



**CORAL**

# SPEAKER SYSTEM KIT

35W / 3 WAY 3 SPEAKER

# OSA-1

## MANUAL

Hersteller  
Michael Otto  
Classic.de

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Archiv Michael Otto  
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**CORAL AUDIO CORPORATION**

We thank you heartily for your singling out our product, "Coral" Speaker System Kit 8SA-1.

The 8SA-1 is so designed as to be completed easily as a speaker system when being mounted on a cabinet of designated measurement.

We hope you will peruse this instruction, assemble the system rightly and enjoy the good sound for a long time.

### Features of 8SA-1

#### Woofer (8 inch)

A special winding voice coil of high input resistance is employed, and the quality has been proved mounted on the high class HiFi speakers of Coral brand. The contained high-quality ferrite magnet guarantees its high efficiency.

#### Mid-range and Tweeter

The mid-range is cone type. For the tweeter, a voice coil of aluminum wire is used, which enables it to reproduce high frequency range sound.

### List of Component Parts (8SA-1)

|                        |  |   |        |
|------------------------|--|---|--------|
| Speakers               | 8" Woofer (8A-28B)                               | X | 2      |
|                        | 4" Mid-range (4H-3B)                             | X | 2      |
|                        | 2 1/2" Tweeter (2H-25)                           | X | 2      |
| Accessories (in a bag) | Condensers for the network (1μ F50WV)            | X | 4      |
|                        | Attachment cord, 3 m, gray colored parallel cord | X | 2      |
|                        | Wiring cord, red and white parallel cord         | X | 4      |
|                        | Terminal (with red and white parallel cords)     | X | 2      |
|                        | Badge of "Coral"                                 | X | 2      |
| Screws for assembly    | For 2 1/2" tweeter (Cat. No. 166-1020)           | X | 2 bags |
|                        | For 8" woofer (Cat. No. 166-1030)                | X | 2 bags |
|                        | For 4" mid-range (Cat. No. 166-1020)             | X | 2 bags |
|                        | For terminal board (Cat. No. 166-1130)           | X | 1 bag  |

### Ratings and Features (8SA-1)

The ratings of the speaker units are as follows:

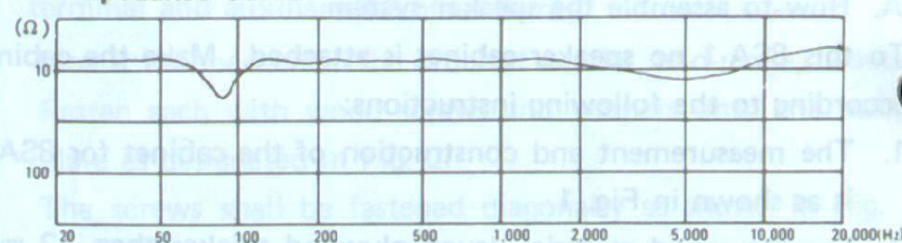
| Type and Form   | Woofer (8A-28B)         | Mid-range (4H-3B)    | Tweeter (2H-25)      |
|---|-------------------------|----------------------|----------------------|
| Input impedance   | 8 Ohms                  | 8 Ohms               | 8 Ohms               |
| Resonant frequency ( $f_0$ )                            | 65 Hz                   | —                    | —                    |
| Output sound pressure (1W 1M) (According to JIS C-5531) | 94 dB                   | 92 dB                | 92 dB                |
| Frequency response                                      | $f_0 \sim$<br>10,000 Hz | 1,000 ~<br>10,000 Hz | 5,000 ~<br>20,000 Hz |
| Flux density  | 10,000<br>GAUSS         | 6,500<br>GAUSS       | 10,000<br>GAUSS      |
| Total magnetic flux                                     | 60,000<br>MAXWELL       | 9,100<br>MAXWELL     | 20,000<br>MAXWELL    |
| Weight  | 820 g                   | 100 g                | 180 g                |

The features as assembled in a designated cabinet are as follows:

