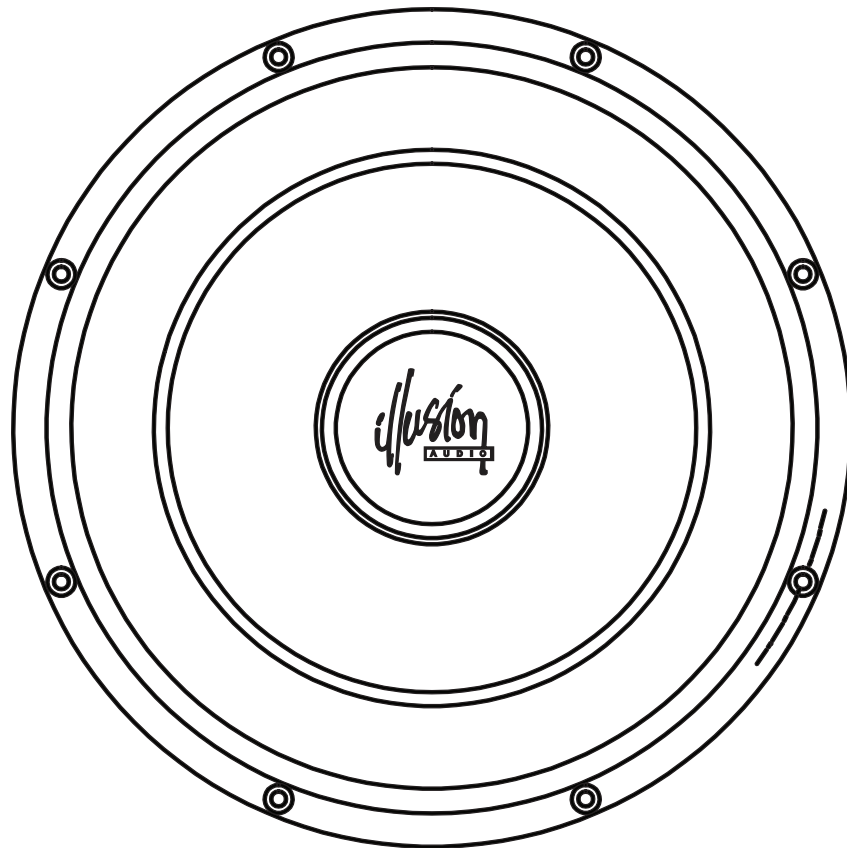


illusion
AUDIO

ILLUSION AUDIO

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PRODUCT MANUAL

CARBON, LUCCENT & ELECTRA
SUBWOOFERS



THANK YOU!

Thank you for purchasing Illusion Audio products. At Illusion, we are dedicated to the design and manufacturing of “State Of The Art” loudspeakers. Illusion Audio strives to set a new standard for both quality and sonic accuracy.

Through innovation, design, testing and listening, Illusion Audio speakers represent the passion that the entire staff at Illusion Audio has; That passion for GREAT SOUNDING MUSIC!

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BOX CONTENTS



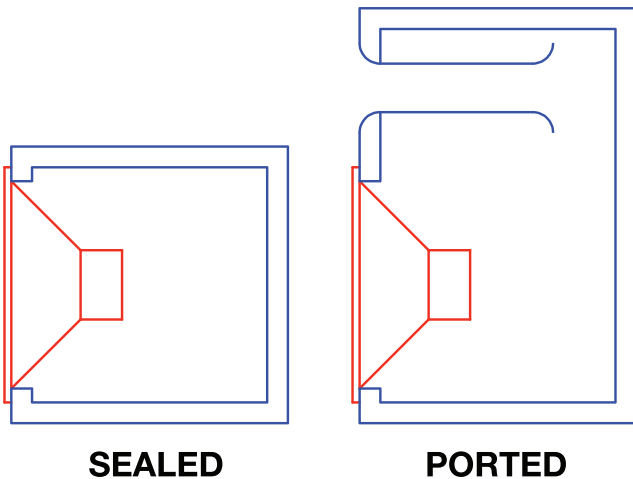
- 1 Subwoofer
- 1 Mounting Hardware Set
- 1 Illusion Audio Manual

INSTALLATION

Each subwoofer comes complete with all of the hardware necessary to mount the subwoofer in its enclosure. Philips screws are supplied. Each subwoofer has a foam gasket glued on to it so as to help seal the subwoofer to the enclosure and negate any air leaks.

Every enclosure must be rigid enough to hold the weight of the speaker. Illusion Audio recommends that a 3/4" thick wooden baffle be used as a minimum thickness.

For maximum performance to occur, the correct acoustic load is of prime importance. All Illusion Audio subwoofers require a defined acoustic load to work properly. Below you can find a chart with recommended box volumes for ported and sealed enclosures. You may also call Illusion Audio's technical help for additional help. They are available from 8am till 5 pm, Monday through Friday. The phone number is (888)- 340-4403.



SUBWOOFER ENCLOSURE VOLUME

All 10in models use 0.75 cubic foot 21 liter sealed.

