CONNECTIONS

The speaker should be connected to the 8 Ω amplifier output. Standard AC lamp cord wire is satisfactory for connecting the speaker to the amplifier. Other types of wire such as twisted public address speaker wire can also be used. Avoid using poorly insulated wire. Speaker wire runs up to 50 or 60 feet are practical. Longer runs should be avoided. Shielded cable is not recommended for use in connecting the speaker to the amplifier. For convenience in making connections, a screw type terminal strip may be installed on the rear of the enclosure.

PHASING

For stereo use, one speaker is normally used in each channel. For proper phasing, the speakers should be connected to the amplifier in the same manner in each channel. One terminal of the speaker is marked with a red dot for phasing purposes. The 8 Ω amplifier output terminal in each channel should be connected to the red dot terminal of the speaker; the common amplifier output terminal in each channel should be connected to the other speaker terminal. Proper phasing, using the red dot for speaker terminal identification, is also desirable in multiple speaker installations.

IMPEDANCE MATCHING

When more than one speaker is to be connected to a single amplifier output, the combined impedance of the speakers should match the output impedance of the amplifier. Series, parallel, or series-parallel connections may be used to provide a combined impedance to match an output impedance of the amplifier.

Figures 3, 4, and 5 give formulas and examples of calculating combined impedance (Z), in multiple speaker installations.

To calculate the total impedance of series-parallel speaker combinations, first combine the series impedances to form representative single impedances, (Figure 3) then calculate the total impedance as for a parallel combination (Figure 4 or Figure 5).

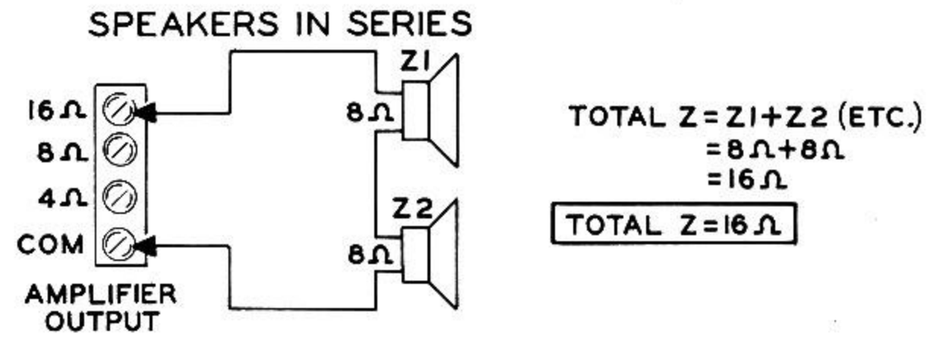

Figure 3

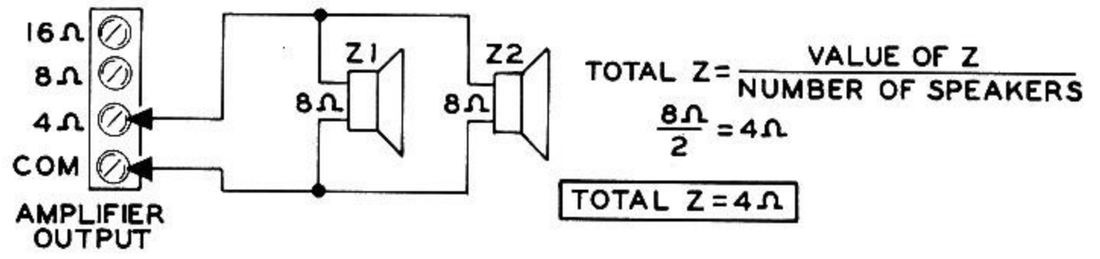

Figure 4

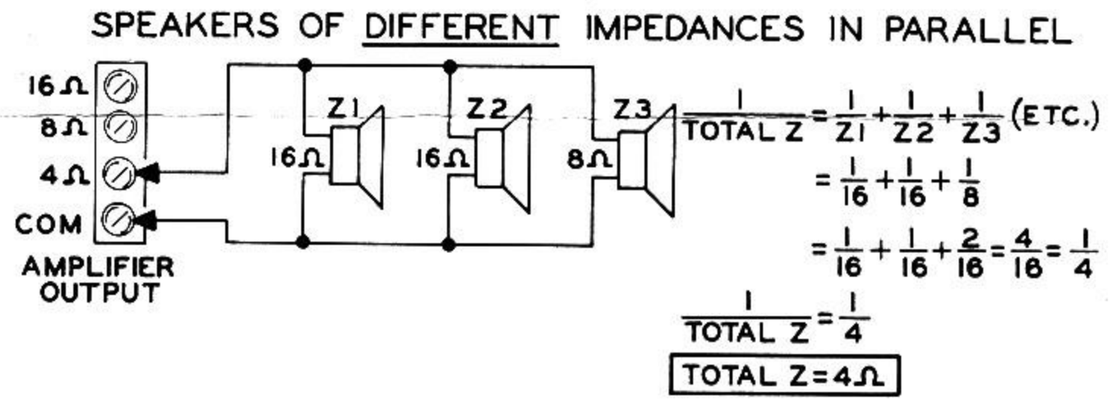

Figure 5

When the calculated impedance of a speaker combination does not exactly match an output impedance of the amplifier, connect the combination to the next lower impedance amplifier output. For instance, if the calculated impedance is 5.33 Ω, the 4 Ω amplifier output should be used.

When using combinations of speakers of different impedances, it is important to consider power distribution. In series combinations, the lower impedance speaker will deliver less power; in parallel combinations, the lower impedance speaker will deliver more power.