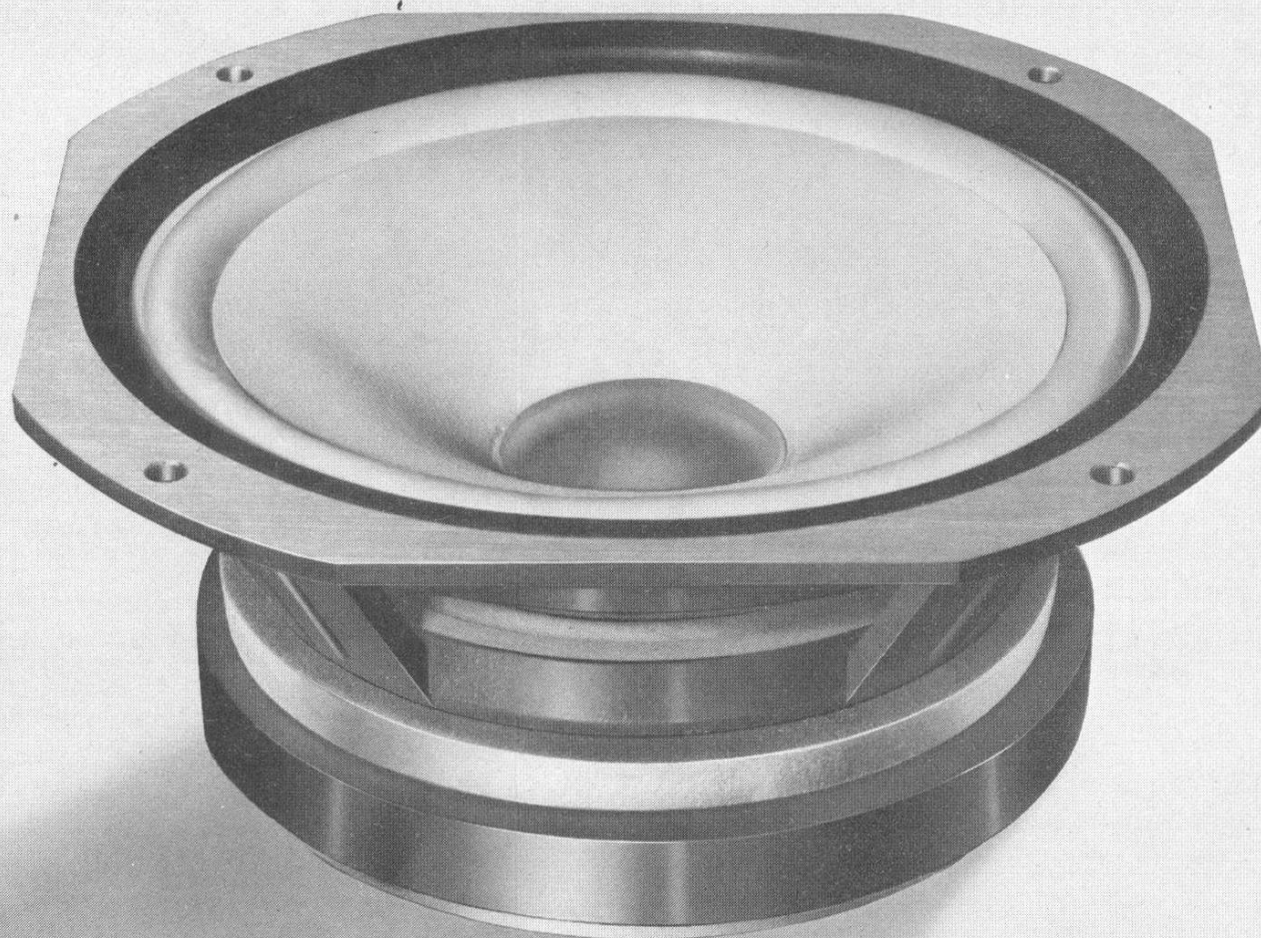


**CORAL**

Full-Range Speaker **8F-60**



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Archiv Michael Otto

**CORAL AUDIO CORPORATION**

The CORAL 8F-60 is a full-range speaker with a performance superior to that of 3-way and other speaker systems. CORAL's research and development group, which has accomplished many achievements in the field of speakers and speaker systems, has successfully perfected this superb speaker, which is the result of the group's advanced technology, constant research, repeated experiments, and abundant data.

This full-range speaker has a diameter of 20cm, which is most ideal for sound balance, and employs a powerful magnetic circuit with a large 16cm-diameter magnet, a newly developed lightweight hard cone paper, and a super-Duralmin dome.

The 8F-60 reproduces clear-cut sound and rich low sound with outstanding localization. You can fully enjoy jazz, rock, folk, or classical music faithfully reproduced in its original sound.

## FEATURES

### • Single-Cone Paper

The cone paper, which is the heart of a speaker, has been made by mixing a chemical fiber with choice pulp. The surface is then treated for hardness by a new method developed by CORAL. This permits the coexistence of rigidity and ample inner loss, expanding the piston range and reproducing sound with excellent resolution. The CORAL 8F-60 thus demonstrates to complete advantage the high performance resulting from the remarkable localization and low phase distortion characteristics of single-cone speakers.