### Features (8SA-1)

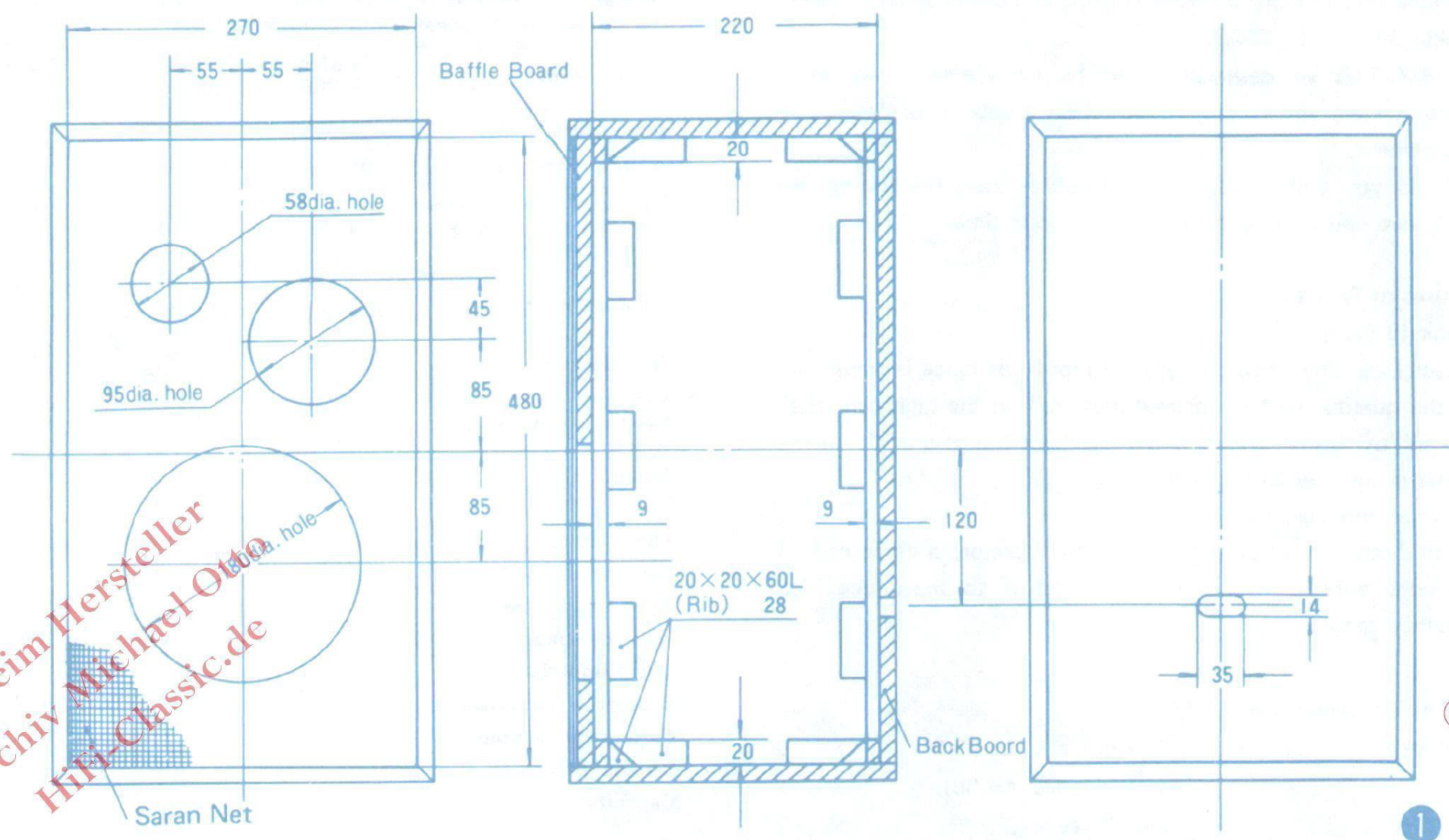
|                     |                        |
|---------------------|------------------------|
| Type of cabinet     | ..... Closed type      |
| Type of speaker     | ..... 3 way 3 speaker  |
| Input impedance     | ..... 8 Ohms           |
| Crossover frequency | ..... 4,000 : 9,000 Hz |
| Frequency response  | ..... 70 ~ 20,000 Hz   |
| Sensitivity         | ..... 93 dB            |
| Capacity            | ..... 35 W             |

Impedance Curve



Frequency Response Curve





#### A. How-to assemble the speaker system

To this 8SA-1 no speaker cabinet is attached. Make the cabinet according to the following instructions:

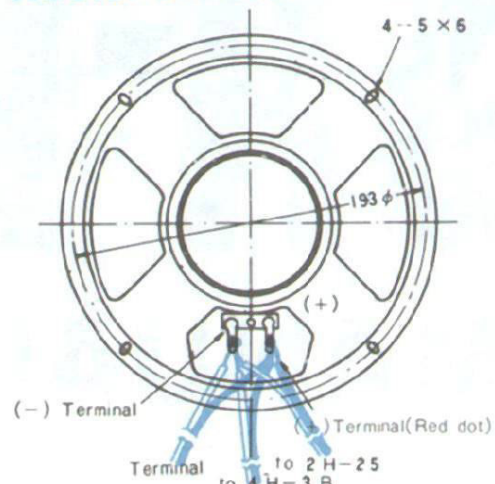
1. The measurement and construction of the cabinet for 8SA-1 is as shown in Fig. 1.
2. For the wood material, lauan plywood thicker than 12 mm is appropriate.
3. For assembly, use exclusively chemical adhesives provided for wood works.
4. When mounting a net of "Saran", a polyvinylidene chloride texture, on the baffleplate, do as follows:

Cover the front of the plate as if you wrap it with a piece of Saran, about 10 cm larger vertically and horizontally. Stretch

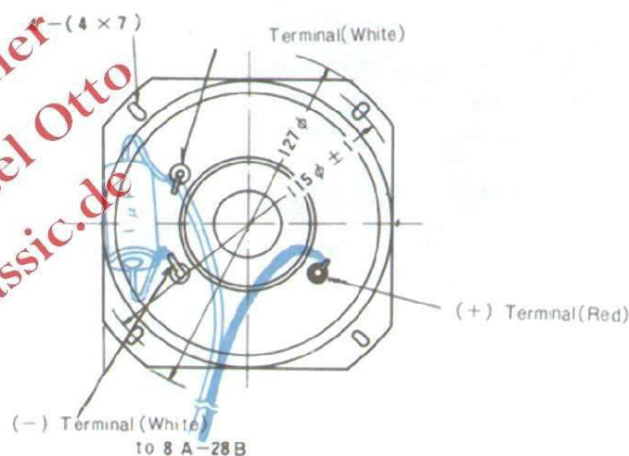
the net so tightly that no slack is left on the front side, and fasten it to the plate by fixing the folds onto the back of the plate using a stapler. Fasten the baffleplate to the box body by fixing it onto the inside frame with wood screws.

5. The quality of Saran net influences functions of a speaker, so select a material of high sound transmittivity. If the transmittivity is bad, there can be caused flapping at the low frequency range or deterioration at the high frequency range.
6. Use glass-wool or felt of thickness of about 25 mm for sound absorption, which shall be stuck to the box inside and on the rear plate.

