening process

The ideal cone paper must be light in weight and sturdy. The sound of music is a continuation of instantaneous variations, and heavy, dragging, low sounds do not present a true linear response to the input signals. The 10L-60B features cone paper that has been made from rigorously selected pulp and treated by CORAL's unique hardening process, and is free of divided resonance. Thus, the smooth blending of sounds fed to the squawker and the tweeter is ensured, permitting the easy selection of speaker units for the optimum combination.

Synthetic rubber roll edge

The synthetic rubber roll edge, which provides linear trackability in relation to the complicated and dynamic movement of the cone paper, has excellent thermal characteristics and weatherability, preventing deterioration due to ageing.

Long voice coil & powerful magnetic system

A long voice coil that has high heat-resistivity is employed to reduce distortion when the input is large and to improve linearity when the amplitude is large. A high-performance 156mm-dia. ferrite magnet contributes to the demonstration of the full performance of the cone paper.

10DU-60B (25cm drone cone unit) that increases radiation efficiency of heavy low sounds

The substantial area of the cone paper of the 10L-60B may be enlarged to match that of a 38cm woofer by incorporating a drone cone unit. This permits a small enclosure capacity of 35 to 100 liters as well as an improved low dynamic range and higher transient response.

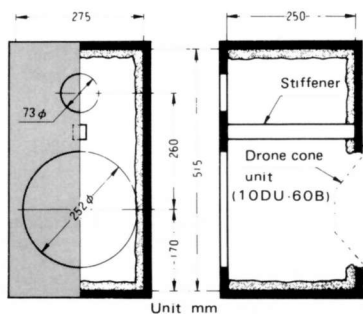
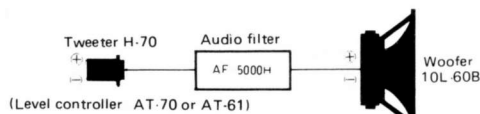
2way

System-1

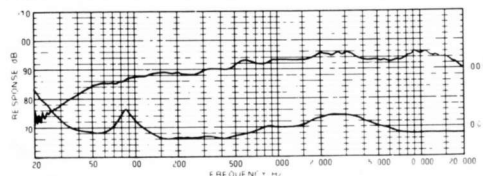
Enclosure capacity: 35 liters

A simple easy-to-build 2-way system that reproduces beautiful sounds

This is a 2-way system that incorporates an H-70 horn tweeter and 10DU-60B. The network utilizes a high-pass filter to cut only the low range of the tweeter, since the 10L-60B has excellent mid- and high-range characteristics. 10DU-60B is mounted on the rear baffle in order to secure high low-range radiation efficiency. The enclosure should be placed with its back 20 to 30cm away from the wall to ensure good sound reproduction.

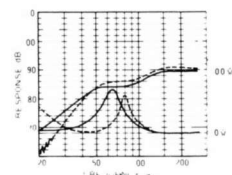


SOUND PRESSURE-FREQUENCY RESPONSE &
ELECTRICAL IMPEDANCE OF SYSTEM 1



LOW-RANGE CHARACTERISTICS OF DIFFERENT ENCLOSURES

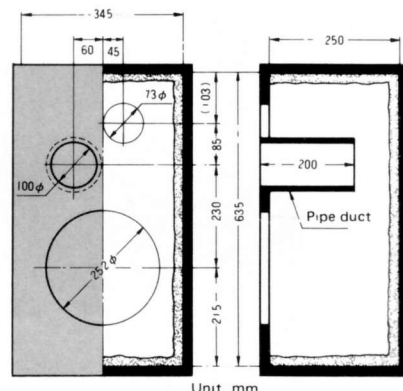
— Closed enclosure
- - - Bass-reflex enclosure
(duct: 65mm I.D. x 70mm)



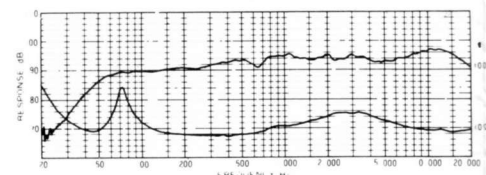
System-2

Enclosure capacity: 55 liters

This system is basically the same as System 1, except that a bass-reflex enclosure with a pipe duct is used.



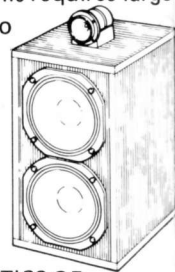
SOUND PRESSURE-FREQUENCY RESPONSE &
ELECTRICAL IMPEDANCE OF SYSTEM 2



System-3

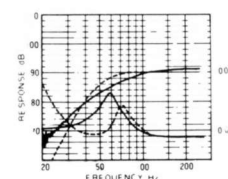
Enclosure capacity: 55 liters

This system also has the same combination of units as System 1. 10DU-60B is mounted below the 10L-60B. Since this requires large openings, it is necessary to connect the front and rear baffle boards with 30mm-square wooden bars for reinforcement.



LOW-RANGE CHARACTERISTICS OF DIFFERENT ENCLOSURES

— Closed enclosure
- - - When drone cone is used



3way

r units of the finest quality.