- **C10XL:** -3dB=46Hz Xmax = +/- 18mm 1000 Watts
- **C10:** -3dB=48Hz Xmax = +/- 10mm 400 Watts
- **L10:** -3dB=49Hz Xmax = +/- 7mm 250 Watts
- **E10:** -3dB=43Hz Xmax = +/- 14mm 300 Watts

All work in 0.5 cubic foot 14 liter sealed with -3dB around 50 Hz.
Vented box 28 liter, port 3in diameter FLARED ENDS x 18in long.

All 12in models use 1.0 cubic foot 28 liter sealed.

- **C12XL:** -3dB=42Hz Xmax = +/- 18mm 1000 Watts
- **C12:** -3dB=42Hz Xmax = +/- 12mm 500 Watts
- **L12:** -3dB=45Hz Xmax = +/- 7mm 250 Watts
- **E12:** -3dB=41Hz Xmax = +/- 14mm 300 Watts

All work in 0.75 cubic foot 21 liter sealed with -3dB around 45 Hz.
Vented box 42 liter, port 4in diameter FLARED ENDS x 24in long.

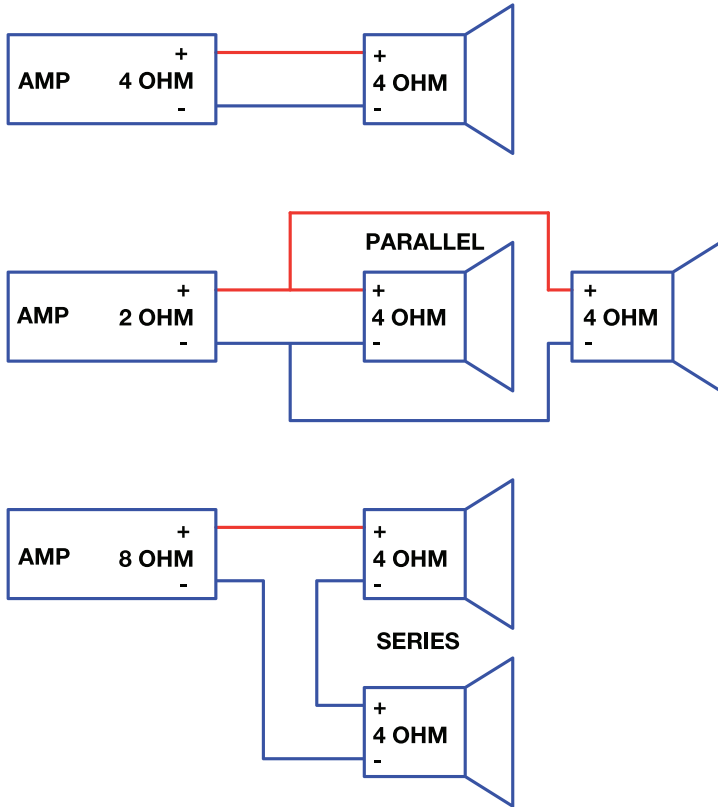
SETTING THE CUT-OFF FREQUENCY

Generally, it is accepted that a low-pass frequency scale from 50hz to 100hz be used. Choosing the appropriate frequency is critical to the overall performance of any system. Too high of a frequency and the staging will be drawn to the back of the vehicle as the sub-bass frequencies become directional. Too low of a frequency and the overall performance may be reduced. A process of trial and error should be used to determine which frequency best fits your vehicle and system!

WIRING DIAGRAM

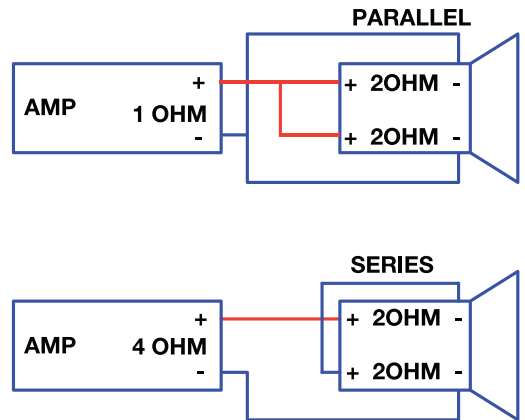
SUBWOOFER WIRE DIAGRAMS

(FOR C10, C12, E10, E12, L10, L12)



DUAL VOICE COIL

(FOR C10XL, C12XL)



WARRANTY INFORMATION

Illusion Audio / Orca Design & Manufacturing supports their products and guarantees them to be free of manufacturing defects for a period of 1 year (non-transferrable) from the date of purchase, if purchased from an authorized retailer. This time period is extended to 3 years (non-transferrable) from the date of purchase, if the product is purchased from and installed by an authorized retailer, and no alterations are made to the installation or setup of the product outside of the authorized retailer.

This manufacturing warranty does not extend to situations involving physical or installation damage, misuse, abuse, or modification. If a product malfunctions, please return it to the authorized retailer from which the product was purchased to have it and/or its installation inspected and to have the warranty period verified from date of purchase.

The authorized dealer will then work with Illusion Audio / Orca Design & Manufacturing to obtain service, if necessary. If found to be a defect due to manufacturing, the item will be repaired or replaced with a refurbished product. The product will be returned to the authorized retailer when repairs are complete, so that the dealer can return the product to you, or reinstall the product to maintain the above mentioned warranty timeline.