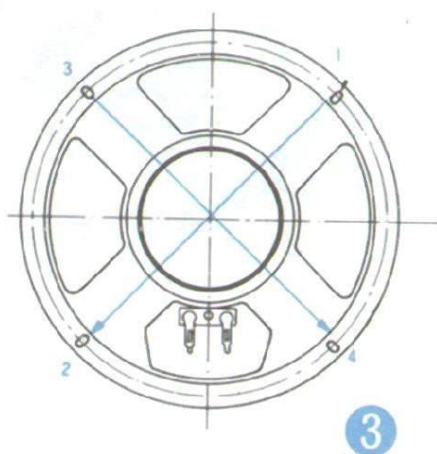
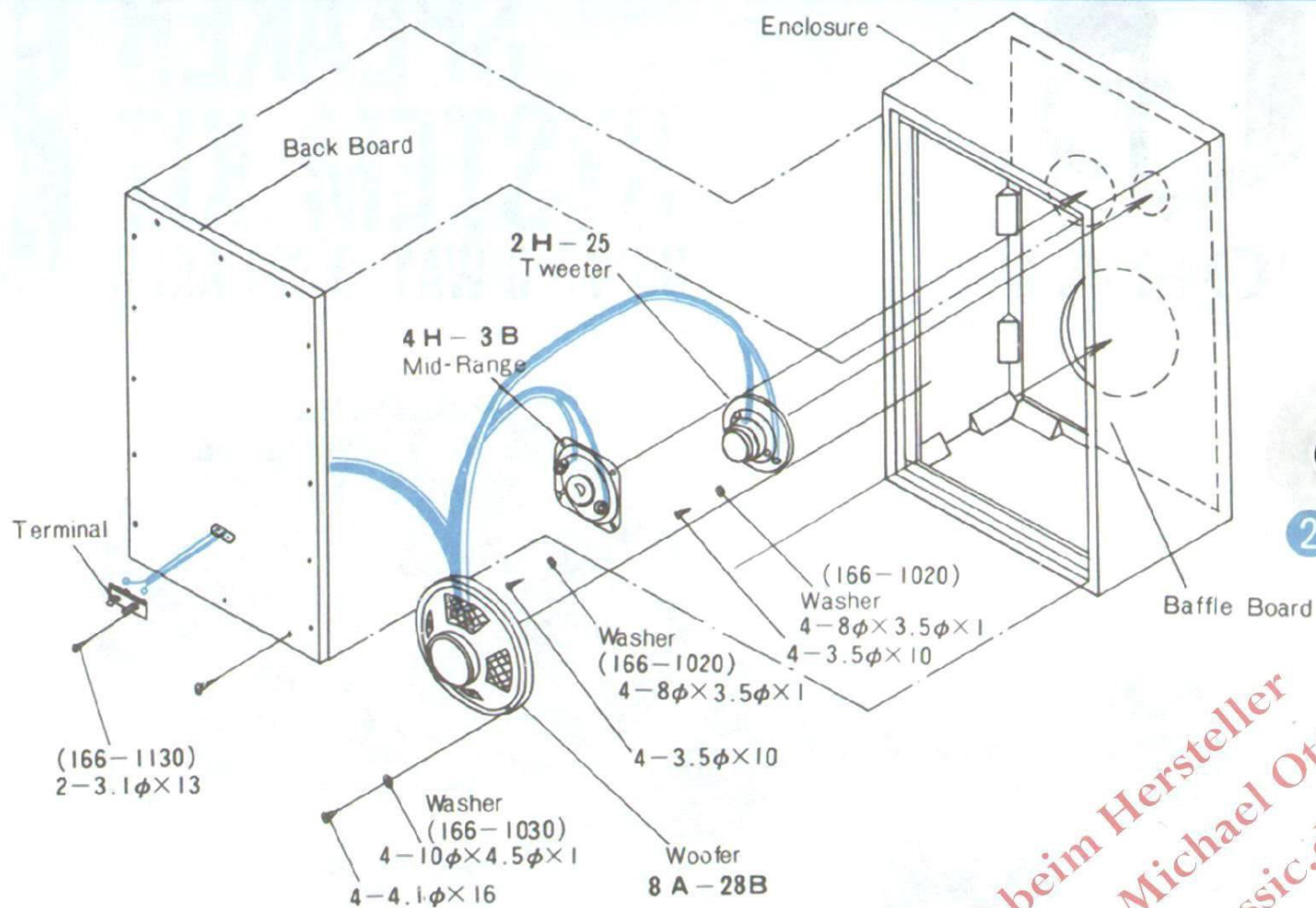
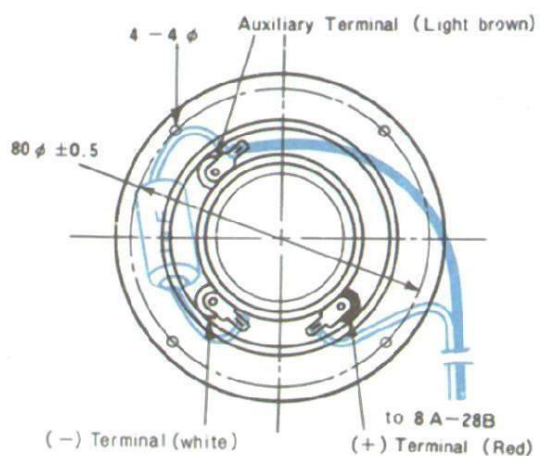
## Woofer 8A-28B