### • Duralmin-Dome Radiator

The dome-type radiator, which reproduces high-range sounds, is made of super-Duralmin and is installed in the center of the cone paper. This permits continuous reproduction of sounds from the medium to the high range. The delicate and extensive reproducibility enables you to identify the sound of each individual musical instrument. The radiator also largely contributes to the improvement of directivity, providing a free choice in the selection of the listening position.

### • Powerful Magnetic Circuit

A big high-performance ferrite magnet with an outer diameter of 160mm produces a large amount of magnetic energy, providing the vibration system with powerful driving and damping force. It helps the vibration system perform to its full capacity, thereby ensuring first-class damping and transient capabilities as well as high conversion efficiency.

### • Die-Cast Frame

A thick aluminum alloy die-cast frame with ample strength supports and stabilizes the heavy magnetic circuit and prevents unwanted resonance, enabling the reproduction of pure and highly transparent sounds.

## METHOD OF USE

Although the 8F-60 may be used either with a totally enclosed or a bass-reflex enclosure, CORAL recommends the use of our do-it-yourself EK45 enclosure kit (bass-reflex type) and the 45B-8F baffle board, the latter being specially designed for the 8F-60.

Frequency response when the 8F-60 is used with the enclosure kit and baffle board is shown in Fig. 2.

Refer to Fig. 3 if you plan to make an enclosure yourself.

It is recommended that the speaker be mounted from the front of the baffle board. (Ref. to Figs. 4 and 5.)

### • Use With a Multi-Way System

A multi-way system is not particularly needed for this speaker, because the 8F-60 has a frequency response ranging from  $f_0$  to 20kHz. However, CORAL's HD-60 hard-dome-type tweeter or H-60 horn-type tweeter may be used if you prefer still further quality in high-range sounds.

As shown in Fig. 6-a, a 2-way system can be easily completed by using CORAL's AF-8000H audio filter ( $f_0 = 8000\text{Hz}$ ) and AT-50 level control.

When using more than one 8F-60 speaker, refer to Fig. 6-b and 6-c for the proper connections. For two 8F-60 speakers, the enclosure should have an inner volume of about 90 liters; and for four 8F-60's about 180 liters.

## CAUTION

The positive wire should be connected to the red-colored terminal and the negative to the black, allowing the core paper to move forward.

In cases where more than two speakers are used, such as for a stereophonic system, the wiring should be properly made so that the polarities of all speakers are identical.

## SPECIFICATIONS

Type .....	20cm single-cone full-range speaker
Impedance .....	6 Ohms
Frequency response .....	$f_0 \sim 20,000\text{Hz}$
Lowest resonance frequency .....	35Hz
Rated sensitivity .....	93dB
Program input .....	40W
Magnet weight .....	1.23kg (2.71Lbs.)
Total magnetic flux .....	175,000 Maxwell
Baffle opening diameter .....	200mm (front mount)
Weight .....	5.2kg

FIG. 1 Frequency response with the speaker mounted in a standard (JIS) enclosure

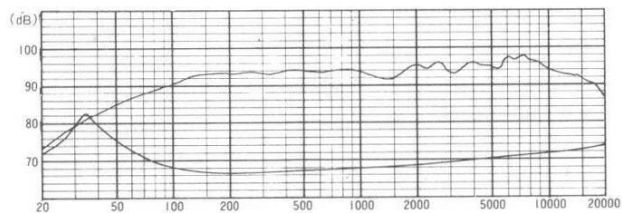


FIG. 2 Frequency response with the speaker mounted in the do-it-yourself enclosure

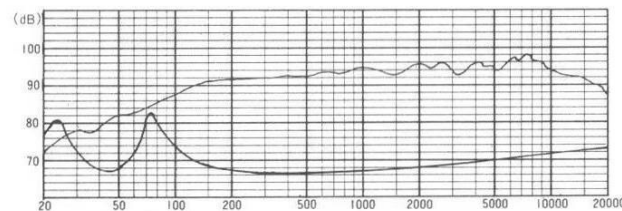
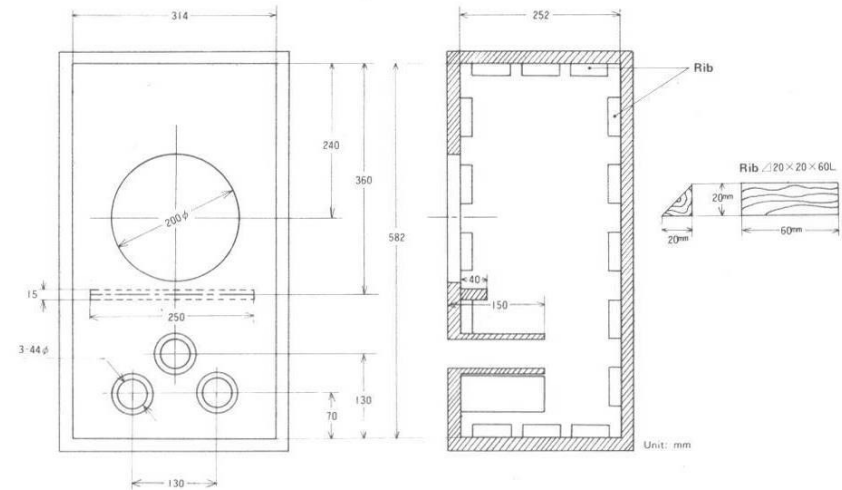
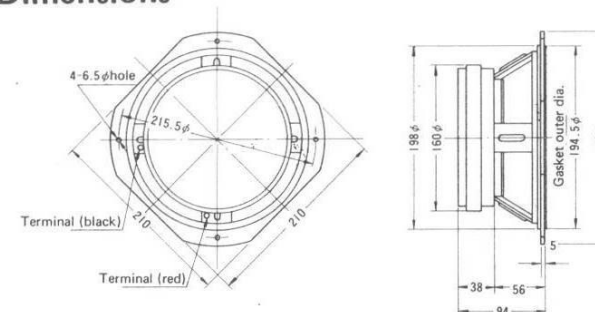


