

# *Sub Woofer Power Amplifier Module*

## **Features**

- **Speaker level and line-level (RCA) inputs**
- **Line level outputs**
- **Satellite Speaker Outputs**
- **Variable input level control**
- **An auto sense power-on circuit**
- **40~160Hz continuously variable 12dB crossover**
- **Fully enclosed rear housing**

This amplifier is ideal for incorporation into existing sub-woofer speaker systems. Its auto-power-on circuit automatically turns the amplifier on when music is detected. Audio signal may be received via speaker-level, or line-level RCA inputs. Internally, the amplifier sums the left and right channel to give true mono 100W RMS output to the subwoofer. Continuously variable level and crossover frequency allow a perfect match to virtually any sound system. Courtesy of [www.OrpheusComputing.com/](http://www.OrpheusComputing.com/)

## **Installation**

This amplifier requires a cutout of 7" x 9", and is designed to be installed directly in the speaker enclosure. However, mounting in a separate enclosure is also acceptable. When mounting, take care to insure that no part comes in direct contact with existing components. The ideal location of the amplifier is on the rear of the speaker enclosure, where it will not come in contact with curtains, furniture or any other fabric. Due to the need for heat dissipation, mounting on the bottom is not recommended.

## **Connections**

### ***RCA "LINE IN" Jacks***

This is the preferable means of supplying the music source to the subwoofer. This input may receive its signal from any line-level source, preferably a sub-woofer output. If this is not available, the signal from a pre-amp output, line-output or tape-output may also be used. Although the Subwoofer Amplifier Module is monaural, the left and right line inputs are isolated from one another, preventing any loss of stereo separation in the rest of the system.

### ***RCA "LINE OUT" Jacks***

These may be used to "daisy chain" multiple subwoofer amplifiers. Using a standard RCA type stereo patch cable, simply connect the "LINE OUT" jacks of the first subwoofer amplifier, to the "LINE IN" connection of a second.

### ***Speaker Line Input/Output Connections***

These are to be used when connecting directly to the speaker output from the amplifier. Speaker lines coming from the amplifier should be connected to the binding posts labeled "**FROM AMPLIFIER**". Speaker lines leading to satellite speakers should be connected to posts labeled "**TO SPEAKER**". Be careful to match correct speaker and polarity connections.

### **Warning**

Use **EITHER** the "**LINE IN**" connections, or "**FROM AMPLIFIER**" connections. **DO NOT USE BOTH.**

### ***Sub Woofer Amplifier Output***

The output is provided via the red and black pigtail leads from the rear of the Amplifier Module. Polarity is as follows: -Black (-) -Red (+). This lead length should be long enough for most installation applications. They may however, be extended to suit your specific application. Care should be taken when connecting/extending these leads. **Shorting of these leads, even briefly, will permanently damage the amplifier, thus voiding the warranty.**

## Caution

When incorporating this amplifier into an existing speaker system, extreme care must be taken with regards to the following factors:

### *Input Signal*

Use caution to insure that the input you are using is proper for your installation. The RCA type input connections are intended only for line level signals. **Excessive signal input will cause excessive distortion, that after an extended period of time will permanently damage the amplifier, thus voiding the warranty.**

### *Speaker Impedance*

The minimum speaker impedance must be 4 ohms or higher. **Loads of less than 4 ohms will cause excessive heat and permanently damage the amplifier, thus voiding the warranty.** If you are using a single woofer, the voice coil may be anywhere between 4~8 ohms (higher impedance will work, but with reduced amplifier efficiency). If you are using two woofers, or a dual voice coil sub woofer, the minimum impedance must be at least 8 ohms each.

### Specifications

RMS output power .....	100W @ 4 ohms, 50W @8 ohms
Minimum speaker impedance (at amplifier output) .....	4 ohms
Speaker level input impedance .....	2.3K Ohms
Automatic turn-on delay .....	< 1 second
Automatic turn-off delay .....	10 minutes
AC power requirements .....	115VAC, 50~60Hz, 120 Watts max.
Total Harmonic Distortion (THD) .....	0.1%, @ 1WRMS
Dimensions (W) x (H) x (D) .....	8" x 10" x 5"
Required cut-out .....	7" x 9"