## Mid-range 4H-3B



## Tweeter 2H-25



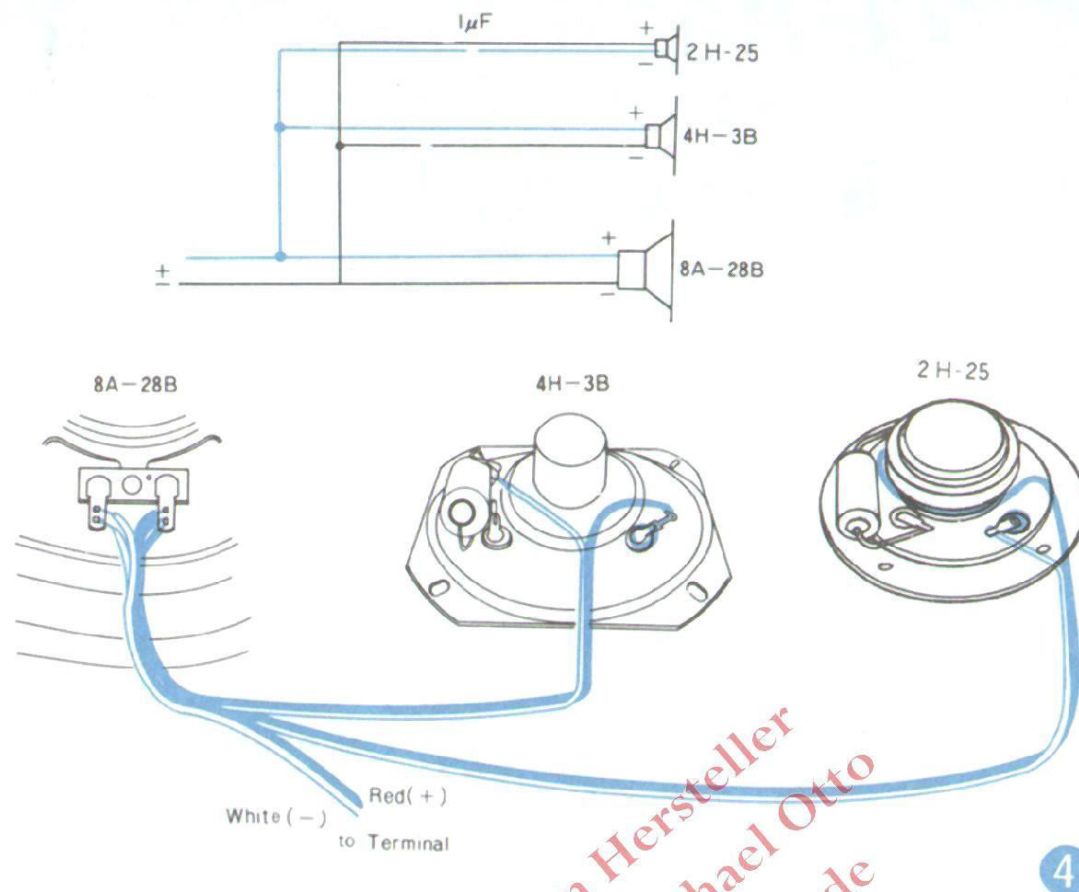
### B. Mounting of speakers

1. In prior to the installation of each speaker to baffle board, be sure to connect condensers to midrange and tweeter first.
2. Wiring connection  
When wiring the connections, please connect condensers to (-) terminal and auxiliary terminal firmly.
3. Mount the speakers in the order of woofer, mid-range, tweeter. Fasten each with wood screws and washers onto the baffle plate as designated in Fig. 2.
4. The screws shall be fastened diagonally as shown in Fig. 3.

### C. Wiring

Do the wiring in the following way, watching Figs. 2 and 4:

1. Fix the attached terminal board to the rear plate with 13 wood screws of 3.1 dia.
2. The red and white parallel cords attached to the terminal board shall be connected. First the two pairs of the red and white cords for the mid-range and tweeter are taken out to be coupled a red with another red, a white with another white.



Then the bundle of three red cords tied up firmly shall be soldered onto the terminal lug of the woofer where the plus indication of RED DOT is seen. And next the white cords are soldered onto the other terminal in the same way.

3. Solder also a red cord of the red and white parallel cords soldered on the woofer terminal onto the red fiber terminal lug of the mid-range. The other cord is to be soldered according to the indication of Fig. 4.
4. The remaining red cord of the red and white parallel cords shall be fixed with solder to the brown fiber terminal lug of the tweeter and the white cord to the red fiber lug.
5. When the rear plate is fixed to the box body with wood screws, the assembly is completed.

#### D. Performance Test

1. The impedance of this kit is 8 Ohm. So use an amplifier of optimum load impedance near to 8 Ohm.
2. Connect the input terminal of the assembled speaker system to the output terminal of the amplifier with a cord provided, checking enough the correctness of polarity.

3. Connect to a good quality music source, such as FM broadcast, a tape, a record, etc., make volume of the amplifier minimum, and then put on the amplifier.
4. Level up the volume gradually, and if every one of the speakers, woofer, mid-range, and tweeter, brings out well-balanced sound, the system is all right.
5. In case no sound comes out or any troubles are observed, make the amplifier off, and check if the connection cords or wiring on the speaker system are done correctly.

#### E. Notes for use

1. When using the speaker system in plural number, using as a stereo component for example, watch carefully if the plus-minus of the output terminal of the amplifier coincides correctly to the plus-minus of the input terminal of the speaker system. The inconsistency of the polarity spoils functions of the speaker system and greatly disturbs the stereo effect.
2. Avoid the use with the rear plate removed. In unavoidable cases of using it without rear plate, minimize the input power.

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**CORAL AUDIO CORPORATION**

1-1-6, Shibashimo, Kawaguchi-shi, Saitama-ken, Japan

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