FIG. 3 Standard enclosure dimensions (Speaker mounted on front)

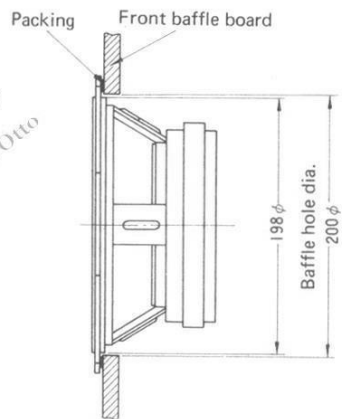


- In case pipe ducts are used:  
Use three 44mm (inner dia.) X 150mm (length) pipes in the places shown.
- In case square ducts are used:  
50mm (height) X 90mm (width) X 150mm (length) square ducts can also be used, by fixing the point 280mm below the center of the speaker as the central location.
- Use veneer board with a thickness of more than 18mm.
- For the acoustic material, soft felt with a thickness of 10 ~ 20mm or glass wool with a thickness of 20mm is recommended for use.

FIG. 4 Dimensions

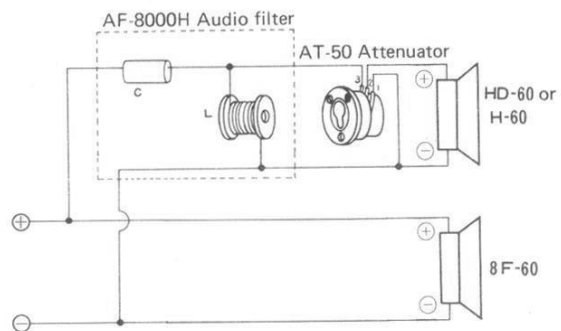


**FIG. 5 Mounting**

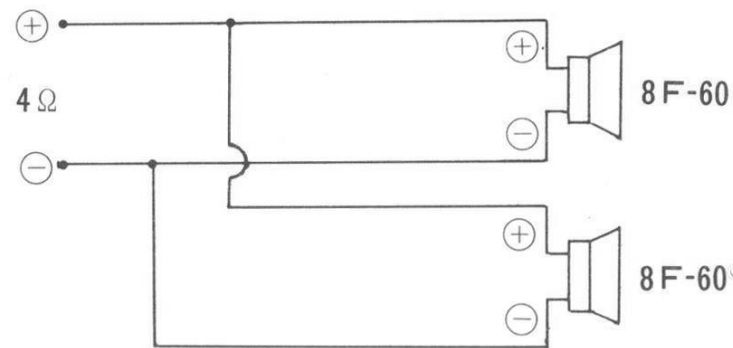


**FIG. 6 Connections for multi-way systems**

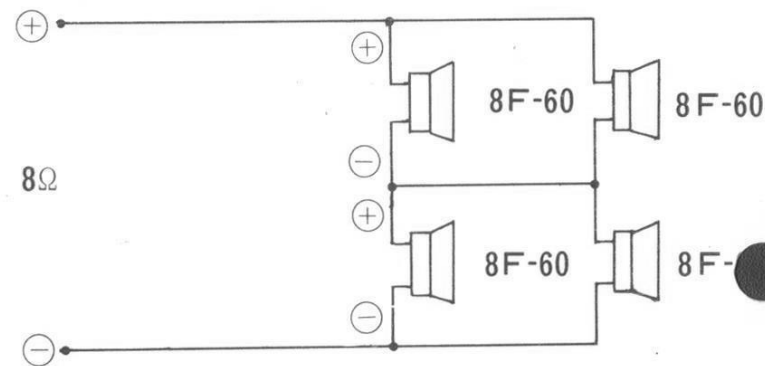
**(a) 2-way**



**(b) Two 8F-60 speakers**



**(c) Four 8F-60 speakers**



**CORAL AUDIO CORPORATION**  
 1-1-6, Shibashimo, Kawaguchi-shi, Saitama-ken, Japan