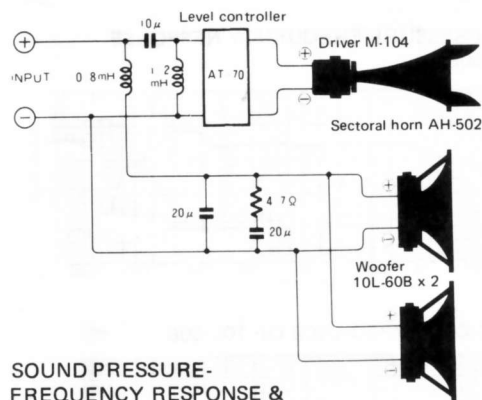
2way

System-7

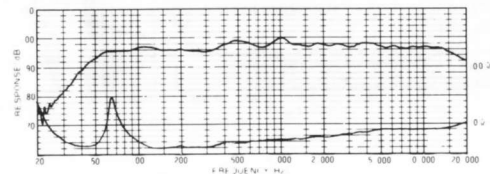
Enclosure capacity: 120 liters

A professional unit composition for truly powerful sound drive, permitting small hall & stage performances!

This is a system that concentrates sounds within the audible range instead of demonstrating a wide range of frequency response. A super tweeter may be added for classical music reproduction. The network should be composed according to the circuit diagram and is similar to System 6, since two 10L-60B woofers are employed.

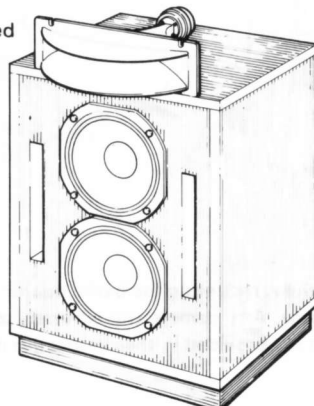
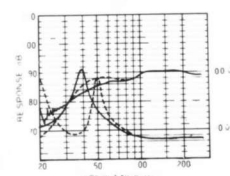


SOUND PRESSURE-FREQUENCY RESPONSE & ELECTRICAL IMPEDANCE OF SYSTEM 7



LOW-RANGE CHARACTERISTICS OF SINGLY DRIVEN 10L-60B

— Closed enclosure
- - - When drone cone is used



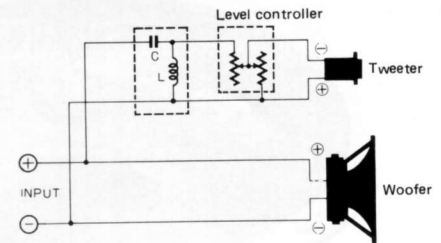
NETWORK (12dB/oct) CONNECTION

In the 2-way system, the input terminals of the tweeter should be connected with their positive and negative poles interchanged. In the 3-way system, however, the input terminals of the squawker should be connected with their positive and negative poles interchanged. The polarity varies, however, depending on the mounting position of the speaker unit and the acoustic characteristics of the room, and should be determined upon confirming the continuation of sounds, locality, etc. through listening tests. The input terminals of the 10L-60B are color-coded for proper handling — red for the positive and black for the negative. Erroneous connection may be avoided by using speaker cords which are similarly color-coded. Speaker cords should be inserted firmly in the speaker terminals. Improper connections will cause noise or may result in no sound reproduction at all.

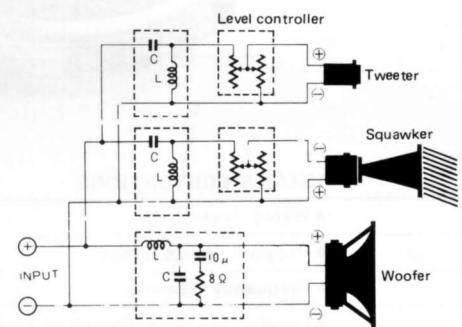
NETWORK ASSEMBLING

When you are assembling a network by yourself, select the proper constant that coincides with the crossover frequency according to the circuit diagrams and table shown below. Non-polar film condensers and air-core choking coils with copper wire as thick as possible (over 1.2mm dia.) should be employed.

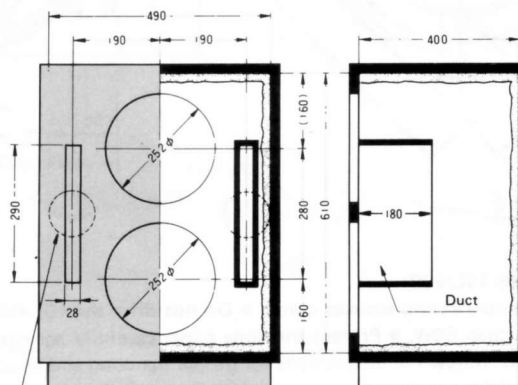
2-WAY (12dB/oct, high-pass)



3-WAY (mid & high ranges: 12dB/oct, high-pass) (mid & low ranges: 12dB/oct, high- & low-pass)



Crossover frequency	L=Coil	C=Condenser
800Hz	2.3mH	18µF
1,200Hz	1.5mH	12µF
3,000Hz	0.6mH	4.7µF
4,000Hz	0.5mH	3.3µF
5,000Hz	0.36mH	2.7µF
7,000Hz	0.26mH	2.2µF
8,000Hz	0.23mH	1.8µF



Two pipe ducts (100mm I.D. x 180mm) should be used if required.